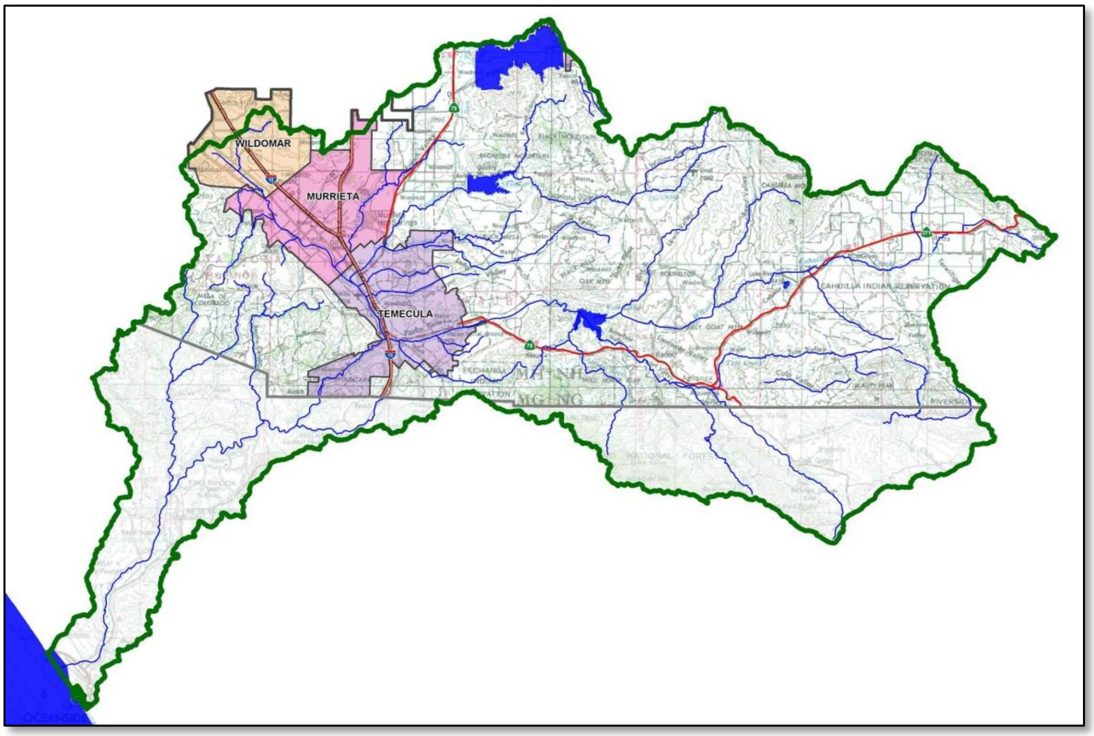
County Project Specific Water Quality Management Plan

Project Title: **TENTATIVE TRACT MAP NO. 38163 (Keller Crossing)**
Development No: SP 380
Design Review/Case No:
BMP$_i$ (Latitude, Longitude): 33°37’47.0496” N, 117°05’47.0544” W



☒ **Preliminary**
☐ **Final**

Original Date Prepared: July 2021

Revision Date(s): **April 2022**

JN. 450.907

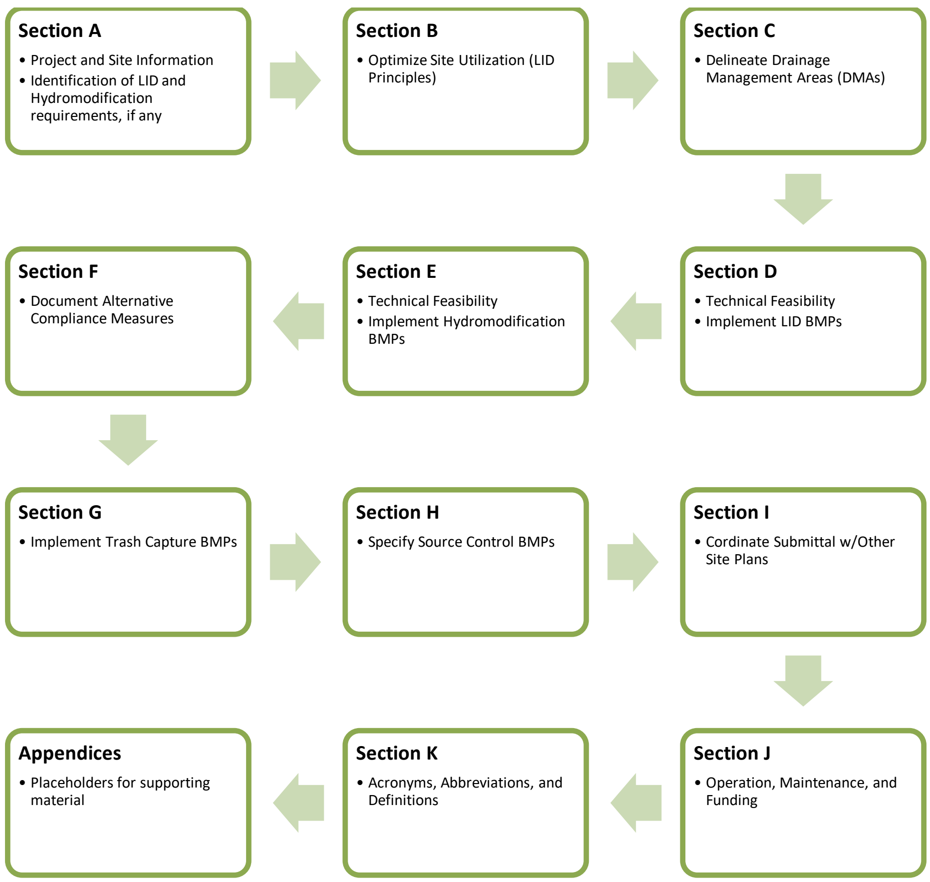
Contact Information
Prepared for: **D. R. Horton Southern California**
2280 Wardlow Circle, Suite 100
Corona, CA 92878

Prepared by: **K&A Engineering, Inc.**
357 N. Sheridan Street, Suite 117
Corona, CA 92880
Ph: (951) 279-1800

Based on 2018 WQMP, prepared for Compliance with
Regional Board Order No. **R9-2013-0001** *as amended by Order No.* **R9-2015-0001** *and Order No.* **R9-2015-0100**

A Brief Introduction

The Regional Municipal Separate Stormwater Sewer System (MS4) Permit[1] requires that a Project-Specific WQMP be prepared for all development projects within the Santa Margarita Region (SMR) that meet the 'Priority Development Project' categories and thresholds listed in the SMR Water Quality Management Plan (WQMP). This Project-Specific WQMP Template for Development Projects in the **Santa Margarita Region** has been prepared to help document compliance and prepare a WQMP submittal. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



[1] Order No. R9-2013-0001 as amended by Order Nos. R9-2015-0001 and R9-2015-0100, NPDES No. CAS0109266, National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Discharges from the MS4s Draining the Watersheds within the San Diego Region, California Regional Water Quality Control Board, May 8, 2013.

OWNER'S CERTIFICATION

This Project-Specific WQMP has been prepared for **D.R. Horton Southern California** by **K&A Engineering, Inc.** for the **Keller Crossing Development** project.

This WQMP is intended to comply with the requirements of Riverside County for County Ordinance No. 754 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 Best Management Practices 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 (No. 754).

"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 Best Management Practices in this plan meet the requirements of Regional Water Quality Control Board Order No. **R9-2013-0001** as amended by Order Nos. **R9-2015-0001 and R9-2015-0100**."

Preparer's Signature	Date
FRED IRIANTO, P.E.	SENIOR PROJECT MANAGER
Preparer's Printed Name	Preparer's Title/Position

Preparer's Licensure:
RCE 60874 (Exp. 12/31/2022)

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Section A: Project and Site Information

Use the table below to compile and summarize basic site information that will be important for completing subsequent steps. Subsections A.1 through A.4 provide additional detail on documentation of additional project and site information. The Regional MS4 Permit has effectively removed the ability for a project to be grandfathered from WQMP requirements. Even if a project were able to meet all the requirements stated in Section 1.2 of the WQMP, the 2014 WQMP requirements would apply.

PROJECT INFORMATION	
Type of PDP:	New Development
Type of Project:	Residential & Commercial
Planning Case Number:	SP 380
Rough Grade Permit No.:	
Development Name:	Keller Crossing Development
PROJECT LOCATION	
Latitude & Longitude (DMS):	33°37’47.0496” N, 117°05’47.0544” W
Project Watershed and Sub-Watershed:	Santa Margarita River, Warm Springs Creek
24-Hour 85th Percentile Storm Depth (inches):	0.57
Is project subject to Hydromodification requirements?	☒ Y ☐ N (Select based on Section A.3)
APN(s):	476-010-056
Map Book and Page No.:	Book 64, Page 28
PROJECT CHARACTERISTICS	
Proposed or Potential Land Use(s)	Residential & Commercial
Proposed or Potential SIC Code(s)	N/A
Existing Impervious Area of Project Footprint (SF)	8,540,052 sf
Total area of <u>proposed</u> Impervious Surfaces within the Project Limits (SF)/or Replacement	685,199 sf
Total Project Area (ac)	196.0 Acres
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
Has preparation of Project-Specific WQMP included coordination with other site plans?	☐ Y ☒ N
EXISTING SITE CHARACTERISTICS	
Is the project located within any Multi-Species Habitat Conservation Plan area (MSHCP Criteria Cell?)	☒ Y ☐ N Group U, Cell 5067
Is a Geotechnical Report attached?	☒ Y ☐ N
If no Geotech. Report, list the Natural Resources Conservation Service (NRCS) soils type(s) present on the site (A, B, C and/or D)	Soil Types B, C & D
<u>Provide a brief description of the project:</u> The Keller Crossing Development project consists of approximately 190.0 acres and proposes land uses that include single family residential, high density residential, commercial, park and open space areas. Topographic conditions on most of the Keller Crossing Development site consist of gentle rolling hills with a sloped rise in elevation from existing Keller Road to the northern edge boundary. The site is currently bounded by Pourroy Road to the west, Winchester Highway (HWY-79) to the east, and Keller Road to the	

south. The northerly boundary of the project adjoins areas that have been designated as Conservation Habitat which will remain undeveloped.

The Keller Crossing Development is under the jurisdiction of Riverside County Flood Control & Water Conversation District (RCFC&WCD) and Riverside County Transportation District. The project runoff ultimately discharges into the Santa Margarita River in Temecula and has been determined, under the Regional MS4 Permit to be within the Santa Margarita Watershed Management Area of Riverside County. Therefore, RCFC&WCD is the Principal Permittee of the Santa Margarita MS4 Permit.

There are three distinct drainage areas in this project. They have been labeled as Areas A, B and C.

Area A: Drainage Subareas A-1 thru A-3 consist of approximately 57.6 acre from offsite natural area to the north and will drain into existing culvert as in the existing condition. The proposed **DMA Area A –** subarea A-4a consists of approximately 6.2 acre for multi family will drain into **Water Quality/Detention Basin A** prior exiting the project site and combine with the remaining subarea A-4b of 1.78 acre street area downstream offsite into the existing Winchester Highway culvert.

Area B: Drainage Subareas **DMAs B1-1 thru B1-5** consist of approximately 13.51 acre for detach residential will drain into proposed Basin B1-6, or **Water Quality Basin B** (0.67 acre). The Water Quality Basin B will intercept the water quality volume from **DMA Area B** – subareas B1-1 thru B1-5 and outlet into an existing Winchester Highway culvert. The basin overflow will drain into the proposed Detention Basin B-3 (3.62 acre). Subarea **DMA B-2** (5.32 acre) is reserved for Park with its water quality BMP (to be determined later) and subareas B-4 thru B-7 (38.2 acre) are offsite natural areas will drain into Detention Basin B-3 prior exiting the project and combine with offsite street areas downstream B-8 & B-9 (2.45 acre) into existing Winchester Highway culvert.

Area C: Drainage Subareas C-1 consists of **DMA Area C Residential** (72.34 acre), **DMA C-1 Commercial** (12.75 acre) with its water quality BMP (to be determined later) and **DMA Area C – subarea C1 Residential Water Quality/Detention Basin C** (5.65 acre). These DMAs will drain into Water Quality/Detention Basin C prior exiting the project boundary and combine with drainage subareas C-2 thru C-12 (253.37 acre) into the natural stream to the south side of the project.

Keller Crossing Development Drainage Plan addresses proper drainage and water quality mitigation for the proposed development and to be consistent with Riverside County Flood Control and Water Conservation District (RCFC&WCD) and Riverside County Transportation Department specific requirements. The existing pre-developed condition and post-developed condition of the project are analyzed to ensure minimal impact into adjoining communities and existing downstream storm drain infrastructures. Water quality mitigation has also been implemented to integrate with the overall drainage design of the entire project with the application of water quality basins and treatment structures - as the project has been designated to comply with Santa Margarita MS4 Permit and its specific requirements.

Run-on from the site will be conveyed to the proposed Biofiltration basins via storm drain system. The run-on will be treated within the Biofiltration basins prior to being released into the existing Caltrans culverts per storm drain plan as shown on as built drawing .

The project is located at Latitude & Longitude 33°37’47.0496” N, 117°05’47.0544” W

<u>Access</u>

Access for construction activities will be located at entrance from Keller Road from the south and Winchester Road from the east side of the project side.

Paver and dirt roads are considered pervious for determining WQMP applicability.

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the Project 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:

- Vicinity and location maps
- Parcel Boundary and Project Footprint
- Existing and Proposed Topography
- Drainage Management Areas (DMAs)
- Proposed Structural Best Management Practices (BMPs)
- Drainage Paths
- Drainage infrastructure, inlets, overflows
- Source Control BMPs
- Site Design BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Pervious Surfaces (i.e. Landscaping)
- Standard Labeling
- Cross Section and Outlet details

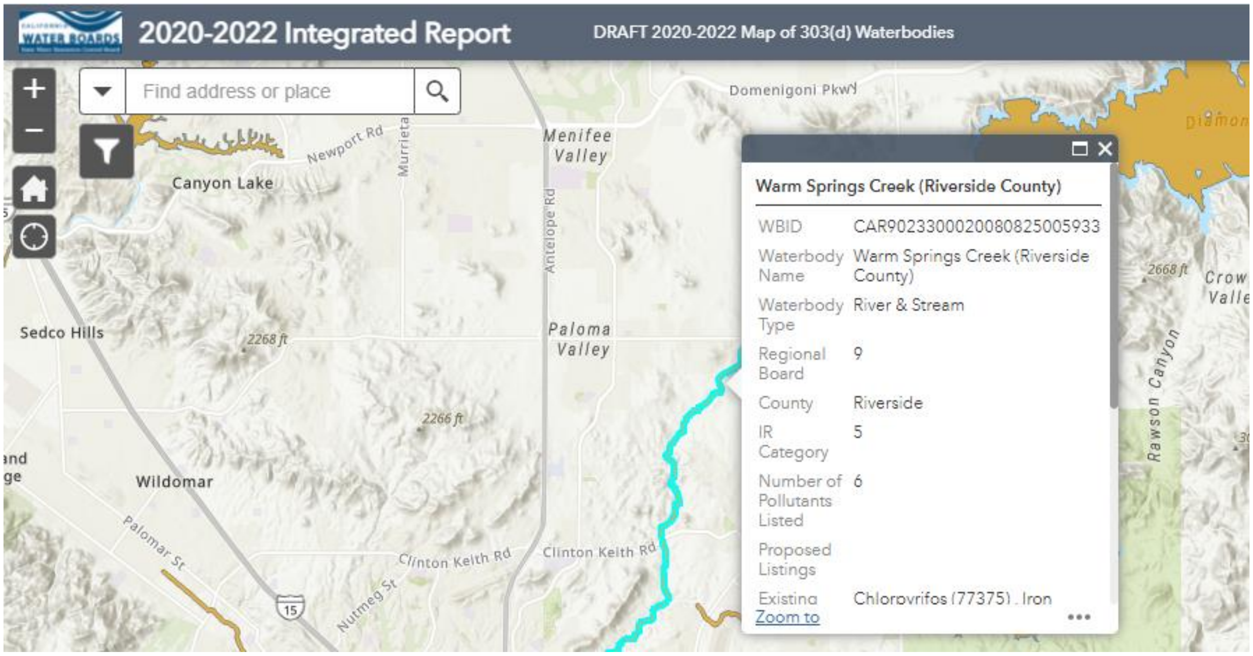
Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Copermittee plan reviewer must be able to easily analyze your Project utilizing this template and its associated site plans and maps. Complete the checklists in Appendix 1 to verify that all exhibits and components are included.

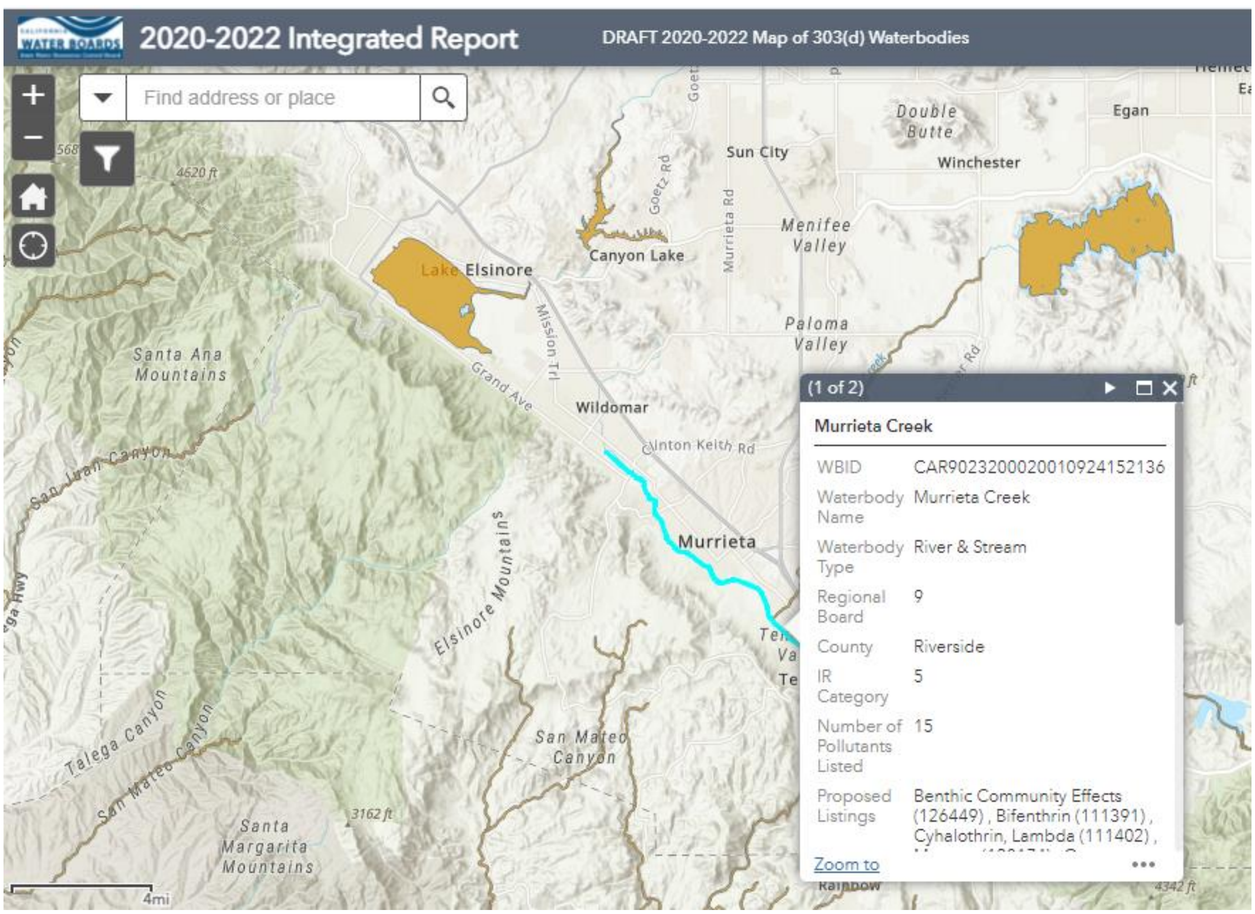
A.2 Identify Receiving Waters

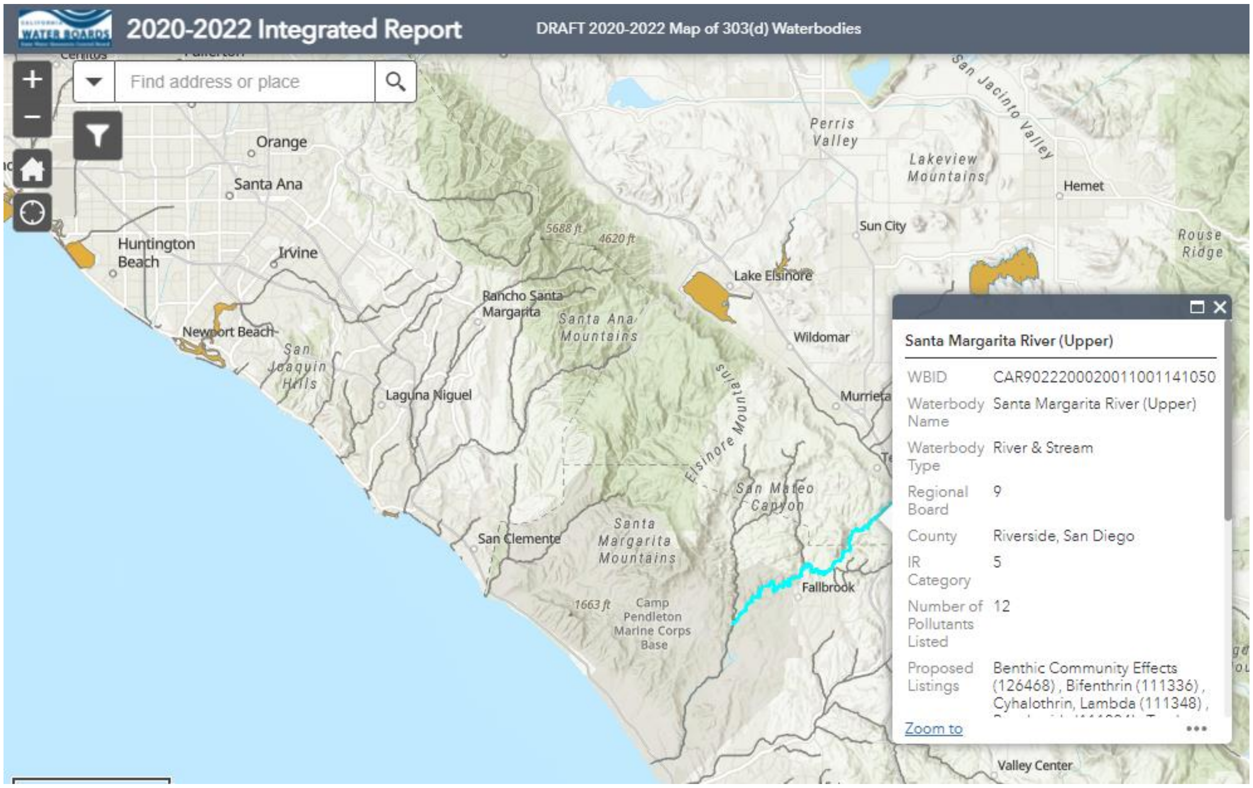
Using Table A-1 below, list in order of upstream to downstream, the Receiving Waters that the Project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated Beneficial Uses, and proximity, if any, to a RARE Beneficial Use. Include a map of the Receiving Waters in Appendix 1. This map should identify the path of the stormwater discharged from the site all the way to the outlet of the Santa Margarita River to the Pacific Ocean. Use the most recent 303(d) list available from the State Water Resources Control Board Website.
(*http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/*)

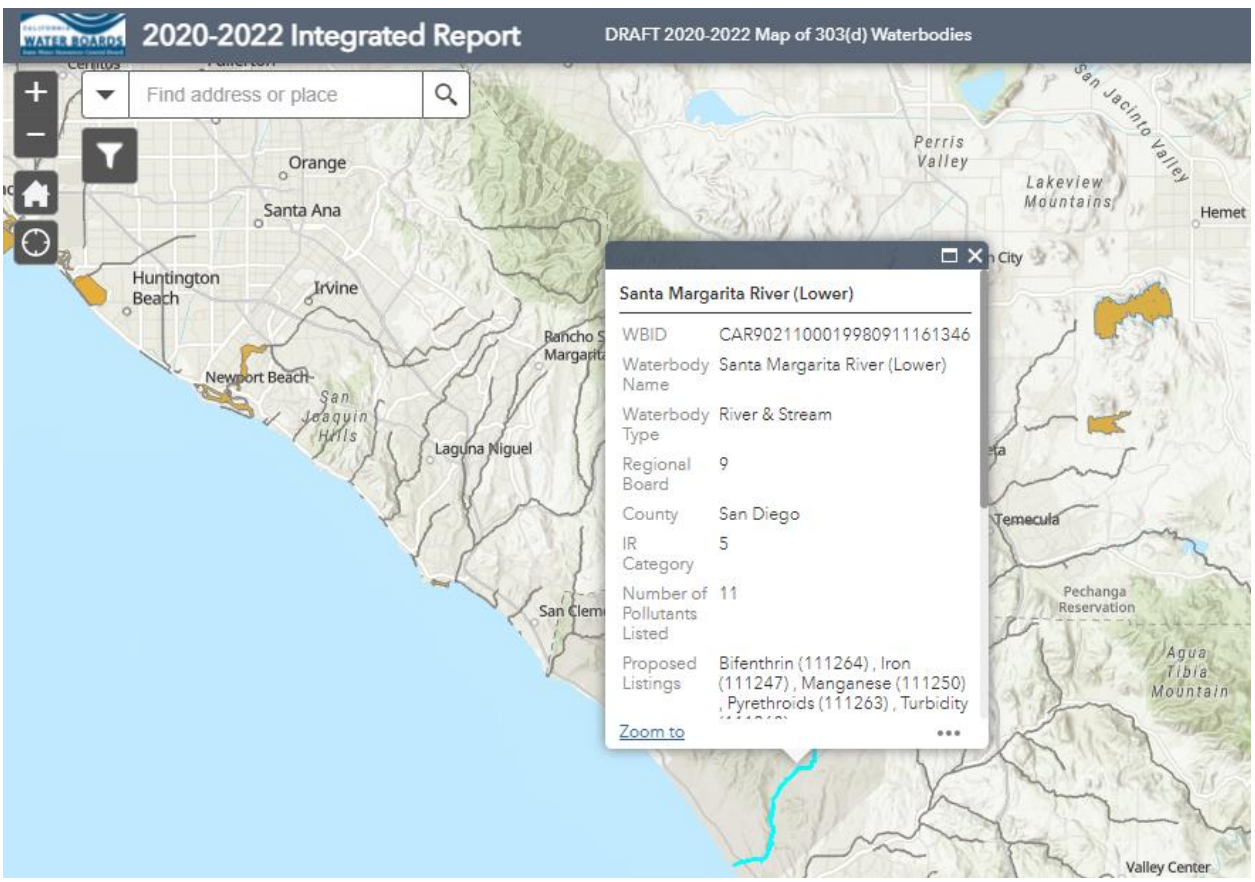
Table A-1 Identification of Receiving Waters

Receiving Waters	USEPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Warm Spring Creek	Chlorpyrifos, Indicator Bacteria, Iron, Manganese, Nitrogen, Phosphorus.	N/A	None
Murietta Creek	Indicator Bacteria, Iron, Manganese, Phosphorus, Toxicity, Nitrogen	MUN, AGR, IND, PROC, GWR, REC1, REC2, WARM, WILD, SPWN	None
Santa Margarita River (Upper)	Iron, Manganese, Nitrogen, Phosphorus, Toxicity	MUN, AGR, IND, REC1, REC2, WARM, COLD, WILD, RARE	18 miles
Santa Margarita River (Lower)	Chlorpyrifos, Indicator Bacteria, Nitrogen, Phosphorus, Toxicity	MUN, AGR, IND, REC1, REC2, WARM, COLD, WILD, RARE	18 miles


2020-2022 Integrated Report
DRAFT 2020-2022 Map of 303(d) Waterbodies
Find address or place
Domenigoni Pkwy
Canyon Lake
Newport Rd
Murrieta Rd
Menifee Valley
Antelope Rd
Paloma Valley
Sedco Hills
2268 ft
2266 ft
Wildomar
Palomar St
Clinton Keith Rd
Nutmeg St
15
Crow Valle
Rawson Canyon
2668 ft
Warm Springs Creek (Riverside County)
WBID CAR9023300020080825005933
Waterbody Name Warm Springs Creek (Riverside County)
Waterbody Type River & Stream
Regional Board 9
County Riverside
IR Category 5
Number of Pollutants Listed 6
Proposed Listings
Existing Chlorpyrifos (77375) , Iron
Zoom to


2020-2022 Integrated Report
DRAFT 2020-2022 Map of 303(d) Waterbodies
Find address or place
4620 ft
Sun City
Double Butte
Egan
Winchester
Goetz Rd
Murrieta Rd
Canyon Lake
Lake Elsinore
Menifee Valley
Paloma Valley
Mission Trl
Grand Ave
Wildomar
Clinton Keith Rd
Santa Ana Mountains
San Juan Canyon
Murrieta
Elsinore Mountains
Talega Canyon
San Mateo Canyon
San Mateo Canyon
Santa Margarita Mountains
3162 ft
4mi
(1 of 2)
Murrieta Creek
WBID CAR9023200020010924152136
Waterbody Name Murrieta Creek
Waterbody Type River & Stream
Regional Board 9
County Riverside
IR Category 5
Number of Pollutants Listed 15
Proposed Listings Benthic Community Effects (126449) , Bifenthrin (111391) , Cyhalothrin, Lambda (111402) ,
Zoom to
Rainbow
4342 ft


2020-2022 Integrated Report
DRAFT 2020-2022 Map of 303(d) Waterbodies
Find address or place
Santa Margarita River (Upper)
WBID CAR9022200020011001141050
Waterbody Name Santa Margarita River (Upper)
Waterbody Type River & Stream
Regional Board 9
County Riverside, San Diego
IR Category 5
Number of Pollutants Listed 12
Proposed Listings Benthic Community Effects (126468), Bifenthrin (111336), Cyhalothrin, Lambda (111348),
Zoom to
Orange
Santa Ana
Huntington Beach
Irvine
Newport Beach
Laguna Niguel
San Clemente
Lake Elsinore
Wildomar
Fallbrook
Perris Valley
Hemet
Sun City
Valley Center


2020-2022 Integrated Report
DRAFT 2020-2022 Map of 303(d) Waterbodies
Find address or place
Santa Margarita River (Lower)
WBID CAR9021100019980911161346
Waterbody Name Santa Margarita River (Lower)
Waterbody Type River & Stream
Regional Board 9
County San Diego
IR Category 5
Number of Pollutants Listed 11
Proposed Listings Bifenthrin (111264), Iron (111247), Manganese (111250), Pyrethroids (111263), Turbidity
Zoom to
Orange
Santa Ana
Huntington Beach
Irvine
Newport Beach
Laguna Niguel
Temecula
Pechanga Reservation
Hemet
Valley Center

A.3 Drainage System Susceptibility to Hydromodification

Using Table A-2 below, list in order of the point of discharge at the project site down to the Santa Margarita River[2], each drainage system or receiving water that the project site is tributary to. Continue to fill each row with the material of the drainage system, and any exemption (if applicable). Based on the results, summarize the applicable hydromodification performance standards that will be documented in Section E. Exempted categories of receiving waters include:

- Existing storm drains that discharge directly to water storage reservoirs, lakes, or enclosed embayments, or
- Conveyance channels whose bed and bank are concrete lined all the way from the point of discharge to water storage reservoirs, lakes, enclosed embayments, or the Pacific Ocean.
- Other water bodies identified in an approved WMAA (See Exhibit G to the WQMP)

Include a map exhibiting each drainage system and the associated susceptibility in Appendix 1.

Table A-2 Identification of Susceptibility to Hydromodification

Drainage System	Drainage System Material	Hydromodification Exemption	Hydromodification Exempt
Warm Spring Creek	Natural Channel, Not Engineered and Engineered, open channel	Potential Susceptible	☐ Y ☒ N
Murrieta Creek	River and Stream	Not Susceptible	☒ Y ☐ N
Santa Margarita River (Upper)	River and Stream	Not Susceptible	☒ Y ☐ N
Santa Margarita River (Lower)	River and Stream	Not Susceptible	☒ Y ☐ N
Summary of Performance Standards			
☐ **Hydromodification Exempt** – Select if "Y" is selected in the Hydromodification Exempt column above, project is exempt from hydromodification requirements. ☒ **Not Exempt**-Select if "N" is selected in any row of the Hydromodification Exempt column above. Project is subject to hydrologic control requirements and may be subject to sediment supply requirements.			

A.4 Additional Permits/Approvals required for the Project:

Table A-3 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 Section 401 Water Quality	☐ Y	☒ N

[2] Refer to Exhibit G of the WQMP for a map of exempt and potentially exempt areas. These maps are from the Draft SMR WMAA as of January 5, 2018 and will be replaced upon acceptance of the SMR WMAA.

Certification		
US Army Corps of Engineers, Clean Water Act 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)* Grading Permit, Building Permit	☒ Y	☐ N

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

All applicable permits will be included in the Final WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, **constraints** might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. **Opportunities** might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for LID Bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your Low Impact Development (LID) design and explain your design decisions to others.

Apply the following LID Principles to the layout of the PDP to the extent they are applicable and feasible. Putting thought upfront about how best to organize the various elements of a site can help to significantly reduce the PDP's potential impact on the environment and reduce the number and size of Structural LID BMPs that must be implemented. Integrate opportunities to accommodate the following LID Principles within the preliminary PDP site layout to maximize implementation of LID Principles.

Site Optimization

Complete checklist below to determine applicable Site Design BMPs for your site.

Project- Specific WQMP Site Design BMP Checklist	
The following questions below are based upon Section 3.2 of the SMR WQMP will help you determine how to best optimize your site and subsequently identify opportunities and/or constraints, and document compliance.	
SITE DESIGN REQUIREMENTS	
Answer the following questions below by indicating "Yes," "No," or "N/A" (Not Applicable). Justify all "No" and "N/A" answers by inserting a narrative at the end of the section. The narrative should include identification and justification of any constraints that would prevent the use of those categories of LID BMPs. Upon identifying Site Design BMP opportunities, include these on your WQMP Site plan in Appendix 1.	
☒ Yes ☐ No ☐ N/A	**Did you identify and preserve existing drainage patterns?** Integrating existing drainage patterns into the site plan helps to maintain the time of concentration and infiltration rates of runoff, decreasing peak flows, and may also help preserve the contribution of Critical Coarse Sediment (i.e., Bed Sediment Supply) from the PDP to the Receiving Water. Preserve existing drainage patterns by: • Minimizing unnecessary site grading that would eliminate small depressions, where appropriate add additional "micro" storage throughout the site landscaping. • Where possible conform the PDP site layout along natural landforms, avoid excessive grading and disturbance of vegetation and soils, preserve or replicate the sites natural drainage features and patterns. • Set back PDP improvements from creeks, wetlands, riparian habitats and any other natural water bodies. • Use existing and proposed site drainage patterns as a natural design element, rather than using expensive impervious conveyance systems. Use depressed landscaped areas, vegetated buffers, and bioretention areas as amenities and focal points within the site and landscape design.
Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer. *The grading and drainage design of Keller Crossing project has been developed to maintain the natural discharge patterns as much as practical.* *The developed site will consist of landscape front and back yards at all SFR lots, landscape area in the recreational center area, vegetated parkway strips and parks.*	
☒ Yes ☐ No ☐ N/A	**Did you identify and protect existing vegetation?** Identify any areas containing dense native vegetation or well-established trees, and try to avoid disturbing these areas. Soils with thick, undisturbed vegetation have a much higher capacity to store and infiltrate runoff than do disturbed soils. Reestablishment of a mature vegetative community may take decades. Sensitive areas, such as streams and floodplains should also be avoided. • Define the development envelope and protected areas, identifying areas that are most suitable for development and areas that should be left undisturbed. • Establish setbacks and buffer zones surrounding sensitive areas. • Preserve significant trees and other natural vegetation where possible.

Project- Specific WQMP Site Design BMP Checklist	
Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer. *Presently, dense vegetation or areas of well-established trees do not exist. The project area is plowed in rows and lies fallow with no vegetation. See Aerial below:.* 	
☒ Yes ☐ No ☐ N/A	**Did you identify and preserve natural infiltration capacity?** A key component of LID is taking advantage of a site's natural infiltration and storage capacity. A site survey and geotechnical investigation can help define areas with high potential for infiltration and surface storage. • Identify opportunities to locate LID Principles and Structural BMPs in highly pervious areas. Doing so will maximize infiltration and limit the amount of runoff generated. • Concentrate development on portions of the site with less permeable soils, and preserve areas that can promote infiltration.
Discuss how this was included or provide a discussion/justification for "No" or "N/A" answer. *Over 50% of the project site will be set aside for use as open space, landscaping, park and Bio-filtration Basin BMPs. Some landscape areas will be depressed 3" to serve as self-retaining areas but the entire site will rely on Bio-filtration/Detention Basin for removal of the pollutants of concern.*	

<table>
<tr><th colspan="2">Project- Specific WQMP Site Design BMP Checklist</th></tr>
<tr><td>☒ Yes ☐ No ☐ N/A</td><td>Did you minimize impervious area?
Look for opportunities to limit impervious cover through identification of the smallest possible land area that can be practically impacted or disturbed during site development.
• Limit overall coverage of paving and roofs. This can be accomplished by designing compact, taller structures, narrower and shorter streets and sidewalks, clustering buildings and sharing driveways, smaller parking lots (fewer stalls, smaller stalls, and more efficient lanes), and indoor or underground parking.
• Inventory planned impervious areas on your preliminary site plan. Identify where permeable pavements, or other permeable materials, such as crushed aggregate, turf block, permeable modular blocks, pervious concrete or pervious asphalt could be substituted for impervious concrete or asphalt paving. This will help reduce the amount of Runoff that may need to be addressed through Structural BMPs.
• Examine site layout and circulation patterns and identify areas where landscaping can be substituted for pavement, such as for overflow parking.
• Consider green roofs. Green roofs are roofing systems that provide a layer of soil/vegetative cover over a waterproofing membrane. A green roof mimics pre-development conditions by filtering, absorbing, and evapotranspiring precipitation to help manage the effects of an otherwise impervious rooftop.</td></tr>
<tr><td colspan="2">Discuss how this was included or provide a discussion/justification for “No” or “N/A” answer.
The grading and drainage design of Keller Crossing has been developed to maintain the natural discharge patterns as much as practical. The proposed drainage plan will provide for construction of Biofiltration/Detention Basin as structural BMPs.</td></tr>
<tr><td>☒ Yes ☐ No ☐ N/A</td><td>Did you identify and disperse runoff to adjacent pervious areas or small collection areas?
Look for opportunities to direct runoff from impervious areas to adjacent landscaping, other pervious areas, or small collection areas where such runoff may be retained. This is sometimes referred to as reducing Directly Connected Impervious Areas.
• Direct roof runoff into landscaped areas such as medians, parking islands, planter boxes, etc., and/or areas of pervious paving. Instead of having landscaped areas raised above the surrounding impervious areas, design them as depressed areas that can receive Runoff from adjacent impervious pavement. For example, a lawn or garden depressed 3"-4" below surrounding walkways or driveways provides a simple but quite functional landscape design element.
• Detain and retain runoff throughout the site. On flatter sites, smaller Structural BMPs may be interspersed in landscaped areas among the buildings and paving.
• On hillside sites, drainage from upper areas may be collected in conventional catch basins and piped to landscaped areas and LID BMPs and/or Hydrologic Control BMPs in lower areas. Low retaining walls may also be used to create terraces that can accommodate LID BMPs. Wherever possible, direct drainage from landscaped slopes offsite and not to impervious surfaces like parking lots.
• Reduce curb maintenance and provide for allowances for curb cuts.
• Design landscaped areas or other pervious areas to receive and infiltrate runoff from nearby impervious areas.
• Use Tree Wells to intercept, infiltrate, and evapotranspire precipitation and runoff before it reaches structural BMPs. Tree wells can be used to limit the size of Drainage Management Areas that must be treated by structural BMPs. Guidelines for Tree Wells are included in the Tree Well Fact Sheet in the LID BMP Design Handbook.</td></tr>
</table>

Project- Specific WQMP Site Design BMP Checklist	
Discuss how this was included or provide a discussion/justification for “No” or “N/A” answer. *The grading and drainage design of Keller Crossing has been developed to maintain the natural discharge patterns as much as practical. The proposed drainage plan will provide for construction of Biofiltration/Detention basin as the primary structural BMP.* *In the developed condition, runoff from impervious areas will be routed though pervious landscaping as best possible; 1. Runoff from rooftops will be routed to downspouts which outlet to landscaping as opposed to outletting directly onto paved areas. 2. Landscaped parkways will be used along some portions of sidewalk to maximize pervious area on the site. 3. Landscaped area within the residential layout will be used to disconnect paved areas as best possible.*	
☒ Yes ☐ No ☐ N/A	**Did you utilize native or drought tolerant species in site landscaping?** Wherever possible, use native or drought tolerant species within site landscaping instead of alternatives. These plants are uniquely suited to local soils and climate and can reduce the overall demands for potable water use associated with irrigation.
Discuss how this was included or provide a discussion/justification for “No” or “N/A” answer. *The proposed landscape will be used native or drought tolerant species as much as practical.*	
☐ Yes ☒ No ☐ N/A	**Did implement harvest and use of runoff?** Under the Regional MS4 Permit, Harvest and Use BMPs must be employed to reduce runoff on any site where they are applicable and feasible. However, Harvest and Use BMPs are effective for retention of stormwater runoff only when there is adequate demand for non-potable water during the wet season. If demand for non-potable water is not sufficiently large, the actual retention of stormwater runoff will be diminished during larger storms or during back-to-back storms. For the purposes of planning level Harvest and Use BMP feasibility screening, Harvest and Use is only considered to be a feasible if the total average wet season demand for non-potable water is sufficiently large to use the entire DCV within 72 hours. If the average wet season demand for non-potable water is not sufficiently large to use the entire DCV within 72 hours, then Harvest and Use is not considered to be feasible and need not be considered further. The general feasibility and applicability of Harvest and Use BMPs should consider: • Any downstream impacts related to water rights that could arise from capturing stormwater (not common). • Conflicts with recycled water used – where the project is conditioned to use recycled water for irrigation, this should be given priority over stormwater capture as it is a year-round supply of water. • Code Compliance - If a particular use of captured stormwater, and/or available methods for storage of captured stormwater would be contrary to building codes in effect at the time of approval of the preliminary Project-Specific WQMP, then an evaluation of harvesting and use for that use would not be required. • Wet season demand – the applicant shall demonstrate, to the acceptance of the County of Riverside, that there is adequate demand for harvested water during the wet season to drain the system in a reasonable amount of time.
Discuss how this was included or provide a discussion/justification for “No” or “N/A” answer. *The proposed project would not feasible to Harvest and Use for non-potable water within the project.*	

Project- Specific WQMP Site Design BMP Checklist	
☒ Yes ☐ No ☐ N/A	**Did you keep the runoff from sediment producing pervious area hydrologically separate from developed areas that require treatment?** Pervious area that qualify as self-treating areas or off-site open space should be kept separate from drainage to structural BMPs whenever possible. This helps limit the required size of structural BMPs, helps avoid impacts to sediment supply, and helps reduce clogging risk to BMPs.
Discuss how this was included or provide a discussion/justification for “No” or “N/A” answer. *The grading and drainage design of Keller Crossing has been developed to maintain the natural discharge patterns as much as practical. More than half of the project areas will be maintained as natural to include the existing natural streams.*	

Section C: Delineate Drainage Management Areas (DMAs) & Green Streets

This section provides streamlined guidance and documentation of the DMA delineation and categorization process, for additional information refer to the procedure in Section 3.3 of the SMR WQMP which discusses the methods of delineating and mapping your project site into individual DMAs. Complete Steps 1 to 4 to successfully delineate and categorize DMAs.

Step 1: Identify Surface Types and Drainage Pathways

Carefully delineate pervious areas and impervious areas (including roofs) throughout site and identify overland flow paths and above ground and below ground conveyances. Also identify common points (such as BMPs) that these areas drain to.

Step 2: DMA Delineation

Use the information in Step 1 to divide the entire PDP site into individual, discrete DMAs. Typically, lines delineating DMAs follow grade breaks and roof ridge lines. Where possible, establish separate DMAs for each surface type (e.g., landscaping, pervious paving, or roofs). Assign each DMA a unique code and determine its size in square feet. The total area of your site should total the sum of all of your DMAs (unless water from outside the project limits comingles with water from inside the project limits, i.e. run-on). Complete Table C-1

Table C-1 DMA Identification

DMA Name or Identification	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
Drainage Area A			
Areas A-1 thru A-3 (57.6 Ac)	Natural (offsite)	2,509,056 sf	N/A
DMA Area A - subarea A-4a, Multi Family (6.20 Ac)	Mix surface	270,072 sf	Type “D”
Area A-4b (1.78 Ac)	Street (offsite)	77,536 sf	N/A
Drainage Area B			
DMA Area B – subareas B1-1 thru B1-5, Residential (13.51 Ac)	Mix surface	588,495 sf	Type “D”
DMA B1-6 (0.67 Ac)	WQ Basin	29,185 sf	Type “D”
DMA B2, Park (5.32 Ac)	Mix surface & Ornamental Landscape	231,739 sf	TBD
DMA B3, Detention Basin (3.67 Ac)	Ornamental Landscape	159,865 sf	Type “A”
Areas B-4 thru B-7 (38.2 Ac)	Natural (offsite)	1,663,992 sf	N/A
Areas B-8 & B-9 (2.45 Ac)	Street (offsite)	106,722 sf	N/A
Drainage Area C			
DMA Area C – subarea C1, Residential (72.34 Ac)	Mix surface	3,151,130 sf	Type “D”
DMA C1, Commercial (12.75 Ac)	Mix surface	555,390 sf	TBD
DMA Area C, WQ/Detention Basin (5.65Ac)	Ornamental Landscape	246,114 sf	Type “D”
Areas C-2 thru C-12 (253.37 Ac)	Natural (offsite)	11,036,797 sf	N/A
			To be

			Determined in Step 3

Add Columns as Needed. Consider a separate DMA for Tree Wells or other LID principals like Self-Retaining areas are used for mitigation.

Step 3: DMA Classification

Determine how drainage from each DMA will be handled by using information from Steps 1 and 2 and by completing Steps 3.A to 3.C. Each DMA will be classified as one of the following four types:

- Type 'A': Self-Treating Areas:
- Type 'B': Self-Retaining Areas
- Type 'C': Areas Draining to Self-Retaining Areas
- Type 'D': Areas Draining to BMPs

Tree wells are considered Type 'B' areas, and their tributary areas limited to a 10:1 ratio are considered Type 'C' areas. If Tree wells are proposed, consider grading or other features to minimize the pervious runoff to the tree wells, to avoid overwhelming the trees. Type 'A', 'B', and 'C' are considered LID Principals that can be used to minimize or potentially eliminate structural LID BMPs.

If Tree wells are proposed, a landscape architect shall be consulted on the tree selection, since compliance will be determined based on the survival of the tree. The tree type should be noted on the WQMP site map.

Step 3.A – Identify Type 'A' Self-Treating Area

Indicate if the DMAs meet the following criteria by answering "Yes" or "No".

☐ Yes ☒ No — Area is undisturbed from their natural condition OR restored with Native and/or California Friendly vegetative covers.

☐ Yes ☒ No — Area is irrigated, if at all, with appropriate low water use irrigation systems to prevent irrigation runoff.

☐ Yes ☒ No — Runoff from the area will not comingle with runoff from the developed portion of the site, or across other landscaped areas that do not meet the above criteria.

If all answers indicate "Yes," complete Table C-2 to document the DMAs that are classified as Self-Treating Areas.

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

DMA Name or Identification	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
Detention Basin B	3.67 Ac	Natural grass	Sprinkler

Step 3.B – Identify Type 'B' Self-Retaining Area and Type 'C' Areas Draining to Self-Retaining Areas

Type 'B' Self-Retaining Area: A Self-Retaining Area is shallowly depressed 'micro infiltration' areas designed to retain the Design Storm rainfall that reaches the area, without producing any Runoff.

Indicate if the DMAs meet the following criteria by answering "Yes," "No," or "N/A".

☐ Yes ☐ No ☒ N/A	Inlet elevations of area/overflow drains, if any, should be clearly specified to be three inches or more above the low point to promote ponding.
☐ Yes ☐ No ☒ N/A	Soils will be freely draining to not create vector or nuisance conditions.
☐ Yes ☐ No ☒ N/A	Pervious pavements (e.g., crushed stone, porous asphalt, pervious concrete, or permeable pavers) can be self-retaining when constructed with a gravel base course four or more inches deep below any underdrain discharge elevation.

If all answers indicate "Yes," DMAs may be categorized as Type 'B', proceed to identify Type 'C' Areas Draining to Self-Retaining Areas.

Type 'C' Areas Draining to Self-Retaining Areas: Runoff from impervious or partially pervious areas can be managed by routing it to Self-Retaining Areas consistent with the LID Principle discussed in SMR WQMP Section 3.2.5 for 'Dispersing Runoff to Adjacent Pervious Areas'.
Indicate if the DMAs meet the following criteria by answering "Yes" or "No".

☐ Yes ☒ No	The drainage from the tributary area must be directed to and dispersed within the Self-Retaining Area.
☐ Yes ☒ No	The maximum ratio of Tributary Area to Self-Retaining area is (2 ÷ Impervious Fraction): 1

If all answers indicate "Yes," DMAs may be categorized as Type 'C'.

Complete Table C-3 and Table C-4 to identify Type 'B' Self-Retaining Areas and Type 'C' Areas Draining to Self-Retaining Areas.

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

Note: Tree well areas can extend well beyond the drip line. The Tree Well area for open top types would include the shallow depressed area at the soil surface. The Tree Well area for Structural Soil Tree Wells or Suspended Pavement Tree Wells includes the area with open-graded gravel or void space over the structural soil or structural cells. Please specify type in this table and WQMP site map. See LID handbook Tree Well factsheet for additional details.

$$\left(\frac{\mathbf{2}}{\boldsymbol{Impervious\ Fraction}}\right):\mathbf{1}$$

(Tributary Area: Self-Retaining Area)

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

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet) [A]	Post-project surface type	Runoff factor [B]	Product [C] = [A] x [B]	DMA name /ID	Area (square feet) [D]	Ratio [C]/[D]
N/A							

Note: (See Section 3.3 of SMR WQMP) Ensure that partially pervious areas draining to a Self-Retaining area do not exceed the following ratio:

Step 3.B.1 – Document the use of Green Street Exemption (see Section 3.11 of the WQMP Guidance)

The Regional MS4 Permit specifies that projects that consist of **retrofitting or redevelopment of existing paved alleys, streets, or roads** may be exempted from classification as PDPs if they are designed and constructed in accordance with USEPA Green Streets Guidance. This does not apply for interior roads for PDP projects. For projects with road frontage improvements, Green Street standards can be used in the frontage road right-of-way. The remainder of the project is subject to full WQMP and Hydromodification requirements. See excerpt from Section 3.11 of the WQMP Guidance below:

3.11.4 BMP Sizing Targets for Applicable Green Streets Projects

Applicable green street projects are not required to meet the same sizing requirements for BMPs as other projects, but should attempt to meet a sizing target to the MEP. The following steps are used to size BMPs for applicable Green Streets projects:

1. Delineate drainage areas tributary to BMP locations and compute imperviousness.
2. Determine sizing goal by referring to sizing criteria presented in Section 2.3.2 (V_{BMP}).
3. Attempt to provide the target BMP sizing according to Step 2.
4. If the target criteria cannot be achieved, document the constraints that override the application of BMPs, and provide the largest portion of the sizing criteria that can be reasonably provided given constraints.

Even if BMPs cannot be sized to meet the target sizing criteria, it is still important to design the BMP inlet, energy dissipation, and overflow capacity for the full tributary area to ensure that flooding and scour is avoided. It is strongly recommended that BMPs which are designed to less than their target design volume be designed to bypass peak flows.

Table C-4.1 – Green Streets

DMA Name or ID	Street Name	BMP Sizing Targets Calculations and documenting constraints included in Appendix 6*
N/A		☐ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No
		☐ Yes ☐ No
*WQMP shall not be approved without calculations or documenting constraints for Green Street Exemption.		

Step 3.C – Identify Type 'D' Areas Draining to BMPs

Areas draining to BMPs are those that could not be fully managed through LID Principles (DMA Types A through C) and will instead drain to an LID BMP and/or a Conventional Treatment BMP designed to manage water quality impacts from that area, and Hydromodification where necessary.

Complete Table C-5 to document which DMAs are classified as Areas Draining to BMPs

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

DMA Name or ID	BMP Name or ID Receiving Runoff from DMA
DMA Area A (subarea A-4a - Residential, Multi Family)	BMP A – WQ Extended/Detention **Basin A**
DMA Area B (subareas B1-1 thru B1-5 - Residential)	BMP B – WQ Extended Detention **Basin B**
DMA Area C (subarea C1- (Residential, and Basin)	BMP C – WQ Extended/Detention **Basin C**
DMA B2 (Park)	To Be Determined - NAP
DMA C1 (Commercial)	To Be Determined - NAP

<u>Note</u>: More than one DMA may drain to a single LID BMP; however, one DMA may not drain to more than one BMP.

Section D: Implement LID BMPs

The Regional MS4 Permit requires the use of LID BMPs to provide retention or treatment of the DCV and includes a BMP hierarchy which requires Full Retention BMPs (Priority 1) to be considered before Biofiltration BMPs (Priority 2) and Flow-Through Treatment BMPs and Alternative Compliance BMPs (Priority 3). LID BMP selection must be based on technical feasibility and should be considered early in the site planning and design process. Use this section to document the selection of LID BMPs for each DMA. Note that feasibility is based on the DMA scale and may vary between DMAs based on site conditions.

D.1 Full Infiltration Applicability

An assessment of the feasibility of utilizing full infiltration BMPs is required for all projects, *except where it can be shown that site design LID principles fully retain the DCV (i.e., all DMAs are Type A, B, or C), or where Harvest and Use BMPs fully retain the DCV. Check the following box if applicable:*

☐ Site design LID principles or Tree Wells fully retain the DCV (i.e., all DMAs are Type A, B, or C), (Proceed to Section E).

If the above box remains unchecked, perform a site-specific evaluation of the feasibility of Infiltration BMPs using each of the applicable criteria identified in Chapter 2.3.3 of the SMR WQMP and complete the remainder of Section D.1.

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 Copermittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the SMR WQMP. 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.

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 SMR WQMP in Chapter 2.3.3. 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

Downstream Impacts (SMR WQMP Section 2.3.3.a)		
Does the project site…	**YES**	**NO**
…have any DMAs where infiltration would negatively impact downstream water rights or other Beneficial Uses[3]?		X
If Yes, list affected DMAs:		
Groundwater Protection (SMR WQMP Section 2.3.3.b)		
Does the project site…	**YES**	**NO**
…have any DMAs with industrial, and other land uses that pose a high threat to water quality, which cannot be treated by Bioretention BMPs? Or have DMAs with active industrial process areas?		X
If Yes, list affected DMAs:		
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet horizontally of a water supply well?		X
If Yes, list affected DMAs:		
…have any DMAs that would restrict BMP locations to within a 2:1 (horizontal: vertical) influence line extending from any septic leach line?		X
If Yes, list affected DMAs:		
…have any DMAs been evaluated by a licensed Geotechnical Engineer, or Environmental Engineer, who has concluded that the soils do not have adequate physical and chemical characteristics for the protection of groundwater, and has treatment provided by amended media layers in Bioretention BMPs been considered in evaluating this factor?		X
If Yes, list affected DMAs:		
Public Safety and Offsite Improvements (SMR WQMP Section 2.3.3.c)		
Does the project site…	**YES**	**NO**
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact, such as potential seepage through fill conditions?		X
If Yes, list affected DMAs:		
Infiltration Characteristics For LID BMPs (SMR WQMP Section 2.3.3.d)		
Does the project site…	**YES**	**NO**
…have measured infiltration rates of less than 2.4 inches / hour? Riverside County may allow measure rates as low as 0.8in/hr to support infiltration BMPs, if the Engineer believes infiltration is appropriate and sustainable. Mark no, if this is the case.	X	
If Yes, list affected DMAs: **Average Infiltration Rate = 0.06 inches / hour per Soil Report, poor infiltration rate**		
Cut/Fill Conditions (SMR WQMP Section 2.3.3.e)		
Does the project site…	**YES**	**NO**
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
Other Site-Specific Factors (SMR WQMP Section 2.3.3.f)		
Does the project site…	**YES**	**NO**
…have DMAs where the geotechnical investigation discovered other site-specific factors that would preclude effective and/or safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs that rely solely on infiltration should not be used for those DMAs and you should proceed to the assessment for Biofiltration BMPs below. Biofiltration BMPs that provide partial infiltration may still be feasible and

[3] Such a condition must be substantiated by sufficient modeling to demonstrate an impact and would be subject to County of Riverside discretion. There is not a standardized method for assessing this criterion. Water rights evaluations should be site-specific.

should be assessed in Section D.2. Summarize concerns identified in the Geotechnical Report, if any, that resulted in a "YES" response above in the table below.

Table D-2 Geotechnical Concerns for Onsite Infiltration

Type of Geotechnical Concern	DMAs Feasible (By Name or ID)	DMAs Infeasible (By Name or ID)
Collapsible Soil		
Expansive Soil		
Slopes		
Liquefaction		
Low Infiltration Rate	**Area A, Area B, and Area C**	
Other	Per Infiltration Tests	

D.2 Biofiltration Applicability

This section should document the applicability of biofiltration BMPs for Type D DMAs that are not feasible for full infiltration BMPs. The key decisions to be documented in this section include:

1. Are biofiltration BMPs with partial infiltration feasible?
    a. Biofiltration BMPs must be designed to maximize incidental infiltration via a partial infiltration design unless it is demonstrated that this design is not feasible.
    b. These designs can be used at sites with low infiltration rates where other feasibility factors do not preclude incidental infiltration.

   Document summary in Table D-3.
2. If not, what are the factors that require the use of biofiltration with no infiltration? This may include:
    a. Geotechnical hazards
    b. Water rights issues
    c. Water balance issues
    d. Soil contamination or groundwater quality issues
    e. Very low infiltration rates (factored rates < 0.1 in/hr)
    f. Other factors, demonstrated to the acceptance of the local jurisdiction

   If this applies to any DMAs, then rationale must be documented in Table D-3.
3. Are biofiltration BMPs infeasible?
    a. If yes, then provide 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 with jurisdiction over the Project site to discuss this option. Proceed below.

Table D-3 Evaluation of Biofiltration BMP Feasibility

DMA ID	Is Partial/ Incidental Infiltration Allowable? (Y/N)	Basis for Infeasibility of Partial Infiltration (provide summary and include supporting basis if partial infiltration not feasible)
BMP – Area A	Y	Biofiltration Basin – average infiltration rate = 0.06 in/hr
BMP – Area B	Y	Biofiltration Basin – average infiltration rate = 0.09 in/hr
BMP – Area C	Y	Biofiltration Basin – average infiltration rate = 0.06 in/hr

Proprietary Biofiltration BMP Approval Criteria

Does the Co-Permittee allow Proprietary BMPs as an equivalent to Biofiltration, if specific criteria is met?

☐ Yes or ☒ No, if no skip to Section F to document your alternative compliance measures.

If the project will use proprietary BMPs as biofiltration BMPs, then this section and Appendix 5 shall be completed to document that the proprietary BMPs are selected in accordance with Section 2.3.6 of the SMR WQMP and County requirements. Proprietary Biofiltration BMPs must meet both of the following approval criteria:

1. Demonstrate equivalency to Biofiltration by completing the BMP Design worksheet and Proprietary Biofiltration Criteria, which is found in Appendix 5, including all supporting documentation, and
2. Obtain Co-Permittee concurrence for the long term Operation and Maintenance Plan for the proprietary BMP. The Co-Permittee has the sole discretion to allow or reject Proprietary BMPs, especially if they will be maintained publically through a CFD, CSA, or L&LMD.

Add additional rows to Table D-4 to document approval criteria are met for each type of BMP proposed.

Table D-4 Proprietary BMP Approval Requirement Summary

Proposed Proprietary Biofiltration BMP	Approval Criteria	Notes/Comments
Insert BMP Name and Manufacturer Here	BMP Design worksheets and Proprietary Biofiltration Criteria are completed in Appendix 5	☐ Yes or ☐ No Insert text here
	Proposed BMP has an active TAPE GULD Certification for the project pollutants of concern[4] or equivalent 3rd party demonstrated performance.	☐ Yes or ☐ No Insert text here
	Is there any media or cartridge required to maintain the function of the BMP sole-sourced or proprietary in any way? If yes, obtain explicit approval by the Agency. Potentially full replacement costs to a non-proprietary BMP needs to be considered.	☐ Yes or ☐ No If yes, provide the date of concurrence from the Co-Permittee. Insert date here

[4] Use Table F-1, F-2, and F-3 to identify and document the pollutants of concern and include these tables in Appendix 5.

	☐ The BMP includes biological features including vegetation supported by engineered or other growing media.	Describe features here.

D.3 Feasibility Assessment Summaries

From the Infiltration, Biofiltration with Partial Infiltration and Biofiltration with No Infiltration Sections above, complete Table D-5 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D-5 LID Prioritization Summary Matrix

DMA Name/ID	LID Principles or Tree Wells	LID BMP Hierarchy			No LID (Alternative Compliance)
		1. Infiltration	2. Biofiltration with Partial Infiltration*	3. Biofiltration with No Infiltration*	
BMP – Area A	☐	☐	☒	☐	☐
BMP – Area B	☐	☐	☒	☐	☐
BMP – Area C	☐	☐	☒	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

*Includes Proprietary Biofiltration, if accepted by the Co-Permittee.

For those DMAs where LID BMPs are not feasible, provide a narrative in Table D-6 below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section F below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

This is based on the clarification letter titled "San Diego Water Board's Expectations of Documentation to Support a Determination of Priority Development Project Infiltration Infeasibility" (April 28, 2017, Via email from San Diego Regional Water Quality Control Board to San Diego County Municipal Storm Water Copermittees[5]).

Table D-6 Summary of Infeasibility Documentation

Question	Narrative Summary (include reference to applicable appendix/attachment/report, as applicable)
a) When in the entitlement process did a geotechnical engineer analyze the site for infiltration feasibility?	N/A
b) When in the entitlement process were other investigations conducted (e.g., groundwater quality, water rights) to evaluate infiltration feasibility?	
c) What was the scope and results of	

[5] http://www.projectcleanwater.org/download/pdp-infiltration-infeasibility/

testing, if conducted, or rationale for why testing was not needed to reach findings?	
d) What public health and safety requirements affected infiltration locations?	
e) What were the conclusions and recommendations of the geotechnical engineer and/or other professional responsible for other investigations?	
f) What was the history of design discussions between the permittee and applicant for the proposed project, resulting in the final design determination related locations feasible for infiltration?	
g) What site design alternatives were considered to achieve infiltration or partial infiltration on site?	
h) What physical impairments (i.e., fire road egress, public safety considerations, utilities) and public safety concerns influenced site layout and infiltration feasibility?	
i) What LID Principles (site design BMPs) were included in the project site design?	

D.4 LID BMP Sizing

Each LID BMP must be designed to ensure that the DCV will be captured by the selected BMPs with no discharge to the storm drain or surface waters during the DCV size storm. Infiltration BMPs must at minimum be sized to capture the DCV to achieve pollutant control requirements.

Biofiltration BMPs must at a minimum be sized to:

- Treat 1.5 times the DCV not reliably retained on site using a volume-base or flow-based sizing method, or
- Include static storage volume, including pore spaces and pre-filter detention volume, at least 0.75 times the portion of the DCV not reliably retained on site.

First**,** calculate the DCV 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 the methods included in Section 3 of the LID BMP Design Handbook. Utilize the worksheets found in the LID BMP Design Handbook or consult with the Copermittee to assist you in correctly sizing your LID BMPs. Use Table D-7 below to document the DCV 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-7 DCV Calculations for LID BMPs

DMA Type/ID	DMA (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]			
DMA Area A - subarea A-4a (6.2 ac)	*270,072*	*Mixed Surface*	*0.80*	*0.60*	*162,043*	*Design Storm Depth (in)*	*DCV, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	$A_T = \Sigma[A]$ 270,072				$\Sigma = [D]$ 162,043	[E] 0.57	$[F] = \frac{[D]x[E]}{12}$ 7,652	[G] ***7,700***

[B], [C] is obtained as described in Section 2.6.1.b of the SMR WQMP
[E] is obtained from Exhibit A in the SMR WQMP
[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6.

DMA Type/ID	DMA (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]			
DMA Area B - subareas B1-1 thru B1-5 (13.51 ac)	*588,495*	*Mixed Surface*	*0.60*	*0.41*	*241,283*	*Design Storm Depth (in)*	*DCV, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	$A_T = \Sigma[A]$ 588,495				$\Sigma = [D]$ 241,283	[E] 0.57	$[F] = \frac{[D]x[E]}{12}$ 11,279	[G] ***11,300***

DMA Type/ID	DMA (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]			
DMA Area C - subarea	*3,151,130*	*Mixed Surface*	*0.60*	*0.41*	*1,291,963*	*Design Storm*	*DCV, V_{BMP}*	*Proposed Volume*

C1 residential (72.34 ac)						*Depth (in)*	*(cubic feet)*	*on Plans (cubic feet)*
	$A_T = \Sigma[A]$ 3,151,130				$\Sigma = [D]$ 1,291,963	[E] 0.57	$[F] = \frac{[D]x[E]}{12}$ 60,397	[G] ***60,400***

DMA Type/ID	DMA (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*		
	[A]		[B]	[C]	[A] x [C]			
Area C1 Basin (5.65 ac)	*246,114*	*Ornamental Landscape*	*0.10*	*0.11*	*27,072*	*Design Storm Depth (in)*	*DCV, $\mathbf{V_{BMP}}$ (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
	$A_T = \Sigma[A]$ 246,114				$\Sigma = [D]$ 27,072	[E] 0.57	$[F] = \frac{[D]x[E]}{12}$ 1,231	[G] ***1,250***

Complete Table D-8 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. You can add rows to the table as needed. Alternatively, the Santa Margarita Hydrology Model (SMRHM) can be used to size LID BMPs to address the DCV and, if applicable, to size Hydrologic Control BMPs to meet the Hydrologic Performance Standard described in the SMR WQMP, as identified in Section E.

Table D-8 LID BMP Sizing

BMP Name / ID	DMA No.	BMP Type / Description	Design Capture Volume (ft^3)	Proposed Volume (ft^3)
BMP A	Area A - subarea A-4a	Extended / Detention Basin	7,652	7,700
BMP B	Area B - subareas B1-1 thru B1-5	Extended Detention Basin	11,279	11,300
BMP C	Area C - subarea C1 (Res., Commercial, and Basin)	Extended / Detention Basin	81,067	81,150

If bioretention will include a capped underdrain, then include sizing calculations demonstrating that the BMP will meet infiltration sizing requirements with the underdrain capped and also meet biofiltration sizing requirements if the underdrain is uncapped.

Section E: Implement Hydrologic Control BMPs and Sediment Supply BMPs

See Appendix 7 for additional required information.

If a completed Table 1.2 demonstrates that the project is exempt from Hydromodification Performance Standards, specify N/A and proceed to Section G.

☐ N/A Project is Exempt from Hydromodification Performance Standards.

If a PDP is not exempt from hydromodification requirements than the PDP must satisfy the requirements of the performance standards for hydrologic control BMPs and Sediment Supply BMPs. The PDP may choose to satisfy hydrologic control requirements using onsite or offsite BMPs (i.e. Alternative Compliance). Sediment supply requirements cannot be met via alternative compliance. If N/A is not selected above, select one of the two options below and complete the applicable sections.

☒ Project is Not Hydromodification Exempt and chooses to implement Hydrologic Control and Sediment Supply BMPs Onsite (complete Section E).

☐ Project is Not Hydromodification Exempt and chooses to implement Hydrologic Control Requirements using Alternative Compliance (complete Section F). Selection of this option must be approved by the Copermittee.

E.1 Hydrologic Control BMP Selection

Capture of the DCV and achievement of the Hydrologic Performance Standard may be met by combined and/or separate structural BMPs. The user should consider the full suite of Hydrologic Control BMPs to manage runoff from the post-development condition and meet the Hydrologic Performance Standard identified in this section.

For the Preliminary WQMP, in lieu of preparing detailed routing calculations, the basin size may be estimated as the difference in volume between the pre-development and post-development hydrograph for the 10-year 24-hour storm event plus the Vbmp. This does not relieve the engineer of the responsibility for meeting the full Hydrologic Control requirements during final design.

The Hydrologic Performance Standard consists of matching or reducing the flow duration curve of post-development conditions to that of pre-existing, naturally occurring conditions, for the range of geomorphically significant flows (the low flow threshold runoff event up to the 10-year runoff event). 10% of the 2-year runoff event can be used for the low flow threshold without any justification. Higher low flow thresholds can be used with site-specific analysis, see Section 2.6.2.b of the WQMP guidance document. Select each of the hydrologic control BMP types that are applied to meet the above performance standard on the site.

☐ LID principles as defined in Section 3.2 of the SMR WQMP, including Tree Wells.

☒ Structural LID BMPs that may be modified or enlarged, if necessary, beyond the DCV.

☐ Structural Hydrologic Control BMPs that are distinct from the LID BMPs above. The LID BMP Design Handbook provides information not only on Hydrologic Control BMP design, but also on BMP design to meet the combined LID requirement and Hydrologic Performance Standard. The Handbook specifies the type of BMPs that can be used to meet the Hydrologic Performance Standard.

E.2 Hydrologic Control BMP Sizing

Hydrologic Control BMPs must be designed to ensure that the flow duration curve of the post-development DMA will not exceed that of the pre-existing, naturally occurring, DMA for the range of geomorphically significant flows. Using SMRHM, (or another acceptable continuous simulation model if approved by the Copermittee) the applicant shall demonstrate that the performance of the Hydrologic Control BMPs complies with the Hydrologic Performance Standard. Complete Table E-1 below and identify, for each DMA, the type of Hydrologic Control BMP, if the SMRHM model confirmed the management (Identified as "passed" in SMRHM), the total volume capacity of the Hydrologic Control BMP, the Hydrologic Control BMP footprint at top floor elevation, and the drawdown time of the Hydrologic Control BMP. SMRHM summary reports should be documented in Appendix 7. Refer to the SMRHM Guidance Document for additional information on SMRHM. You can add rows to the table as needed.

Table E-1 Hydrologic Control BMP Sizing

BMP Name / ID	DMA No.	BMP Type / Description	SMRHM * Passed	BMP Volume (ac-ft)	BMP Footprint (ac)	Drawdown time (hr)
BMP – A	**Area A** - subarea A4a	Extended / Detention Basin	☒	DCV = 0.176 Basin = 0.38	0.25	Less than 72 hours
BMP – B	**Area B** - subareas B1-1 thru B1-5	Extended Detention Basin	☒	DCV=0.26 Basin = 0.52	0.29	Less than 72 hours
BMP – C	**Area C** - subarea C1	Extended / Detention Basin	☒	DCV = 1.86 Basin = 10.8	4.06	Less than 72 hours

**Or other continuous simulation model, compliant with the WQMP and Permit. If Tree Wells are proposed for some or all of the project, check the box for Tree Wells in Section E.1 and enter each Tree Well DMA in Table E-1 above for the BMP Name/ID, DMA No. and BMP Type/Description. For Tree Wells, leave SMRHM* Passed Column and the columns to the left blank.*

If a bioretention BMP with capped underdrain is used and hydromodification requirements apply, then sizing calculations must demonstrate that the BMP meets flow duration control criteria with the underdrain capped and uncapped. Both calculations must be included.

E.3 Implement Sediment Supply BMPs

The sediment supply performance standard applies to PDPs for which hydromodification applied that have the potential to impact Potential Critical Coarse Sediment Yield Areas. Refer to Exhibit G-1 of the WQMP Guidance Document to determine if there are onsite Potential Critical Coarse Sediment Yield Areas (based on on-going WMAA analysis) or Potential Sediment Source Areas (sites added through the Regional Board review process). Select one of the two options below and include the Potential Critical Coarse Sediment Yield Area Exhibit showing your project location in Appendix 7.

☒ There are no mapped Potential Critical Coarse Sediment Yield Areas or Potential Sediment Source Areas on the site. Include a copy of Exhibit G - CCSY & PSS Areas in Appendix 7, with the project location marked. If the project is outside of the "Potential Critical Coarse Sediment Yield Areas and Potential Sediment Source Areas" then check this box. The Sediment Supply Performance Standard is met with no further action is needed.

☐ There are mapped Potential Critical Coarse Sediment Yield Areas or Potential Sediment Source Areas on the site, the Sediment Supply Performance Standard will be met through Option 1 (E.3.1) or Option 2 (E.3.2) below.

☐ **E.3.1 Option 1: Avoid Potential Critical Coarse Sediment Yield Areas and Potential Sediment Source Areas**

The simplest approach for complying with the Sediment Supply Performance Standard is to avoid impacts to areas identified as Potential Critical Coarse Sediment Yield Areas or Potential Sediment Supply Areas. If a portion of PDP is identified as a Potential Critical Coarse Sediment Yield Area or a Potential Sediment Source Area, that PDP may still achieve compliance with the Sediment Supply Performance Standards if Potential Critical Coarse Sediment Yield Areas and Potential Sediment Supply Areas are avoided, i.e. areas are not developed and thereby delivery of Critical Coarse Sediment to the receiving waters is not impeded by site developments.

Provide a narrative describing how the PDP has avoided impacts to Potential Critical Coarse Sediment Yield Areas and/or Potential Sediment Source Areas below.

Insert narrative description here

If it is not feasible to avoid these areas, proceed to Option 2 to complete a Site-Specific Critical Coarse Sediment Analysis.

☐ **E.3.2 Option 2: Site-Specific Critical Coarse Sediment Analysis**

Perform a stepwise assessment to ensure the pre-project source(s) of Critical Coarse Sediment (i.e., Bed Sediment Supply) is maintained:

Step 1: Identify if the site is an actual verified Critical Coarse Sediment Yield Area supplying Bed Sediment Supply to the receiving channel

☐ **Step 1.A** – Is the Bed Sediment of onsite streams similar to that of receiving streams?

Rate the similarity:

☐ High

☐ Medium

☒ Low

Results from the geotechnical and sieve analysis to be performed both onsite and in the receiving channel should be documented in Appendix 7. Of particular interest, the results of the sieve analysis, the soil erodibility factor, a description of the topographic relief of the project area, and the lithology of onsite soils should be reported in Appendix 7.

☐ **Step 1.B** – Are onsite streams capable of delivering Bed Sediment Supply from the site, if any, to the receiving channel?

Rate the potential:

☐ High

☐ Medium

☒ Low

Results from the analyses of the sediment delivery potential to the receiving channel should be documented in Appendix 7 and identify, at a minimum, the Sediment Source, the distance to the receiving channel, the onsite channel density, the project watershed area, the slope, length, land use, and rainfall intensity.

☐ **Step 1.C** – Will the receiving channel adversely respond to a change in Bed Sediment Load?

Rate the need for bed sediment supply:

☐ High

☐ Medium

☒ Low

Results from the in-stream analysis to be performed both onsite should be documented in Appendix 7. The analysis should, at a minimum, quantify the bank stability and the degree of incision, provide a gradation of the Bed Sediment within the receiving channel, and identify if the channel is sediment supply-limited.

☐ **Step 1.D** – Summary of Step 1

Summarize in Table E.3 the findings of Step 1 and associate a score (in parenthesis) to each step. The sum of the three individual scores determines if a stream is a significant contributor to the receiving stream.

- Sum is equal to or greater than eight - Site is a significant source of sediment bed material – all on-site streams must be preserved or by-passed within the site plan. The applicant shall proceed to Step 2 for all onsite streams.

- Sum is greater than five but lower than eight. Site is a source of sediment bed material – some of the on-site streams must be preserved (with identified streams noted). The applicant shall proceed to Step 2 for the identified streams only.
- Sum is equal to or lower than five. Site is not a significant source of sediment bed material. The applicant may advance to Section F.

Table E-2 Triad Assessment Summary

Step	Rating			Total Score
1.A	☐ High (3)	☐ Medium (2)	☒ Low (1)	1
1.B	☐ High (3)	☐ Medium (2)	☒ Low (1)	1
1.C	☐ High (3)	☐ Medium (2)	☒ Low (1)	1
Significant Source Rating of Bed Sediment to the receiving channel(s)				

Step 2: Avoid Development of Critical Coarse Sediment Yield Areas, Potential Sediment Sources Areas, and Preserve Pathways for Transport of Bed Sediment Supply to Receiving Waters

Onsite streams identified as a actual verified Critical Coarse Sediment Yield Areas should be avoided in the site design and transport pathways for Critical Coarse Sediment should be preserved

Check those that apply:

☐ The site design does avoid all onsite channels identified as actual verified Critical Coarse Sediment Yield Areas ***AND***

☐ The drainage design bypasses flow and sediment from onsite upstream drainages identified as actual verified Critical Coarse Sediment Yield Areas to maintain Critical Coarse Sediment supply to receiving waters

(If both are yes, the applicant may disregard subsequent steps of Section E.3 and directly advance directly to Section G)

Or -

Provide in Appendix 7 a site map that identifies all onsite channels and highlights those onsite channels that were identified as a Significant Source of Bed Sediment. The site map shall demonstrate, if feasible, that the site design avoids those onsite channels identified as a Significant Source of Bed Sediment. In addition, the applicant shall describe the characteristics of each onsite channel identified as a Significant Source of Bed Sediment. If the design plan cannot avoid the onsite channels, please provide a rationale for each channel individually.

The site map shall demonstrate that the drainage design bypasses those onsite channels that supply Critical Coarse Sediment to the receiving channel(s). In addition, the applicant shall describe the characteristics of each onsite channel identified as an actual verified Critical Coarse Sediment Yield Area.

Identified Channel #1 - Insert narrative description here

Identified Channel #2 - Insert narrative description here

☐ The site design **does NOT avoid** all onsite channels identified as actual verified Critical Coarse Sediment Yield Areas

OR

☐ The project blocks the potential for Critical Coarse Sediment from migrating to receiving waters.

(If either of these are the case, the applicant shall continue completing this section).

E.3.3 Sediment Supply BMPs to Result in No Net Impact to Downstream Receiving Waters

If impacts to Critical Coarse Sediment Yield Areas cannot be avoided, sediment supply BMPs must be implemented such there is no net impact to receiving waters. Sediment supply BMPs may consist of approaches that permit flux of bed sediment supply from Critical Coarse Sediment Yield Areas within the project boundary. This approach is subject to acceptance by the County of Riverside. It may require extensive documentation and analysis by qualified professionals to support this demonstration.

Appendix H of the San Diego Model BMP Design Manual provides additional information on site-specific investigation of Critical Coarse Sediment Supply areas.

http://www.projectcleanwater.org/download/2018-model-bmp-design-manual/

If applicable, insert narrative description here

Documentation of sediment supply BMPs should be detailed in Appendix 7.

Section F: Alternative Compliance

Alternative Compliance may be used to achieve compliance with pollutant control and/or hydromodification requirements for a given PDP. Alternative Compliance may be used under two scenarios, check the applicable box if the PDP is proposing to use Alternative Compliance to satisfy all or a portion of the Pollutant Control and/or Hydrologic Control requirements (but not sediment supply requirements)

☐ If it is not feasible to fully implement Infiltration or Biofiltration BMPs at a PDP site, Flow-Through Treatment Control BMPs may be used to treat pollutants contained in the portion of DCV not reliably retained on site and Alternative Compliance measures must also be implemented to mitigate for those pollutants in the DCV that are not retained or removed on site prior to discharging to a receiving water.

☐ Alternative Compliance is selected to comply with either pollutant control or hydromodification flow control requirements even if complying with these requirements is potentially feasible on-site. If such voluntary Alternative Compliance is implemented, Flow-Through Treatment Control BMPs must still be used to treat those pollutants in the portion of the DCV not reliably retained on site prior to discharging to a receiving water.

Refer to Section 2.7 of the SMR WQMP and consult the Local Jurisdiction for currently available Alternative Compliance pathways. Coordinate with the Copermittee if electing to participate in Alternative Compliance and complete the sections below to document implementation of the Flow-Through BMP component of the program.

F.1 Identify Pollutants of Concern

The purpose of this section is to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs and to document compliance and.

Utilize Table A-1 from Section A, which noted your project's Receiving Waters, to identify impairments for Receiving Waters (including downstream receiving waters) by completing Table F-1. Table F-1 includes the watersheds identified as impaired in the Approved 2010 303(d) list; check box corresponding with the PDP's receiving water. The most recent 303(d) lists are available from the State Water Resources Control Board website:
https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml).https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml.

Table F-1 Summary of Approved 2010 303(d) listed waterbodies and associated pollutants of concern for the Riverside County SMR Region and downstream waterbodies.

Water Body		Nutrients[1]	Metals[2]	Toxicity	Bacteria and Pathogens	Pesticides and Herbicides	Sulfate	Total Dissolved Solids
☐	De Luz Creek	X	X				X	
☐	Long Canyon Creek		X		X	X		
☒	Murrieta Creek	X	X	X		X		
☐	Redhawk Channel	X	X		X	X		X
☐	Santa Gertudis Creek	X	X		X	X		
☐	Santa Margarita Estuary	X						
☐	Santa Margarita River (Lower)	X			X			
☒	Santa Margarita River (Upper)	X		X				
☐	Temecula Creek	X	X	X		X		X
☒	Warm Springs Creek	X	X		X	X		

[1] Nutrients include nitrogen, phosphorus and eutrophic conditions caused by excess nutrients.

[2] Metals includes copper, iron, and manganese.

Use Table F-2 to identify the pollutants identified with the project site. Indicate the applicable PDP Categories and/or Project Features by checking the boxes that apply. If the identified General Pollutant Categories are the same as those listed for your Receiving Waters, then these will be your Pollutants of Concern; check the appropriate box or boxes in the last row.

Table F-2 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	Total Dissolved Solids	Sulfate
☒	Detached Residential Development	P	N	P	P	N	P	P	P	N	N
☐	Attached Residential Development	P	N	P	P	N	P	P	P(2)	N	N
☐	Commercial/Industrial Development	P(3)	P(7)	P(1)	P(1)	P	P(1)	P	P	N	N
☐	Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P	N	N
☐	Restaurants (>5,000 ft^2)	P	N	N	P(1)	N	N	P	P	N	N
☐	Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P	N	N
☐	Parking Lots (>5,000 ft^2)	P(6)	P(7)	P(1)	P(1)	P(4)	P	P	P	N	N
☐	Streets, Highways, and Freeways	P(6)	P(7)	P(1)	P(1)	P(4)	P	P	P	N	N
☐	Retail Gasoline Outlets	N	P(7)	N	N	P(4)	N	P	P	N	N
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 products; otherwise not expected*

(4) *Including petroleum hydrocarbons*

(5) *Including solvents*

(6) *Bacterial indicators are routinely detected in pavement runoff*

(7) *A potential source of metals, primarily copper and zinc. Iron, magnesium, and aluminum are commonly found in the environment and are commonly associated with soils, but are not primarily of anthropogenic stormwater origin in the municipal environment.*

F.2 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 be selected to address the Project Priority Pollutants of Concern (identified above) and meet the acceptance criteria described in Section 2.3.7 of the SMR WQMP. Documentation of acceptance criteria 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 F-3 Treatment Control BMP Selection

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

[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 Copermittee Approved Study and provided in Appendix 6.

F.3 Sizing Criteria

Utilize Table F-4 below to appropriately size flow-through BMPs to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.1 of the SMR WQMP for further information.

Table F-4 Treatment Control BMP Sizing

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	***Enter BMP Name / Identifier Here***	
	[A]		[B]	[C]	[A] x [C]		
N/A						*Design Storm (in)*	*Design Flow Rate (cfs)*
	$A_T = \Sigma[A]$				$\Sigma = [D]$	[E]	$[F] = \frac{[D]x[E]}{[G]}$

[B], [C] is obtained as described in Section 2.6.1.b from the SMR WQMP
[E] either 0.2 inches or 2 times the 85th percentile hourly rainfall intensity
[G] = 43,560,.

F.4 Hydrologic Performance Standard – Alternative Compliance Approach

Alternative compliance options are only available if the governing Copermittee has acknowledged the infeasibility of onsite Hydrologic Control BMPs and approved an alternative compliance approach. See Section 3.5 and 3.6 of the SMR WQMP.

Select the pursued alternative and describe the specifics of the alternative:

☐ Offsite Hydrologic Control Management within the same channel system

Insert narrative description here

☐ In-Stream Restoration Project

Insert narrative description here

<u>For Offsite Hydrologic Control BMP Option</u>

Each Hydrologic Control BMP must be designed to ensure that the flow duration curve of the post-development DMA will not exceed that of the pre-existing, naturally occurring, DMA by more than ten percent over a one-year period. Using SMRHM, the applicant shall demonstrate that the performance of each designed Hydrologic Control BMP is equivalent with the Hydrologic Performance Standard for onsite conditions. Complete Table F-5 below and identify, for each Hydrologic Control BMP, the equivalent DMA the Hydrologic Control BMP mitigates, that the SMRHM model passed, the total volume capacity of the BMP, the BMP footprint at top floor elevation, and the drawdown time of the BMP. SMRHM summary reports for the alternative approach should be documented in Appendix 7. Refer to the SMRHM Guidance Document for additional information on SMRHM. You can add rows to the table as needed.

Table F-5 Offsite Hydrologic Control BMP Sizing

BMP Name / Type	Equivalent DMA (ac)	SMRHM Passed	BMP Volume (ac-ft)	BMP Footprint (ac)	Drawdown time (hr)
N/A		☐			
		☐			
		☐			
		☐			

<u>For Instream Restoration Option</u>

Attach to Appendix 7 the technical report detailing the condition of the receiving channel subject to the proposed hydrologic and sediment regimes. Provide the full design plans for the in-stream restoration project that have been approved by the Copermittee. Utilize the San Diego Regional Water Quality Equivalency Guidance Document.

Section G: Implement Trash Capture BMPs

The Santa Margarita Regional Board has required Full Trash Capture compliance thru Order No. R9-2017-007. For the Santa Margarita Watershed, the County is requiring Track 1 full trash capture compliance for projects proposing the following uses as part of their development after **December 3, 2018**.

- High-density residential: all land uses with at least ten (10) developed dwelling units/acre.
- Industrial: land uses where the primary activities on the developed parcels involve product manufacture, storage, or distribution (e.g., manufacturing businesses, warehouses, equipment storage lots, junkyards, wholesale businesses, distribution centers, or building material sales yards).
- Commercial: land uses where the primary activities on the developed parcels involve the sale or transfer of goods or services to consumers (e.g., business or professional buildings, shops, restaurants, theaters, vehicle repair shops, etc.).
- Mixed urban: land uses where high-density residential, industrial, and/or commercial land uses predominate collectively (i.e., are intermixed).
- Public transportation stations: facilities or sites where public transit agencies' vehicles load or unload passengers or goods (e.g., bus stations and stops).

Riverside County Maintenance is generally supportive of United Storm Water – Connector Pipe Screens or equivalent. Equivalent systems or alternative designs shall be on the State of California Approved Trash Capture Device List and requires approval by the Transportation Department for maintenance. Riverside County is developing Trash Capture Device Standards, which are expected to be added to the Transportation Plan Check Policies and Guidelines when available. Design calculations are not expected to be required if the project uses standard sizes per the County's Trash Capture Device Standards. Until the Trash Capture Device Standards are available and the project uses standard sizes, the project shall complete the following tables and furnish hydraulic analysis calculating the flowrate in the catch basin does not exceed the flowrate capacity of the trash capture device in a fully clogged condition.

Trash Capture BMPs may be applicable to Type 'D' DMAs, as defined in Section 2.3.4 of the SMR WQMP. Trash Capture BMPs are designed to treat Q_{TRASH}, the runoff flow rate generated during the 1-year 1-hour precipitation depth. Utilize Table G-1 to size Trash Capture BMP. Refer to Table G-2 to determine the Trash Capture Design Storm Intensity (E).

Table G-1 Sizing Trash Capture 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	*Enter BMP Name / Identifier Here*	
	[A]		[B]	[C]	[A] x [C]		
DMA Area A - subarea A-4a (6.2 ac)	*270,072*	*Multi-family*	*0.80*	*0.60*	*162,043*	*Trash Capture Design Storm Intensity (in)*	*Trash Capture Design Flow Rate (cubic feet or cfs)*
	$A_T = \Sigma[A]$ 270,072				$\Sigma= [D]$ 162,043	[E] 0.47	$[F] = \frac{[D]x[E]}{[G]}$ ***1.75***

[B], [C] is obtained as described in Section 2.6.1.b from the SMR WQMP
[G] = 43,560

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*	
	[A]		[B]	[C]	[A] x [C]		
DMA Area B - subareas B1-1 thru B1-5 (13.51 ac)	*588,495*	*Single family*	*0.60*	*0.41*	*241,282*	*Trash Capture Design Storm Intensity (in)*	*Trash Capture Design Flow Rate (cubic feet or cfs)*
	$A_T = \Sigma[A]$ 588,495				$\Sigma= [D]$ 241,282	[E] 0.47	$[F] = \frac{[D]x[E]}{[G]}$ ***2.60***

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Impervious Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	*Enter BMP Name / Identifier Here*	
	[A]		[B]	[C]	[A] x [C]		
DMA Area C - subarea C1 Res. (72.34 ac)	*3,151,130*	*Single-family*	*0.60*	*0.41*	*1,291,963*	*Trash Capture Design Storm Intensity (in)*	*Trash Capture Design Flow Rate (cubic feet or cfs)*

	$A_T = \Sigma[A]$ 3,151,130				$\Sigma = [D]$ 1,291,963	[E] 0.47	$[F] = \frac{[D]x[E]}{[G]}$ ***13.94***

Table G-2 Approximate precipitation depth/intensity values for calculation of the Trash Capture Design Storm

City	1-year 1-hour Precipitation Depth/Intensity (inches/hr)
Murrieta	0.47
Temecula	0.50
Wildomar	0.37

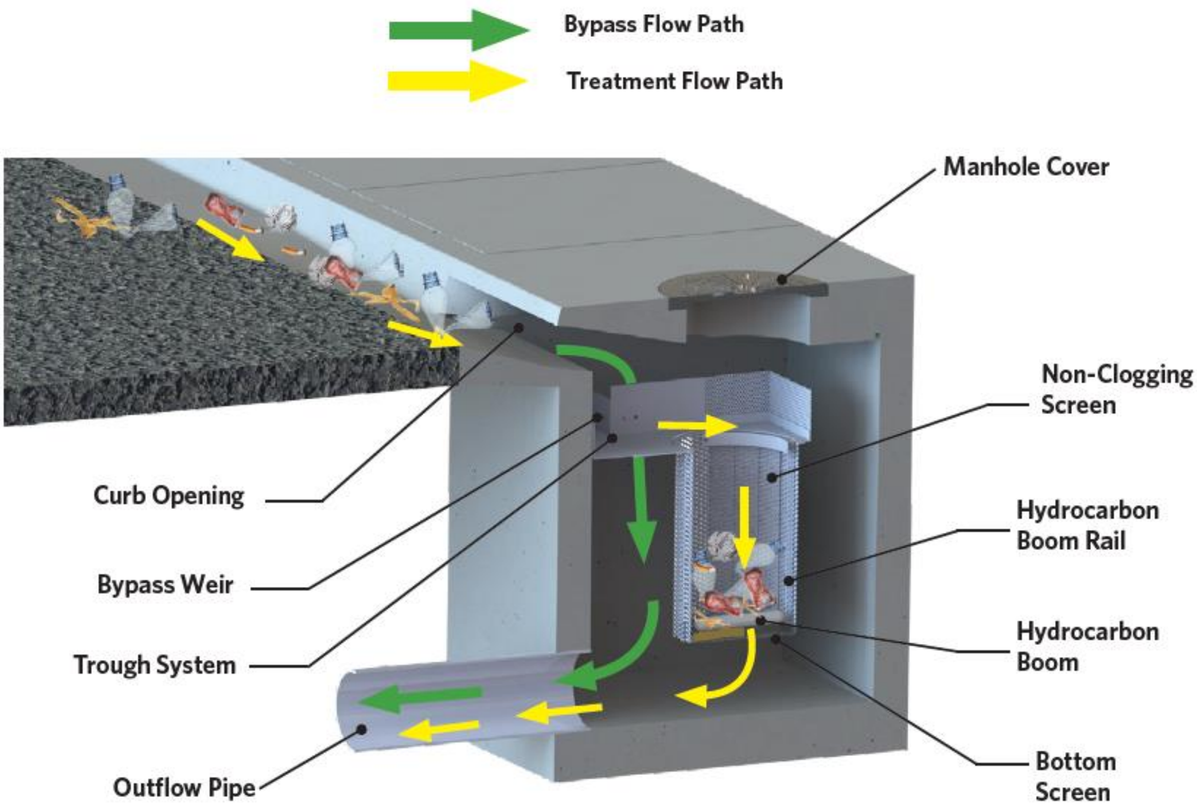
Use Table G-3 to summarize and document the selection and sizing of Trash Capture BMPs.

Table G-3 Trash Capture BMPs

BMP Name / ID	DMA No(s)	BMP Type / Description	Required Trash Capture Flowrate (cfs)	Provided Trash Capture Flowrate (cfs)[1]
BMP - A	DMA Area A - subarea A4a	Catch Basin Insert (TBD)	Total 1.75 cfs 1.75 cfs/ea	>2.85 cfs/ea See brochure below
BMP - B	DMA Area B - subareas B1-1 thru B1-5	Catch Basin Insert (5-ea)	Total 2.60 cfs 0.52 cfs/ea	>2.85 cfs/ea See brochure below
BMP - C	DMA Area C - subarea C1	Catch Basin Insert (16-ea)	Total 13.94 cfs 0.87 cfs/ea	>2.85 cfs/ea See brochure below

[1] For connector pipe screens, the Trash Capture Flowrate shall be based on a fully clogged condition for the screen, where the water level is at the top of the screen. Then determined the Flowrate based on weir equation (Qweir = C x L x H^(2/3), where C = 3.4). The height used to calculate the weir flow rate shall maintain a 6" freeboard to the invert of the catch basin opening at the road. This analysis is meant to replicate the hydraulic analysis used in the County's Full Trash Capture Device Standards.

OPERATION



APPLICATIONS

- Parking Lots
- Roadways

SPECIFICATIONS

MODEL #	TREATMENT FLOW CAPACITY (cfs)	BYPASS FLOW (cfs)
BIO-CURB-FULL	2.85	UNLIMITED

Note: Treatment flow rate limited to the weir capacity - actual flow rates of the filter basket is greater than 2.85 cfs.
Various depth filter baskets available.

Section H: Source Control BMPs

Section H need only be completed at the Preliminary WQMP phase if source control is critical to the project successfully handling the anticipated pollutants.

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 Maximum Extent Practicable (MEP) standard typically requires both types of BMPs. In general, Operational Source Control BMPs cannot be substituted for a feasible and effective Structural Source Control BMP. Complete checklist below to determine applicable Source Control BMPs for your site.

Project-Specific WQMP Source Control BMP Checklist

All development projects must implement Source Control BMPs. Source Control BMPs are used to minimize pollutants that may discharge to the MS4. Refer to Chapter 3 (Section 3.8) of the SMR WQMP for additional information. Complete Steps 1 and 2 below to identify Source Control BMPs for the project site.

STEP 1: IDENTIFY POLLUTANT SOURCES

Review project site plans and identify the applicable pollutant sources. "Yes" indicates that the pollutant source is applicable to project site. "No" indicates that the pollutant source is not applicable to project site.

☒ Yes ☐ No	Storm Drain Inlets	☐ Yes ☒ No	Outdoor storage areas
☒ Yes ☐ No	Floor Drains	☐ Yes ☒ No	Material storage areas
☐ Yes ☒ No	Sump Pumps	☐ Yes ☒ No	Fueling areas
☒ Yes ☐ No	Pets Control/Herbicide Application	☐ Yes ☒ No	Loading Docks
☒ Yes ☐ No	Food Service Areas	☐ Yes ☒ No	Fire Sprinkler Test/Maintenance water
☒ Yes ☐ No	Trash Storage Areas	☒ Yes ☐ No	Plazas, Sidewalks and Parking Lots
☐ Yes ☒ No	Industrial Processes	☒ Yes ☐ No	Pools, Spas, Fountains and other water features
☐ Yes ☒ No	Vehicle and Equipment Cleaning and Maintenance/Repair Areas		

STEP 2: REQUIRED SOURCE CONTROL BMPS

List each Pollutant source identified above in column 1 and fill in the corresponding Structural Source Control BMPs and Operational Control BMPs by referring to the Stormwater Pollutant Sources/Source Control Checklist included in Appendix 8. The resulting list of structural and operational source control BMPs must be implemented as long as the associated sources are present on the project site. Add additional rows as needed.

Pollutant Source	Structural Source Control BMP	Operational Source Control BMP
Roadways	Provide storm drain stenciling and signage (S1)	Education for property owners, tenants and occupants (N1) Streets and sidewalks will be swept regularly to prevent accumulation or litter and debris. Debris from pressure washing will be collected to prevent entry into the storm drain. Washwater containing any

		cleaning agent or degreaser will be collected and discharge to the sanitary sewer not to a storm drain.
Residential Lots	Roofs designed to runoff into adjoining landscaping. Driveways of minimal widths. Roofing, gutters, and trim will not be made of copper or other unprotected metals that may leach into runoff.	Activity Restrictions (N2)
Refuse and Trash Storage Areas. Locations are shown later on Commercial Site.	Trash container storage areas shall be paved with an impervious surface, designed not to allow run-on from adjoining areas, designed to divert drainage from adjoining roofs and pavements from the surrounding area, and screened or walled to prevent off-site transport of trash. Trash dumpsters (containers) shall be leak proof and have attached covers or lids. Trash enclosures shall be roofed per MJPA standards and the details on the PWQMP Exhibit in Appendix 1. Trash compactors shall be roofed and set on a concrete pad per MJPA standards. The pad shall be a minimum of one foot larger all around than the trash compactor and sloped to drain to a sanitary sewer line. Connection of trash area drains to the MS4 is prohibited. See CASQA SD-32 BMP Fact Sheets in Appendix 10 for additional information.	Inspect monthly. Check weekly and have trash containers emptied when full and hauled away on a regular basis. Maintain trash receptacles and enclosures in good working order. Post "No Hazardous Materials" signs. Inspect and pick up litter and debris on a daily basis. See CASQA SD-32 BMP Fact Sheets in Appendix 10 for additional information. Clean up spills immediately. See CASQA SC-10 BMP Fact Sheets and Emergency Response/Contingency Plan in Appendix 10 for additional information.
Rooftop Equipment Roofing, gutters, and trim.	Rooftop equipment with potential to produce pollutants will be roofed and/or have secondary containment. Roofing, gutters, and trim will not be made of copper or other unprotected metals that may leach into runoff.	

Man-made & irrigated slopes and landscaped areas	Protect slopes and channels (S5) Hillside Landscaping (S12)	Irrigation System and Landscape Management (N3)
	Irrigation systems and landscape design should follow as a guide the specifications and recommendations of the Water Conservation Act of 2006, AB1881 (Laird) and conform to the standards and requirements of the County' landscape requirements. Irrigation systems shall employ control systems and be designed to conserve water. The landscape design shall incorporate native and drought tolerant vegetation with low irrigation requirements. See CASQA SD-10 and SD-12 BMP Fact Sheets in and other landscape literature in WQMP for additional information.	Performed during design phase.
	Irrigation and landscape maintenance should be performed on a regular basis throughout the year. See CASQA SC-41 or SD-10 and SD-12BMP Fact Sheets in WQMP for additional information.	Inspect landscape areas twice annually (before and after the rainy season) and the irrigation system quarterly for proper functioning. Maintenance should be performed every 2 weeks or as needed. Landscape maintenance should include mowing, weeding, trimming, removal of trash & debris, repair of erosion, re-vegetation, and removal of cut & dead vegetation. Irrigation maintenance should include the repair of leaky or broken sprinkler heads, the maintaining of timing apparatus accuracy, and the maintaining of shut off valves in
		Common Area Litter Control (N4)
Park Site and Detention Basin	Efficient Irrigation (S4)	Street Sweeping (N5)

		Drainage Facility Inspection and Maintenance (N6)
On-site storm drain catch basins with insert. Locations are shown on WQMP BMPs Site Map	On-site storm drain signage will utilize language, "No Dumping Drains to River", or equally approved text that is consistent with the County' requirements. Landscape area drains surrounded by vegetation will not be signed. The signs will be located at storm drain inlets in impervious areas and will be either stenciled or placarded.	Inspect the signage once per year. Repair or replace when the signage becomes unreadable. The original owner or developer will be responsible for the first stenciling of the storm drain system. Thereafter when the property is sold, the new owner will assume the responsibility for inspection, maintenance, and funding. See CASQA SD-13 BMP Fact Sheet in WQMP for additional information
	On-site drainage facility inspection and maintenance. On-site drainage structures, including all storm drain clean outs, area drains, inlets, catch basins, inlet & outlet structures, forebays, & water treatment control basins shall be inspected and maintained on a regular basis to insure their operational adequacy. See CASQA SC-44 BMP Fact Sheet in WQMP for additional information.	Inspect at a minimum, once before the onset of the rainy season (Oct 1 to May 1), once during the rainy season, and once after the rainy season. Maintenance should include removal of trash, debris, & sediment and the repair of any deficiencies or damage that may impact water quality. The property owner will assume the responsibility for all on-site drainage facility inspection, maintenance, and funding.

Section I: Coordinate Submittal with Other Site Plans

For Final WQMPs, populate Table I-1 below to assist the plan checker in an expeditious review of your project. During construction and at completion, County of Riverside inspectors will verify the installation of BMPs against the approved plans. 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 I-1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)
BMP – A	Extended / Detention Basin A	In Final design
BMP – B	Extended Detention Basin B	In Final design
BMP – B2	TBD - NAP	

(Park)		
BMP – C	Extended / Detention Basin C	In Final design
BMP – C1 (Comm.)	TBD - NAP	

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. The Copermittee with jurisdiction over the Project site can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Use Table I-2 to identify other applicable permits that may impact design of the site. If yes is answered to any of the items below, the Copermittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Table I-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 Section 401 Water Quality Certification	☐ Y	☒ N
US Army Corps of Engineers, Clean Water Act 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

Section J: Operation, Maintenance and Funding

Applicant is required to state the intended responsible party for BMP Operation, Maintenance and Funding at the Preliminary WQMP phase. The remaining requirements as outlined above are required for Final WQMP only.

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

1. A means to finance and implement maintenance of BMPs 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 Operations and Maintenance or inspections but will require typical landscape maintenance as noted in Chapter 5, in the SMR WQMP. Include a brief description of typical landscape maintenance for these areas.

The Copermittee with jurisdiction over the Project site will also require that you prepare and submit a detailed BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the 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 BMP Operation and Maintenance Plan are in Chapter 5 of the SMR WQMP.

Maintenance Mechanism: HOA and POA will have ongoing maintenance responsibilities. Site design and treatment BMPs have been designed to keep maintenance efforts in line with Keller Crossing Development project maintenance activities.

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, **<u>see Appendix 9 for additional instructions</u>**. 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.

Section K: Acronyms, Abbreviations and Definitions

Regional MS4 Permit	Order No. R9-2013-0001 as amended by Order No. R9-2015-0001 and Order No. R9-2015-0100 an NPDES Permit issued by the San Diego Regional Water Quality Control Board.
Applicant	Public or private entity seeking the discretionary approval of new or replaced improvements from the Copermittee with jurisdiction over the project site. The Applicant has overall responsibility for the implementation and the approval of a Priority Development Project. The WQMP uses consistently the term "user" to refer to the applicant such as developer or project proponent. The WQMP employs also the designation "user" to identify the Registered Professional Civil Engineer responsible for submitting the Project-Specific WQMP, and designing the required BMPs.
Best Management Practice (BMP)	Defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits.
BMP Fact Sheets	BMP Fact Sheets are available in the LID BMP Design Handbook. Individual BMP Fact Sheets include sitting considerations, and design and sizing guidelines for seven types of structural BMPs (infiltration basin, infiltration trench, permeable pavement, harvest-and-use, bioretention, extended detention basin, and sand filter).
California Stormwater Quality Association (CASQA)	Publisher of the California Stormwater Best Management Practices Handbooks, available at www.cabmphandbooks.com.
Conventional Treatment Control BMP	A type of BMP that provides treatment of stormwater runoff. Conventional treatment control BMPs, while designed to treat particular Pollutants, typically do not provide the same level of volume reduction as LID BMPs, and commonly require more specialized maintenance than LID BMPs. As such, the Regional MS4 Permit and this WQMP require the use of LID BMPs wherever feasible, before Conventional Treatment BMPs can be considered or implemented.
Copermittees	The Regional MS4 Permit identifies the Cities of Murrieta, Temecula, and Wildomar, the County, and the District, as Copermittees for the SMR.
County	The abbreviation refers to the County of Riverside in this document.

CEQA	California Environmental Quality Act - a statute that requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts, if feasible.
CIMIS	California Irrigation Management Information System - an integrated network of 118 automated active weather stations all over California managed by the California Department of Water Resources.
CWA	Clean Water Act - is the primary federal law governing water pollution. Passed in 1972, the CWA established the goals of eliminating releases of high amounts of toxic substances into water, eliminating additional water pollution by 1985, and ensuring that surface waters would meet standards necessary for human sports and recreation by 1983. CWA Section 402(p) is the federal statute requiring NPDES permits for discharges from MS4s.
CWA Section 303(d) Waterbody	Impaired water in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA. The discharge of urban runoff to these water bodies by the Copermittees is significant because these discharges can cause or contribute to violations of applicable water quality standards.
Design Storm	The Regional MS4 Permit has established the 85th percentile, 24-hour storm event as the "Design Storm". The applicant may refer to Exhibit A to identify the applicable Design Storm Depth (D85) to the project.
DCV	Design Capture Volume (DCV) is the volume of runoff produced from the Design Storm to be mitigated through LID Retention BMPs, Other LID BMPs and Volume Based Conventional Treatment BMPs, as appropriate.
Design Flow Rate	The design flow rate represents the minimum flow rate capacity that flow-based conventional treatment control BMPs should treat to the MEP, when considered.
DCIA	Directly Connected Impervious Areas - those impervious areas that are hydraulically connected to the MS4 (i.e. street curbs, catch basins, storm drains, etc.) and thence to the structural BMP without flowing over pervious areas.
Discretionary Approval	A decision in which a Copermittee uses its judgment in deciding whether and how to carry out or approve a project.
District	Riverside County Flood Control and Water Conservation District.
DMA	A Drainage Management Area - a delineated portion of a project site that is hydraulically connected to a common structural BMP or conveyance point. The Applicant may refer to Section 3.3 for further guidelines on how to delineate DMAs.

Drawdown Time	Refers to the amount of time the design volume takes to pass through the BMP. The specified or incorporated drawdown times are to ensure that adequate contact or detention time has occurred for treatment, while not creating vector or other nuisance issues. It is important to abide by the drawdown time requirements stated in the fact sheet for each specific BMP.
Effective Area	Area which 1) is suitable for a BMP (for example, if infiltration is potentially feasible for the site based on infeasibility criteria, infiltration must be allowed over this area) and 2) receives runoff from impervious areas.
ESA	An Environmental Sensitive Area (ESA) designates an area "in which plants or animals life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which would be easily disturbed or degraded by human activities and developments". (Reference: California Public Resources Code § 30107.5).
ET	Evapotranspiration (ET) is the loss of water to the atmosphere by the combined processes of evaporation (from soil and plant surfaces) and transpiration (from plant tissues). It is also an indicator of how much water crops, lawn, garden, and trees need for healthy growth and productivity
FAR	The Floor Area Ratio (FAR) is the total square feet of a building divided by the total square feet of the lot the building is located on.
Flow-Based BMP	Flow-based BMPs are conventional treatment control BMPs that are sized to treat the design flow rate.
FPPP	Facility Pollution Prevention Plan
HCOC	Hydrologic Condition of Concern - Exists when the alteration of a site's hydrologic regime caused by development would cause significant impacts on downstream channels and aquatic habitats, alone or in conjunction with impacts of other projects.
HMP	Hydromodification Management Plan – Plan defining Performance Standards for PDPs to manage increases in runoff discharge rates and durations.
Hydrologic Control BMP	BMP to mitigate the increases in runoff discharge rates and durations and meet the Performance Standards set forth in the HMP.
HSG	Hydrologic Soil Groups – soil classification to indicate the minimum rate of infiltration obtained for bare soil after prolonged wetting. The HSGs are A (very low runoff potential/high infiltration rate), B, C, and D (high runoff potential/very low infiltration rate)
Hydromodification	The Regional MS4 Permit identifies that increased volume, velocity, frequency and discharge duration of storm water runoff from developed areas has the potential to greatly accelerate downstream erosion, impair stream habitat in natural drainages, and negatively impact beneficial uses.

JRMP	A separate Jurisdictional Runoff Management Plan (JRMP) has been developed by each Copermittee and identifies the local programs and activities that the Copermittee is implementing to meet the Regional MS4 Permit requirements.
LID	Low Impact Development (LID) is a site design strategy with a goal of maintaining or replicating the pre-development hydrologic regime through the use of design techniques. LID site design BMPs help preserve and restore the natural hydrologic cycle of the site, allowing for filtration and infiltration which can greatly reduce the volume, peak flow rate, velocity, and pollutant loads of storm water runoff.
LID BMP	A type of stormwater BMP that is based upon Low Impact Development concepts. LID BMPs not only provide highly effective treatment of stormwater runoff, but also yield potentially significant reductions in runoff volume – helping to mimic the pre-project hydrologic regime, and also require less ongoing maintenance than Treatment Control BMPs. The applicant may refer to Chapter 2.
LID BMP Design Handbook	The LID BMP Design Handbook was developed by the Copermittees to provide guidance for the planning, design and maintenance of LID BMPs which may be used to mitigate the water quality impacts of PDPs within the County.
LID Bioretention BMP	LID Bioretention BMPs are bioretention areas are vegetated (i.e., landscaped) shallow depressions that provide storage, infiltration, and evapotranspiration, and provide for pollutant removal (e.g., filtration, adsorption, nutrient uptake) by filtering stormwater through the vegetation and soils. In bioretention areas, pore spaces and organic material in the soils help to retain water in the form of soil moisture and to promote the adsorption of pollutants (e.g., dissolved metals and petroleum hydrocarbons) into the soil matrix. Plants use soil moisture and promote the drying of the soil through transpiration. The Regional MS4 Permit defines “retain” as to keep or hold in a particular place, condition, or position without discharge to surface waters.
LID Biofiltration BMP	BMPs that reduce stormwater pollutant discharges by intercepting rainfall on vegetative canopy, and through incidental infiltration and/or evapotranspiration, and filtration, and other biological and chemical processes. As stormwater passes down through the planting soil, pollutants are filtered, adsorbed, biodegraded, and sequestered by the soil and plants, and collected through an underdrain.
LID Harvest and Reuse BMP	BMPs used to facilitate capturing Stormwater Runoff for later use without negatively impacting downstream water rights or other Beneficial Uses.

LID Infiltration BMP	BMPs to reduce stormwater runoff by capturing and infiltrating the runoff into in-situ soils or amended onsite soils. Typical LID Infiltration BMPs include infiltration basins, infiltration trenches and pervious pavements.
LID Retention BMP	BMPs to ensure full onsite retention without runoff of the DCV such as infiltration basins, bioretention, chambers, trenches, permeable pavement and pavers, harvest and reuse.
LID Principles	Site design concepts that prevent or minimize the causes (or drivers) of post-construction impacts, and help mimic the pre-development hydrologic regime.
MEP	Maximum Extent Practicable - standard established by the 1987 amendments to the CWA for the reduction of Pollutant discharges from MS4s. Refer to Attachment C of the Regional MS4 Permit for a complete definition of MEP.
MF	Multi-family – zoning classification for parcels having 2 or more living residential units.
MS4	Municipal Separate Storm Sewer System (MS4) is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.26.
New Development Project	Defined by the Regional MS4 Permit as 'Priority Development Projects' if the project, or a component of the project meets the categories and thresholds described in Section 1.1.1.
NPDES	National Pollution Discharge Elimination System - Federal program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the CWA.
NRCS	Natural Resources Conservation Service
PDP	Priority Development Project - Includes New Development and Redevelopment project categories listed in Provision E.3.b of the Regional MS4 Permit.

Priority Pollutants of Concern	Pollutants expected to be present on the project site and for which a downstream water body is also listed as Impaired under the CWA Section 303(d) list or by a TMDL.
Project-Specific WQMP	A plan specifying and documenting permanent LID Principles and Stormwater BMPs to control post-construction Pollutants and stormwater runoff for the life of the PDP, and the plans for operation and maintenance of those BMPs for the life of the project.
Receiving Waters	Waters of the United States.
Redevelopment Project	The creation, addition, and or replacement of impervious surface on an already developed site. Examples include the expansion of a building footprint, road widening, the addition to or replacement of a structure, and creation or addition of impervious surfaces. Replacement of impervious surfaces includes any activity that is not part of a routine maintenance activity where impervious material(s) are removed, exposing underlying soil during construction. Redevelopment does not include trenching and resurfacing associated with utility work; resurfacing existing roadways; new sidewalk construction, pedestrian ramps, or bike lane on existing roads; and routine replacement of damaged pavement, such as pothole repair. Project that meets the criteria described in Section 1.
Runoff Fund	Runoff Funds have not been established by the Copermittees and are not available to the Applicant. If established, a Runoff Fund will develop regional mitigation projects where PDPs will be able to buy mitigation credits if it is determined that implementing onsite controls is infeasible.
San Diego Regional Board	San Diego Regional Water Quality Control Board - The term "Regional Board", as defined in Water Code section 13050(b), is intended to refer to the California Regional Water Quality Control Board for the San Diego Region as specified in Water Code Section 13200. State agency responsible for managing and regulating water quality in the SMR.
SCCWRP	Southern California Coastal Water Research Project
Site Design BMP	Site design BMPs prevent or minimize the causes (or drivers) of post-construction impacts, and help mimic the pre-development hydrologic regime.
SF	Parcels with a zoning classification for a single residential unit.
SMC	Southern California Stormwater Monitoring Coalition
SMR	The Santa Margarita Region (SMR) represents the portion of the Santa Margarita Watershed that is included within the County of Riverside.

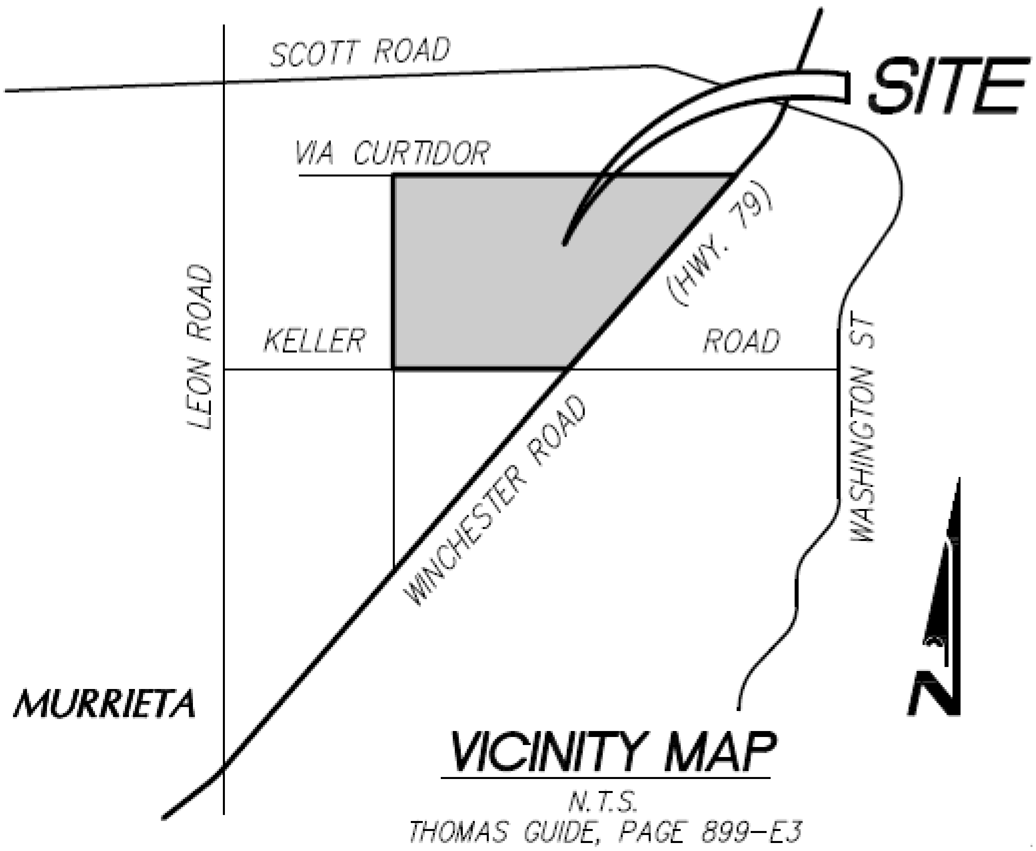
Source Control BMP	Source Control BMPs land use or site planning practices, or structural or nonstructural measures that aim to prevent runoff pollution by reducing the potential for contamination at the source of pollution. Source control BMPs minimize the contact between Pollutants and runoff.
Structural BMP	Structures designed to remove pollutants from stormwater runoff and mitigate hydromodification impacts.
SWPPP	Storm Water Pollution Prevention Plan
Tentative Tract Map	Tentative Tract Maps are required for all subdivision creating five (5) or more parcels, five (5) or more condominiums as defined in Section 783 of the California Civil Code, a community apartment project containing five (5) or more parcels, or for the conversion of a dwelling to a stock cooperative containing five (5) or more dwelling units.
TMDL	Total Maximum Daily Load - the maximum amount of a Pollutant that can be discharged into a waterbody from all sources (point and non-point) and still maintain Water Quality Standards. Under CWA Section 303(d), TMDLs must be developed for all waterbodies that do not meet Water Quality Standards after application of technology-based controls.
USEPA	United States Environmental Protection Agency
Volume-Based BMP	Volume-Based BMPs applies to BMPs where the primary mode of pollutant removal depends upon the volumetric capacity such as detention, retention, and infiltration systems.
WQMP	Water Quality Management Plan
Wet Season	The Regional MS4 Permit defines the wet season from October 1 through April 30.

Appendix 1: Maps and Site Plans

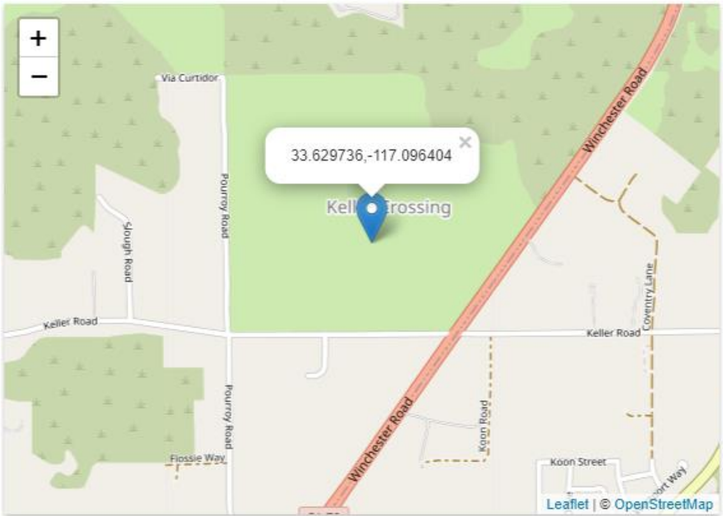
Location Map, WQMP Site Plan and Receiving Waters Map

Complete the checklist below to verify all exhibits and components are included in the Project-Specific WQMP. Refer Section 4 of the SMR WQMP and Section D of this Template.

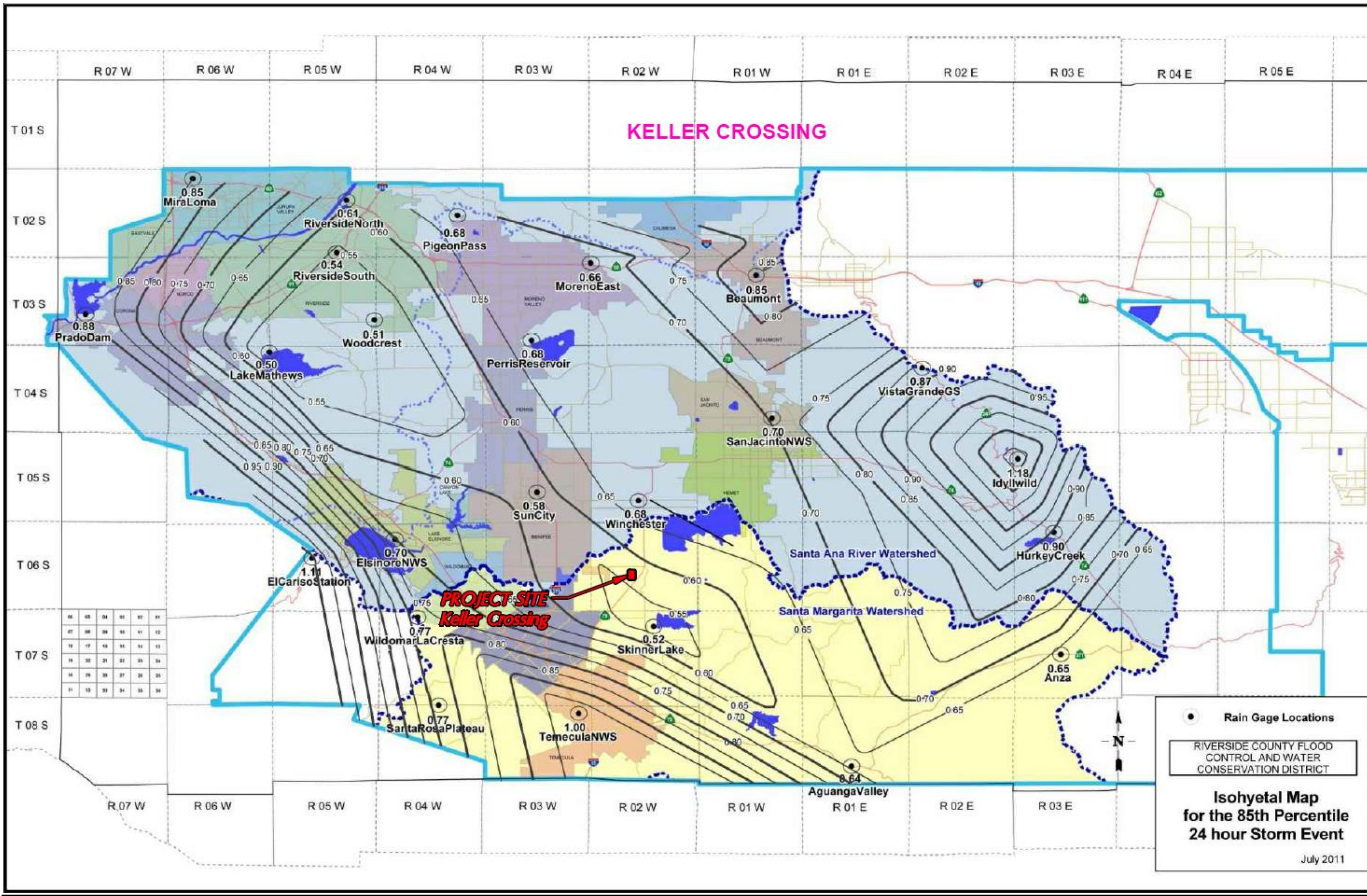
Map and Site Plan Checklist
Indicate all Maps and Site Plans are included in your Project-Specific WQMP by checking the boxes below.
☒ Vicinity and Location Map
☒ Existing Site Map (unless exiting conditions are included in WQMP Site Plan)
☒ WQMP Site Plan
☒ Parcel Boundary and Project Footprint
☒ Existing and Proposed Topography & Drainage Management Areas (DMAs)
☒ Proposed Structural Best Management Practices (BMPs), with cross sections
☒ Drainage Paths
☒ Drainage infrastructure, inlets, overflows
☒ Source Control & Site Design BMPs (notes can be used for BMPs that can't be depicted)
☐ Buildings, Roof Lines, Downspouts
☐ Impervious Surfaces
☐ Pervious Surfaces (i.e. Landscaping)
☒ Standardized Labeling
☒ Use Riverside County Flood Control CB-110 for outlet structure with block outs for a trash screen out the outside, and an orifice/weir plate(s) on the inside of the structure or other design that is as easy to maintain. The screen should be as large as possible to minimize clogging.
☐ If BMPs are in the road R/W (only with CFD/CSA maintenance or LID Principals) add "BMP" paddle markers at the start and end of each BMPs and LID principals
☐ When underdrain are proposed, gravel shall be clean washed gravel, AASHTO #57 stone preferred. Underdrains shall be Schedule 40 PVC, with a minimum slope of 0.005, with cleanouts equal in diameter of the subdrain that extends 6 inches above the media with a lockable screw cap, spaced every 50 feet, at the collector drain line connection, and at any bends.
☐ When BSM is proposed, BSM shall consist of 60-80% clean sand, up to 20% clean topsoil, and 20% of a nutrient-stabilized organic amendment. BSM shall be placed on top of 3-inches of Choker Sand placed on top of 3-inches of ASTM No. 8 stone (1/4 to 1/2-inch pea gravel), and placed on top of 12 to 24-inches of a clean, open-graded drain rock layer.
☐ For Tracts, the Regional Board requires fully functioning WQMP BMPs for opening model home complexes, sales offices, or use of roads (i.e. prior to occupancy or intended use of any portion of the project). The County encourages phasing post-construction BMPs, small structural BMPs (e.g. specifically for sales offices), or self-retaining areas. This phasing can be shown on the WQMP site map and sequencing shall be included on the Grading plans, so that a fully functioning WQMP BMP is addressing any portion of the project that has been granted occupancy or granted the intended use.



Aerial Map – Current Condition



Lat Long	GPS Coordinates
(33.629736, -117.096404)	33° 37' 47.0496" N 117° 5' 47.0544" W


KELLER CROSSING
PROJECT SITE
Keller Crossing
Santa Ana River Watershed
Santa Margarita Watershed
Rain Gage Locations
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
Isohyetal Map
for the 85th Percentile
24 hour Storm Event
July 2011

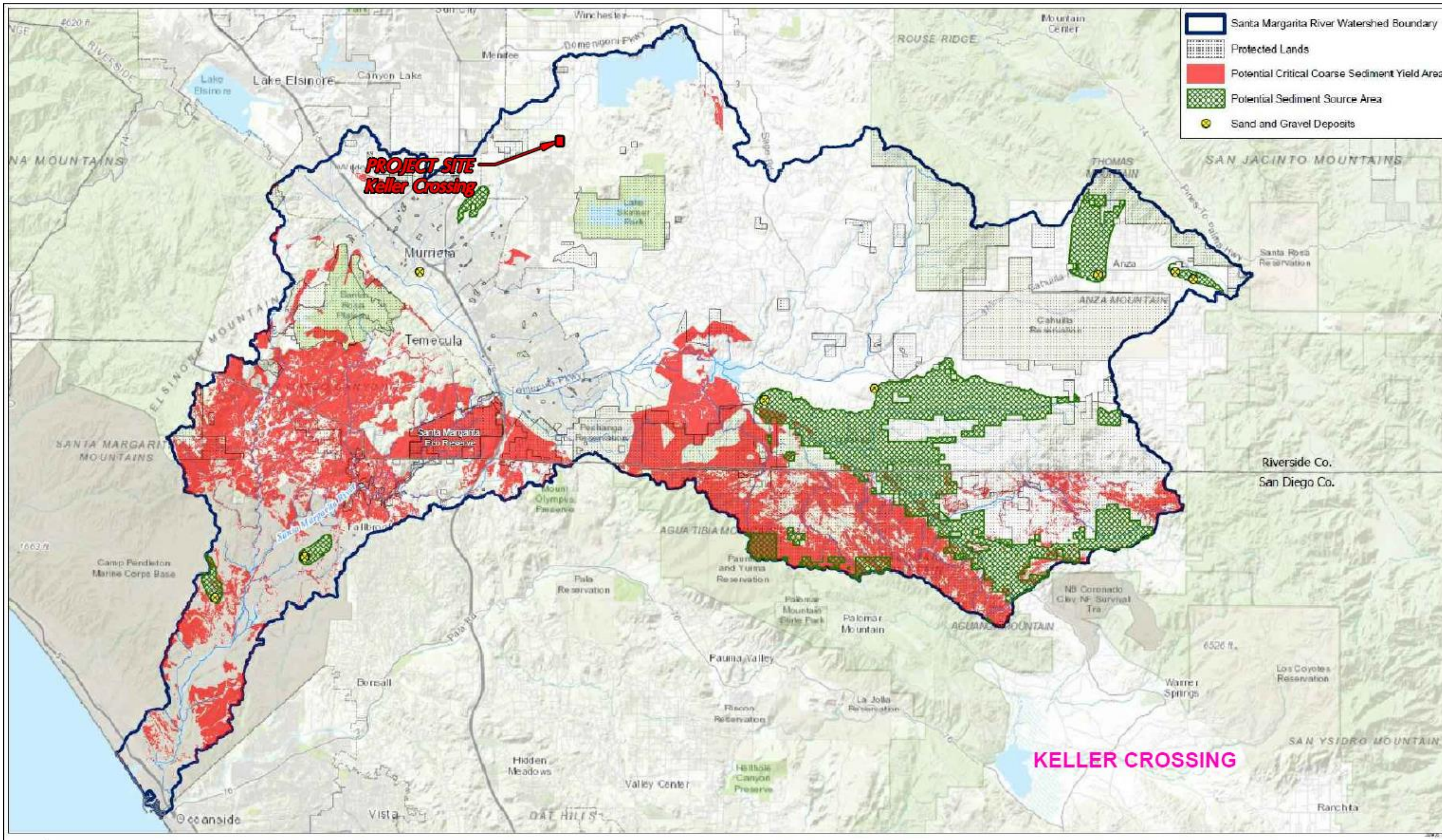
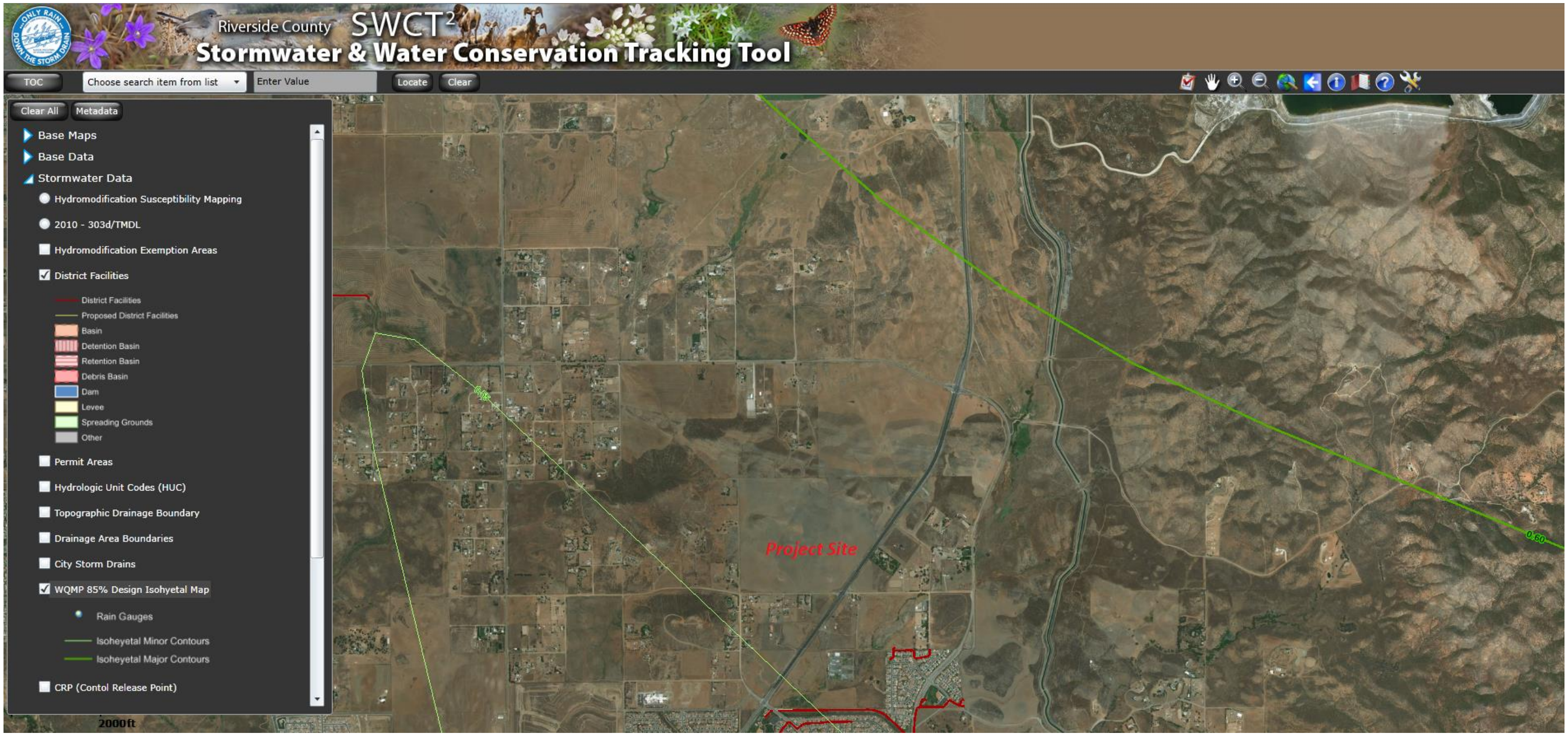
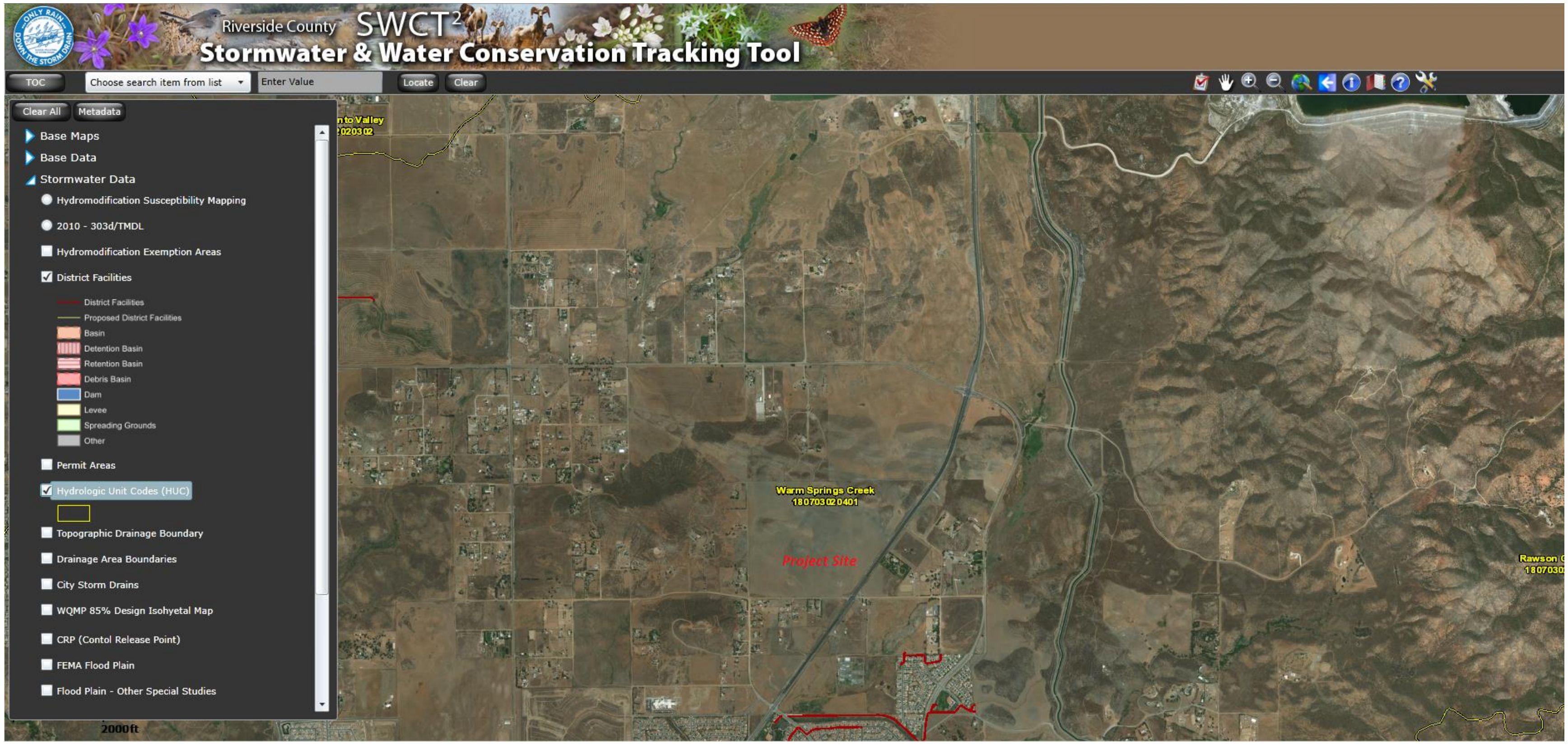


Exhibit G-1

SANTA MARGARITA RIVER WATERSHED
POTENTIAL CRITICAL COARSE SEDIMENT YIELD AREAS AND POTENTIAL SEDIMENT SOURCE AREAS


Riverside County SWCT²
Stormwater & Water Conservation Tracking Tool
TOC
Choose search item from list
Enter Value
Locate
Clear
Clear All
Metadata
Base Maps
Base Data
Stormwater Data
Hydromodification Susceptibility Mapping
2010 - 303d/TMDL
Hydromodification Exemption Areas
District Facilities
District Facilities
Proposed District Facilities
Basin
Detention Basin
Retention Basin
Debris Basin
Dam
Levee
Spreading Grounds
Other
Permit Areas
Hydrologic Unit Codes (HUC)
Topographic Drainage Boundary
Drainage Area Boundaries
City Storm Drains
WQMP 85% Design Isohyetal Map
Rain Gauges
Isoheyetal Minor Contours
Isoheyetal Major Contours
CRP (Contol Release Point)
2000ft
Project Site
0.60


Riverside County SWCT²
Stormwater & Water Conservation Tracking Tool
TOC
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Enter Value
Locate
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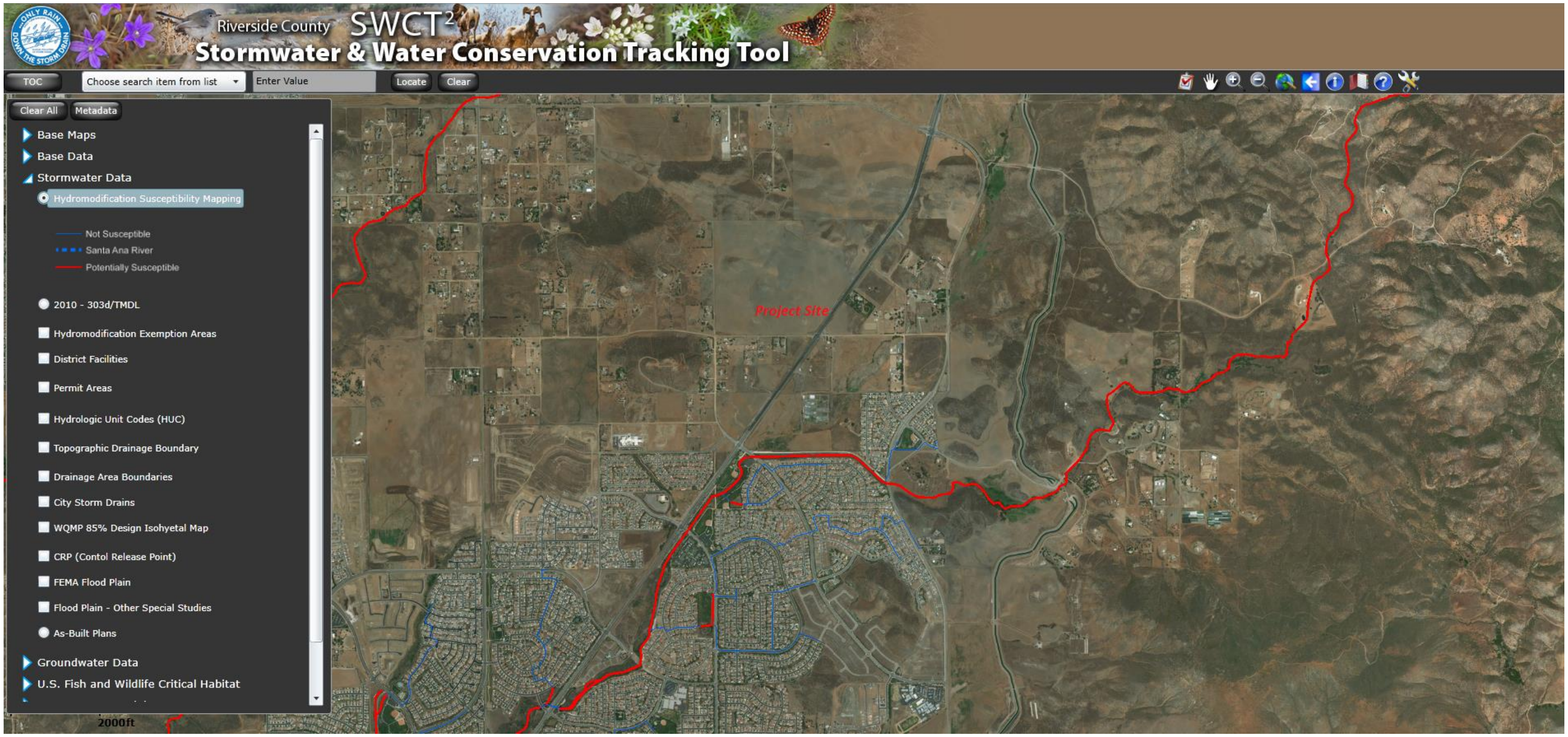
Metadata
Base Maps
Base Data
Stormwater Data
Hydromodification Susceptibility Mapping
2010 - 303d/TMDL
Hydromodification Exemption Areas
District Facilities
District Facilities
Proposed District Facilities
Basin
Detention Basin
Retention Basin
Debris Basin
Dam
Levee
Spreading Grounds
Other
Permit Areas
Hydrologic Unit Codes (HUC)
Topographic Drainage Boundary
Drainage Area Boundaries
City Storm Drains
WQMP 85% Design Isohyetal Map
CRP (Contol Release Point)
FEMA Flood Plain
Flood Plain - Other Special Studies
2000ft
Warm Springs Creek
180703020401
Project Site


Riverside County SWCT²
Stormwater & Water Conservation Tracking Tool
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Enter Value
Locate
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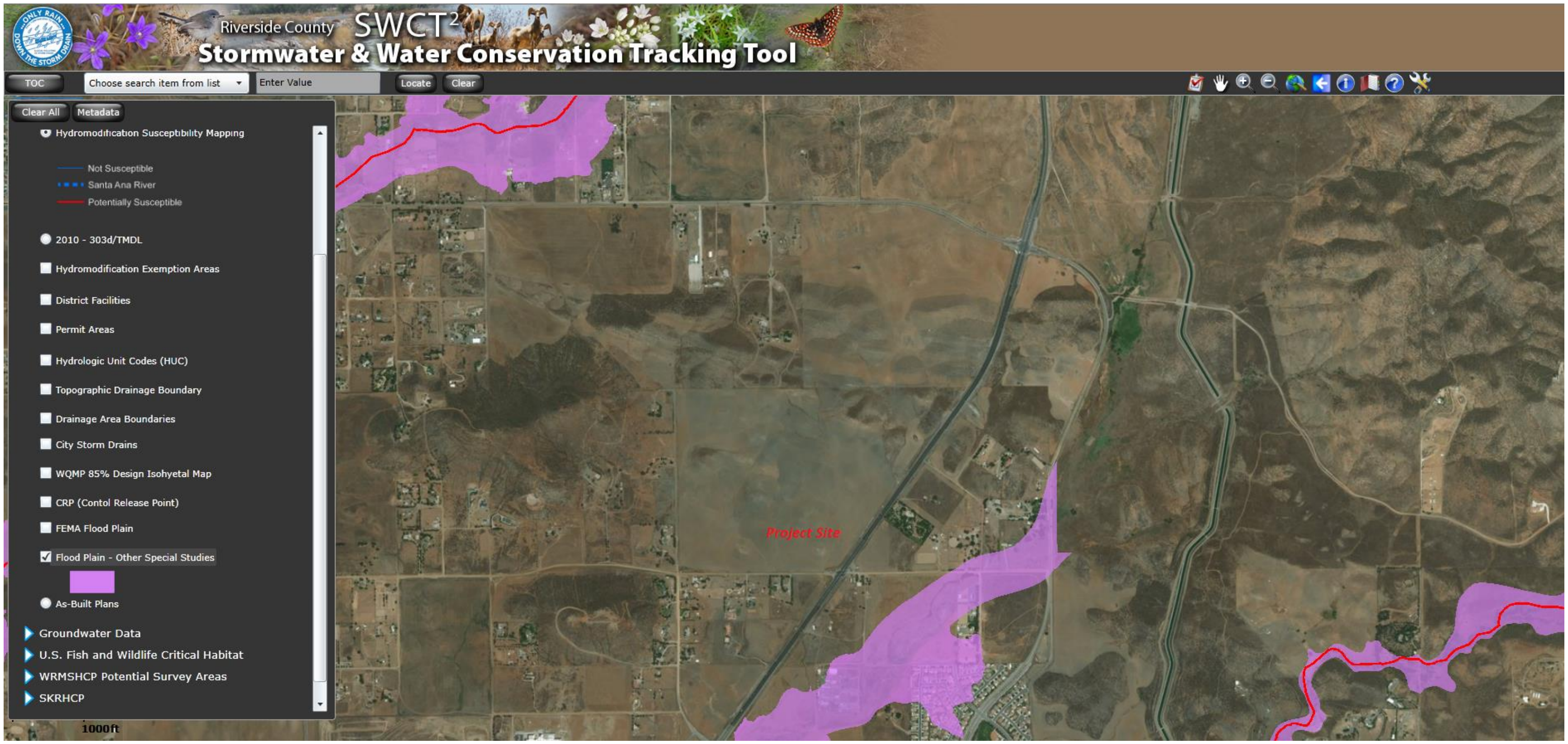
Clear All
Metadata
Base Maps
Base Data
Stormwater Data
Hydromodification Susceptibility Mapping
Not Susceptible
Santa Ana River
Potentially Susceptible
2010 - 303d/TMDL
Hydromodification Exemption Areas
District Facilities
Permit Areas
Hydrologic Unit Codes (HUC)
Topographic Drainage Boundary
Drainage Area Boundaries
City Storm Drains
WQMP 85% Design Isohyetal Map
CRP (Contol Release Point)
FEMA Flood Plain
Flood Plain - Other Special Studies
As-Built Plans
Groundwater Data
U.S. Fish and Wildlife Critical Habitat
Project Site
2000ft


Riverside County SWCT²
Stormwater & Water Conservation Tracking Tool
TOC
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Enter Value
Locate
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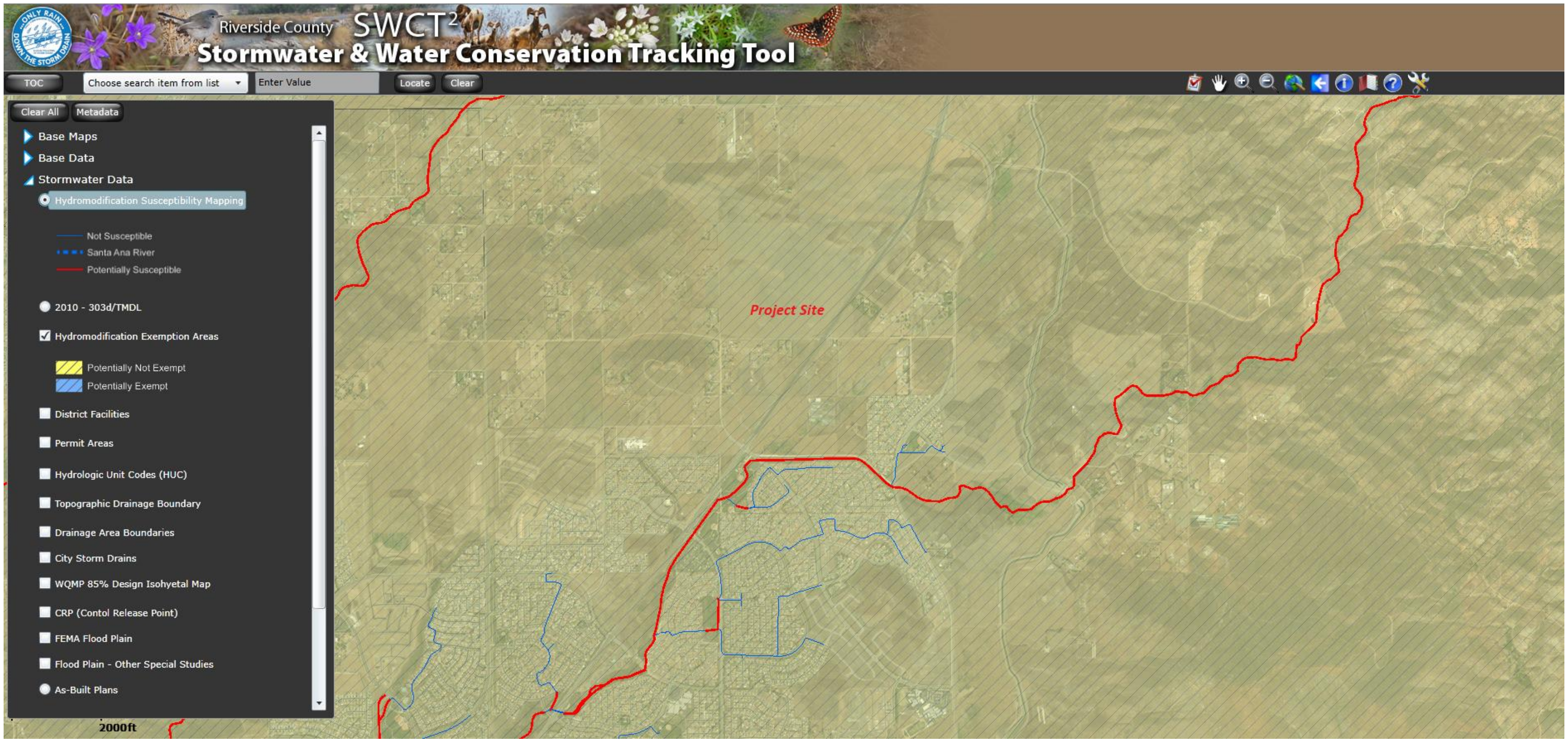
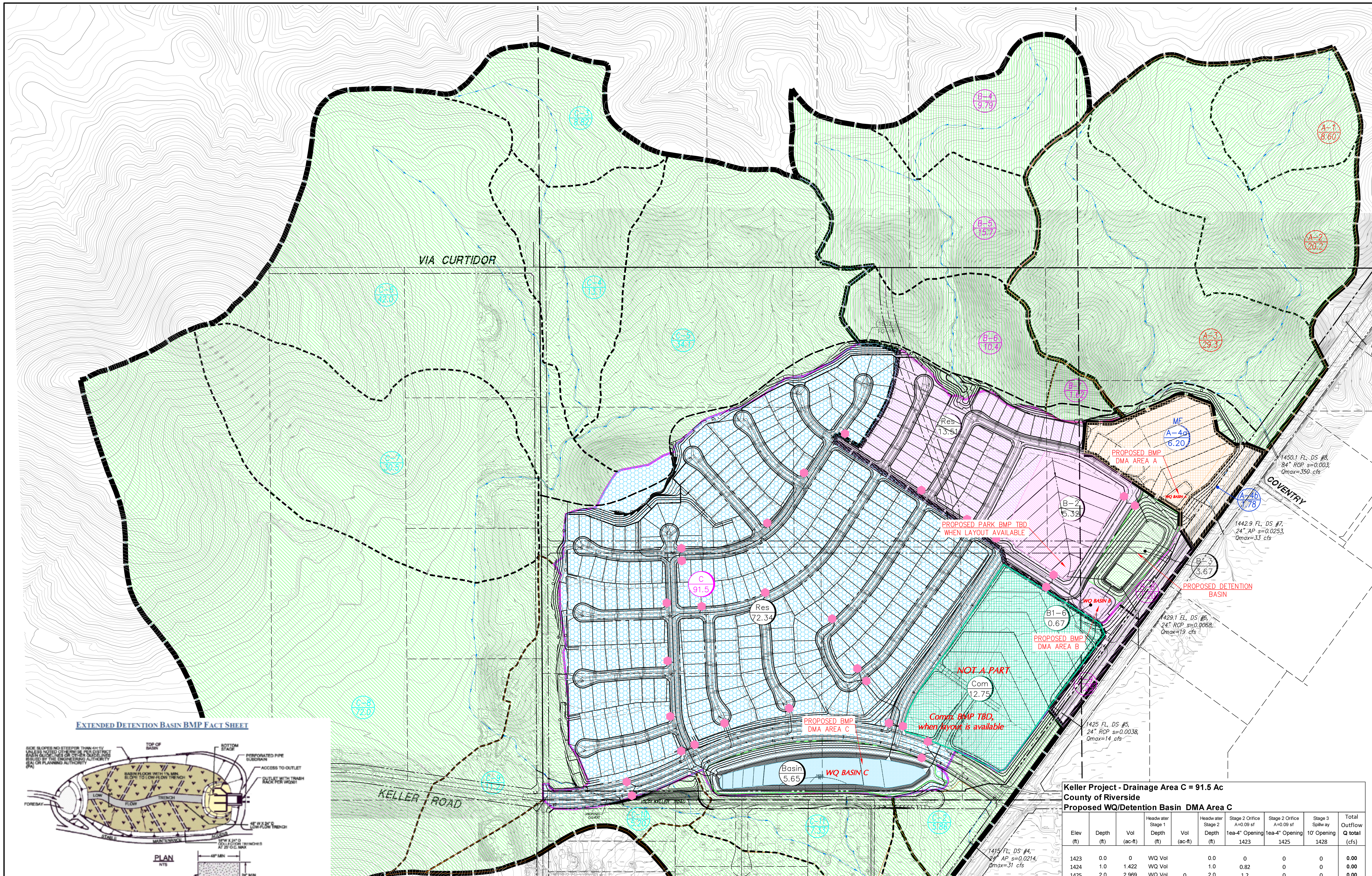
Metadata
Hydromodification Susceptibility Mapping
Not Susceptible
Santa Ana River
Potentially Susceptible
2010 - 303d/TMDL
Hydromodification Exemption Areas
District Facilities
Permit Areas
Hydrologic Unit Codes (HUC)
Topographic Drainage Boundary
Drainage Area Boundaries
City Storm Drains
WQMP 85% Design Isohyetal Map
CRP (Contol Release Point)
FEMA Flood Plain
Flood Plain - Other Special Studies
As-Built Plans
Groundwater Data
U.S. Fish and Wildlife Critical Habitat
WRMSHCP Potential Survey Areas
SKRHCP
1000ft
Project Site


Riverside County SWCT2
Stormwater & Water Conservation Tracking Tool
TOC
Choose search item from list
Enter Value
Locate
Clear
Clear All
Metadata
Base Maps
Base Data
Stormwater Data
Hydromodification Susceptibility Mapping
Not Susceptible
Santa Ana River
Potentially Susceptible
2010 - 303d/TMDL
Hydromodification Exemption Areas
Potentially Not Exempt
Potentially Exempt
District Facilities
Permit Areas
Hydrologic Unit Codes (HUC)
Topographic Drainage Boundary
Drainage Area Boundaries
City Storm Drains
WQMP 85% Design Isohyetal Map
CRP (Contol Release Point)
FEMA Flood Plain
Flood Plain - Other Special Studies
As-Built Plans
2000ft
Project Site



BMPs LEGEND:

DMA Area A-4a	BMP-A, BIOFILTRATION/DETENTION BASIN A
DMA Area B1	BMP-B, BIOFILTRATION BASIN B
DMA B2-Park Area	BMP TO BE DETERMINED
DMA Area C1	BMP-C, BIOFILTRATION/DETENTION BASIN
	PEAKFLOW DETENTION BASIN C
DMA Area C (Commercial)	BMP TO BE DETERMINED

OTHER PROJECT BMPs LIST:

CATCH BASIN – MS4 STENCILING AND SIGNAGE

LANDSCAPE AND IRRIGATION SYSTEM
OPEN SPACE, REFUSE AREAS
ROOFED TRASH ENCLOSURE
STREET TREES AND PARKWAY

LID PRACTICES TO BE IMPLEMENTED FOR THIS PROJECT:

- CONSERVATION DESIGN
- RUNOFF CONVEYANCE
- ROOF DOWNSPOUT DISCONNECTION
- EFFICIENT / LOW IMPACT LANDSCAPING
- NON STORMWATER DISCHARGES

EXTENDED DETENTION BASIN BMP FACT SHEET

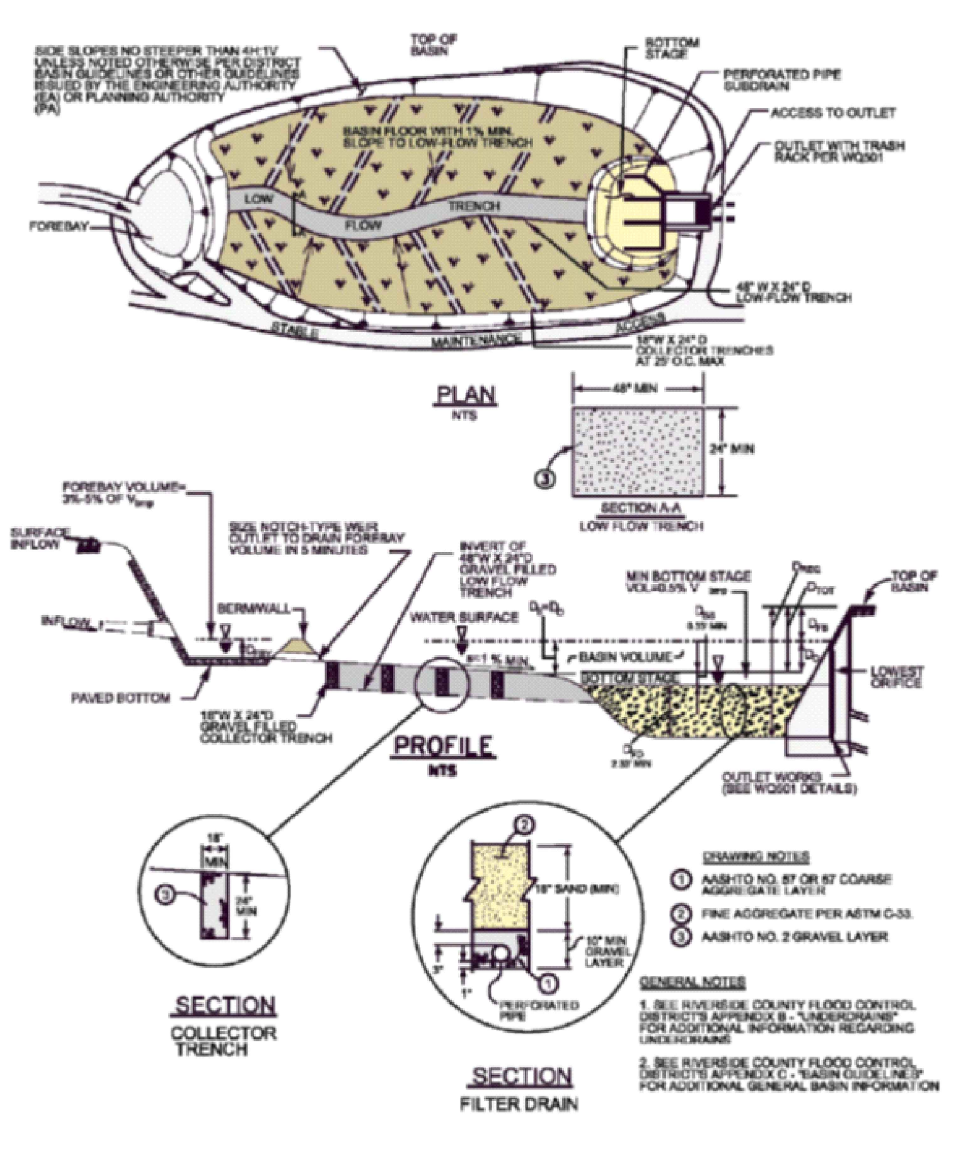


Figure 1 – Extended Detention Basin

Basin Outlet Design

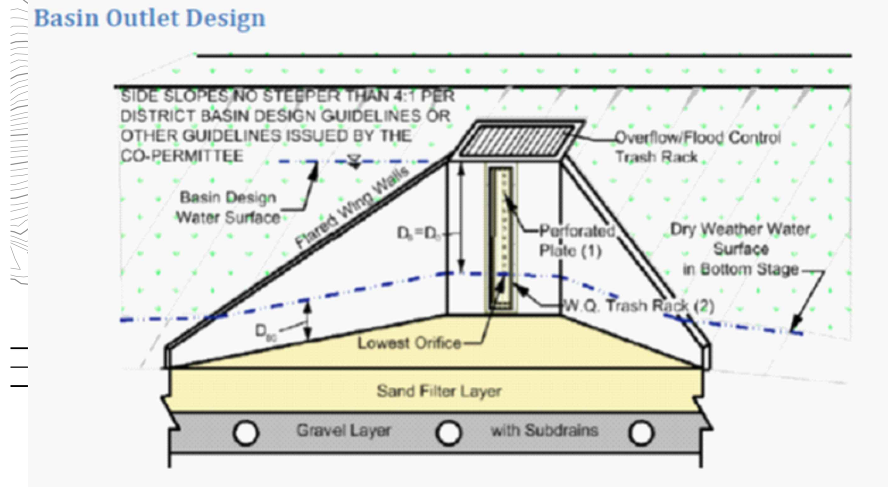


Figure 4: Basin Outlet Structure with Bottom Stage Shown

Keller Project - Drainage Area C = 91.5 Ac
County of Riverside
Proposed WQ/Detention Basin DMA Area C

Elev (ft)	Depth (ft)	Vol (ac-ft)	Headwater Stage 1 Depth (ft)	Vol (ac-ft)	Headwater Stage 2 Depth (ft)	Stage 2 Orifice A=0.09 sf 1ea-4" Opening 1423	Stage 2 Orifice A=0.09 sf 1ea-4" Opening 1425	Stage 3 Spillway 10' Opening 1428	Total Outflow **Q total** (cfs)
1423	0.0	0	WQ Vol		0.0	0	0	0	**0.00**
1424	1.0	1.422	WQ Vol		1.0	0.82	0	0	**0.00**
1425	2.0	2.969	WQ Vol	0	2.0	1.2	0	0	**0.00**
1426	3.0	4.662	1.0	1.693	3.0	1.5	0.41	0	**1.91**
1427	4.0	6.774	2.0	3.806	4.0	1.74	0.6	0	**2.34**
1428	5.0	9.503	3.0	6.534	5.0	1.96	0.75	0	**2.71**
1429	6.0	12.709	4.0	9.741	6.0	2.16	0.87	0	**3.03**
1430	7.0	16.244	5.0	13.275	7.0	2.34	0.98	30	**33.32**
1431	8.0	19.234	6.0	16.265	8.0	2.5	1.08	84.85	**88.43**

WQ Volume Total = 61,640 cuft = 1.42 Acft
WQ Volume provided = 2.969 Acft at Basin Elevation 1425. Above 1425 ==> Detention Basin

DMA Identification

DMA Name or Identification	Surface Type(s)[1]	Area (Sq. Ft.)	DMA Type
Drainage Area A			
Areas A-1 thru A-3 (57.6 Ac)	Natural (offsite)	2,509,056 sf	N/A
DMA Area A - subarea A-4a, Multi Family (6.20 Ac)	Mix surface	270,072 sf	Type "D"
Area A-4b (1.78 Ac)	Street (offsite)	77,536 sf	N/A
Drainage Area B			
DMA Area B – subareas B1-1 thru B1-5, Residential (13.51 Ac)	Mix surface	588,495 sf	Type "D"
DMA B1-6 (0.67 Ac)	WQ Basin	29,185 sf	Type "D"
DMA B2, Park (5.32 Ac)	Mix surface & Ornamental Landscape	231,739 sf	TBD
DMA B3, Detention Basin (3.67 Ac)	Ornamental Landscape	159,865 sf	Type "A"
Areas B-4 thru B-7 (38.2 Ac)	Natural (offsite)	1,663,992 sf	N/A
Areas B-8 & B-9 (2.45 Ac)	Street (offsite)	106,722 sf	N/A
Drainage Area C			
DMA Area C – subarea C1, Residential (72.34 Ac)	Mix surface	3,151,130 sf	Type "D"
DMA C1, Commercial (12.75 Ac)	Mix surface	555,390 sf	TBD
DMA Area C, WQ/Detention Basin (5.65Ac)	Ornamental Landscape	246,114 sf	Type "D"
Areas C-2 thru C-12 (253.37 Ac)	Natural (offsite)	11,036,797 sf	N/A

Hydrologic Control BMP Sizing

BMP Name / ID	DMA No.	BMP Type / Description	SMRHM * Passed	BMP Volume (ac-ft)	BMP Footprint (ac)	Drawdown time (hr)
BMP – A	**Area A** - subarea A4a	Extended / Detention Basin	☒	DCV = 0.176 Basin = 0.38	0.25	Less than 72 hours
BMP – B	**Area B** - subareas B1-1 thru B1-5	Extended Detention Basin	☒	DCV=0.26 Basin = 0.52	0.29	Less than 72 hours
BMP – C	**Area C** - subarea C1	Extended Detention Basin	☒	DCV = 1.86 Basin = 10.8	4.06	Less than 72 hours

Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID Receiving Runoff from DMA
DMA Area A (subarea A-4a - Residential, Multi Family)	BMP A – WQ Biofiltration/Detention **Basin A**
DMA Area B (subareas B1-1 thru B1-5 - Residential)	BMP B – WQ Biofiltration **Basin B**
DMA Area C (subarea C1- (Residential, and Basin)	BMP C – WQ Biofiltration/Detention **Basin C**
DMA B2 (Park)	To Be Determined - NAP
DMA C1 (Commercial)	To Be Determined - NAP

Evaluation of Biofiltration BMP Feasibility

DMA ID	Is Partial/ Incidental Infiltration Allowable? (Y/N)	Basis for Infeasibility of Partial Infiltration (provide summary and include supporting basis if partial infiltration not feasible)
BMP – Area A	Y	Biofiltration Basin – average infiltration rate = 0.06 in/hr
BMP – Area B	Y	Biofiltration Basin – average infiltration rate = 0.09 in/hr
BMP – Area C	Y	Biofiltration Basin – average infiltration rate = 0.06 in/hr

PWQMP SITE PLAN

KELLER CROSSING TTM 38163

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

Drawing: R:\450907\Final\Design\Working\JY\April 2022\907-WQMP PLAN-Apr 2022.dwg Layout: 30x42 -x Hyd 200SC Saved: 4/4/2022 8:08 AM Plotted: 4/4/2022 9:32 AM By: Johannes Yostanto

Appendix 2: Construction Plans

The latest set of Grading, Drainage Plans, and Street Improvement plans ***shall be included***

Bioretention/Biofiltration BMPs construction notes (Santa Margarita Region only). For Bioretention and Biofiltration facilities, the **following construction notes shall be shown on the Grading and/or Drainage plans:**

1. *The Engineer shall furnish to the County a copy of the source testing and a signed certification that the fully blended Bioretention/Biofiltration Soil Media (BSM) material meets all of the WQMP requirements before material is imported or if the material is mixed onsite prior to installation.*
2. *As BSM material is being installed, Quality Assurance (QA) tests shall be conducted or for every 1,200 tons or 800 cubic yards mixed on-site from a completely mixed stockpile or windrow, with a minimum of three tests. For imported material from a supplier with a quality control program the QA tests shall be conducted 2,400 tons or 1,600 cubic yards from the supplier.*
3. *The Engineer conducting the Quality Control testing shall furnish to the County copy of the QA testing and a certification that the BSM for the project meets all of the following requirements. Certified mitigation plans can be used for exceedances, as long as all requirements are designed to be met.*
   a. *BSM shall not be compacted. BSM shall consist of 60-80% clean sand, up to 20% clean topsoil, and 20% of a nutrient-stabilized organic amendment. The initial infiltration rate shall be greater than 8 inches per hour per laboratory test.*
   b. *pH: 6.0 – 8.5; Salinity: 0.5 to 3.0 mmho/cm as electrical conductivity; Sodium absorption ratio: < 6.0; Chloride: < 800 ppm in saturated extract; Cation Exchange Capacity (CEC): > 10 meq/100 g; Organic Matter: 2 to 5-percent on a dry weight basis; Carbon: Nitrogen Ratio: 12 to 40, preferably 15 to 40; Gravel larger than 2mm: 0 to 25-percent of the total sample; Clay smaller than 0.005mm: 0 to 5 percent of the non-gravel fraction.*
   c. *BSM shall be tested to limit the leaching of potential inherent pollutants. BSM used in Biofiltration BMPs shall conform to the following limits for pollutant concentrations in saturated extract: Phosphorus: < 1 mg/L; Nitrate < 3 mg/L, Copper < 0.025 mg/L. These pollutant limits are for the amount that is leached from the sample, not from the soil sample itself. Testing may be performed after laboratory rinsing of media with up to 15 pore volumes of water. Equivalent test results will be accepted if certified by a laboratory or appropriate testing facility.*
   d. *Low nutrient compost used in BSM shall be sourced from a facility permitted through CalRecycle, preferably through USCC STA program. Compost shall conform to the following requirements: Physical contaminants <1% by dry weight; Carbon:Nitrogen ratio: 12:1 to 40:1; Maturity/Stability shall conform to either: Solvita Maturity Index: ≥ 5.5, CO2 Evolution: < 2.5 mg CO2-C per g compost organic matter per day, or < 5 mg CO2-C per g compost C per day; Select Pathogens and Trace metals shall pass US EPA Class A Standard. Testing shall be no more than 6 months old and representative of current stockpiles.*
   e. *Coconut coir pith used in BSM shall be thoroughly rinsed with freshwater and screened to remove coarse fibers as part of production and aged > 6 months. Peat used in BSM shall be sphagnum peat.*

Please notify the County if additional sources and laboratories can be added to this list. The Potential Sources and Laboratories are not part of the construction note - **Potential BSM sources may include**: Gail Materials (Temescal Valley), Agriservice (Oceanside), and Greatsoils (Escondido). Earthworks (Riverside); **Potential Laboratories may include**: Fruit Growers Laboratory, Inc. (Santa Paula, http://www.fglinc.com/) Wallace Laboratories (El Segundo, http://us.wlabs.com/). Control Labs (Watsonville, http://www.controllabs.com) and A&L Western Laboratories (Modesto, http://www.al-labs-west.com/).

Appendix 3: Soils Information

Geotechnical Study, Other Infiltration Testing Data, and/or Other Documentation

Examples of material to provide in Appendix 3 may include but are not limited to the following:

- Geotechnical Study/Report prepared for the project,
- Additional soils testing data (if not included in the Geotechnical Study),
- Exhibits/Maps/Other Documentation of the Hydrologic Soils Groups (HSG)s at the project site.

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 2.3 of the SMR WQMP and Sections A and D of this Template.

The County will accept explicit recommendations from the Geotechnical Engineer, such as specifying a design infiltration rate (unfactored) when infiltration rates vary, recommendations for impermeable liners due to concerns about seepage in fill areas/near gas tanks, or other site specific recommendations based on physical conditions.

GeoTek, Inc.
1548 North Maple Street, Corona, California 92878
(951) 710-1160 Office (951) 710-1167 Fax www.geotekusa.com

February 10, 2021
Project No. 2453-CR

D•R•Horton Los Angeles Holding Company, Inc.
2280 Wardlow Circle, Suite 100
Corona, California 92880

Attention: Mr. Dan Boyd

Subject: Infiltration Evaluation
Keller Crossing Project
NWC Winchester and Keller Roads
Riverside County, California

Dear Mr. Boyd:

As requested, GeoTek, Inc. (GeoTek) has completed an infiltration evaluation at the subject property. The intent of this study is to evaluate the infiltration properties of the soils underlying the proposed basin areas within the southern and southeastern portions of the site as indicated on the *Site Plan* prepared by K&A Engineering, Inc. and dated January 22, 2021. This report presents the results of the infiltration testing completed by GeoTek.

Site and Project Description

The subject 200-acre site is located northwest of the intersection of Winchester and Keller Roads in Riverside County, California. The site consists of ten parcels identified with Assessor's Parcel Numbers (APNs) 472-110-001 through -004, -007 through -009, and -032 through -034. The roughly trapezoidal-shaped property has a sloping terrain, with the highest ground elevation of about 1,583 feet toward the northeastern portion of the site to the lowest elevation of about 1,423 feet near the southeastern edge of the site. Surface drainage is generally directed toward the south-southeast.

Dry farming operations are being conducted within the low-lying portions of the site, while the remainder has a light cover of native grass and weeds.

The site is bounded by an east-west trending ridge to the north, Keller Road and single-family homes to the south, Winchester Road with vacant land and a residence to the east, and Pourroy Road and residential properties to the west.

According to the referenced Site Plan, the project consists of the grading and construction of 356 single-family residential lots, commercial pads, 2 infiltration basins/areas, underground utilities, and street improvements on the subject site. Approximately 60-acres of land located at the northern edge of the property are planned to remain undeveloped. The locations of the planned infiltration areas are shown on the enclosed Figure 1, Infiltration Test and Boring Location Map.

Percolation Testing

GeoTek utilized the percolation test procedure (Riverside County, 2011) in order to estimate the infiltration rate of the subsurface materials.

The percolation test borings (Borings I-1 through I-6) were excavated with a hollow-stem auger drill rig within the future basin areas as shown on the referenced Site Plan (K&A Engineering, Inc., 2021). All test borings were drilled to depths of approximately five feet. The borings were approximately eight inches in diameter. A three-inch diameter perforated PVC pipe encapsulated in filter sock was inserted into each of the test holes. The annular space between the test hole sidewalls and PVC pipe was filled with gravel.

Native alluvial materials typically consisting of silty sand were encountered in our test holes. In addition to our test borings, Borings B-1 and B-2 were drilled to 15 feet below grade within the subject areas to confirm the absence of impermeable materials or groundwater. Boring B-1 drilled within the southern basin area encountered alluvial materials of silty sand, while Boring B-2 excavated within the southeastern area encountered weathered/soft bedrock at five feet below existing grade. No groundwater was encountered in any of the borings. The logs of the borings are presented in Appendix A. The locations of the test borings and deep borings are shown on Figure 1.

Subsequent to pre-soaking the test holes, percolation testing was performed in the lower 36 inches of each test hole by a representative from our firm. The percolation rates were converted to infiltration rates via the Porchet Method. The infiltration rates, which do not include a factor of safety and were determined after the water levels had stabilized, are presented in the following table.

SUMMARY OF FIELD INFILTRATION RATES			
Area	Test	Depth (Feet)	Infiltration Rate (Inches per hour)
South Basin	I-1	5.0	0.08
	I-2	5.0	0.05
	I-3	5.0	0.05
Southeast Basin	I-4	5.0	0.05
	I-5	5.0	0.08
	I-6	5.0	0.16

Over the lifetime of storm water disposal areas, the infiltration rates may be affected by silt build up and biological activities, as well as local variations in near surface soil conditions. A suitable factor of safety should be applied to the field rates to design the infiltration systems.

LIMITATIONS

The materials observed on the project site appear to be representative of the area; however, soil materials vary in character between excavations and natural outcrops or conditions exposed during site construction. Site conditions may vary due to seasonal changes or other factors. GeoTek, Inc. assumes no responsibility or liability for work, testing or recommendations performed or provided by others.

Our conclusions and recommendations are professional opinions that are limited to the extent of the available data. Observations during construction are important to allow for any change in recommendations found to be warranted. These opinions have been derived in accordance with current standards of practice and no warranty is expressed or implied. Standards of practice are subject to change with time.

The opportunity to be of service is sincerely appreciated. If you should have any questions, please do not hesitate to call our office.

Respectfully submitted,
GeoTek, Inc.

REGISTERED GEOLOGIST
EDWARD H. LaMONT
No. 1892
Exp.
Certified Engineering Geologist
STATE OF CALIFORNIA

Edward H. LaMont
CEG 1892, Exp. 07/31/22
Principal Geologist

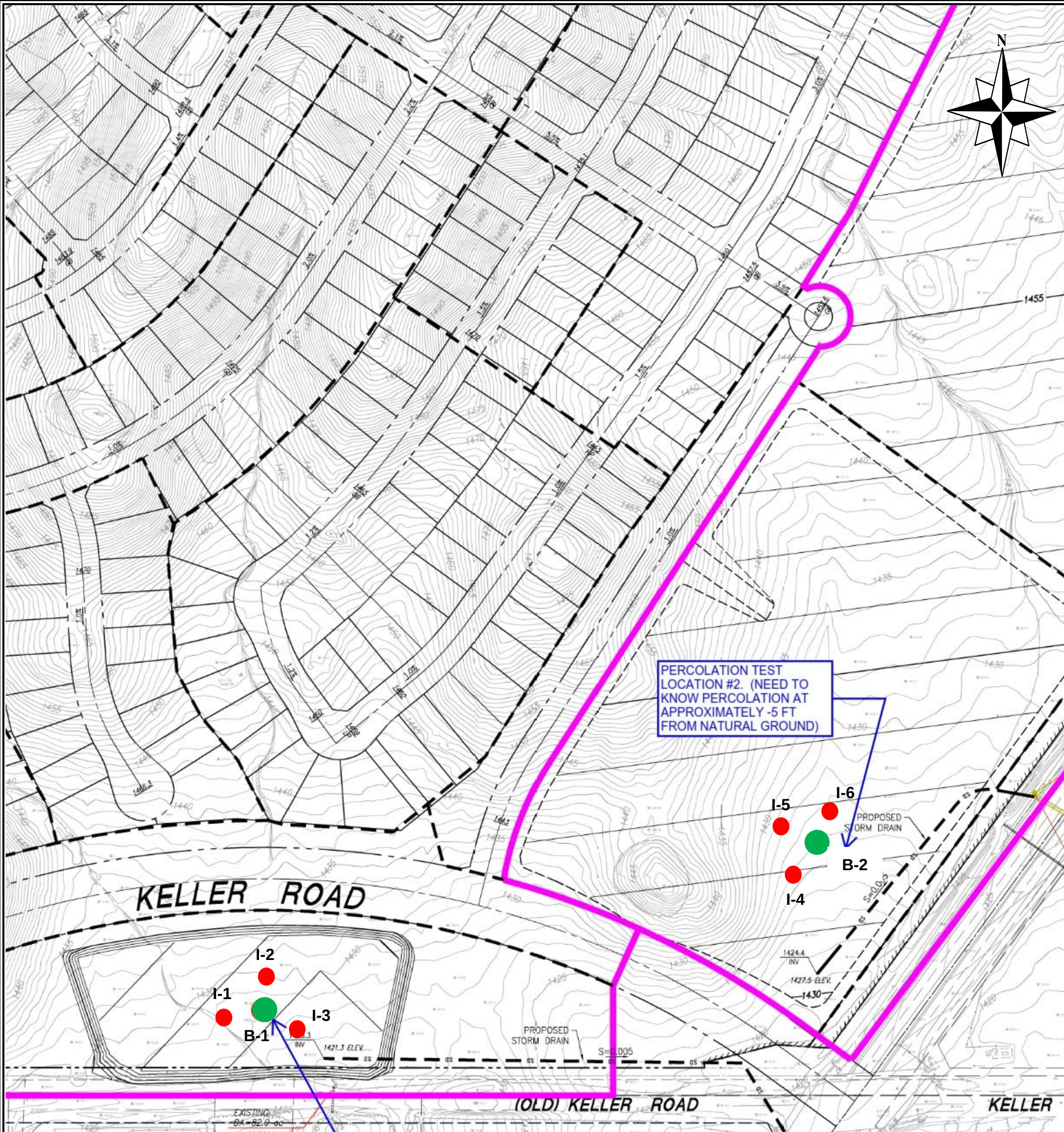
LICENSED PROFESSIONAL ENGINEER
GABY M. BOGDANOFF
NO. 3133
GEOTECHNICAL
STATE OF CALIFORNIA

Gaby M. Bogdanoff
GE 3133, Exp. 06/30/22
Project Engineer

Enclosures: Plate 1 – Infiltration Test and Boring Location Map
Appendix A – Logs of Borings
Appendix B – Infiltration/Percolation Test Data

Distribution: (1) Addressee via email (PDF file)

G:\Projects\2451 to 2500\2453CR DR Horton Keller Crossing Winchester\Infiltration Evaluation\2453-CR Infiltration Evaluation.docx



Legend
(Locations are Approximate)

I-6 Infiltration Test Boring

B-2 Deep Boring

Scale: As Shown

0 — 120 ft

D.R. Horton Los Angeles Holding Company, Inc.

Keller Crossing Project
Riverside County, California
GeoTek Project No. 2453-CR

Figure 1

Infiltration Test and Boring Location Map

GEOTEK

APPENDIX A

LOGS OF BORINGS

Infiltration Evaluation

Keller Crossing Project, Riverside County, California

Project No. 2453-CR

GEOTEK

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Boring No.: B-1

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
				SM	Silty m/c sand, light gray to brown, moist, slightly dense, few gravel-sized particles.			
5	SPT	19 50/6			becomes very dense			
10	SPT	50/2			Same, no recovery			
15	SPT	50/3			Same, no recovery			
					Boring terminated @ 16.5 ft.			
					No groundwater Spoils backfilled			
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:
AL = Atterberg Limits | EI = Expansion Index | SA = Sieve Analysis | RV = R-Value Test
SR = Sulfate/Resisitivity Test | SH = Shear Test | HC= Consolidation | MD = Maximum Density

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Boring No.: B-2

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
0				SM	**Alluvium:** Silty m/c sand, light gray to brown, moist, slightly dense, many gravel sized particles.			
5	SPT	50/4			**Phyllite Bedrock:** Excavates as silty m/c sand with gravel, light gray- brown, slight moisture, very hard,			
10	SPT	44 50/2			Same as above			
15	SPT	17 27 41			Excavates as clayey silt, light olive green, moist, dense			
					Boring terminated @ 16.5 ft. No groundwater Spoils backfilled			
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:
AL = Atterberg Limits
EI = Expansion Index
SA = Sieve Analysis
RV = R-Value Test
SR = Sulfate/Resisitivity Test
SH = Shear Test
HC= Consolidation
MD = Maximum Density

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Boring No.: I-1

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
				SM	Silty f-m sand, light brown to gray, slightly moist to moist, medium dense			
5					**Boring terminated @ 5 ft**			
					No groundwater			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:
AL = Atterberg Limits | EI = Expansion Index | SA = Sieve Analysis | RV = R-Value Test
SR = Sulfate/Resisitivity Test | SH = Shear Test | HC= Consolidation | MD = Maximum Density

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Boring No.: I-2

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
					Alluvium:			
				SM	Silty f-m sand, light brown to gray, slightly moist to moist, medium dense			
5					**Boring terminated @ 5 ft**			
					No groundwater			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:
AL = Atterberg Limits | EI = Expansion Index | SA = Sieve Analysis | RV = R-Value Test
SR = Sulfate/Resisitivity Test | SH = Shear Test | HC= Consolidation | MD = Maximum Density

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Boring No.: I-3

Depth (ft)	SAMPLES: Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
				SM	**Alluvium:** Silty f-m sand, light brown to gray, slightly moist to moist, medium dense, some gravel sized particles			
5					**Boring terminated @ 5 ft** No groundwater			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:

AL = Atterberg Limits	EI = Expansion Index	SA = Sieve Analysis	RV = R-Value Test
SR = Sulfate/Resisitivity Test	SH = Shear Test	HC= Consolidation	MD = Maximum Density

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Boring No.: I-4

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
				SM	**Alluvium:** Silty f-m sand, light brown to gray, slightly moist to moist, medium dense, some gravel sized particles			
5					**Boring terminated @ 5 ft** No groundwater			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:
AL = Atterberg Limits
EI = Expansion Index
SA = Sieve Analysis
RV = R-Value Test
SR = Sulfate/Resisitivity Test
SH = Shear Test
HC= Consolidation
MD = Maximum Density

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Boring No.: I-5

Depth (ft)	SAMPLES: Sample Type	Blows/ 6 in	Sample Number	USCS Symbol	MATERIAL DESCRIPTION AND COMMENTS	Laboratory Testing: Water Content (%)	Dry Density (pcf)	Others
				SM	**Alluvium:** Silty f-m sand, light brown to gray, slightly moist to moist, medium dense, some gravel sized particles			
5					**Boring terminated @ 5 ft** No groundwater			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing: AL = Atterberg Limits; EI = Expansion Index; SA = Sieve Analysis; RV = R-Value Test; SR = Sulfate/Resisitivity Test; SH = Shear Test; HC= Consolidation; MD = Maximum Density

GeoTek, Inc.
LOG OF EXPLORATORY BORING

CLIENT:	DR Horton	**DRILLER:**	2R Drilling	**LOGGED BY:**	G. Pocius
PROJECT NAME:	Keller Crossing, Winchester	**DRILL METHOD:**	Hollow Stem	**OPERATOR:**	Juan/Reece
PROJECT NO.:	2453-CR	**HAMMER:**	140#/30"	**RIG TYPE:**	CME 75
LOCATION:	See Figure 1			**DATE:**	2/1/2021

Depth (ft)	SAMPLES: Sample Type	SAMPLES: Blows/ 6 in	SAMPLES: Sample Number	USCS Symbol	**Boring No.: I-6** — **MATERIAL DESCRIPTION AND COMMENTS**	Laboratory Testing: Water Content (%)	Laboratory Testing: Dry Density (pcf)	Laboratory Testing: Others
				SM	**Alluvium:** Silty f-m sand, light brown to gray, slightly moist to moist, medium dense, some gravel sized particles			
5					**Boring terminated @ 5 ft** No groundwater			
10								
15								
20								
25								
30								

LEGEND

Sample type: ---Ring ---SPT ---Small Bulk ---Large Bulk ---No Recovery ---Water Table

Lab testing:
AL = Atterberg Limits
EI = Expansion Index
SA = Sieve Analysis
RV = R-Value Test
SR = Sulfate/Resisitivity Test
SH = Shear Test
HC= Consolidation
MD = Maximum Density

APPENDIX B

INFILTRATION/PERCOLATION TEST DATA

Infiltration Evaluation

Keller Crossing Project, Riverside County, California

Project No. 2453-CR

Client:	**DR Horton**
Project:	**Keller Crossing, Winchester**
Project No:	**2453-CR**
Date:	**2/2/2021**

Boring No. **I-1**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	24.75
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	24
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	36
$H_F = D_T - D_F$ =	35.25
$\Delta H = \Delta D = H_O - H_F$ =	0.75
Havg = $(H_O+H_F)/2$ =	35.625

I_t = 0.08 **Inches per Hour**

GEOTEK

Client:	**DR Horton**
Project:	**Keller Crossing, Winchester**
Project No:	**2453-CR**
Date:	**2/2/2021**

Boring No. **I-2**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	24.5
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	24
Total Test Hole Depth, D_T =	60

Equation - $$I_t = \frac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$$

$H_O = D_T - D_O$ =	36
$H_F = D_T - D_F$ =	35.5
$\Delta H = \Delta D = H_O - H_F$ =	0.5
Havg = $(H_O+H_F)/2$ =	35.75

I_t = 0.05 **Inches per Hour**

GEOTEK

Client:	**DR Horton**
Project:	**Keller Crossing, Winchester**
Project No:	**2453-CR**
Date:	**2/2/2021**

Boring No. **I-3**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	24.5
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	24
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	36
$H_F = D_T - D_F$ =	35.5
$\Delta H = \Delta D = H_O - H_F$ =	0.5
$Havg = (H_O+H_F)/2$ =	35.75

I_t = 0.05 **Inches per Hour**

GEOTEK

Client:	**DR Horton**
Project:	**Keller Crossing, Winchester**
Project No:	**2453-CR**
Date:	**2/2/2021**

Boring No. **I-4**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	24.5
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	24
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	36
$H_F = D_T - D_F$ =	35.5
$\Delta H = \Delta D = H_O - H_F$ =	0.5
$H_{avg} = (H_O+H_F)/2$ =	35.75

I_t = 0.05 **Inches per Hour**

GEOTEK

Client:	**DR Horton**
Project:	**Keller Crossing, Winchester**
Project No:	**2453-CR**
Date:	**2/2/2021**

Boring No. **I-5**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	24.75
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	24
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\ (60r)}{\Delta t\ (r+2H_{avg})}$

$H_O = D_T - D_O$ =	36
$H_F = D_T - D_F$ =	35.25
$\Delta H = \Delta D = H_O - H_F$ =	0.75
$Havg = (H_O+H_F)/2$ =	35.625

I_t = 0.08 **Inches per Hour**

GEOTEK

Client:	**DR Horton**
Project:	**Keller Crossing, Winchester**
Project No:	**2453-CR**
Date:	**2/2/2021**

Boring No. **I-6**

Infiltration Rate (Porchet Method)

Time Interval, Δt =	30
Final Depth to Water, D_F =	25.5
Test Hole Radius, r =	4
Initial Depth to Water, D_O =	24
Total Test Hole Depth, D_T =	60

Equation - $I_t = \dfrac{\Delta H\,(60r)}{\Delta t\,(r+2H_{avg})}$

$H_O = D_T - D_O$ =	36
$H_F = D_T - D_F$ =	34.5
$\Delta H = \Delta D = H_O - H_F$ =	1.5
Havg = $(H_O+H_F)/2$ =	35.25

I_t = 0.16 **Inches per Hour**

GEOTEK

Percolation Test Data Sheet

Project:	Keller Crossing, Winchester	Project No:	2453-CR		Date:	2/2/21	
Test Hole No:	I-1	Tested By:	G. Pocius				
Depth of Test Hole, D_T:	5	USCS Soil Classification:	SM				
Test Hole Dimensions (inches)				Length	Width		
Diameter (if round)=	8	Sides (if rectangular)=					

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	7:17	7:42	25	24	25.25	1.25	N
2	7:42	8:07	25	24	25.25	1.25	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	8:07	8:37	30	24	25.25	1.25	
2	8:37	9:07	30	24	25.25	1.25	
3	9:07	9:37	30	24	25.25	1.25	
4	9:37	10:07	30	24	25	1	
5	10:07	10:37	30	24	25	1	
6	10:37	11:07	30	24	25	1	
7	11:07	11:37	30	24	25	1	
8	11:37	12:07	30	24	25	1	
9	12:07	12:37	30	24	24.75	0.75	
10	12:37	1:07	30	24	24.75	0.75	
11	1:07	1:37	30	24	24.75	0.75	
12	1:37	2:07	30	24	24.75	0.75	
13							
14							
15							

COMMENTS:

Percolation Test Data Sheet

Project:	Keller Crossing, Winchester		Project No:	2453-CR		Date:	2/2/21
Test Hole No:		I-2	Tested By:	G. Pocius			
Depth of Test Hole, D_T:		5	USCS Soil Classification:		SM		
Test Hole Dimensions (inches)					Length	Width	
Diameter (if round)=		8	Sides (if rectangular)=				

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	7:15	7:40	25	24	25.25	1.25	N
2	7:40	8:05	25	24	25.25	1.25	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	8:05	8:35	30	24	25	1	
2	8:35	9:05	30	24	25	1	
3	9:05	9:35	30	24	25	1	
4	9:35	10:05	30	24	25	1	
5	10:05	10:35	30	24	25	1	
6	10:35	11:05	30	24	24.75	0.75	
7	11:05	11:35	30	24	24.75	0.75	
8	11:35	12:05	30	24	24.75	0.75	
9	12:05	12:35	30	24	24.75	0.75	
10	12:35	1:05	30	24	24.5	0.5	
11	1:05	1:35	30	24	24.5	0.5	
12	1:35	2:05	30	24	24.5	0.5	
13							
14							
15							

COMMENTS:

Percolation Test Data Sheet

Project:	Keller Crossing, Winchester		Project No:	2453-CR		Date:	2/2/21
Test Hole No:		I-3	Tested By:	G. Pocius			
Depth of Test Hole, D_T:		5	USCS Soil Classification:		SM		
Test Hole Dimensions (inches)					Length	Width	
Diameter (if round)=		8	Sides (if rectangular)=				

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	7:19	7:49	25	24	25.25	1.25	N
2	7:49	8:09	25	24	25.25	1.25	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	8:09	8:39	30	24	25	1	
2	8:39	9:09	30	24	25	1	
3	9:09	9:39	30	24	25	1	
4	9:39	10:09	30	24	25	1	
5	10:09	10:39	30	24	25	1	
6	10:39	11:09	30	24	24.75	0.75	
7	11:09	11:39	30	24	24.75	0.75	
8	11:39	12:09	30	24	24.75	0.75	
9	12:09	12:39	30	24	24.75	0.75	
10	12:39	1:09	30	24	24.5	0.5	
11	1:09	1:39	30	24	24.5	0.5	
12	1:39	2:09	30	24	24.5	0.5	
13							
14							
15							

COMMENTS:

Percolation Test Data Sheet

Project:	Keller Crossing, Winchester	Project No:	2453-CR	Date:	2/2/21
Test Hole No:	I-4	Tested By:	G. Pocius		
Depth of Test Hole, D_T:	5	USCS Soil Classification:	SM		

Test Hole Dimensions (inches)		Length	Width	
Diameter (if round)=	8	Sides (if rectangular)=		

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	7:07	7:32	25	24	25.25	1.25	N
2	7:32	7:57	25	24	25.25	1.25	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	7:57	8:27	30	24	25	1	
2	8:27	8:57	30	24	25	1	
3	8:57	9:27	30	24	25	1	
4	9:27	9:57	30	24	25	1	
5	9:57	10:27	30	24	24.75	0.75	
6	10:27	10:57	30	24	24.75	0.75	
7	10:57	11:27	30	24	24.75	0.75	
8	11:27	11:57	30	24	24.75	0.75	
9	11:57	12:27	30	24	24.5	0.5	
10	12:27	12:57	30	24	24.5	0.5	
11	12:57	1:27	30	24	24.5	0.5	
12	1:27	1:57	30	24	24.5	0.5	
13							
14							
15							

COMMENTS:

Percolation Test Data Sheet

Project:	Keller Crossing, Winchester	Project No:	2453-CR		Date:	2/2/21
Test Hole No:	I-5	Tested By:	G. Pocius			
Depth of Test Hole, D_T:	5	USCS Soil Classification:	SM			
Test Hole Dimensions (inches)			Length	Width		
Diameter (if round)=	8	Sides (if rectangular)=				

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	7:09	7:34	25	24	25.5	1.5	N
2	7:34	7:59	25	24	25.5	1.5	N

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	7:59	8:29	30	24	25.25	1.25	
2	8:29	8:59	30	24	25.25	1.25	
3	8:59	9:29	30	24	25.25	1.25	
4	9:29	9:59	30	24	25.25	1.25	
5	9:59	10:29	30	24	25	1	
6	10:29	10:59	30	24	25	1	
7	10:59	11:29	30	24	25	1	
8	11:29	11:59	30	24	25	1	
9	11:59	12:29	30	24	25	1	
10	12:29	12:59	30	24	24.75	0.75	
11	12:59	1:29	30	24	24.75	0.75	
12	1:29	1:59	30	24	24.75	0.75	
13							
14							
15							

COMMENTS:

Percolation Test Data Sheet

Project:	Keller Crossing, Winchester		Project No:	2453-CR		Date:	2/2/21
Test Hole No:		I-6	Tested By:	G. Pocius			
Depth of Test Hole, D_T:		5	USCS Soil Classification:		SM		
Test Hole Dimensions (inches)					Length	Width	
Diameter (if round)=		8	Sides (if rectangular)=				

Sandy Soil Criteria Test*

Trial No.	Start Time	Stop Time	Time Interval, (min.)	Initial Depth to Water (in.)	Final Depth to Water (in.)	Change in Water Level (in.)	Greater than or Equal to 6"? (y/n)
1	7:11	7:36	25	24	26	2	
2	7:36	8:01	25	24	26	2	

*If two consecutive measurements show that six inches of water seeps away in less than 25 minutes, the test shall be run for an additional hour with measurements taken every 10 minutes. Other wise, pre-soak (fill) overnight. Obtain at least twelve measurements per hole over at least six hours (approximately 30 minute intervals) with a precision of at least 0.25".

Trial No.	Start Time	Stop Time	Δt Time Interval (min.)	D_o Initial Depth to Water (in.)	D_f Final Depth to Water (in.)	ΔD Change in Water Level (in.)	Percolation Rate (min./in.)
1	8:01	8:31	30	24	26	2	
2	8:31	9:01	30	24	26	2	
3	9:01	9:31	30	24	26	2	
4	9:31	10:01	30	24	25.75	1.75	
5	10:01	10:31	30	24	25.75	1.75	
6	10:31	11:01	30	24	25.75	1.75	
7	11:01	11:31	30	24	25.75	1.75	
8	11:31	12:01	30	24	25.5	1.5	
9	12:01	12:31	30	24	25.5	1.5	
10	12:31	1:01	30	24	25.5	1.5	
11	1:01	1:31	30	24	25.5	1.5	
12	1:31	2:01	30	24	25.5	1.5	
13							
14							
15							

COMMENTS:

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Examples of material to provide in Appendix 4 may include but are not limited to the following:

- Environmental Site Assessments conducted for the project,
- Other information on Past Site Use that impacts the feasibility of LID BMP implementation on the site.

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 2.3 of the SMR WQMP and Sections D of this Template.

U.S. Fish and Wildlife Service
National Wetlands Inventory

KELLER CROSSING - US FISH & WILDLI

November 19, 2020

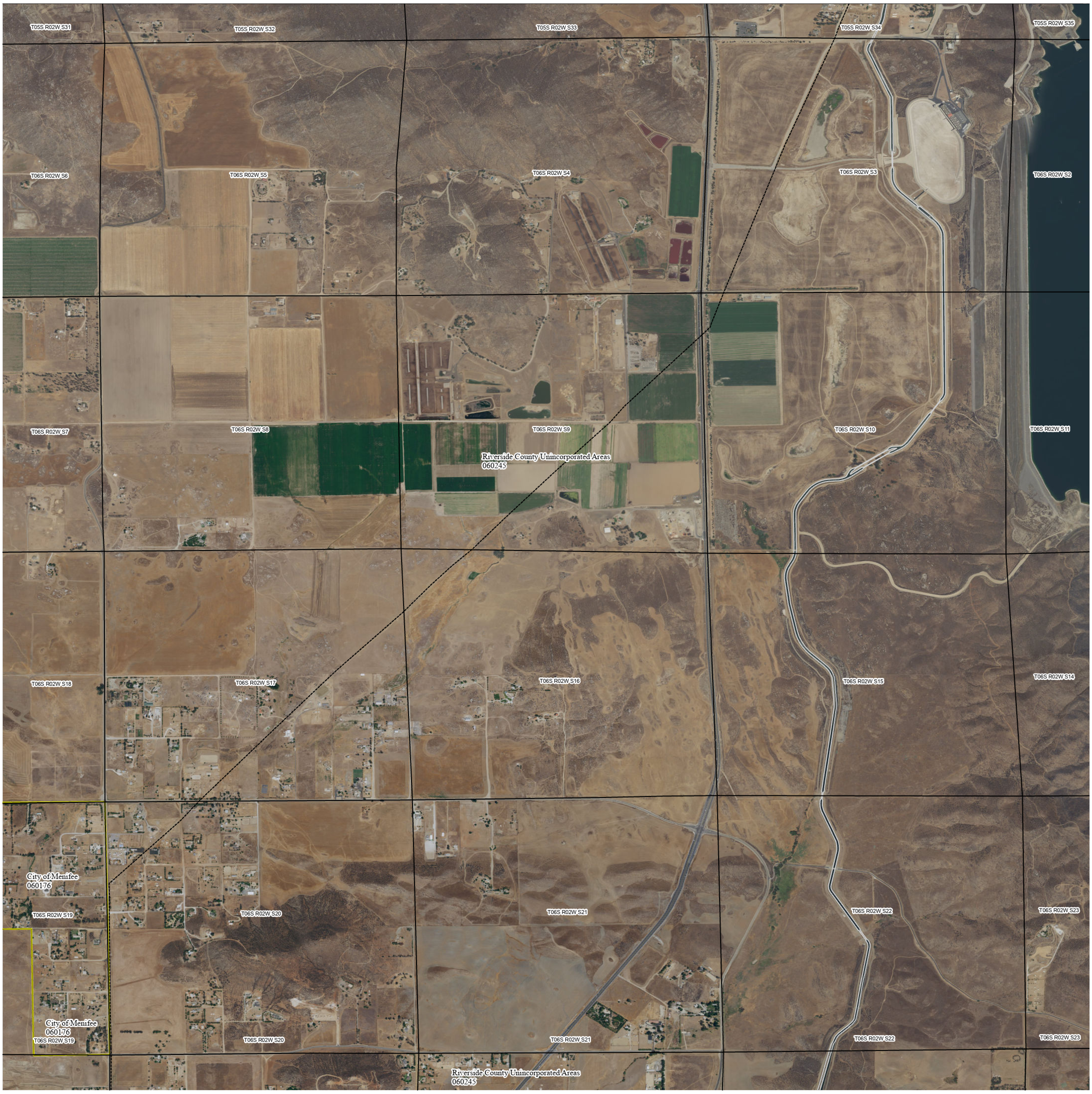
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

117°7'30.9"W 33°41'28.19"N



USGS The National Map: Orthoimagery. Data refreshed October, 2020.

117°3'44.19"W 33°37'16.84"N

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR DRAFT FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS	Without Base Flood Elevation (BFE) *Zone A, V, A99*
	With BFE or Depth *Zone AE, AO, AH, VE, AR*
	Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
	Future Conditions 1% Annual Chance Flood Hazard *Zone X*
	Area with Reduced Flood Risk due to Levee See Notes *Zone X*
	Area with Flood Risk due to Levee *Zone D*
OTHER AREAS	NO SCREEN Area of Minimal Flood Hazard *Zone X*
	Effective LOMRs
	Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
OTHER FEATURES	B 20.2 Cross Sections with 1% Annual Chance
	17.5 Water Surface Elevation
	8 Coastal Transect
	Coastal Transect Baseline
	Profile Baseline
	Hydrographic Feature
	513 Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Basemap information shown on this FIRM was provided in digital format by USDA, Farm Service Agency (FSA). This information was derived from NAIP, dated April 11, 2018.

This map was exported from FEMA's National Flood Hazard Layer (NFHL) on **11/19/2020 1:19 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time. For additional information, please see the Flood Hazard Mapping Updates Overview Fact Sheet at https://www.fema.gov/media-library/assets/documents/118418

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards. This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date.

SCALE

Map Projection:
GCS, Geodetic Reference System 1980;
Vertical Datum: No elevation features on this FIRM
For information about the specific vertical datum for elevation features, datum conversions, or vertical monuments used to create this map, please see the Flood Insurance Study (FIS) Report for your community at https://msc.fema.gov

1 inch = 1,000 feet 1:12,000

N

0 500 1,000 2,000 3,000 4,000 Feet

0 105 210 420 630 840 Meters

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

RIVERSIDE COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL **2090** OF **3805**

Panel Contains:

COMMUNITY	NUMBER	PANEL
CITY OF MENIFEE	060176	2090
RIVERSIDE COUNTY UNINCORPORATED AREAS	060245	2090

MAP NUMBER
06065C2090G
EFFECTIVE DATE
August 28, 2008

Appendix 5: LID Feasibility Supplemental Information

Information that supports or supplements the determination of LID technical feasibility documented in Section D

Examples of material to provide in Appendix 5 may include but are not limited to the following:

- Technical feasibility criteria for DMAs
- Site specific analysis of technical infeasibility of all LID BMPs (if Alternative Compliance is needed)
- Documentation of Approval criteria for Proprietary Biofiltration BMPs

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 2.3 of the SMR WQMP and Sections D of this Template.

Proprietary Biofiltration Criteria

The applicant shall provide documentation of compliance with each criterion in this checklist as part of the project submittal. Proprietary Biofiltration BMPs shall not be proposed if the BMP will accept undeveloped off-site tributary flows, where potential silt/sediment could clog or otherwise negatively impact the BMP.

1	**All BMPs must be sited/designed with the max. feasible infiltration/evapotranspiration[6].**	
	Requirement	Response
1a	What was the development status of the site prior to project application (i.e. raw ungraded land, or redevelopment with existing graded conditions)? – There will be more expectations to infiltrate if the project is a new development.	Raw ungraded conditions.
1b	History of design discussions/coordination for the site proposed project, resulting in the final design determination (i.e. infiltration vs. flow-thru):	The project site is in Type Soils B, C and D.
1c	The consideration of site design alternatives to achieve infiltration or partial infiltration on site;	Average infiltration rate = 0.09 in/hr in Area B and 0.06 in/hr in Area C.
1d	The physical impairments (i.e., fire road egress, public safety considerations, sewer lines, etc.) and public safety concerns (impermeable liners only to avoid geotech or contamination issues);	N/A
1e	The extent low impact development BMP requirements were included in the project site design (site design worksheets can be attached).	Site design BMP worksheet is included.
1f	When in the development process (e.g. entitlement or plan check, with dates of geotechnical work and development approval dates) did a geotechnical engineer analyze the site for infiltration feasibility?	N/A
1g	What was the scope of the geotechnical testing?	
1h	What are Public Health and Safety requirements that affect infiltration locations?	None
1i	What are the conclusions and recommendations from the geotechnical engineer, in regards to infiltrating/retaining on-site or allowing some or all of the flows to flow-thru as a proprietary BMP?	
1j	How will the proposed proprietary biofiltration BMPs achieve maximum feasible retention	Using both filtration and available infiltration.

[6] To address San Diego Regional Board letter dated April 28, 2017 regarding documentation to support infeasibility to retain or infiltrate storm water on-site. This document will be used to meet the Regional Board requirements for documentation. As such, not apply or non-responses will not be accepted.

	(evapotranspiration and infiltration) of the water quality volume, as required by MS4 Permits?	

2	**Proprietary Biofiltration BMP sizing (all proprietary/compact BMPs require TAPE approval)**[7]	
	Requirement	Response
2a	Use Table F-1 and F-2 of the WQMP template to identify and list all the pollutants of concern.	N/A
2b	Attached Active Technology Acceptance Protocol-Ecology (TAPE) certification, with General Use Level Designation (GULD) for all of applicable pollutants of concern	Yes _________ or No__________
2c	The most restrictive loading rates outlined in TAPE GULD approval[8] for all of the pollutants of concern.	
2d	Attach calculations, and all relevant steps to show that the sizing of the proprietary BMP is based on the flowrate (or volume) used to obtain TAPE/GULD approval (the most restrictive rate).	Yes _________ or No__________
2e	Are the infiltration rates are outlet controlled (e.g., via an underdrain and orifice/weir) or controlled by the infiltration rate of the media? Faster infiltration rates thru the media tend to reduce O&M issues.	Is the design infiltration rate controlled by the outlet? Yes _________ or No__________ If No, provide the rates for the outlet and the media and explain why outlet control is not practicable.
2f	Does the water surface drains to at least 12 inches below the media surface within 24 hours from the end of storm event flow to preserve plant health and promote healthy soil structure?	Yes _________ or No__________

3	**Biofiltration BMPs must be designed to promote appropriate biological activity to support and maintain treatment processes.**	
	Requirement	Response
3a	Plants tolerant of project climate, design ponding depths and the treatment media composition.	Provide documentation justifying plant selection.[9]

[7] Full scale field testing data that has been verified by Washington Department of Ecology and General Use Level Designation is required. https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Stormwater-permittee-guidance-resources/Emerging-stormwater-treatment-technologies. Otherwise, the County has no obligation to accept the use of any other proprietary flow-thru BMP. Additional guidance can be found at the end of this checklist from the San Diego BMPDM Appendix F.1 for other verified third-party, field scale testing performance criteria that does not meet the Washington Department of Ecology standards.
[8] E.g. if the BMP was certified/verified with 100 gallons per minute treatment rate, the BMP shall be sized with no more than the equivalent rate).
[9] See Appendix E.20 of the San Deigo BMPDM for initial plan list for consideration for Riverside County.

3b	Plants that minimize irrigation requirements.	Provide documentation describing irrigation requirements for establishment and long term operation.
3c	Plant location and growth will not impede expected long-term media filtration rates and will enhance long-term infiltration rates to the extent possible.	Provide documentation justifying plant selection.[4]
3d	If plants are not applicable to the biofiltration design, other biological processes are supported as needed to sustain treatment processes (e.g., biofilm in a subsurface flow wetland). TAPE GULD approval that identifies approval with and without plants can be submitted for approval.	For biofiltration designs without plants, describe the biological processes that will support effective treatment and how they will be sustained.

4	**Biofiltration BMPs must be designed with a hydraulic loading rate to prevent erosion, scour, and channeling within the BMP. Erosion, scour, and/or channeling can disrupt treatment processes and reduce effectiveness.**	
	Requirement	Response
4a	What pre-treatment devices (e.g. vegetated buffers, catch basin inserts) and designs (e.g. forebay berms with cutouts) are proposed?	Catch Basin insert
4b	Adequate scour protection has been provided for both sheet flow and pipe inflows to the BMP.	
4c	Where scour protection has not been provided, flows into and within the BMP are kept to non-erosive velocities.	What are the maximum velocities for sheet flow and pipe inflows into the BMP?
4d	The BMP is used in a manner consistent with manufacturer guidelines and conditions of its third-party certification (e.g. maximum tributary area, maximum inflow velocities, etc.).	Manufacturer Requirements vs. the Design
4e	To preserve permeability, the media should have substantial void ratios and avoidance of choking layers.	Provide media gradation calculations and (if proposed) geotextile selection calculations if the geotextile could affect hydraulic loading rate.

5	**Biofiltration BMP must include operation and maintenance design features and planning considerations for continued effectiveness of pollutant removal and flow control functions. Biofiltration BMPs require regular maintenance in order provide ongoing function as intended. Additionally, it is not possible to foresee and avoid potential issues as part of design; therefore, plans must be in place to correct issues if they arise.**	
	Requirement	Response
5a	Is there any media or cartridge required to	Yes __________ or No___________, explain:

	maintain the function of the BMP sole-sourced or proprietary in any way? If yes, obtain explicit approval by the Agency. Potentially full replacement costs to a non-proprietary BMP needs to be considered.	
5b	The maintenance plan specific for the proprietary BMP specific inspection activities, regular/periodic maintenance activities and specific corrective actions relating to scour, erosion, channeling, media clogging, vegetation health, and inflow and outflow structures.	This is in addition to the O&M Plan described in the WQMP guidance document, Section 5.
5c	Adequate site area and features have been provided for BMP inspection and maintenance access.	Illustrate maintenance access routes, setbacks, maintenance features as needed on project water quality plans
5d	For proprietary biofiltration BMPs, the BMP maintenance plan is consistent with manufacturer guidelines and conditions of its third-party certification (i.e., maintenance activities, frequencies).	Yes __________ or No___________
5e	Describe all portions of the BMP that may potentially clog or present an O&M issue.	
5f	Describe design features to address each of the potential clogging or O&M issues.	

By signing below, the preparer certifies all the information provided with this submittal and submittals related to proprietary BMPs for the project is accurate, and relevant information to assess the long term operation and maintenance of this proprietary BMP was not omitted with this submittal.

Prepared by: ____

Title: ____

Signature: ____

Date: ____

Alternative Pollutant Treatment Performance Standard

County staff may allow the applicant to submit alternative third-party documentation that the pollutant treatment performance of the system is consistent with Technology Acceptance Protocol-Ecology certifications. Table F.1-1 describes the required levels of certification and Table F.1-2 describes the pollutant treatment performance levels associated with each level of certification. Acceptance of this approach is at the sole discretion of County staff, preference would be given to:

a. Verified third-party, field-scale testing performance under the Technology Acceptance Reciprocity Partnership Tier II Protocol. This protocol is no longer operated, however this is considered to be a valid protocol and historic verifications are considered to be representative provided that product models being proposed are consistent with those that were tested. Technology Acceptance Reciprocity Partnership verifications were conducted under New Jersey Corporation for Advance Testing and are archived at the website linked below. Note that Technology Acceptance Reciprocity Partnership verifications must be matched to pollutant treatment standards in Table F.1-2 then matched to an equivalent Technology Acceptance Protocol-Ecology certification in Table F.1-1.

b. Verified third-party, field-scale testing performance under the New Jersey Corporation for Advance Testing protocol. Note that New Jersey Corporation for Advance Testing verifications must be matched to pollutant treatment standards in Table F.1-2 then matched to an equivalent Technology Acceptance Protocol- Ecology certification in Table F.1-1. A list of field-scale verified technologies under Technology Acceptance Reciprocity Partnership Tier II and New Jersey Corporation for Advance Testing can be accessed at: http://www.njcat.org/verification-process/technology-verification-database.html (refer to: field verified technologies only).

Table F.1-1: Required Technology Acceptance Protocol-Ecology Certifications for Polltuants of Concern for Biofiltration Performance Standard

Project Pollutant of Concern	Required Technology Acceptance Protocol-Ecology Certification for Biofiltration Performance Standard
Trash	Basic Treatment OR Phosphorus Treatment OR Enhanced Treatment
Sediments	Basic Treatment OR Phosphorus Treatment OR Enhanced Treatment
Oil and Grease	Basic Treatment OR Phosphorus Treatment OR Enhanced Treatment
Nutrients	Phosphorus Treatment[1]
Metals	Enhanced Treatment
Pesticides	Basic Treatment (including filtration)[2] OR Phosphorus Treatment OR Enhanced Treatment
Organics	Basic Treatment (including filtration)[2] OR Phosphorus Treatment OR Enhanced Treatment
Bacteria and Viruses	Basic Treatment (including bacteria removal processes)[3] OR Phosphorus Treatment OR Enhanced Treatment

1 – There is no Technology Acceptance Protocol-Ecology equivalent for nitrogen compounds; however systems that are designed to retain phosphorus (as well as meet basic treatment designation), generally also provide treatment of nitrogen compounds. Where nitrogen is a pollutant of concern, relative performance of available certified systems for nitrogen removal should be considered in BMP selection.
2 – Pesticides, organics, and oxygen demanding substances are typically addressed by particle filtration consistent with the level of treatment required to achieve Basic treatment certification; if a system with Basic treatment certification does not provide filtration, it is not acceptable for pesticides, organics or oxygen demanding substances.
3 – There is no Technology Acceptance Protocol-Ecology equivalent for pathogens (viruses and bacteria), and testing data are limited because of typical sample hold times. Systems with Technology Acceptance Protocol-Ecology Basic Treatment must be include one or more significant bacteria removal process such as media filtration, physical sorption, predation, reduced redox conditions, and/or solar inactivation. Where design options are available to enhance pathogen removal (i.e., pathogen-specific media mix offered by vendor), this design variation should be used.

Table F.1-2: Performance Standards for Technology Acceptance Protocol-Ecology Certification

Performance Goal	Influent Range	Criteria
Basic Treatment	20 – 100 mg/L TSS	Effluent goal ≤ 20 mg/L TSS
	100 – 200 mg/L TSS	≥ 80% TSS removal
	>200 mg/L TSS	> 80% TSS removal
Enhanced (Dissolved Metals) Treatment	Dissolved copper 0.005 – 0.02 mg/L	Must meet basic treatment goal and better than basic treatment currently defined as >30% dissolved copper removal
	Dissolved zinc 0.02 – 0.3 mg/L	Must meet basic treatment goal and better than basic treatment currently defined as >60% dissolved zinc removal
Phosphorous Treatment	Total phosphorous 0.1 – 0.5 mg/L	Must meet basic treatment goal and exhibit ≥50% total phosphorous removal
Oil Treatment	Total petroleum hydrocarbon > 10 mg/L	No ongoing or recurring visible sheen in effluent Daily average effluent Total petroleum hydrocarbon concentration < 10 mg/L Maximum effluent Total petroleum hydrocarbon concentration for a 15 mg/L for a discrete (grab) sample
Pretreatment	50 – 100 mg/L TSS	≤ 50 mg/L TSS
	≥ 200 mg/L TSS	≥ 50% TSS removal

Appendix 6: LID BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation to supplement Section D

Examples of material to provide in Appendix 6 may include but are not limited to the following:

- DCV calculations,
- LID BMP sizing calculations from Exhibit C of the SMR WQMP
- Design details/drawings from manufacturers for proprietary BMPs

This information should support the Full Infiltration Applicability, and Biofiltration Applicability sections of this Template. Refer to Section 3.4 of the SMR WQMP and Sections D.4 of this Template.

Surface Type	Effective Impervious Fraction, I_f
Roofs	1.00
Concrete or Asphalt	1.00
Grouted or Gapless Paving Blocks	1.00
Compacted Soil (e.g. unpaved parking)	0.40
Decomposed Granite	0.40
Permeable Paving Blocks w/ Sand Filled Gap	0.25
Class 2 Base	0.30
Gravel or Class 2 Permeable Base	0.10
Pervious Concrete / Porous Asphalt	0.10
Open and Porous Pavers	0.10
Turf block	0.10
Ornamental Landscaping	0.10
Natural (A Soil)	0.03
Natural (B Soil)	0.15

Riverside County – Santa Margarita Watershed - Low Impact Development BMP Design Handbook *rev. 6/2018*

ACTUAL IMPERVIOUS COVER

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

Notes:

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

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

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

RCFC & WCD
HYDROLOGY MANUAL

IMPERVIOUS COVER
FOR
DEVELOPED AREAS

PLATE D-5.6

Santa Margarita Watershed BMP Design Volume, V_{BMP} (Rev. 03-2012)	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	K&A Engineering, Inc.	Date	12/15/2021
Designed by	JY	County/City Case No	
Company Project Number/Name	Keller Crossing		
Drainage Area Number/Name	Area 4a = 6.2 Ac (Multi-family)		

Enter the Area Tributary to this Feature $A_T =$ 6.2 acres

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

Site Location	Township	6S
	Range	2W
	Section	29
Enter the 85th Percentile, 24-hour Rainfall Depth	$D_{85} =$	0.57

Determine the Effective Impervious Fraction

Type of post-development surface cover (use pull down menu)	Mixed Surface Types	
Effective Impervious Fraction	$I_f =$	0.80

Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$ $C =$ 0.60

Determine Design Storage Volume, V_{BMP}

Calculate V_U, the 85% Unit Storage Volume $V_U = D_{85} \times C$ $V_u =$ 0.34 (in*ac)/ac

Calculate the design storage volume of the BMP, V_{BMP}.

$$V_{BMP}\ (ft^3) = \frac{V_U\ (in\text{-}ac/ac) \times A_T\ (ac) \times 43{,}560\ (ft^2/ac)}{12\ (in/ft)}$$

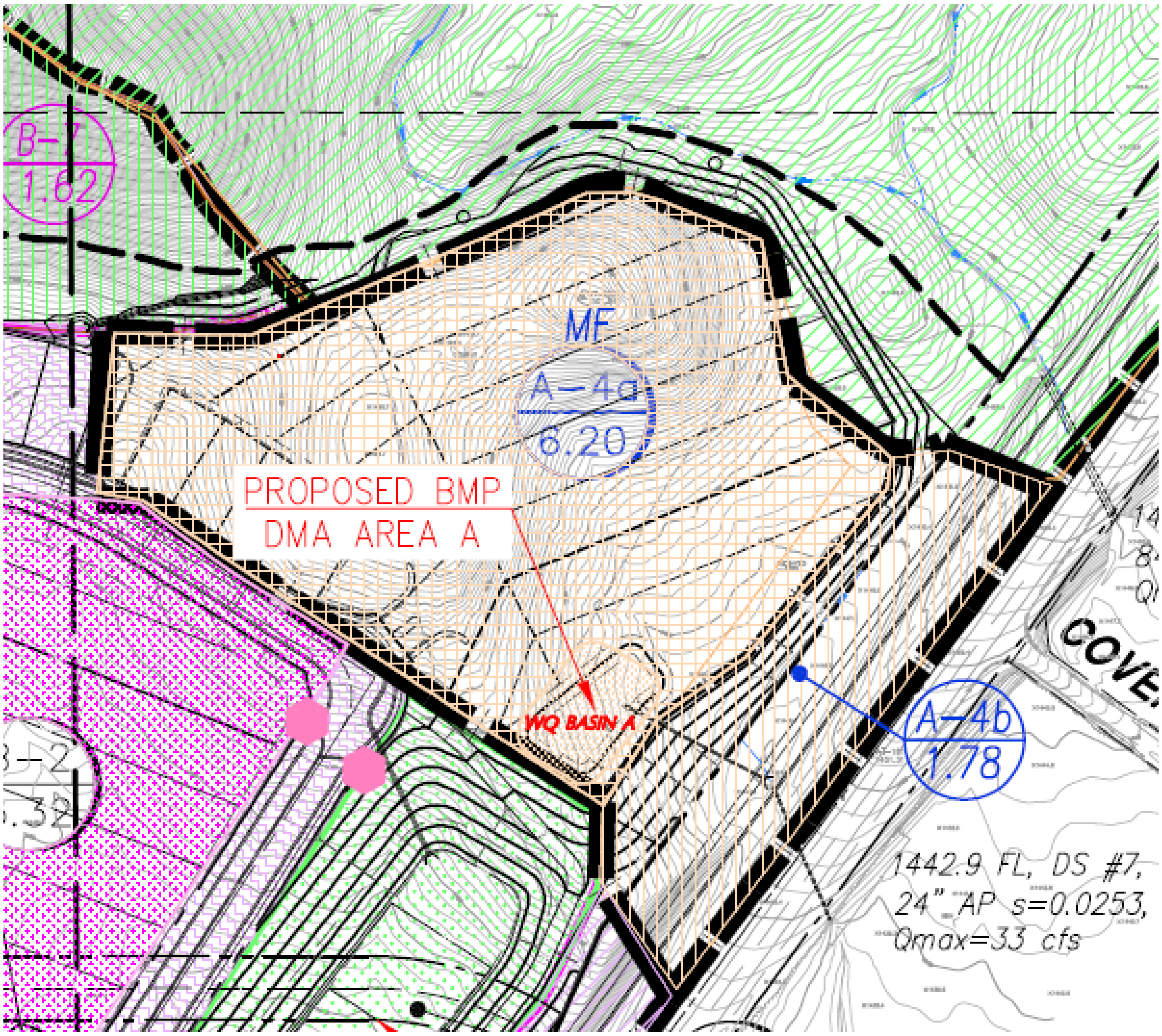
$V_{BMP} =$ 7,652 ft^3

Notes:

Effective Impervious per Hydrology Manual for Apartment = 0.65 to 0.80 ➔ use 0.80 for conservative assumption

Apartments	65 - 90	80

WQ Volume Basin A = 7,660 cf



Drainage Area A-4a = 6.20 ac - to WQ/Detention Basin A

Santa Margarita Region - County HydroMod Iterative Spreadsheet Model

Only for use the unincorporated portions of Riverside County, unless otherwise approved by the Co-Permittee

Development Project Number(s):	Keller Project	Rain Gauge	Wildomar/North Murrieta
Latitude (decimal format):	33.629736	BMP Type (per WQMP):	Multifamily - Area A-4a = 6.20 Ac
Longitude (decimal format):	-117.096404	BMP Number (Sequential):	

Pre-Development – **Pre-Development - Hydrology Information**

DRAINAGE AREA (ACRES) - 10 acre max[1]	6.2	2-YEAR, 1-HOUR INTENSITY (IN/HR) - Plate D-4.3	0.617
LONGEST WATERCOURSE (FT) - 1,000' max[1]	547	10-YEAR, 1-HOUR INTENSITY (IN/HR) - Plate D-4.1	0.98
UPSTREAM ELEVATION OF WATERCOURSE (FT)	1480	SLOPE OF THE INTENSITY DURATION - Plate D-4.6	0.48
DOWNSTREAM ELEV. OF WATERCOURSE (FT)	1475.2	CLOSEST IMPERVIOUS PERCENTAGE (%)	0% Undeveloped - Good Cover
EXISTING IMPERVIOUS PERCENTAGE (%)	0		
Use 10% of Q2 to avoid Field Screening requirements	Yes		

Pre-Development – **Pre-Development - Soils Information**

Cover Type #	Subarea Acreage	Cover Type	Vegetative Cover	Soil A %	Soil B %	Soil C %	Soil D %	RI Index AMC I	RI Index AMC II	RI Index AMC III
32	6.2 Ac.	Pasture, Dryland	Poor Cover	0	20	30	50	72	86	94
								0	0	0
								0	0	0
	6.20 Ac.						Weighted Average RI Numbers =	72.0	86.0	94.0

Per Dr. Luis Parra, the AMC condition is based on the rainfall record. Applying NEH-4 (1964) for the non-freezing conditions in Riverside County the AMC conditions are:
AMC-I for less than 0.5" of rain the previous 5 days; AMC-II for between 0.5" to 1.1" of rain the previous 5 days; or AMC-III for more than 1.1" for the previous 5 days.

Pre-Development – **Pre-Development - Calculated Range of Flow Rates analyized for Hydromod (Suceptible Range of Flows)**

Calculated Upper Flow-rate limit		Calculated Lower Flow-rate limit	
Ex. 10-year Flowrate[1] =	4.717 cfs	Ex. 10% of the 2-year Flowrate[1] =	0.382 cfs
(Co-Permitte Approval is required) User-Defined Discharge Values with accompanying Hydrology Study[1]			
Ex. 10-year Flowrate (Attach Study) =	cfs	Ex. 2-year Flowrate (Attach Study) =	cfs

[1]The equations used to determine the 10-year and 10% of the 2-yr are limited to 10-acres and 1,000'. Flowrates from a separate study can be used to over-ride the calculated values so that larger areas (up to 20 acres) and longer watercourse lengths can be used. All values still need to be filled out, even when there is a user-defined discharge value entered.

Post-Project – **Post-Project - Hydrograph Information**

DRAINAGE AREA (ACRES)	6.2	Go to "BMP Design" tab to design your BMP, then check results below. Print both this "HydroMod" Sheet and the "BMP Design" sheet for your submittal.
LONGEST WATERCOURSE (FT)	547	
DIFFERENCE IN ELEV (FT) - along watercourse	4.8	
PROPOSED IMPERVIOUS PERCENTAGE (%)	80	

Post-Project – **Post-Project - Soils Information**

Cover Type #	Subarea Acreage	Cover Type	Vegetative Cover	Soil A %	Soil B %	Soil C %	Soil D %	RI Index AMC I	RI Index AMC II	RI Index AMC III
22	6.2 Ac.	Urban Landscaping	Good Cover		20	30	50	50	69	84
								0	0	0
								0	0	0
	6.20 Ac.						Weighted Average RI Numbers =	50.0	69.0	84.0

Per Dr. Luis Parra, the AMC condition is based on the rainfall record. Applying NEH-4 (1964) for the non-freezing conditions in Riverside County the AMC conditions are:
AMC-I for less than 0.5" of rain the previous 5 days; AMC-II for between 0.5" to 1.1" of rain the previous 5 days; or AMC-III for more than 1.1" for the previous 5 days.

Results

		First result out of compliance in the rainfall record				See below for the Height in the Basin (Stage) that is causing a non-compliant result	
Hydromod Ponded depth	1.30 feet	Requirement		Proposed			
Hydromod Drain Time (unclogged)	17.58 hours						
Is the HydroMod BMP properly sized?	Yes, this is acceptable	---	---	---	---		
Mitigated Q < 110% of Pre-Dev. Q?	Yes, this is acceptable	---	---	---	---	Issue @ Stage =	---
Mitigated Duration < 110% of Pre-Dev?*	Yes, this is acceptable	---	---	---	---	Issue @ Stage =	---

Responsible-in-charge: ____________________ Date: ____________

Signature: ____________________

Spreadsheet Developed by: Benjie Cho, P.E.

BMP Design

Fill in blue shaded areas

BMP Geometry & Detention Calculations

0.1 feet, Stage Intervals

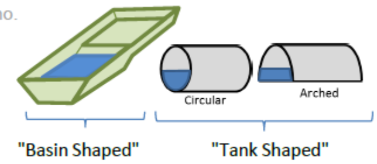
Increase intervals or decrease height

Height is above the limits of this sheet

PROPOSED BMP DIMENSIONS

STEP1: Size the BMP, so that the Total Volume > Max HydroMod Vol. (Deeper is ok, it will be refined in the Design Geometry)

Is the BMP a Tank shape? 2 1 for yes; 2 for no.



Basin Shaped BMP (Bottom Stage 1st)

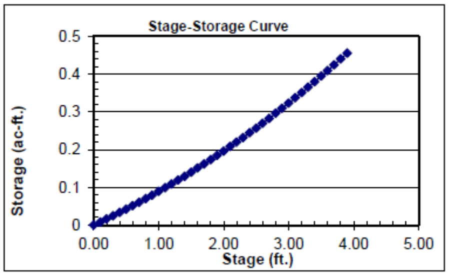
Bottom Stage H= 5.0' SS= 3 :1

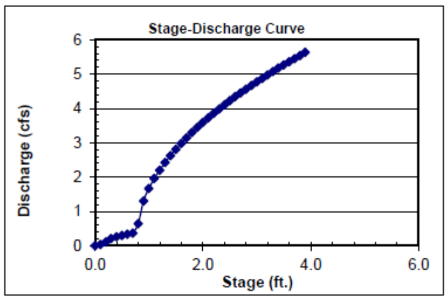
Top Area		Bottom Area		
Width	80	Width	50	FT
Length	100	Length	70	FT
area =	8000	area =	3500	

Top Stage H= 0.0'

Prop. Top Stg. Vol. =	-	FT3
Prop Bottom Stg Vol =	27,986	FT3
Total Prop. Volume[1] =	27,986	FT3
Max HydroMod Volume =	4,949	FT3
Total Acreage[2] =	8,000	FT2
BMP % of Site =	2.96%	
Max HydroMod Depth[3] =	1.30	FT

[1]Does not include forebay, or low flow trench
[2]Does not account for freeboard or access roads
[3]Does not consider Increased Runoff





Stage-Storage-Discharge*

Stage (FT)	Storage (AC-FT)	Storage (FT3)	Q (CFS)
0	0	0	0
0.10	0.008	354	0.03
0.20	0.016	714	0.11
0.30	0.025	1083	0.20
0.40	0.033	1458	0.26
0.50	0.042	1841	0.30
0.60	0.051	2232	0.34
0.70	0.060	2631	0.37
0.80	0.070	3037	0.64
0.90	0.079	3450	1.30
1.00	0.089	3872	1.67
1.10	0.099	4302	1.96
1.20	0.109	4739	2.21
1.30	0.119	5185	2.42
1.40	0.129	5639	2.62
1.50	0.140	6100	2.81
1.60	0.151	6571	2.98
1.70	0.162	7049	3.15
1.80	0.173	7536	3.30
1.90	0.184	8032	3.45
2.00	0.196	8536	3.59
2.10	0.208	9049	3.73
2.20	0.220	9570	3.86
2.30	0.232	10100	3.98
2.40	0.244	10639	4.11
2.50	0.257	11187	4.23
2.60	0.270	11745	4.34
2.70	0.283	12311	4.46
2.80	0.296	12886	4.57
2.90	0.309	13470	4.67
3.00	0.323	14064	4.78
3.10	0.337	14667	4.88
3.20	0.351	15280	4.98
3.30	0.365	15902	5.08
3.40	0.380	16533	5.18
3.50	0.394	17174	5.27
3.60	0.409	17825	5.37
3.70	0.424	18486	5.46
3.80	0.440	19157	5.55
3.90	0.455	19837	5.64
	0.455	19,837	

MINIMUM DESIGN GEOMETRY

STEP3: Delete outlets, then propose the largest lowest orifice that does not, exceed the ex. Q or Duration. If the Q is acceptable, but the duration is exceeded, try decreasing orifice, then adding a weir slightly below the stage that has an issue.

OUTLETS (for Stage-Discharge)

Orifice Outlets			Weir Outlets		
Invert Height (ft)	Diameter (inches)	No. of Orifices	Crest Height (ft)	Crest Width (ft)	No. of Weirs
0	3.00	2			
0.5	7.00	2			

Hydromod Depth =	1.30 FT
+ 1' Freeboard =	2.30 FT

Top Surface Area

Based on HydroMod Depth +1' of Freeboard

Bottom Stage		
Width	80	FT
Length	100	FT

STEP4: Complete an increased runoff analysis, if the project can impact downstream properties. Incorporate these designs into the WQMP site plan. Add emergency overflow weir, for flows that exceed the Hydromod volumes, sized to the 100-year peak flow rate. Add access roads (< 10% longitudinal slope) with enough width & turn around access for equipment that would be needed to scarify the bottom or remove Bioretention soil media.

Add Infiltration

Enter information from actual infiltration tests			
Yes	Consider Infiltration (Yes or No)?		
0.1	Infiltration rate (in/hr) [3]	0.0081	ft3/sec, Infiltration (over entire bottom)
3	Factor of Safety (3 or greater) [3]	0.0027	ft3/sec, Infiltration / Factor of Safety
300	mins, Max. Time represented by tests		

[3]Per the RC LID Manual, Appendix A.

Only if allowed by the Co-Permittee, these infiltration inputs can be used to simulate Bioretention/Biofiltration rates with Backup Calcs and Data.

Santa Margarita Watershed BMP Design Volume, V_{BMP} (Rev. 03-2012)	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	K&A Engineering, Inc.	Date	12/14/2021
Designed by	JY	County/City Case No	
Company Project Number/Name	Keller Crossing		
Drainage Area Number/Name	Area B1-1 thru B1-5 = 13.51 Ac		

Enter the Area Tributary to this Feature $A_T =$ 13.51 acres

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

Site Location	Township	6S
	Range	2W
	Section	29
Enter the 85th Percentile, 24-hour Rainfall Depth	$D_{85} =$	0.57

Determine the Effective Impervious Fraction

Type of post-development surface cover (use pull down menu)		Mixed Surface Types
Effective Impervious Fraction	$I_f =$	0.60

Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$ $C =$ 0.41

Determine Design Storage Volume, V_{BMP}

Calculate V_U, the 85% Unit Storage Volume $V_U = D_{85} \times C$ $V_u =$ 0.23 (in*ac)/ac

Calculate the design storage volume of the BMP, V_{BMP}.

$$V_{BMP}\ (ft^3) = \frac{V_U\ (in\text{-}ac/ac) \times A_T\ (ac) \times 43{,}560\ (ft^2/ac)}{12\ (in/ft)}$$

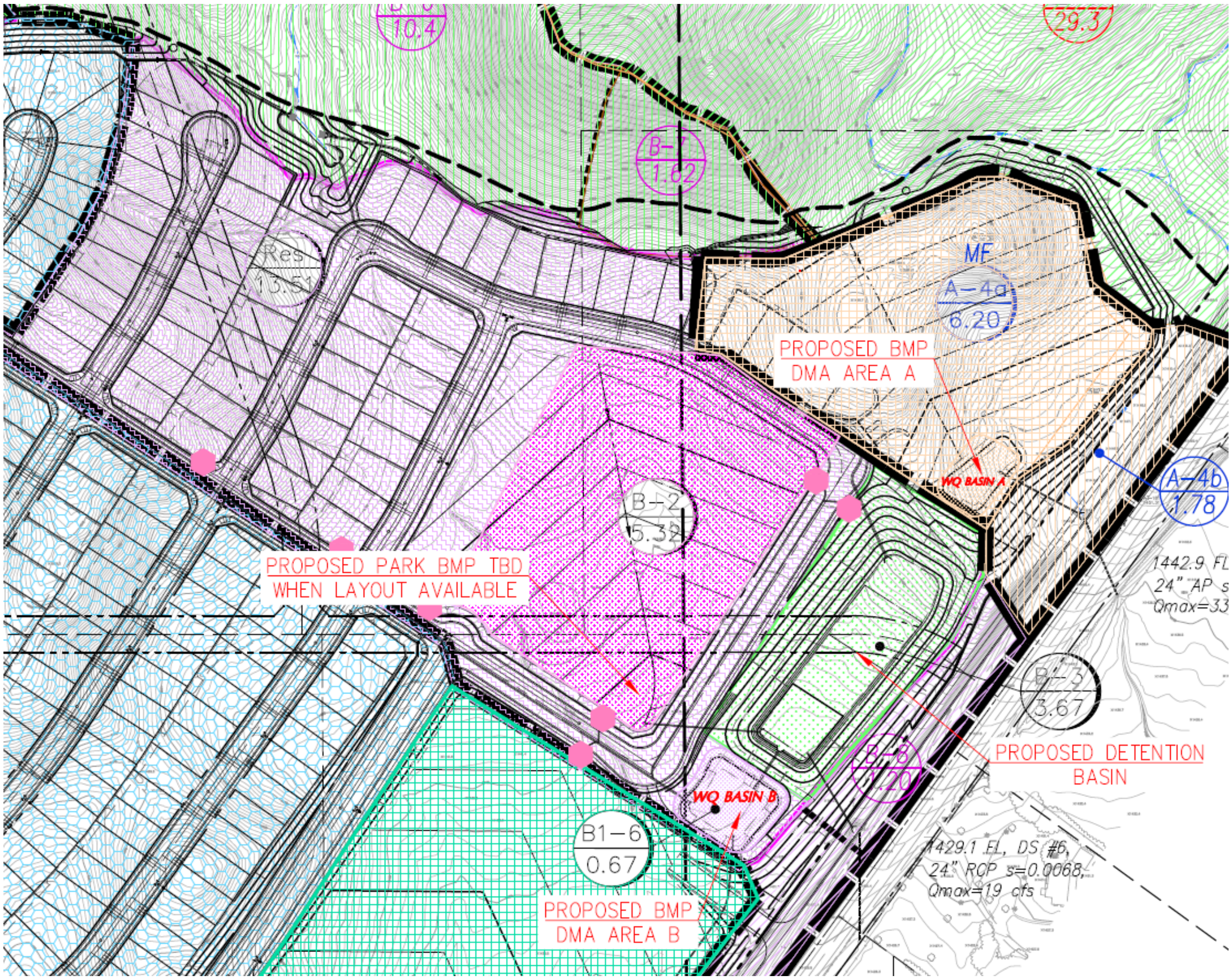
$V_{BMP} =$ 11,279 ft^3

Notes:

Effective Impervious per Hydrology Manual for 7,200 – 10,000 sf lots = 0.45 to 0.55 ➔ use 0.6 for conservative assumption

Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50

WQ Volume Basin B = 11,280 cf



Drainage Area B = 59.9 Ac – to Detention Basin B
Drainage Area B2 (Park) = 5.32 Ac – to WQ Basin B2 TBD - NAP

Santa Margarita Region - County HydroMod Iterative Spreadsheet Model

Only for use the unincorporated portions of Riverside County, unless otherwise approved by the Co-Permittee

Development Project Number(s):	Keller Project	Rain Gauge	Wildomar/North Murrieta
Latitude (decimal format):	33.62048	BMP Type (per WQMP):	Residential - Area B = 14.22 Ac
Longitude (decimal format):	117.104563	BMP Number (Sequential):	

Pre-Development - Hydrology Information

Pre-Development			
DRAINAGE AREA (ACRES) - 10 acre max[1]	14.22	2-YEAR, 1-HOUR INTENSITY (IN/HR) - Plate D-4.3	0.617
LONGEST WATERCOURSE (FT) - 1,000' max[1]	1630	10-YEAR, 1-HOUR INTENSITY (IN/HR) - Plate D-4.1	0.98
UPSTREAM ELEVATION OF WATERCOURSE (FT)	1498	SLOPE OF THE INTENSITY DURATION - Plate D-4.6	0.48
DOWNSTREAM ELEV. OF WATERCOURSE (FT)	1455	CLOSEST IMPERVIOUS PERCENTAGE (%)	0% Undeveloped - Good Cover
EXISTING IMPERVIOUS PERCENTAGE (%)	0		
Use 10% of Q2 to avoid Field Screening requirements	Yes		

Pre-Development - Soils Information

Cover Type #	Subarea Acreage	Cover Type	Vegetative Cover	Soil A %	Soil B %	Soil C %	Soil D %	RI Index AMC I	RI Index AMC II	RI Index AMC III
32	14.22 Ac.	Pasture, Dryland	Poor Cover	0	20	30	50	72	86	94
								0	0	0
								0	0	0
	14.22 Ac.						Weighted Average RI Numbers =	72.0	86.0	94.0

Per Dr. Luis Parra, the AMC condition is based on the rainfall record. Applying NEH-4 (1964) for the non-freezing conditions in Riverside County the AMC conditions are: AMC-I for less than 0.5" of rain the previous 5 days; AMC-II for between 0.5" to 1.1" of rain the previous 5 days; or AMC-III for more than 1.1" for the previous 5 days.

Pre-Development - Calculated Range of Flow Rates analyzed for Hydromod (Suceptible Range of Flows)

Calculated Upper Flow-rate limit	Calculated Lower Flow-rate limit
Ex. 10-year Flowrate[1] = 10.659 cfs	Ex. 10% of the 2-year Flowrate[1] = 0.773 cfs
(Co-Permitte Approval is required) User-Defined Discharge Values with accompanying Hydrology Study[1]	
Ex. 10-year Flowrate (Attach Study) = cfs	Ex. 2-year Flowrate (Attach Study) = cfs

[1]The equations used to determine the 10-year and 10% of the 2-yr are limited to 10-acres and 1,000'. Flowrates from a separate study can be used to over-ride the calculated values so that larger areas (up to 20 acres) and longer watercourse lengths can be used. All values still need to be filled out, even when there is a user-defined discharge value entered.

Post-Project - Hydrograph Information

Post-Project		
DRAINAGE AREA (ACRES)	14.22	Go to "BMP Design" tab to design your BMP, then check results below. Print both this "HydroMod" Sheet and the "BMP Design" sheet for your submittal.
LONGEST WATERCOURSE (FT)	1630	
DIFFERENCE IN ELEV (FT) - along watercourse	43	
PROPOSED IMPERVIOUS PERCENTAGE (%)	65	

Post-Project - Soils Information

Cover Type #	Subarea Acreage	Cover Type	Vegetative Cover	Soil A %	Soil B %	Soil C %	Soil D %	RI Index AMC I	RI Index AMC II	RI Index AMC III
22	14.22 Ac.	Urban Landscaping	Good Cover		20	30	50	50	69	84
								0	0	0
								0	0	0
	14.22 Ac.						Weighted Average RI Numbers =	50.0	69.0	84.0

Per Dr. Luis Parra, the AMC condition is based on the rainfall record. Applying NEH-4 (1964) for the non-freezing conditions in Riverside County the AMC conditions are: AMC-I for less than 0.5" of rain the previous 5 days; AMC-II for between 0.5" to 1.1" of rain the previous 5 days; or AMC-III for more than 1.1" for the previous 5 days.

Results

		First result out of compliance in the rainfall record				See below for the Height in the Basin (Stage) that is causing a non-compliant result	
Hydromod Ponded depth	1.40 feet	Requirement		Proposed			
Hydromod Drain Time (unclogged)	36.01 hours						
Is the HydroMod BMP properly sized?	Yes, this is acceptable	---	---	---	---		
Mitigated Q < 110% of Pre-Dev. Q?	Yes, this is acceptable	---	---	---	---	Issue @ Stage =	---
Mitigated Duration < 110% of Pre-Dev?*	Yes, this is acceptable	---	---	---	---	Issue @ Stage =	---

Responsible-in-charge: _____ Date: _____

Signature: _____

Spreadsheet Developed by: Benjie Cho, P.E.

BMP Design

Fill in blue shaded areas

BMP Geometry & Detention Calculations

0.1 feet, Stage Intervals

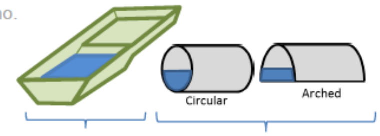
Increase intervals or decrease height

Height is above the limits of this sheet

PROPOSED BMP DIMENSIONS

STEP1: Size the BMP, so that the Total Volume > Max HydroMod Vol. (Deeper is ok, it will be refined in the Design Geometry)

Is the BMP a Tank shape? 2 — 1 for yes; 2 for no.



Basin Shaped BMP (Bottom Stage 1st)

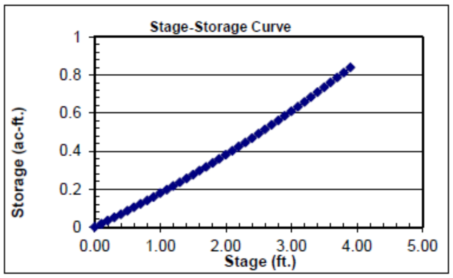
Bottom Stage H= 4.0' SS= 3 :1

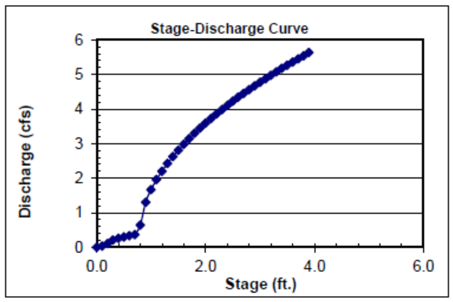
Top Area		Bottom Area		
Width	104	Width	80	FT
Length	114	Length	90	FT
area =	11856	area =	7200	

Top Stage H= 0.0'

Prop. Top Stg. Vol. =	-	FT3
Prop Bottom Stg Vol =	37,727	FT3
Total Prop. Volume[1] =	37,727	FT3
Max HydroMod Volume =	10,258	FT3
Total Acreage[2] =	11,856	FT2
BMP % of Site =	1.91%	
Max HydroMod Depth[3] =	1.40	FT

[1]Does not include forebay, or low flow trench
[2]Does not account for freeboard or access roads
[3]Does not consider Increased Runoff





Stage-Storage-Discharge*

Stage (FT)	Storage (AC-FT)	Storage (FT3)	Q (CFS)
0	0	0	0
0.10	0.017	725	0.03
0.20	0.034	1460	0.11
0.30	0.051	2206	0.20
0.40	0.068	2962	0.26
0.50	0.086	3729	0.30
0.60	0.103	4506	0.34
0.70	0.122	5294	0.37
0.80	0.140	6093	0.64
0.90	0.158	6902	1.30
1.00	0.177	7722	1.67
1.10	0.196	8553	1.96
1.20	0.216	9395	2.21
1.30	0.235	10248	2.42
1.40	0.255	11113	2.62
1.50	0.275	11988	2.81
1.60	0.296	12875	2.98
1.70	0.316	13773	3.15
1.80	0.337	14682	3.30
1.90	0.358	15603	3.45
2.00	0.380	16536	3.59
2.10	0.401	17480	3.73
2.20	0.423	18436	3.86
2.30	0.445	19404	3.98
2.40	0.468	20383	4.11
2.50	0.491	21375	4.23
2.60	0.514	22379	4.34
2.70	0.537	23394	4.46
2.80	0.561	24422	4.57
2.90	0.585	25462	4.67
3.00	0.609	26514	4.78
3.10	0.633	27579	4.88
3.20	0.658	28656	4.98
3.30	0.683	29745	5.08
3.40	0.708	30847	5.18
3.50	0.734	31962	5.27
3.60	0.760	33089	5.37
3.70	0.786	34230	5.46
3.80	0.812	35383	5.55
3.90	0.839	36549	5.64
	0.839	36,549	

MINIMUM DESIGN GEOMETRY

STEP3: Delete outlets, then propose the largest lowest orifice that does not, exceed the ex. Q or Duration. If the Q is acceptable, but the duration is exceeded, try decreasing orifice, then adding a weir slightly below the stage that has an issue.

OUTLETS (for Stage-Discharge)

Orifice Outlets			Weir Outlets		
Invert Height (ft)	Diameter (inches)	No. of Orifices	Crest Height (ft)	Crest Width (ft)	No. of Weirs
0	3.00	2			
0.5	7.00	2			

Hydromod Depth = 1.40 FT
+ 1' Freeboard = 2.40 FT

Top Surface Area

Based on HydroMod Depth +1' of Freeboard

Bottom Stage		
Width	104	FT
Length	114	FT

STEP4: Complete an increased runoff analysis, if the project can impact downstream properties. Incorporate these designs into the WQMP site plan. Add emergency overflow weir, for flows that exceed the Hydromod volumes, sized to the 100-year peak flow rate. Add access roads (< 10% longitudinal slope) with enough width & turn around access for equipment that would be needed to scarify the bottom or remove Bioretention soil media.

Add Infiltration

Enter information from actual infiltration tests	
Yes	Consider Infiltration (Yes or No)?
0.1	Infiltration rate (in/hr) [3]
3	Factor of Safety (3 or greater) [3]
300	mins, Max. Time represented by tests

0.0167 ft3/sec, Infiltration (over entire bottom)
0.0056 ft3/sec, Infiltration / Factor of Safety

Only if allowed by the Co-Permittee, these infiltration inputs can be used to simulate Bioretention/Biofiltration rates with Backup Calcs and Data.

[3]Per the RC LID Manual, Appendix A.

Santa Margarita Watershed

BMP Design Volume, V_{BMP} (Rev. 03-2012)

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	K&A Engineering, Inc.	Date	12/14/2021
Designed by	JY	County/City Case No	
Company Project Number/Name	Keller Crossing		
Drainage Area Number/Name	Area C1 (residential) = 72.34 Ac		

Enter the Area Tributary to this Feature A_T = 72.34 acres

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

Site Location

Township	6S
Range	2W
Section	29

Enter the 85th Percentile, 24-hour Rainfall Depth D_{85} = 0.57

Determine the Effective Impervious Fraction

Type of post-development surface cover (use pull down menu): Mixed Surface Types

Effective Impervious Fraction I_f = 0.60

Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$ C = 0.41

Determine Design Storage Volume, V_{BMP}

Calculate V_U, the 85% Unit Storage Volume $V_U = D_{85} \times C$ V_u = 0.23 (in*ac)/ac

Calculate the design storage volume of the BMP, V_{BMP}.

$$V_{BMP}\ (ft^3) = \frac{V_U\ (in\text{-}ac/ac) \times A_T\ (ac) \times 43{,}560\ (ft^2/ac)}{12\ (in/ft)}$$

V_{BMP} = 60,397 ft^3

Notes:

Effective Impervious per Hydrology Manual for 7,200 – 10,000 sf lots = 0.45 to 0.55 ➔ use 0.6 for conservative assumption

Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50

WQ Volume Basin C = 60,400 cf (residential)

Santa Margarita Watershed BMP Design Volume, V_{BMP} (Rev. 03-2012)	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	K&A Engineering, Inc.	Date	12/14/2021
Designed by	JY	County/City Case No	
Company Project Number/Name	Keller Crossing		
Drainage Area Number/Name	Area C1 (basin) = 5.65 Ac		

Enter the Area Tributary to this Feature $A_T =$ 5.65 acres

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

Site Location

Township	6S
Range	2W
Section	29

Enter the 85th Percentile, 24-hour Rainfall Depth $D_{85} =$ 0.57

Determine the Effective Impervious Fraction

Type of post-development surface cover (use pull down menu): Ornamental Landscaping

Effective Impervious Fraction $I_f =$ 0.10

Calculate the composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$ $C =$ 0.11

Determine Design Storage Volume, V_{BMP}

Calculate V_U, the 85% Unit Storage Volume $V_U = D_{85} \times C$ $V_u =$ 0.06 (in*ac)/ac

Calculate the design storage volume of the BMP, V_{BMP}.

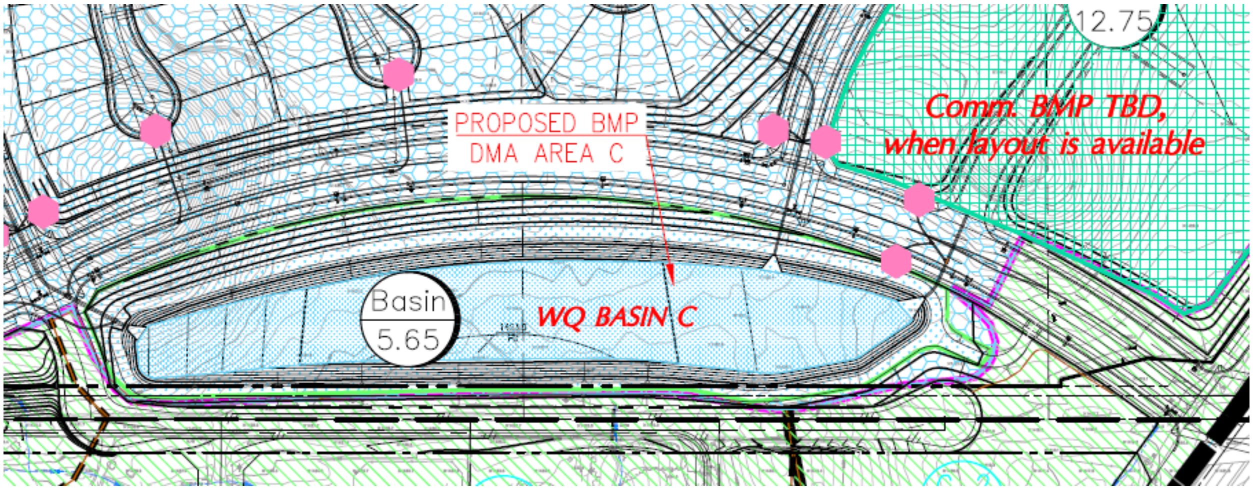
$$V_{BMP}\ (ft^3) = \frac{V_U\ (\text{in-ac/ac}) \times A_T\ (ac) \times 43{,}560\ (ft^2/ac)}{12\ (in/ft)}$$

$V_{BMP} =$ 1,231 ft^3

Notes:

Basin - Ornamental Landscaping ➔ Effective Impervious Fraction = 0.10

WQ Volume Basin C total = 60,400 + 1,240 = 61,640 cf



Drainage Area C1 = 91.5 Ac - to WQ/Detention Basin C

Biofiltration with Partial Infiltration Facility - Design Procedure	BMP ID	Legend:	Required Entries	
	Basin C		Calculated Cells	
Company Name:	K&A Engineering, Inc.		Date:	5/11/2021
Designed by:	JY		County/City Case No.:	

Design Volume

Enter the area tributary to this feature	A_T=	91.5	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	86,358	ft³
Enter initial estimate of footprint of BMP, $Area_{BMP}$ (Guidance: A reasonable starting point is 3% of the tributary impervious area)	$Area_{BMP}$=	99,800	ft²

Note: This area shall be measured at the mid-ponding depth of the BMP. For systems with side-slopes, this should be the contour that is midway between the floor of the basin and the maximum water quality ponding elevation of the basin. The underlying gravel layer (infiltration storage layer) should extend to this contour. For systems with vertical walls, the effective area is the full footprint.

Portion of DCV Reliably Retained

Depth of Gravel Infiltration Storage Layer (18" minimum; 30" maximum)	dg =	24.0	inches
Portion of V_{BMP} Reliably Retained via Infiltration Storage in Gravel Layer $V_{retained} = d_g\,(in) \times 0.4 \times Area_{BMP}\,(ft^2) \times 1/12$	$V_{Retained}$ =	79840.0	ft³
Portion of V_{BMP} not Reliably Retained $V_{Not\ Reliably\ Retained} = V_{BMP} - V_{Retained}$	$V_{Not\ Reliably\ Retained}$ =	6518.0	ft³

Biofiltration with Partial Retention Facility Surface Area

Depth of Surface Ponding Layer (6" minimum, 12" maximum)	d_P =	12.0	inches
Depth of Engineered Soil Media (24" to 36"; 18" if vertically constrained)	d_S =	24.0	inches
Design Media Filtration Rate (2.5 in/hr)	I_{design} =	2.5	in/hr
Allowable Routing Period, $T_{routing}$ (5 hrs)	$T_{routing}$ =	5.0	hr
Effective Biofiltration Depth, d_{E_bio} $d_{E\_bio}\,(ft) = (d_P + (0.3 \times d_S) + (I_{design} * T_{routing}))\,(ft)$	d_{E_bio} =	2.6	ft
Effective Static Depth, $d_{E\_bio\_static}$ $d_{E\_bio\_static} = (d_P + (0.3 * d_S))\,(ft)$	$d_{E\_bio\_static}$ =	1.6	ft
$V_{biofiltered} = d_{E\_bio} * Area_{BMP}$	$V_{biofiltered}$ =	263638.3	ft³
$V_{biofiltered\_static} = d_{E\_bio\_static} * Area_{BMP}$	$V_{biofiltered\_static}$ =	159680.0	ft³

Sizing Option 1 Result

Criteria 1: $V_{biofiltered\ (with\ routing)} > 150\%$ of $V_{not\ reliably\ retained}$ Results: PASS

Sizing Option 2 Result

Criteria 2: $V_{biofiltered\_static} > 0.75 \times V_{Not\ Reliably\ Retained}$ Results: PASS

Note

If neither of these criteria are met, then increase retention depth, increase footprint, or both, and rerun calculations. This calculation is inherently iterative.

Biofiltration with Partial Retention Facility Properties

Side Slopes in Partial Retention with Biofiltration Facility	z = 4	:1
Diameter of Underdrain	6	inches
Longitudinal Slope of Site (3% maximum)	0.5	%
Check Dam Spacing	0	feet
Describe Vegetation:	Natural Grasses	

Notes:

Appendix 7:
Hydromodification & Critical Coarse Sediment

Supporting Detail for Hydromodification compliance & Exhibit G - CCSY & PSS Areas with the project location.

<u>The preparer shall include the following in this Appendix (Refer to Section 2.4 and 3.6 of the SMR WQMP and Sections E of this Template):</u>

- Hydromodification Exemption Exhibit (if the project is in an area exempt from Hydromod)
- Potential Critical Coarse Sediment Yield Area Mapping (to show if the site is out of a CCSYA)
- Hydromodification BMP sizing calculations (i.e. County Hydromod Spreadsheet – Hydromod, and BMP Design tabs, SMRHM report files, or other acceptable Hydromod calculations)
- Site-Specific Critical Coarse Sediment Analysis (if a project impacts a CCSYA)
- Design details/drawings from manufacturers for proprietary BMPs (if proprietary BMPs are proposed)

<u>In addition, the project shall comply with drainage law and good practices:</u>

- Protect the Site and Roads from Q100yr, without impacting adjacent property owners.
- Pad elevations must be above the Q100yr water surface at all locations.

I. Identify Offsite Hydrology

A. If the project intends to allow the flows to pass through the project uninterrupted, the flows must remain along its natural flow-path and natural condition. The project must also:
   (1) Ensure that the existing stream is stable. If not, the design must include stabilization.
   (2) Does the 100 year flow path affect proposed project elements, such as streets and fill slopes? If so, the project must properly design for impingements, provide revetment, etc. If the water surface changes due to impingements on neighbor's properties, Permission to pond letters must be provided.

B. If the project intends to collect and convey the offsite flows, see the next section:

II. Hydraulics

A. Project must provide collection inlets that can be accessed for maintenance. If located outside of the project boundary, the project must provide a Permission Letter or drainage easement. If the inlet creates new ponding on private property, the project must provide a Permission to Pond letter or easement.

B. The project should not divert watershed areas over 1 acre. If so, Permission Letter to accept project's diversion and drainage concept must be received by the project.

C. The project should have an adequate outlet. If not, include Permission Letters and implement Increased Runoff criteria (2, 5,10 year storm events and the 1, 3, 6 and 24 hour durations). 100 year storm routing is not to be used. Runoff from the offsite plus onsite must be returned to its natural (existing) condition of velocity, peak flow-rate, flow-width and location/right of way, if permission letters have not been obtained.

D. The project must adequately convey the 100 year storm between the combination of street flow and pipe flow per County Ordinance.

E. The project should use the downstream connection as the Q100yr water surface control elevation, to ensure 6 inches minimum of freeboard in proposed drainage system.

III. Basin Layout

A. Implement Basin Guidelines as best as possible from Appendix C, Design Handbook for LID BMPs.

DETENTION BASIN ROUTING for HYDROMOD CALCULATIONS

The proposed project Water Quality Biofiltration Basin is capable of all of the following:

1. Releasing the post-development hydrograph for 2-, 5-, 10- and 100-year 1-, 3-, 6- and 24-hour at flow rates no greater than 110% of pre-development at the same frequency flow rates.

2. By-passing the 100-year storm event without damage to the BMP.
3. Control outlet velocities such that downstream erosion potential is minimized and outlet flow is released in a safe manner.

Detention Basin Routing Calculations

The Detention Basin Routing Calculations were conducted using the CivilCADD/Design software and the Riverside County Hydrology Manual. In this analysis, the goal was to estimate the quantity of storm water to be detained onsite to mitigate the increase in storm water peak discharge and volume resulting from this development for the 2-, 5-, 10-, 100-year 1-, 3-, 6-, 24-hour storms.

Summary of Hydrographs and Basin Routing:
Drainage Area C – 91.5 Ac

Storm Frequency	**Existing** Q_2 (cfs) **[1]**	**Proposed** Q_2 (cfs)	**Det. Basin Outlet** Q_2 (cfs) **[2]**	**Different [2] – [1]** (cfs)	**Different [2] – [1]** (%)
2-year 1-hour	44.595	79.811	2.101	-42.494	-95%
2-year 3-hour	27.712	49.895	2.375	-25.337	-91%
2-year 6-hour	23.804	44.972	2.559	-21.245	-89%
2-year 24-hour	2.761	17.460	2.809	0.048	1.7%

Storm Frequency	**Existing** Q_5 (cfs) **[1]**	**Proposed** Q_5 (cfs)	**Det. Basin Outlet** Q_5 (cfs) **[2]**	**Different [2] – [1]** (cfs)	**Different [2] – [1]** (%)
5-year 1-hour	81.829	125.377	2.386	-79.443	-97%
5-year 3-hour	50.219	75.823	2.619	-47.600	-94%
5-year 6-hour	43.544	67.491	2.820	-40.724	-93%
5-year 24-hour	4.094	24.039	4.512	0.418	10%

Storm Frequency	**Existing** Q_{10} (cfs) **[1]**	**Proposed** Q_{10} (cfs)	**Det. Basin Outlet** Q_{10} (cfs) **[2]**	**Different [2] – [1]** (cfs)	**Different [2] – [1]** (%)
10-year 1-hour	128.187	168.929	2.628	-125.559	-97%
10-year 3-hour	85.884	103.364	2.842	-83.042	-96%
10-year 6-hour	76.756	92.591	5.212	-71.544	-93%
10-year 24-hour	26.514	34.096	18.306	-8.208	-31%

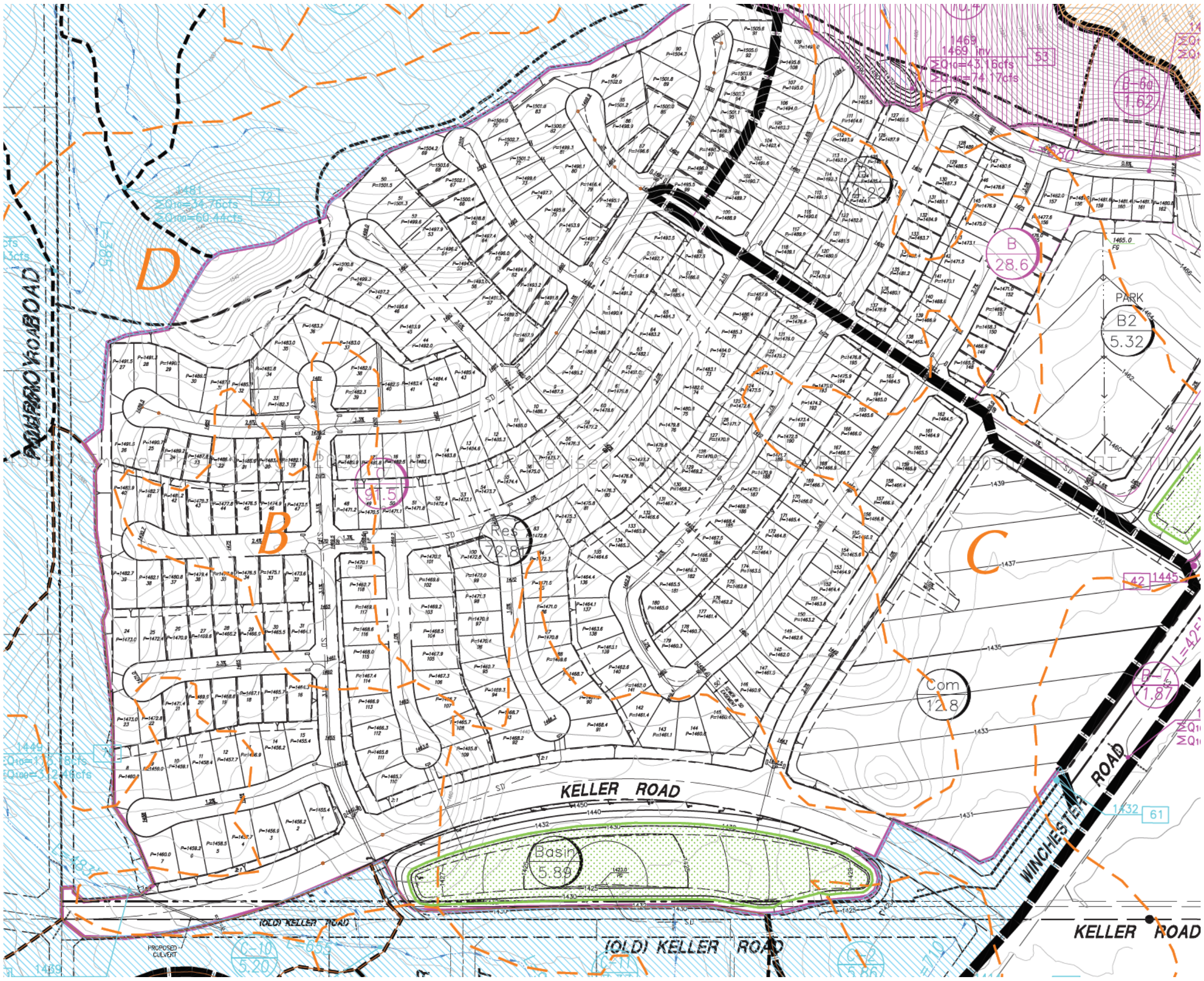
Storm Frequency	**Existing** Q_{100} (cfs) **[1]**	**Proposed** Q_{100} (cfs)	**Det. Basin Outlet** Q_{100} (cfs) **[2]**	**Different [2] – [1]** (cfs)	**Different [2] – [1]** (%)
100-year 1-hour	236.581	294.950	13.532	-223.049	-94%
100-year 3-hour	157.983	176.391	43.548	-114.435	-72%
100-year 6-hour	141.529	157.186	78.747	-62.782	-44%
100-year 24-hour	62.787	66.833	54.109	-8.678	-13%

Summary of Hydrographs and Basin Routing:
Drainage Area B – 59.9 Ac (use WQ basin for 2- thru 10-yr mitigation, see above in Appendix 6):

Storm Frequency	**DS #6 Culvert Capacity** Q_{max} (cfs) **[1]**	**Proposed** Q_{INFLOW} (cfs)	**Det. Basin Outlet** Q_{100} (cfs) **[2]**	**Different [2] – [1]** (cfs)	**Different [2] – [1]** (%)
10-year 1-hour	18.7	82.730	12.118	-70.612	-85%
25-year 1-hour	18.7	107.726	13.207	-94.519	-88%
100-year 1-hour	18.7	152.673	15.068	-137.605	-90%
100-year 3-hour	18.7	102.586	15.787	-86.799	-85%
100-year 6-hour	18.7	91.965	16.060	-75.905	-83%
100-year 24-hour	18.7	40.754	16.382	-24.372	-60%

Storage and Outflow WQ/Detention Basin C Rating Curve:

Keller Project - Drainage Area C = 91.5 Ac									
County of Riverside									
Proposed WQ/Detention Basin DMA Area C									
			Headwater Stage 1		Headwater Stage 2	Stage 2 Orifice A=0.09 sf	Stage 2 Orifice A=0.09 sf	Stage 3 Spillway	Total Outflow
Elev	Depth	Vol	Depth	Vol	Depth	1ea-4" Opening	1ea-4" Opening	10' Opening	**Q total**
(ft)	(ft)	(ac-ft)	(ft)	(ac-ft)	(ft)	1423	1425	1428	(cfs)
1423	0.0	0	WQ Vol		0.0	0	0	0	**0.00**
1424	1.0	1.422	WQ Vol		1.0	0.82	0	0	**0.00**
1425	2.0	2.969	WQ Vol	0	2.0	1.2	0	0	**0.00**
1426	3.0	4.662	1.0	1.693	3.0	1.5	0.41	0	**1.91**
1427	4.0	6.774	2.0	3.806	4.0	1.74	0.6	0	**2.34**
1428	5.0	9.503	3.0	6.534	5.0	1.96	0.75	0	**2.71**
1429	6.0	12.709	4.0	9.741	6.0	2.16	0.87	0	**3.03**
1430	7.0	16.244	5.0	13.275	7.0	2.34	0.98	30	**33.32**
1431	8.0	19.234	6.0	16.265	8.0	2.5	1.08	84.85	**88.43**
WQ Volume Total = 61,640 cuft = 1.42 Acft									
WQ Volume provided = 2.969 Acft at Basin Elevation 1425. Above 1425 ==> Detention Basin									



Drainage Area C = 91.5 ac - to WQ/Detention Basin C

Basin C: Rating Table for Circular Orifice - 4" diameter opening

Project Description

Solve For	Discharge

Input Data

Headwater Elevation	3.10	ft
Centroid Elevation	0.17	ft
Tailwater Elevation	0.00	ft
Discharge Coefficient	0.65	
Diameter	0.33	ft

Headwater Elevation (ft)	Discharge (ft^3/s)	Velocity (ft/s)
0.00		
1.00	0.41	4.76
2.00	0.60	7.06
3.00	0.75	8.78
4.00	0.87	10.21
5.00	0.98	11.46
6.00	1.08	12.59
7.00	1.17	13.63
8.00	1.25	14.59
9.00	1.33	15.50
10.00	1.40	16.35
11.00	1.47	17.16
12.00	1.53	17.94
13.00	1.60	18.68
14.00	1.66	19.39
15.00	1.72	20.08

Basin C: Rating Table for Generic Weir - 10 LF Spillway

Project Description

Solve For Discharge

Input Data

Headwater Elevation	1.50	ft
Crest Elevation	0.00	ft
Weir Coefficient	3.00	US
Crest Length	10.00	ft

Headwater Elevation (ft)	Discharge (ft³/s)	Velocity (ft/s)
0.00		
0.50	10.61	2.12
1.00	30.00	3.00
1.50	55.11	3.67
2.00	84.85	4.24
2.50	118.59	4.74
3.00	155.88	5.20
3.50	196.44	5.61
4.00	240.00	6.00
4.50	286.38	6.36
5.00	335.41	6.71

INFLOW HYDROGRAPHS
For Area C (only)
1-,3-,6-,24-hour 2-,5-,10-,100-year Storm

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

Study date 05/07/21 File: kx2prh12.out

++

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

Program License Serial Number 4029

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

English Units used in output format

Keller Crossing – Area C
Hydrology Proposed Condition
2-year 1-hour storm

Drainage Area = 91.50(Ac.) = 0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 91.50(Ac.) = 0.143 Sq. Mi.
Length along longest watercourse = 2880.00(Ft.)
Length along longest watercourse measured to centroid = 1560.00(Ft.)
Length along longest watercourse = 0.545 Mi.
Length along longest watercourse measured to centroid = 0.295 Mi.
Difference in elevation = 102.70(Ft.)
Slope along watercourse = 188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time = 0.071 Hr.
Lag time = 4.26 Min.
25% of lag time = 1.06 Min.
40% of lag time = 1.70 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]
91.50	0.53	48.31

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
91.50	1.59	145.49

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 0.528(In)

Area Averaged 100-Year Rainfall = 1.590(In)

Point rain (area averaged) = 0.528(In)
Areal adjustment factor = 99.92 %
Adjusted average point rain = 0.528(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.890	69.00	0.010
72.810	67.90	0.650
12.800	72.30	0.900

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	49.8	0.574	0.010	0.569	0.064	0.037
67.9	48.5	0.587	0.650	0.244	0.796	0.194
72.3	53.8	0.534	0.900	0.101	0.140	0.014
					Sum (F) =	0.245

Area averaged mean soil loss (F) (In/Hr) = 0.245
Minimum soil loss rate ((In/Hr)) = 0.122
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.380

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 (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	117.475	24.463	22.559
2	0.167	234.951	48.785	44.987
3	0.250	352.426	13.536	12.482
4	0.333	469.902	6.154	5.675
5	0.417	587.377	3.437	3.170
6	0.500	704.853	2.016	1.859
7	0.583	822.328	1.608	1.483
			Sum = 100.000	Sum= 92.215

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	0.279	(0.245)	0.106	0.173
2	0.17	4.50	0.285	(0.245)	0.108	0.177
3	0.25	5.40	0.342	(0.245)	0.130	0.212
4	0.33	5.40	0.342	(0.245)	0.130	0.212
5	0.42	5.70	0.361	(0.245)	0.137	0.224
6	0.50	6.40	0.405	(0.245)	0.154	0.251
7	0.58	7.90	0.500	(0.245)	0.190	0.310
8	0.67	9.10	0.576	(0.245)	0.219	0.357
9	0.75	12.80	0.810	0.245	(0.308)	0.566
10	0.83	25.60	1.621	0.245	(0.616)	1.376
11	0.92	7.90	0.500	(0.245)	0.190	0.310

```
12   1.00     4.90      0.310       (  0.245)       0.118        0.192
            (Loss Rate Not Used)
   Sum =     100.0                                 Sum =     4.4
     Flood volume = Effective rainfall      0.36(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =       2.8(Ac.Ft)
     Total soil loss =      0.16(In)
     Total soil loss =     1.252(Ac.Ft)
     Total rainfall =      0.53(In)
     Flood volume =      120669.0 Cubic Feet
     Total soil loss =       54558.1 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =     79.811(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       20.0      40.0      60.0      80.0
-----------------------------------------------------------------------
  0+ 5       0.0268      3.90  VQ        |         |         |         |
  0+10       0.1078     11.76  |V   Q    |         |         |         |
  0+15       0.2104     14.89  |  V   Q  |         |         |         |
  0+20       0.3310     17.51  |   V   Q |         |         |         |
  0+25       0.4604     18.79  |     V  Q|         |         |         |
  0+30       0.6014     20.47  |       V Q         |         |         |
  0+35       0.7636     23.56  |         |Q        |         |         |
  0+40       0.9548     27.75  |         |  Q      |         |         |
  0+45       1.1997     35.56  |         |      Q  |         |         |
  0+50       1.6423     64.27  |         |         |  V      | Q       |
  0+55       2.1920     79.81  |         |         |         |V       Q|
  1+ 0       2.4728     40.78  |         |         Q         |    V    |
  1+ 5       2.6330     23.26  |         |Q        |         |       V |
  1+10       2.7026     10.11  |     Q   |         |         |        V|
  1+15       2.7403      5.47  | Q       |         |         |        V|
  1+20       2.7626      3.23  |Q        |         |         |        V|
  1+25       2.7682      0.82  Q         |         |         |        V|
  1+30       2.7702      0.29  Q         |         |         |        V|
-----------------------------------------------------------------------
```

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

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
      Study date  05/07/21 File: kx2prh32.out

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing - Area C
Hydrology Proposed Condition
2-year 3-hour storm


--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =    0.071 Hr.
Lag time =     4.26 Min.
25% of lag time =     1.06 Min.
40% of lag time =     1.70 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]
       91.50         0.91                83.36

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50         2.33               213.19

STORM EVENT (YEAR) =    2.00
```

Area Averaged 2-Year Rainfall = 0.911(In)
Area Averaged 100-Year Rainfall = 2.330(In)

Point rain (area averaged) = 0.911(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 0.911(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.890	69.00	0.010
72.810	67.90	0.650
12.800	72.30	0.900

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	49.8	0.574	0.010	0.569	0.064	0.037
67.9	48.5	0.587	0.650	0.244	0.796	0.194
72.3	53.8	0.534	0.900	0.101	0.140	0.014
					Sum (F) =	0.245

Area averaged mean soil loss (F) (In/Hr) = 0.245
Minimum soil loss rate ((In/Hr)) = 0.122
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.380

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

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	117.475	24.463	22.559
2	0.167	234.951	48.785	44.987
3	0.250	352.426	13.536	12.482
4	0.333	469.902	6.154	5.675
5	0.417	587.377	3.437	3.170
6	0.500	704.853	2.016	1.859
7	0.583	822.328	1.608	1.483
			Sum = 100.000	Sum= 92.215

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	Loss rate(In./Hr) Low	Effective (In/Hr)
1	0.08	1.30	0.142	(0.245)	0.054	0.088
2	0.17	1.30	0.142	(0.245)	0.054	0.088
3	0.25	1.10	0.120	(0.245)	0.046	0.075
4	0.33	1.50	0.164	(0.245)	0.062	0.102
5	0.42	1.50	0.164	(0.245)	0.062	0.102
6	0.50	1.80	0.197	(0.245)	0.075	0.122
7	0.58	1.50	0.164	(0.245)	0.062	0.102
8	0.67	1.80	0.197	(0.245)	0.075	0.122
9	0.75	1.80	0.197	(0.245)	0.075	0.122
10	0.83	1.50	0.164	(0.245)	0.062	0.102
11	0.92	1.60	0.175	(0.245)	0.066	0.108
12	1.00	1.80	0.197	(0.245)	0.075	0.122

```
13   1.08     2.20      0.240       (  0.245)       0.091         0.149
14   1.17     2.20      0.240       (  0.245)       0.091         0.149
15   1.25     2.20      0.240       (  0.245)       0.091         0.149
16   1.33     2.00      0.219       (  0.245)       0.083         0.136
17   1.42     2.60      0.284       (  0.245)       0.108         0.176
18   1.50     2.70      0.295       (  0.245)       0.112         0.183
19   1.58     2.40      0.262       (  0.245)       0.100         0.163
20   1.67     2.70      0.295       (  0.245)       0.112         0.183
21   1.75     3.30      0.361       (  0.245)       0.137         0.224
22   1.83     3.10      0.339       (  0.245)       0.129         0.210
23   1.92     2.90      0.317       (  0.245)       0.120         0.196
24   2.00     3.00      0.328       (  0.245)       0.125         0.203
25   2.08     3.10      0.339       (  0.245)       0.129         0.210
26   2.17     4.20      0.459       (  0.245)       0.174         0.285
27   2.25     5.00      0.546       (  0.245)       0.208         0.339
28   2.33     3.50      0.382       (  0.245)       0.145         0.237
29   2.42     6.80      0.743          0.245    (  0.282)         0.498
30   2.50     7.30      0.798          0.245    (  0.303)         0.553
31   2.58     8.20      0.896          0.245    (  0.341)         0.651
32   2.67     5.90      0.645          0.245    (  0.245)         0.400
33   2.75     2.00      0.219       (  0.245)       0.083         0.136
34   2.83     1.80      0.197       (  0.245)       0.075         0.122
35   2.92     1.80      0.197       (  0.245)       0.075         0.122
36   3.00     0.60      0.066       (  0.245)       0.025         0.041
           (Loss Rate Not Used)
   Sum =     100.0                                  Sum =     7.0
     Flood volume = Effective rainfall      0.58(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =       4.4(Ac.Ft)
     Total soil loss =      0.33(In)
     Total soil loss =     2.516(Ac.Ft)
     Total rainfall =      0.91(In)
     Flood volume =      192857.0 Cubic Feet
     Total soil loss =      109605.9 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =     49.895(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       12.5      25.0      37.5      50.0
-----------------------------------------------------------------------
  0+ 5       0.0137      1.99  VQ        |         |         |         |
  0+10       0.0547      5.95  V   Q     |         |         |         |
  0+15       0.1011      6.75  V    Q    |         |         |         |
  0+20       0.1511      7.25  |V   Q    |         |         |         |
  0+25       0.2101      8.58  |V    Q   |         |         |         |
  0+30       0.2753      9.46  | V    Q  |         |         |         |
  0+35       0.3453     10.16  |  V    Q |         |         |         |
  0+40       0.4143     10.02  |  V    Q |         |         |         |
  0+45       0.4888     10.83  |   V   Q |         |         |         |
  0+50       0.5619     10.61  |    V  Q |         |         |         |
  0+55       0.6303      9.94  |    V Q  |         |         |         |
  1+ 0       0.7016     10.35  |     V Q |         |         |         |
  1+ 5       0.7812     11.55  |      V Q|         |         |         |
  1+10       0.8703     12.94  |      V  Q         |         |         |
  1+15       0.9622     13.34  |       V Q         |         |         |
  1+20       1.0532     13.21  |        VQ         |         |         |
  1+25       1.1471     13.64  |         Q         |         |         |
  1+30       1.2541     15.53  |         |VQ       |         |         |
```

```
    1+35       1.3632      15.84  |         | Q       |         |         |
    1+40       1.4710      15.66  |         | QV      |         |         |
    1+45       1.5907      17.38  |         |  QV     |         |         |
    1+50       1.7224      19.12  |         |    Q    |         |         |
    1+55       1.8521      18.84  |         |    QV   |         |         |
    2+ 0       1.9794      18.48  |         |   Q  V  |         |         |
    2+ 5       2.1091      18.83  |         |    Q   V|         |         |
    2+10       2.2529      20.88  |         |     Q   V         |         |
    2+15       2.4290      25.58  |         |         QV        |         |
    2+20       2.6127      26.67  |         |         |Q V      |         |
    2+25       2.8131      29.11  |         |         |  Q V    |         |
    2+30       3.0983      41.40  |         |         |      V  |  Q      |
    2+35       3.4363      49.09  |         |         |         |V       Q|
    2+40       3.7800      49.90  |         |         |         |   V    Q|
    2+45       4.0201      34.87  |         |         |      Q  |     V   |
    2+50       4.1618      20.58  |         |     Q   |         |      V  |
    2+55       4.2723      16.04  |         | Q       |         |       V |
    3+ 0       4.3550      12.00  |        Q|         |         |        V|
    3+ 5       4.3976       6.19  |    Q    |         |         |        V|
    3+10       4.4143       2.43  |Q        |         |         |        V|
    3+15       4.4215       1.05  Q         |         |         |        V|
    3+20       4.4252       0.54  Q         |         |         |        V|
    3+25       4.4270       0.26  Q         |         |         |        V|
    3+30       4.4274       0.06  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 05/07/21 File: kx2prh62.out

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

Program License Serial Number 4029

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

English Units used in output format

Keller Crossing – Area C
Hydrology Proposed Condition
2-year 6-hour storm

Drainage Area = 91.50(Ac.) = 0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 91.50(Ac.) = 0.143 Sq. Mi.
Length along longest watercourse = 2880.00(Ft.)
Length along longest watercourse measured to centroid = 1560.00(Ft.)
Length along longest watercourse = 0.545 Mi.
Length along longest watercourse measured to centroid = 0.295 Mi.
Difference in elevation = 102.70(Ft.)
Slope along watercourse = 188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time = 0.071 Hr.
Lag time = 4.26 Min.
25% of lag time = 1.06 Min.
40% of lag time = 1.70 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]
91.50	1.29	118.04

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
91.50	3.17	290.06

STORM EVENT (YEAR) = 2.00

Area Averaged 2-Year Rainfall = 1.290(In)
Area Averaged 100-Year Rainfall = 3.170(In)

Point rain (area averaged) = 1.290(In)
Areal adjustment factor = 99.97 %
Adjusted average point rain = 1.290(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.890	69.00	0.010
72.810	67.90	0.650
12.800	72.30	0.900

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	49.8	0.574	0.010	0.569	0.064	0.037
67.9	48.5	0.587	0.650	0.244	0.796	0.194
72.3	53.8	0.534	0.900	0.101	0.140	0.014
					Sum (F) =	0.245

Area averaged mean soil loss (F) (In/Hr) = 0.245
Minimum soil loss rate ((In/Hr)) = 0.122
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.380

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

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %		Unit Hydrograph (CFS)
1	0.083	117.475	24.463		22.559
2	0.167	234.951	48.785		44.987
3	0.250	352.426	13.536		12.482
4	0.333	469.902	6.154		5.675
5	0.417	587.377	3.437		3.170
6	0.500	704.853	2.016		1.859
7	0.583	822.328	1.608		1.483
			Sum = 100.000	Sum=	92.215

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	0.077	(0.245)	0.029	0.048
2	0.17	0.60	0.093	(0.245)	0.035	0.058
3	0.25	0.60	0.093	(0.245)	0.035	0.058
4	0.33	0.60	0.093	(0.245)	0.035	0.058
5	0.42	0.60	0.093	(0.245)	0.035	0.058
6	0.50	0.70	0.108	(0.245)	0.041	0.067
7	0.58	0.70	0.108	(0.245)	0.041	0.067
8	0.67	0.70	0.108	(0.245)	0.041	0.067
9	0.75	0.70	0.108	(0.245)	0.041	0.067
10	0.83	0.70	0.108	(0.245)	0.041	0.067
11	0.92	0.70	0.108	(0.245)	0.041	0.067
12	1.00	0.80	0.124	(0.245)	0.047	0.077

13	1.08	0.80	0.124	(0.245)	0.047	0.077
14	1.17	0.80	0.124	(0.245)	0.047	0.077
15	1.25	0.80	0.124	(0.245)	0.047	0.077
16	1.33	0.80	0.124	(0.245)	0.047	0.077
17	1.42	0.80	0.124	(0.245)	0.047	0.077
18	1.50	0.80	0.124	(0.245)	0.047	0.077
19	1.58	0.80	0.124	(0.245)	0.047	0.077
20	1.67	0.80	0.124	(0.245)	0.047	0.077
21	1.75	0.80	0.124	(0.245)	0.047	0.077
22	1.83	0.80	0.124	(0.245)	0.047	0.077
23	1.92	0.80	0.124	(0.245)	0.047	0.077
24	2.00	0.90	0.139	(0.245)	0.053	0.086
25	2.08	0.80	0.124	(0.245)	0.047	0.077
26	2.17	0.90	0.139	(0.245)	0.053	0.086
27	2.25	0.90	0.139	(0.245)	0.053	0.086
28	2.33	0.90	0.139	(0.245)	0.053	0.086
29	2.42	0.90	0.139	(0.245)	0.053	0.086
30	2.50	0.90	0.139	(0.245)	0.053	0.086
31	2.58	0.90	0.139	(0.245)	0.053	0.086
32	2.67	0.90	0.139	(0.245)	0.053	0.086
33	2.75	1.00	0.155	(0.245)	0.059	0.096
34	2.83	1.00	0.155	(0.245)	0.059	0.096
35	2.92	1.00	0.155	(0.245)	0.059	0.096
36	3.00	1.00	0.155	(0.245)	0.059	0.096
37	3.08	1.00	0.155	(0.245)	0.059	0.096
38	3.17	1.10	0.170	(0.245)	0.065	0.106
39	3.25	1.10	0.170	(0.245)	0.065	0.106
40	3.33	1.10	0.170	(0.245)	0.065	0.106
41	3.42	1.20	0.186	(0.245)	0.071	0.115
42	3.50	1.30	0.201	(0.245)	0.076	0.125
43	3.58	1.40	0.217	(0.245)	0.082	0.134
44	3.67	1.40	0.217	(0.245)	0.082	0.134
45	3.75	1.50	0.232	(0.245)	0.088	0.144
46	3.83	1.50	0.232	(0.245)	0.088	0.144
47	3.92	1.60	0.248	(0.245)	0.094	0.154
48	4.00	1.60	0.248	(0.245)	0.094	0.154
49	4.08	1.70	0.263	(0.245)	0.100	0.163
50	4.17	1.80	0.279	(0.245)	0.106	0.173
51	4.25	1.90	0.294	(0.245)	0.112	0.182
52	4.33	2.00	0.310	(0.245)	0.118	0.192
53	4.42	2.10	0.325	(0.245)	0.123	0.201
54	4.50	2.10	0.325	(0.245)	0.123	0.201
55	4.58	2.20	0.340	(0.245)	0.129	0.211
56	4.67	2.30	0.356	(0.245)	0.135	0.221
57	4.75	2.40	0.371	(0.245)	0.141	0.230
58	4.83	2.40	0.371	(0.245)	0.141	0.230
59	4.92	2.50	0.387	(0.245)	0.147	0.240
60	5.00	2.60	0.402	(0.245)	0.153	0.249
61	5.08	3.10	0.480	(0.245)	0.182	0.297
62	5.17	3.60	0.557	(0.245)	0.212	0.345
63	5.25	3.90	0.604	(0.245)	0.229	0.374
64	5.33	4.20	0.650	0.245	(0.247)	0.405
65	5.42	4.70	0.727	0.245	(0.276)	0.483
66	5.50	5.60	0.867	0.245	(0.329)	0.622
67	5.58	1.90	0.294	(0.245)	0.112	0.182
68	5.67	0.90	0.139	(0.245)	0.053	0.086
69	5.75	0.60	0.093	(0.245)	0.035	0.058
70	5.83	0.50	0.077	(0.245)	0.029	0.048
71	5.92	0.30	0.046	(0.245)	0.018	0.029
72	6.00	0.20	0.031	(0.245)	0.012	0.019
		(Loss Rate Not Used)				
	Sum =	100.0			Sum =	9.7

Flood volume = Effective rainfall 0.81(In)

```
      times area      91.5(Ac.)/[(In)/(Ft.)] =       6.2(Ac.Ft)
     Total soil loss =      0.48(In)
     Total soil loss =     3.661(Ac.Ft)
     Total rainfall =      1.29(In)
     Flood volume =      268855.7 Cubic Feet
     Total soil loss =      159476.6 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =     44.972(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       12.5      25.0      37.5      50.0
-----------------------------------------------------------------------
  0+ 5       0.0075      1.08  Q         |         |         |         |
  0+10       0.0313      3.46  V Q       |         |         |         |
  0+15       0.0622      4.49  V  Q      |         |         |         |
  0+20       0.0958      4.88  V  Q      |         |         |         |
  0+25       0.1309      5.09  V   Q     |         |         |         |
  0+30       0.1682      5.42  |V  Q     |         |         |         |
  0+35       0.2092      5.95  |V  Q     |         |         |         |
  0+40       0.2510      6.08  |V  Q     |         |         |         |
  0+45       0.2933      6.13  |V  Q     |         |         |         |
  0+50       0.3357      6.16  | V Q     |         |         |         |
  0+55       0.3783      6.18  | V Q     |         |         |         |
  1+ 0       0.4225      6.41  | V  Q    |         |         |         |
  1+ 5       0.4696      6.84  |  V Q    |         |         |         |
  1+10       0.5176      6.96  |  V Q    |         |         |         |
  1+15       0.5659      7.02  |  V Q    |         |         |         |
  1+20       0.6145      7.05  |  V Q    |         |         |         |
  1+25       0.6632      7.07  |   VQ    |         |         |         |
  1+30       0.7119      7.08  |   VQ    |         |         |         |
  1+35       0.7607      7.08  |   VQ    |         |         |         |
  1+40       0.8095      7.08  |    Q    |         |         |         |
  1+45       0.8582      7.08  |    Q    |         |         |         |
  1+50       0.9070      7.08  |    Q    |         |         |         |
  1+55       0.9558      7.08  |    QV   |         |         |         |
  2+ 0       1.0061      7.30  |    QV   |         |         |         |
  2+ 5       1.0578      7.51  |     Q   |         |         |         |
  2+10       1.1089      7.42  |    Q V  |         |         |         |
  2+15       1.1625      7.78  |     QV  |         |         |         |
  2+20       1.2168      7.88  |     QV  |         |         |         |
  2+25       1.2713      7.92  |     Q V |         |         |         |
  2+30       1.3261      7.95  |     Q V |         |         |         |
  2+35       1.3809      7.95  |     Q V |         |         |         |
  2+40       1.4357      7.97  |     Q  V|         |         |         |
  2+45       1.4921      8.18  |     Q  V|         |         |         |
  2+50       1.5514      8.62  |     Q   V         |         |         |
  2+55       1.6116      8.74  |     Q   V         |         |         |
  3+ 0       1.6721      8.79  |      Q  V         |         |         |
  3+ 5       1.7329      8.82  |      Q  |V        |         |         |
  3+10       1.7952      9.05  |      Q  |V        |         |         |
  3+15       1.8607      9.50  |      Q  | V       |         |         |
  3+20       1.9269      9.62  |      Q  | V       |         |         |
  3+25       1.9950      9.89  |      Q  | V       |         |         |
  3+30       2.0678     10.57  |       Q |  V      |         |         |
  3+35       2.1460     11.36  |        Q|  V      |         |         |
  3+40       2.2285     11.98  |        Q|   V     |         |         |
  3+45       2.3139     12.40  |        Q|   V     |         |         |
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```
   3+50       2.4030     12.93  |         Q    V     |         |         |
   3+55       2.4948     13.33  |         Q     V    |         |         |
   4+ 0       2.5902     13.85  |         |Q    V    |         |         |
   4+ 5       2.6882     14.23  |         |Q     V   |         |         |
   4+10       2.7912     14.95  |         |Q      V |         |         |
   4+15       2.8997     15.76  |         | Q     V |         |         |
   4+20       3.0141     16.61  |         |  Q     V|         |         |
   4+25       3.1344     17.47  |         |  Q      V         |         |
   4+30       3.2593     18.13  |         |   Q     |V        |         |
   4+35       3.3872     18.58  |         |   Q     |V        |         |
   4+40       3.5205     19.35  |         |    Q    | V       |         |
   4+45       3.6594     20.18  |         |     Q   |  V      |         |
   4+50       3.8028     20.81  |         |     Q   |   V     |         |
   4+55       3.9491     21.25  |         |      Q  |    V    |         |
   5+ 0       4.1007     22.00  |         |      Q  |     V   |         |
   5+ 5       4.2639     23.70  |         |       Q |      V  |         |
   5+10       4.4508     27.15  |         |         |Q      V |         |
   5+15       4.6619     30.65  |         |         |   Q     V         |
   5+20       4.8932     33.57  |         |         |     Q   |V        |
   5+25       5.1517     37.54  |         |         |         Q  V      |
   5+30       5.4614     44.97  |         |         |         |    Q   |
   5+35       5.7556     42.71  |         |         |         |   Q  V |
   5+40       5.9150     23.16  |         |       Q |         |      V |
   5+45       6.0103     13.83  |         |Q        |         |      V |
   5+50       6.0741      9.26  |      Q  |         |         |       V|
   5+55       6.1186      6.47  |    Q    |         |         |       V|
   6+ 0       6.1475      4.19  |  Q      |         |         |       V|
   6+ 5       6.1620      2.11  |Q        |         |         |       V|
   6+10       6.1675      0.79  Q         |         |         |       V|
   6+15       6.1701      0.37  Q         |         |         |       V|
   6+20       6.1713      0.19  Q         |         |         |       V|
   6+25       6.1719      0.08  Q         |         |         |       V|
   6+30       6.1721      0.03  Q         |         |         |        V
----------------------------------------------------------------------
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U n i t   H y d r o g r a p h   A n a l y s i s

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Study date 05/07/21 File: kx2prh242.out

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

Program License Serial Number 4029

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

English Units used in output format

Keller Crossing – Area C
Hydrology Proposed Condition
2-year 24-hour storm

Drainage Area =   91.50(Ac.) =   0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =   91.50(Ac.) =   0.143 Sq. Mi.
Length along longest watercourse =   2880.00(Ft.)
Length along longest watercourse measured to centroid =   1560.00(Ft.)
Length along longest watercourse =   0.545 Mi.
Length along longest watercourse measured to centroid =   0.295 Mi.
Difference in elevation =   102.70(Ft.)
Slope along watercourse =   188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =   0.071 Hr.
Lag time =   4.26 Min.
25% of lag time =   1.06 Min.
40% of lag time =   1.70 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]
91.50	2.25	205.88

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
91.50	5.87	537.11

STORM EVENT (YEAR) =   2.00

Area Averaged 2-Year Rainfall = 2.250(In)
Area Averaged 100-Year Rainfall = 5.870(In)

Point rain (area averaged) = 2.250(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 2.250(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.890	69.00	0.010
72.810	67.90	0.650
12.800	72.30	0.900

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	49.8	0.574	0.010	0.569	0.064	0.037
67.9	48.5	0.587	0.650	0.244	0.796	0.194
72.3	53.8	0.534	0.900	0.101	0.140	0.014
					Sum (F) =	0.245

Area averaged mean soil loss (F) (In/Hr) = 0.245
Minimum soil loss rate ((In/Hr)) = 0.122
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.380

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

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	117.475	24.463	22.559
2	0.167	234.951	48.785	44.987
3	0.250	352.426	13.536	12.482
4	0.333	469.902	6.154	5.675
5	0.417	587.377	3.437	3.170
6	0.500	704.853	2.016	1.859
7	0.583	822.328	1.608	1.483
			Sum = 100.000	Sum= 92.215

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	0.018	(0.434)	0.007	0.011
2	0.17	0.07	0.018	(0.432)	0.007	0.011
3	0.25	0.07	0.018	(0.430)	0.007	0.011
4	0.33	0.10	0.027	(0.429)	0.010	0.017
5	0.42	0.10	0.027	(0.427)	0.010	0.017
6	0.50	0.10	0.027	(0.425)	0.010	0.017
7	0.58	0.10	0.027	(0.424)	0.010	0.017
8	0.67	0.10	0.027	(0.422)	0.010	0.017
9	0.75	0.10	0.027	(0.420)	0.010	0.017
10	0.83	0.13	0.036	(0.419)	0.014	0.022
11	0.92	0.13	0.036	(0.417)	0.014	0.022
12	1.00	0.13	0.036	(0.415)	0.014	0.022

13	1.08	0.10	0.027	(0.414)	0.010	0.017
14	1.17	0.10	0.027	(0.412)	0.010	0.017
15	1.25	0.10	0.027	(0.410)	0.010	0.017
16	1.33	0.10	0.027	(0.409)	0.010	0.017
17	1.42	0.10	0.027	(0.407)	0.010	0.017
18	1.50	0.10	0.027	(0.406)	0.010	0.017
19	1.58	0.10	0.027	(0.404)	0.010	0.017
20	1.67	0.10	0.027	(0.402)	0.010	0.017
21	1.75	0.10	0.027	(0.401)	0.010	0.017
22	1.83	0.13	0.036	(0.399)	0.014	0.022
23	1.92	0.13	0.036	(0.397)	0.014	0.022
24	2.00	0.13	0.036	(0.396)	0.014	0.022
25	2.08	0.13	0.036	(0.394)	0.014	0.022
26	2.17	0.13	0.036	(0.393)	0.014	0.022
27	2.25	0.13	0.036	(0.391)	0.014	0.022
28	2.33	0.13	0.036	(0.389)	0.014	0.022
29	2.42	0.13	0.036	(0.388)	0.014	0.022
30	2.50	0.13	0.036	(0.386)	0.014	0.022
31	2.58	0.17	0.045	(0.385)	0.017	0.028
32	2.67	0.17	0.045	(0.383)	0.017	0.028
33	2.75	0.17	0.045	(0.382)	0.017	0.028
34	2.83	0.17	0.045	(0.380)	0.017	0.028
35	2.92	0.17	0.045	(0.378)	0.017	0.028
36	3.00	0.17	0.045	(0.377)	0.017	0.028
37	3.08	0.17	0.045	(0.375)	0.017	0.028
38	3.17	0.17	0.045	(0.374)	0.017	0.028
39	3.25	0.17	0.045	(0.372)	0.017	0.028
40	3.33	0.17	0.045	(0.371)	0.017	0.028
41	3.42	0.17	0.045	(0.369)	0.017	0.028
42	3.50	0.17	0.045	(0.368)	0.017	0.028
43	3.58	0.17	0.045	(0.366)	0.017	0.028
44	3.67	0.17	0.045	(0.364)	0.017	0.028
45	3.75	0.17	0.045	(0.363)	0.017	0.028
46	3.83	0.20	0.054	(0.361)	0.021	0.033
47	3.92	0.20	0.054	(0.360)	0.021	0.033
48	4.00	0.20	0.054	(0.358)	0.021	0.033
49	4.08	0.20	0.054	(0.357)	0.021	0.033
50	4.17	0.20	0.054	(0.355)	0.021	0.033
51	4.25	0.20	0.054	(0.354)	0.021	0.033
52	4.33	0.23	0.063	(0.352)	0.024	0.039
53	4.42	0.23	0.063	(0.351)	0.024	0.039
54	4.50	0.23	0.063	(0.349)	0.024	0.039
55	4.58	0.23	0.063	(0.348)	0.024	0.039
56	4.67	0.23	0.063	(0.346)	0.024	0.039
57	4.75	0.23	0.063	(0.345)	0.024	0.039
58	4.83	0.27	0.072	(0.343)	0.027	0.045
59	4.92	0.27	0.072	(0.342)	0.027	0.045
60	5.00	0.27	0.072	(0.340)	0.027	0.045
61	5.08	0.20	0.054	(0.339)	0.021	0.033
62	5.17	0.20	0.054	(0.337)	0.021	0.033
63	5.25	0.20	0.054	(0.336)	0.021	0.033
64	5.33	0.23	0.063	(0.334)	0.024	0.039
65	5.42	0.23	0.063	(0.333)	0.024	0.039
66	5.50	0.23	0.063	(0.332)	0.024	0.039
67	5.58	0.27	0.072	(0.330)	0.027	0.045
68	5.67	0.27	0.072	(0.329)	0.027	0.045
69	5.75	0.27	0.072	(0.327)	0.027	0.045
70	5.83	0.27	0.072	(0.326)	0.027	0.045
71	5.92	0.27	0.072	(0.324)	0.027	0.045
72	6.00	0.27	0.072	(0.323)	0.027	0.045
73	6.08	0.30	0.081	(0.321)	0.031	0.050
74	6.17	0.30	0.081	(0.320)	0.031	0.050
75	6.25	0.30	0.081	(0.319)	0.031	0.050

76	6.33	0.30	0.081	(| 0.317)	0.031	0.050
77	6.42	0.30	0.081	(| 0.316)	0.031	0.050
78	6.50	0.30	0.081	(| 0.314)	0.031	0.050
79	6.58	0.33	0.090	(| 0.313)	0.034	0.056
80	6.67	0.33	0.090	(| 0.312)	0.034	0.056
81	6.75	0.33	0.090	(| 0.310)	0.034	0.056
82	6.83	0.33	0.090	(| 0.309)	0.034	0.056
83	6.92	0.33	0.090	(| 0.307)	0.034	0.056
84	7.00	0.33	0.090	(| 0.306)	0.034	0.056
85	7.08	0.33	0.090	(| 0.305)	0.034	0.056
86	7.17	0.33	0.090	(| 0.303)	0.034	0.056
87	7.25	0.33	0.090	(| 0.302)	0.034	0.056
88	7.33	0.37	0.099	(| 0.300)	0.038	0.061
89	7.42	0.37	0.099	(| 0.299)	0.038	0.061
90	7.50	0.37	0.099	(| 0.298)	0.038	0.061
91	7.58	0.40	0.108	(| 0.296)	0.041	0.067
92	7.67	0.40	0.108	(| 0.295)	0.041	0.067
93	7.75	0.40	0.108	(| 0.294)	0.041	0.067
94	7.83	0.43	0.117	(| 0.292)	0.044	0.073
95	7.92	0.43	0.117	(| 0.291)	0.044	0.073
96	8.00	0.43	0.117	(| 0.289)	0.044	0.073
97	8.08	0.50	0.135	(| 0.288)	0.051	0.084
98	8.17	0.50	0.135	(| 0.287)	0.051	0.084
99	8.25	0.50	0.135	(| 0.285)	0.051	0.084
100	8.33	0.50	0.135	(| 0.284)	0.051	0.084
101	8.42	0.50	0.135	(| 0.283)	0.051	0.084
102	8.50	0.50	0.135	(| 0.281)	0.051	0.084
103	8.58	0.53	0.144	(| 0.280)	0.055	0.089
104	8.67	0.53	0.144	(| 0.279)	0.055	0.089
105	8.75	0.53	0.144	(| 0.278)	0.055	0.089
106	8.83	0.57	0.153	(| 0.276)	0.058	0.095
107	8.92	0.57	0.153	(| 0.275)	0.058	0.095
108	9.00	0.57	0.153	(| 0.274)	0.058	0.095
109	9.08	0.63	0.171	(| 0.272)	0.065	0.106
110	9.17	0.63	0.171	(| 0.271)	0.065	0.106
111	9.25	0.63	0.171	(| 0.270)	0.065	0.106
112	9.33	0.67	0.180	(| 0.268)	0.068	0.112
113	9.42	0.67	0.180	(| 0.267)	0.068	0.112
114	9.50	0.67	0.180	(| 0.266)	0.068	0.112
115	9.58	0.70	0.189	(| 0.265)	0.072	0.117
116	9.67	0.70	0.189	(| 0.263)	0.072	0.117
117	9.75	0.70	0.189	(| 0.262)	0.072	0.117
118	9.83	0.73	0.198	(| 0.261)	0.075	0.123
119	9.92	0.73	0.198	(| 0.260)	0.075	0.123
120	10.00	0.73	0.198	(| 0.258)	0.075	0.123
121	10.08	0.50	0.135	(| 0.257)	0.051	0.084
122	10.17	0.50	0.135	(| 0.256)	0.051	0.084
123	10.25	0.50	0.135	(| 0.255)	0.051	0.084
124	10.33	0.50	0.135	(| 0.253)	0.051	0.084
125	10.42	0.50	0.135	(| 0.252)	0.051	0.084
126	10.50	0.50	0.135	(| 0.251)	0.051	0.084
127	10.58	0.67	0.180	(| 0.250)	0.068	0.112
128	10.67	0.67	0.180	(| 0.248)	0.068	0.112
129	10.75	0.67	0.180	(| 0.247)	0.068	0.112
130	10.83	0.67	0.180	(| 0.246)	0.068	0.112
131	10.92	0.67	0.180	(| 0.245)	0.068	0.112
132	11.00	0.67	0.180	(| 0.244)	0.068	0.112
133	11.08	0.63	0.171	(| 0.242)	0.065	0.106
134	11.17	0.63	0.171	(| 0.241)	0.065	0.106
135	11.25	0.63	0.171	(| 0.240)	0.065	0.106
136	11.33	0.63	0.171	(| 0.239)	0.065	0.106
137	11.42	0.63	0.171	(| 0.238)	0.065	0.106
138	11.50	0.63	0.171	(| 0.236)	0.065	0.106

139	11.58	0.57	0.153	(0.235)	0.058	0.095
140	11.67	0.57	0.153	(0.234)	0.058	0.095
141	11.75	0.57	0.153	(0.233)	0.058	0.095
142	11.83	0.60	0.162	(0.232)	0.062	0.100
143	11.92	0.60	0.162	(0.231)	0.062	0.100
144	12.00	0.60	0.162	(0.229)	0.062	0.100
145	12.08	0.83	0.225	(0.228)	0.085	0.139
146	12.17	0.83	0.225	(0.227)	0.085	0.139
147	12.25	0.83	0.225	(0.226)	0.085	0.139
148	12.33	0.87	0.234	(0.225)	0.089	0.145
149	12.42	0.87	0.234	(0.224)	0.089	0.145
150	12.50	0.87	0.234	(0.223)	0.089	0.145
151	12.58	0.93	0.252	(0.222)	0.096	0.156
152	12.67	0.93	0.252	(0.220)	0.096	0.156
153	12.75	0.93	0.252	(0.219)	0.096	0.156
154	12.83	0.97	0.261	(0.218)	0.099	0.162
155	12.92	0.97	0.261	(0.217)	0.099	0.162
156	13.00	0.97	0.261	(0.216)	0.099	0.162
157	13.08	1.13	0.306	(0.215)	0.116	0.190
158	13.17	1.13	0.306	(0.214)	0.116	0.190
159	13.25	1.13	0.306	(0.213)	0.116	0.190
160	13.33	1.13	0.306	(0.212)	0.116	0.190
161	13.42	1.13	0.306	(0.211)	0.116	0.190
162	13.50	1.13	0.306	(0.210)	0.116	0.190
163	13.58	0.77	0.207	(0.208)	0.079	0.128
164	13.67	0.77	0.207	(0.207)	0.079	0.128
165	13.75	0.77	0.207	(0.206)	0.079	0.128
166	13.83	0.77	0.207	(0.205)	0.079	0.128
167	13.92	0.77	0.207	(0.204)	0.079	0.128
168	14.00	0.77	0.207	(0.203)	0.079	0.128
169	14.08	0.90	0.243	(0.202)	0.092	0.151
170	14.17	0.90	0.243	(0.201)	0.092	0.151
171	14.25	0.90	0.243	(0.200)	0.092	0.151
172	14.33	0.87	0.234	(0.199)	0.089	0.145
173	14.42	0.87	0.234	(0.198)	0.089	0.145
174	14.50	0.87	0.234	(0.197)	0.089	0.145
175	14.58	0.87	0.234	(0.196)	0.089	0.145
176	14.67	0.87	0.234	(0.195)	0.089	0.145
177	14.75	0.87	0.234	(0.194)	0.089	0.145
178	14.83	0.83	0.225	(0.193)	0.085	0.139
179	14.92	0.83	0.225	(0.192)	0.085	0.139
180	15.00	0.83	0.225	(0.191)	0.085	0.139
181	15.08	0.80	0.216	(0.190)	0.082	0.134
182	15.17	0.80	0.216	(0.189)	0.082	0.134
183	15.25	0.80	0.216	(0.188)	0.082	0.134
184	15.33	0.77	0.207	(0.187)	0.079	0.128
185	15.42	0.77	0.207	(0.186)	0.079	0.128
186	15.50	0.77	0.207	(0.185)	0.079	0.128
187	15.58	0.63	0.171	(0.184)	0.065	0.106
188	15.67	0.63	0.171	(0.183)	0.065	0.106
189	15.75	0.63	0.171	(0.182)	0.065	0.106
190	15.83	0.63	0.171	(0.181)	0.065	0.106
191	15.92	0.63	0.171	(0.181)	0.065	0.106
192	16.00	0.63	0.171	(0.180)	0.065	0.106
193	16.08	0.13	0.036	(0.179)	0.014	0.022
194	16.17	0.13	0.036	(0.178)	0.014	0.022
195	16.25	0.13	0.036	(0.177)	0.014	0.022
196	16.33	0.13	0.036	(0.176)	0.014	0.022
197	16.42	0.13	0.036	(0.175)	0.014	0.022
198	16.50	0.13	0.036	(0.174)	0.014	0.022
199	16.58	0.10	0.027	(0.173)	0.010	0.017
200	16.67	0.10	0.027	(0.172)	0.010	0.017
201	16.75	0.10	0.027	(0.172)	0.010	0.017

202	16.83	0.10	0.027	(0.171)	0.010	0.017
203	16.92	0.10	0.027	(0.170)	0.010	0.017
204	17.00	0.10	0.027	(0.169)	0.010	0.017
205	17.08	0.17	0.045	(0.168)	0.017	0.028
206	17.17	0.17	0.045	(0.167)	0.017	0.028
207	17.25	0.17	0.045	(0.166)	0.017	0.028
208	17.33	0.17	0.045	(0.166)	0.017	0.028
209	17.42	0.17	0.045	(0.165)	0.017	0.028
210	17.50	0.17	0.045	(0.164)	0.017	0.028
211	17.58	0.17	0.045	(0.163)	0.017	0.028
212	17.67	0.17	0.045	(0.162)	0.017	0.028
213	17.75	0.17	0.045	(0.161)	0.017	0.028
214	17.83	0.13	0.036	(0.161)	0.014	0.022
215	17.92	0.13	0.036	(0.160)	0.014	0.022
216	18.00	0.13	0.036	(0.159)	0.014	0.022
217	18.08	0.13	0.036	(0.158)	0.014	0.022
218	18.17	0.13	0.036	(0.158)	0.014	0.022
219	18.25	0.13	0.036	(0.157)	0.014	0.022
220	18.33	0.13	0.036	(0.156)	0.014	0.022
221	18.42	0.13	0.036	(0.155)	0.014	0.022
222	18.50	0.13	0.036	(0.154)	0.014	0.022
223	18.58	0.10	0.027	(0.154)	0.010	0.017
224	18.67	0.10	0.027	(0.153)	0.010	0.017
225	18.75	0.10	0.027	(0.152)	0.010	0.017
226	18.83	0.07	0.018	(0.152)	0.007	0.011
227	18.92	0.07	0.018	(0.151)	0.007	0.011
228	19.00	0.07	0.018	(0.150)	0.007	0.011
229	19.08	0.10	0.027	(0.149)	0.010	0.017
230	19.17	0.10	0.027	(0.149)	0.010	0.017
231	19.25	0.10	0.027	(0.148)	0.010	0.017
232	19.33	0.13	0.036	(0.147)	0.014	0.022
233	19.42	0.13	0.036	(0.147)	0.014	0.022
234	19.50	0.13	0.036	(0.146)	0.014	0.022
235	19.58	0.10	0.027	(0.145)	0.010	0.017
236	19.67	0.10	0.027	(0.145)	0.010	0.017
237	19.75	0.10	0.027	(0.144)	0.010	0.017
238	19.83	0.07	0.018	(0.143)	0.007	0.011
239	19.92	0.07	0.018	(0.143)	0.007	0.011
240	20.00	0.07	0.018	(0.142)	0.007	0.011
241	20.08	0.10	0.027	(0.141)	0.010	0.017
242	20.17	0.10	0.027	(0.141)	0.010	0.017
243	20.25	0.10	0.027	(0.140)	0.010	0.017
244	20.33	0.10	0.027	(0.140)	0.010	0.017
245	20.42	0.10	0.027	(0.139)	0.010	0.017
246	20.50	0.10	0.027	(0.138)	0.010	0.017
247	20.58	0.10	0.027	(0.138)	0.010	0.017
248	20.67	0.10	0.027	(0.137)	0.010	0.017
249	20.75	0.10	0.027	(0.137)	0.010	0.017
250	20.83	0.07	0.018	(0.136)	0.007	0.011
251	20.92	0.07	0.018	(0.136)	0.007	0.011
252	21.00	0.07	0.018	(0.135)	0.007	0.011
253	21.08	0.10	0.027	(0.134)	0.010	0.017
254	21.17	0.10	0.027	(0.134)	0.010	0.017
255	21.25	0.10	0.027	(0.133)	0.010	0.017
256	21.33	0.07	0.018	(0.133)	0.007	0.011
257	21.42	0.07	0.018	(0.132)	0.007	0.011
258	21.50	0.07	0.018	(0.132)	0.007	0.011
259	21.58	0.10	0.027	(0.131)	0.010	0.017
260	21.67	0.10	0.027	(0.131)	0.010	0.017
261	21.75	0.10	0.027	(0.130)	0.010	0.017
262	21.83	0.07	0.018	(0.130)	0.007	0.011
263	21.92	0.07	0.018	(0.130)	0.007	0.011
264	22.00	0.07	0.018	(0.129)	0.007	0.011

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265  22.08     0.10      0.027       (  0.129)       0.010         0.017
266  22.17     0.10      0.027       (  0.128)       0.010         0.017
267  22.25     0.10      0.027       (  0.128)       0.010         0.017
268  22.33     0.07      0.018       (  0.127)       0.007         0.011
269  22.42     0.07      0.018       (  0.127)       0.007         0.011
270  22.50     0.07      0.018       (  0.127)       0.007         0.011
271  22.58     0.07      0.018       (  0.126)       0.007         0.011
272  22.67     0.07      0.018       (  0.126)       0.007         0.011
273  22.75     0.07      0.018       (  0.126)       0.007         0.011
274  22.83     0.07      0.018       (  0.125)       0.007         0.011
275  22.92     0.07      0.018       (  0.125)       0.007         0.011
276  23.00     0.07      0.018       (  0.125)       0.007         0.011
277  23.08     0.07      0.018       (  0.124)       0.007         0.011
278  23.17     0.07      0.018       (  0.124)       0.007         0.011
279  23.25     0.07      0.018       (  0.124)       0.007         0.011
280  23.33     0.07      0.018       (  0.124)       0.007         0.011
281  23.42     0.07      0.018       (  0.123)       0.007         0.011
282  23.50     0.07      0.018       (  0.123)       0.007         0.011
283  23.58     0.07      0.018       (  0.123)       0.007         0.011
284  23.67     0.07      0.018       (  0.123)       0.007         0.011
285  23.75     0.07      0.018       (  0.123)       0.007         0.011
286  23.83     0.07      0.018       (  0.123)       0.007         0.011
287  23.92     0.07      0.018       (  0.122)       0.007         0.011
288  24.00     0.07      0.018       (  0.122)       0.007         0.011
             (Loss Rate Not Used)
    Sum =     100.0                                   Sum =    16.7
      Flood volume = Effective rainfall      1.39(In)
       times area      91.5(Ac.)/[(In)/(Ft.)] =      10.6(Ac.Ft)
      Total soil loss =      0.85(In)
      Total soil loss =     6.518(Ac.Ft)
      Total rainfall =      2.25(In)
      Flood volume =      463259.5 Cubic Feet
      Total soil loss =      283933.2 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     17.460(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        5.0      10.0      15.0      20.0
 ---------------------------------------------------------------------
   0+ 5       0.0017      0.25  Q         |         |         |         |
   0+10       0.0069      0.75  VQ        |         |         |         |
   0+15       0.0131      0.89  VQ        |         |         |         |
   0+20       0.0205      1.08  V Q       |         |         |         |
   0+25       0.0300      1.37  V Q       |         |         |         |
   0+30       0.0400      1.46  V Q       |         |         |         |
   0+35       0.0504      1.51  V  Q      |         |         |         |
   0+40       0.0609      1.53  V  Q      |         |         |         |
   0+45       0.0715      1.54  V  Q      |         |         |         |
   0+50       0.0830      1.67  V  Q      |         |         |         |
   0+55       0.0962      1.92  V  Q      |         |         |         |
   1+ 0       0.1099      1.99  V  Q      |         |         |         |
   1+ 5       0.1230      1.90  V  Q      |         |         |         |
   1+10       0.1345      1.66  V  Q      |         |         |         |
   1+15       0.1455      1.60  V  Q      |         |         |         |
   1+20       0.1564      1.58  V  Q      |         |         |         |
   1+25       0.1671      1.56  V  Q      |         |         |         |
   1+30       0.1778      1.55  V  Q      |         |         |         |
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1+35       0.1885      1.54   V  Q      |         |         |         |
1+40       0.1991      1.54   V  Q      |         |         |         |
1+45       0.2097      1.54   V  Q      |         |         |         |
1+50       0.2212      1.67   V  Q      |         |         |         |
1+55       0.2345      1.92   V  Q      |         |         |         |
2+ 0       0.2482      1.99   V  Q      |         |         |         |
2+ 5       0.2621      2.02   V   Q     |         |         |         |
2+10       0.2762      2.04   |V  Q     |         |         |         |
2+15       0.2903      2.05   |V  Q     |         |         |         |
2+20       0.3045      2.06   |V  Q     |         |         |         |
2+25       0.3187      2.06   |V  Q     |         |         |         |
2+30       0.3328      2.06   |V  Q     |         |         |         |
2+35       0.3479      2.18   |V  Q     |         |         |         |
2+40       0.3647      2.44   |V  Q     |         |         |         |
2+45       0.3819      2.51   |V   Q    |         |         |         |
2+50       0.3994      2.54   |V   Q    |         |         |         |
2+55       0.4170      2.56   |V   Q    |         |         |         |
3+ 0       0.4347      2.57   |V   Q    |         |         |         |
3+ 5       0.4524      2.57   |V   Q    |         |         |         |
3+10       0.4701      2.57   |V   Q    |         |         |         |
3+15       0.4878      2.57   |V   Q    |         |         |         |
3+20       0.5056      2.57   |V   Q    |         |         |         |
3+25       0.5233      2.57   |V   Q    |         |         |         |
3+30       0.5410      2.57   | V  Q    |         |         |         |
3+35       0.5587      2.57   | V  Q    |         |         |         |
3+40       0.5765      2.57   | V  Q    |         |         |         |
3+45       0.5942      2.57   | V  Q    |         |         |         |
3+50       0.6128      2.70   | V  Q    |         |         |         |
3+55       0.6331      2.95   | V  Q    |         |         |         |
4+ 0       0.6539      3.02   | V   Q   |         |         |         |
4+ 5       0.6749      3.05   | V   Q   |         |         |         |
4+10       0.6961      3.07   | V   Q   |         |         |         |
4+15       0.7173      3.08   | V   Q   |         |         |         |
4+20       0.7394      3.21   | V   Q   |         |         |         |
4+25       0.7633      3.47   | V   Q   |         |         |         |
4+30       0.7876      3.54   | V    Q  |         |         |         |
4+35       0.8122      3.57   |  V   Q  |         |         |         |
4+40       0.8369      3.58   |  V   Q  |         |         |         |
4+45       0.8616      3.59   |  V   Q  |         |         |         |
4+50       0.8873      3.73   |  V   Q  |         |         |         |
4+55       0.9147      3.98   |  V   Q  |         |         |         |
5+ 0       0.9426      4.05   |  V    Q |         |         |         |
5+ 5       0.9690      3.83   |  V   Q  |         |         |         |
5+10       0.9920      3.35   |  V  Q   |         |         |         |
5+15       1.0142      3.22   |  V  Q   |         |         |         |
5+20       1.0368      3.29   |  V  Q   |         |         |         |
5+25       1.0609      3.50   |  V   Q  |         |         |         |
5+30       1.0854      3.55   |   V  Q  |         |         |         |
5+35       1.1108      3.69   |   V  Q  |         |         |         |
5+40       1.1381      3.96   |   V  Q  |         |         |         |
5+45       1.1659      4.04   |   V   Q |         |         |         |
5+50       1.1941      4.08   |   V   Q |         |         |         |
5+55       1.2223      4.10   |   V   Q |         |         |         |
6+ 0       1.2506      4.11   |   V   Q |         |         |         |
6+ 5       1.2798      4.24   |   V   Q |         |         |         |
6+10       1.3108      4.49   |   V   Q |         |         |         |
6+15       1.3422      4.56   |    V   Q|         |         |         |
6+20       1.3739      4.60   |    V   Q|         |         |         |
6+25       1.4056      4.61   |    V   Q|         |         |         |
6+30       1.4375      4.62   |    V   Q|         |         |         |
6+35       1.4703      4.76   |    V   Q|         |         |         |
6+40       1.5048      5.01   |    V    Q         |         |         |
6+45       1.5397      5.08   |    V    Q         |         |         |
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 6+50       1.5749       5.11  |    V    Q         |         |         |
 6+55       1.6103       5.13  |     V   Q         |         |         |
 7+ 0       1.6457       5.14  |     V   Q         |         |         |
 7+ 5       1.6811       5.15  |     V   Q         |         |         |
 7+10       1.7166       5.15  |     V   Q         |         |         |
 7+15       1.7520       5.15  |     V   Q         |         |         |
 7+20       1.7883       5.27  |     V   Q         |         |         |
 7+25       1.8264       5.52  |     V   |Q        |         |         |
 7+30       1.8649       5.59  |      V  |Q        |         |         |
 7+35       1.9045       5.75  |      V  |Q        |         |         |
 7+40       1.9460       6.02  |      V  | Q       |         |         |
 7+45       1.9880       6.10  |      V  | Q       |         |         |
 7+50       2.0311       6.27  |      V  | Q       |         |         |
 7+55       2.0762       6.54  |      V  |  Q      |         |         |
 8+ 0       2.1217       6.62  |      V  |  Q      |         |         |
 8+ 5       2.1693       6.91  |       V |  Q      |         |         |
 8+10       2.2204       7.43  |       V |   Q     |         |         |
 8+15       2.2726       7.58  |       V |    Q    |         |         |
 8+20       2.3253       7.65  |       V |    Q    |         |         |
 8+25       2.3782       7.68  |       V |    Q    |         |         |
 8+30       2.4313       7.70  |        V|    Q    |         |         |
 8+35       2.4853       7.85  |        V|    Q    |         |         |
 8+40       2.5411       8.10  |        V|     Q   |         |         |
 8+45       2.5973       8.17  |        V|     Q   |         |         |
 8+50       2.6547       8.33  |        V|     Q   |         |         |
 8+55       2.7139       8.59  |         V      Q  |         |         |
 9+ 0       2.7736       8.67  |         V      Q  |         |         |
 9+ 5       2.8353       8.97  |         V      Q  |         |         |
 9+10       2.9007       9.49  |         V       Q |         |         |
 9+15       2.9670       9.64  |         |V       Q|         |         |
 9+20       3.0348       9.83  |         |V       Q|         |         |
 9+25       3.1044      10.12  |         |V        Q         |         |
 9+30       3.1748      10.21  |         |V        Q         |         |
 9+35       3.2463      10.38  |         | V       Q         |         |
 9+40       3.3196      10.65  |         | V       |Q        |         |
 9+45       3.3936      10.73  |         | V       |Q        |         |
 9+50       3.4686      10.90  |         |  V      |Q        |         |
 9+55       3.5455      11.17  |         |  V      | Q       |         |
10+ 0       3.6230      11.25  |         |  V      | Q       |         |
10+ 5       3.6947      10.41  |         |  V      Q         |         |
10+10       3.7544       8.67  |         |   V  Q  |         |         |
10+15       3.8108       8.19  |         |   V Q   |         |         |
10+20       3.8657       7.98  |         |   VQ    |         |         |
10+25       3.9198       7.85  |         |   VQ    |         |         |
10+30       3.9733       7.78  |         |   VQ    |         |         |
10+35       4.0308       8.35  |         |    VQ   |         |         |
10+40       4.0970       9.61  |         |    V   Q|         |         |
10+45       4.1656       9.95  |         |    V   Q|         |         |
10+50       4.2352      10.11  |         |    V    Q         |         |
10+55       4.3055      10.20  |         |     V   Q         |         |
11+ 0       4.3761      10.25  |         |     V   Q         |         |
11+ 5       4.4461      10.17  |         |     V   Q         |         |
11+10       4.5144       9.92  |         |     V  Q|         |         |
11+15       4.5822       9.85  |         |      V Q|         |         |
11+20       4.6498       9.82  |         |      V Q|         |         |
11+25       4.7173       9.80  |         |      V Q|         |         |
11+30       4.7847       9.79  |         |      V Q|         |         |
11+35       4.8504       9.53  |         |       VQ|         |         |
11+40       4.9125       9.03  |         |       Q |         |         |
11+45       4.9737       8.89  |         |      QV |         |         |
11+50       5.0354       8.95  |         |      QV |         |         |
11+55       5.0985       9.16  |         |       QV|         |         |
12+ 0       5.1619       9.21  |         |       QV|         |         |
```

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12+ 5       5.2316     10.11   |         |        VQ         |         |
12+10       5.3134     11.89   |         |        V|  Q      |         |
12+15       5.3987     12.38   |         |         V   Q     |         |
12+20       5.4864     12.74   |         |         V    Q    |         |
12+25       5.5768     13.11   |         |         V     Q   |         |
12+30       5.6681     13.26   |         |         |V    Q   |         |
12+35       5.7617     13.60   |         |         |V     Q  |         |
12+40       5.8590     14.12   |         |         | V     Q |         |
12+45       5.9572     14.27   |         |         | V     Q |         |
12+50       6.0569     14.47   |         |         | V     Q |         |
12+55       6.1584     14.75   |         |         |  V     Q|         |
13+ 0       6.2607     14.84   |         |         |  V     Q|         |
13+ 5       6.3676     15.52   |         |         |  V      |Q        |
13+10       6.4832     16.79   |         |         |   V     |  Q      |
13+15       6.6014     17.15   |         |         |   V     |   Q     |
13+20       6.7206     17.32   |         |         |    V    |   Q     |
13+25       6.8405     17.41   |         |         |    V    |   Q     |
13+30       6.9608     17.46   |         |         |     V   |   Q     |
13+35       7.0718     16.12   |         |         |     V   | Q       |
13+40       7.1637     13.35   |         |         |     Q   |         |
13+45       7.2504     12.59   |         |         |    Q V  |         |
13+50       7.3347     12.24   |         |         |   Q  V  |         |
13+55       7.4176     12.04   |         |         |   Q  V  |         |
14+ 0       7.4998     11.93   |         |         |  Q    V |         |
14+ 5       7.5848     12.34   |         |         |   Q   V |         |
14+10       7.6767     13.35   |         |         |     Q V |         |
14+15       7.7706     13.63   |         |         |      Q V|         |
14+20       7.8644     13.63   |         |         |      Q V|         |
14+25       7.9570     13.45   |         |         |     Q  V|         |
14+30       8.0494     13.42   |         |         |     Q   V         |
14+35       8.1419     13.42   |         |         |     Q   V         |
14+40       8.2342     13.40   |         |         |     Q   V         |
14+45       8.3264     13.39   |         |         |     Q   |V        |
14+50       8.4177     13.26   |         |         |     Q   |V        |
14+55       8.5073     13.01   |         |         |     Q   |V        |
15+ 0       8.5963     12.94   |         |         |    Q    | V       |
15+ 5       8.6844     12.78   |         |         |    Q    | V       |
15+10       8.7705     12.51   |         |         |    Q    | V       |
15+15       8.8561     12.43   |         |         |   Q     |  V      |
15+20       8.9406     12.26   |         |         |   Q     |  V      |
15+25       9.0232     12.00   |         |         |  Q      |  V      |
15+30       9.1053     11.92   |         |         |  Q      |   V     |
15+35       9.1836     11.37   |         |         | Q       |   V     |
15+40       9.2548     10.35   |         |         Q         |   V     |
15+45       9.3241     10.06   |         |         Q         |    V    |
15+50       9.3925      9.93   |         |        Q|         |    V    |
15+55       9.4604      9.85   |         |        Q|         |    V    |
16+ 0       9.5279      9.81   |         |        Q|         |    V    |
16+ 5       9.5823      7.89   |         |    Q    |         |     V   |
16+10       9.6107      4.12   |       Q |         |         |     V   |
16+15       9.6319      3.08   |     Q   |         |         |     V   |
16+20       9.6498      2.60   |    Q    |         |         |     V   |
16+25       9.6659      2.34   |   Q     |         |         |     V   |
16+30       9.6810      2.18   |   Q     |         |         |     V   |
16+35       9.6943      1.93   |  Q      |         |         |     V   |
16+40       9.7059      1.68   |  Q      |         |         |     V   |
16+45       9.7170      1.61   |  Q      |         |         |     V   |
16+50       9.7279      1.58   |  Q      |         |         |     V   |
16+55       9.7386      1.56   |  Q      |         |         |     V   |
17+ 0       9.7493      1.55   |  Q      |         |         |     V   |
17+ 5       9.7617      1.80   |  Q      |         |         |     V   |
17+10       9.7775      2.30   |   Q     |         |         |     V   |
17+15       9.7943      2.44   |   Q     |         |         |     V   |
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17+20	9.8115	2.50	Q			V
17+25	9.8290	2.54	Q			V
17+30	9.8466	2.56	Q			V
17+35	9.8643	2.57	Q			V
17+40	9.8821	2.57	Q			V
17+45	9.8998	2.57	Q			V
17+50	9.9166	2.45	Q			V
17+55	9.9318	2.20	Q			V
18+ 0	9.9464	2.13	Q			V
18+ 5	9.9608	2.10	Q			V
18+10	9.9752	2.08	Q			V
18+15	9.9894	2.07	Q			V
18+20	10.0036	2.06	Q			V
18+25	10.0177	2.06	Q			V
18+30	10.0319	2.06	Q			V
18+35	10.0452	1.93	Q			V
18+40	10.0568	1.68	Q			V
18+45	10.0679	1.61	Q			V
18+50	10.0779	1.45	Q			V
18+55	10.0861	1.19	Q			V
19+ 0	10.0937	1.11	Q			V
19+ 5	10.1019	1.19	Q			V
19+10	10.1118	1.43	Q			V
19+15	10.1220	1.48	Q			V
19+20	10.1332	1.63	Q			V
19+25	10.1463	1.90	Q			V
19+30	10.1600	1.98	Q			V
19+35	10.1730	1.90	Q			V
19+40	10.1845	1.66	Q			V
19+45	10.1955	1.60	Q			V
19+50	10.2056	1.45	Q			V
19+55	10.2137	1.19	Q			V
20+ 0	10.2213	1.11	Q			V
20+ 5	10.2296	1.19	Q			V
20+10	10.2394	1.43	Q			V
20+15	10.2496	1.48	Q			V
20+20	10.2600	1.51	Q			V
20+25	10.2705	1.53	Q			V
20+30	10.2811	1.54	Q			V
20+35	10.2917	1.54	Q			V
20+40	10.3023	1.54	Q			V
20+45	10.3130	1.54	Q			V
20+50	10.3227	1.42	Q			V
20+55	10.3308	1.17	Q			V
21+ 0	10.3383	1.10	Q			V
21+ 5	10.3465	1.19	Q			V
21+10	10.3564	1.43	Q			V
21+15	10.3666	1.48	Q			V
21+20	10.3761	1.38	Q			V
21+25	10.3840	1.15	Q			V
21+30	10.3915	1.09	Q			V
21+35	10.3997	1.19	Q			V
21+40	10.4095	1.43	Q			V
21+45	10.4198	1.48	Q			V
21+50	10.4293	1.38	Q			V
21+55	10.4372	1.15	Q			V
22+ 0	10.4447	1.09	Q			V
22+ 5	10.4529	1.19	Q			V
22+10	10.4627	1.43	Q			V
22+15	10.4729	1.48	Q			V
22+20	10.4824	1.38	Q			V
22+25	10.4904	1.15	Q			V
22+30	10.4979	1.09	Q			V

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  22+35      10.5052      1.07  | Q       |         |         |        V|
  22+40      10.5124      1.05  | Q       |         |         |        V|
  22+45      10.5196      1.04  | Q       |         |         |        V|
  22+50      10.5267      1.03  | Q       |         |         |        V|
  22+55      10.5337      1.03  | Q       |         |         |        V|
  23+ 0      10.5408      1.03  | Q       |         |         |        V|
  23+ 5      10.5479      1.03  | Q       |         |         |        V|
  23+10      10.5550      1.03  | Q       |         |         |        V|
  23+15      10.5621      1.03  | Q       |         |         |        V|
  23+20      10.5692      1.03  | Q       |         |         |        V|
  23+25      10.5763      1.03  | Q       |         |         |        V|
  23+30      10.5834      1.03  | Q       |         |         |        V|
  23+35      10.5905      1.03  | Q       |         |         |        V|
  23+40      10.5976      1.03  | Q       |         |         |        V|
  23+45      10.6046      1.03  | Q       |         |         |        V|
  23+50      10.6117      1.03  | Q       |         |         |        V|
  23+55      10.6188      1.03  | Q       |         |         |        V|
  24+ 0      10.6259      1.03  | Q       |         |         |        V|
  24+ 5      10.6313      0.78  |Q        |         |         |        V|
  24+10      10.6332      0.28  Q         |         |         |        V|
  24+15      10.6341      0.14  Q         |         |         |        V|
  24+20      10.6346      0.07  Q         |         |         |        V|
  24+25      10.6349      0.04  Q         |         |         |        V|
  24+30      10.6350      0.02  Q         |         |         |         V
-----------------------------------------------------------------------
```

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

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             Study date  05/07/21 File: kx2exh12.out

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Existing Condition
2-year 1-hour storm



--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time =    0.155 Hr.
Lag time =     9.31 Min.
25% of lag time =     2.33 Min.
40% of lag time =     3.72 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]
       91.50         0.53                48.31

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50         1.59               145.49
```

```
STORM EVENT (YEAR) =    2.00
Area Averaged 2-Year Rainfall =    0.528(In)
Area Averaged 100-Year Rainfall =    1.590(In)

Point rain (area averaged) =    0.528(In)
Areal adjustment factor =   99.92 %
Adjusted average point rain =    0.528(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    91.500           80.20         0.000
 Total Area Entered =     91.50(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-1     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
80.2  63.3      0.435     0.000        0.435       1.000      0.435
                                                   Sum (F) =   0.435
Area averaged mean soil loss (F) (In/Hr) =  0.435
Minimum soil loss rate ((In/Hr)) =  0.217
(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         53.703          6.852             6.319
    2   0.167        107.406         29.212            26.938
    3   0.250        161.109         28.296            26.093
    4   0.333        214.812         11.756            10.841
    5   0.417        268.515          6.492             5.987
    6   0.500        322.218          4.496             4.146
    7   0.583        375.921          3.239             2.987
    8   0.667        429.624          2.380             2.195
    9   0.750        483.328          1.763             1.625
   10   0.833        537.031          1.517             1.399
   11   0.917        590.734          1.140             1.052
   12   1.000        644.437          0.899             0.829
   13   1.083        698.140          0.669             0.617
   14   1.167        751.843          0.538             0.496
   15   1.250        805.546          0.750             0.692
                               Sum = 100.000   Sum=      92.215
----------------------------------------------------------------------


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

 Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
      (Hr.)  Percent   (In/Hr)         Max    |   Low         (In/Hr)
  1   0.08     4.40      0.279        (  0.435)      0.251        0.028
  2   0.17     4.50      0.285        (  0.435)      0.256        0.028
  3   0.25     5.40      0.342        (  0.435)      0.308        0.034
  4   0.33     5.40      0.342        (  0.435)      0.308        0.034
  5   0.42     5.70      0.361        (  0.435)      0.325        0.036
```

```
  6   0.50     6.40      0.405       (  0.435)       0.365        0.041
  7   0.58     7.90      0.500          0.435    (  0.450)        0.066
  8   0.67     9.10      0.576          0.435    (  0.518)        0.142
  9   0.75    12.80      0.810          0.435    (  0.729)        0.376
 10   0.83    25.60      1.621          0.435    (  1.459)        1.186
 11   0.92     7.90      0.500          0.435    (  0.450)        0.066
 12   1.00     4.90      0.310       (  0.435)       0.279        0.031
            (Loss Rate Not Used)
   Sum =     100.0                                Sum =     2.1
     Flood volume = Effective rainfall      0.17(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =       1.3(Ac.Ft)
     Total soil loss =      0.36(In)
     Total soil loss =     2.709(Ac.Ft)
     Total rainfall =      0.53(In)
     Flood volume =       57207.0 Cubic Feet
     Total soil loss =      118020.1 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =     44.595(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       12.5      25.0      37.5      50.0
 -----------------------------------------------------------------------
   0+ 5       0.0012      0.18  Q         |         |         |         |
   0+10       0.0076      0.93  Q         |         |         |         |
   0+15       0.0194      1.71  VQ        |         |         |         |
   0+20       0.0344      2.18  |Q        |         |         |         |
   0+25       0.0518      2.52  |VQ       |         |         |         |
   0+30       0.0709      2.78  | Q       |         |         |         |
   0+35       0.0931      3.23  | Q       |         |         |         |
   0+40       0.1248      4.60  |  Q      |         |         |         |
   0+45       0.1862      8.91  |    V Q  |         |         |         |
   0+50       0.3424     22.69  |         V       Q |         |         |
   0+55       0.6496     44.59  |         |        V|         |    Q    |
   1+ 0       0.9146     38.48  |         |         |      V  Q         |
   1+ 5       1.0435     18.72  |         |    Q    |         |V        |
   1+10       1.1190     10.96  |       Q |         |         |   V     |
   1+15       1.1697      7.37  |    Q    |         |         |    V    |
   1+20       1.2061      5.28  |   Q     |         |         |     V   |
   1+25       1.2330      3.90  |  Q      |         |         |      V  |
   1+30       1.2534      2.96  | Q       |         |         |       V |
   1+35       1.2701      2.43  |Q        |         |         |       V |
   1+40       1.2829      1.85  |Q        |         |         |        V|
   1+45       1.2928      1.44  |Q        |         |         |        V|
   1+50       1.3004      1.10  Q         |         |         |        V|
   1+55       1.3067      0.92  Q         |         |         |        V|
   2+ 0       1.3127      0.87  Q         |         |         |        V|
   2+ 5       1.3131      0.06  Q         |         |         |        V|
   2+10       1.3133      0.02  Q         |         |         |        V|
-----------------------------------------------------------------------
```

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

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Existing Condition
2-year 3-hour storm


--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time =    0.155 Hr.
Lag time =     9.31 Min.
25% of lag time =     2.33 Min.
40% of lag time =     3.72 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]
       91.50          0.91               83.36

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50          2.33              213.19

STORM EVENT (YEAR) =    2.00
```

Area Averaged 2-Year Rainfall = 0.911(In)
Area Averaged 100-Year Rainfall = 2.330(In)

Point rain (area averaged) = 0.911(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 0.911(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
91.500	80.20	0.000

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.2	63.3	0.435	0.000	0.435	1.000	0.435
					Sum (F) =	0.435

Area averaged mean soil loss (F) (In/Hr) = 0.435
Minimum soil loss rate ((In/Hr)) = 0.217
(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	(hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	53.703	6.852	6.319
2	0.167	107.406	29.212	26.938
3	0.250	161.109	28.296	26.093
4	0.333	214.812	11.756	10.841
5	0.417	268.515	6.492	5.987
6	0.500	322.218	4.496	4.146
7	0.583	375.921	3.239	2.987
8	0.667	429.624	2.380	2.195
9	0.750	483.328	1.763	1.625
10	0.833	537.031	1.517	1.399
11	0.917	590.734	1.140	1.052
12	1.000	644.437	0.899	0.829
13	1.083	698.140	0.669	0.617
14	1.167	751.843	0.538	0.496
15	1.250	805.546	0.750	0.692
			Sum = 100.000	Sum= 92.215

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	Loss rate(In./Hr) Low	Effective (In/Hr)
1	0.08	1.30	0.142	(0.435)	0.128	0.014
2	0.17	1.30	0.142	(0.435)	0.128	0.014
3	0.25	1.10	0.120	(0.435)	0.108	0.012
4	0.33	1.50	0.164	(0.435)	0.148	0.016
5	0.42	1.50	0.164	(0.435)	0.148	0.016
6	0.50	1.80	0.197	(0.435)	0.177	0.020
7	0.58	1.50	0.164	(0.435)	0.148	0.016
8	0.67	1.80	0.197	(0.435)	0.177	0.020

```
 9   0.75     1.80      0.197       (  0.435)       0.177        0.020
10   0.83     1.50      0.164       (  0.435)       0.148        0.016
11   0.92     1.60      0.175       (  0.435)       0.157        0.017
12   1.00     1.80      0.197       (  0.435)       0.177        0.020
13   1.08     2.20      0.240       (  0.435)       0.216        0.024
14   1.17     2.20      0.240       (  0.435)       0.216        0.024
15   1.25     2.20      0.240       (  0.435)       0.216        0.024
16   1.33     2.00      0.219       (  0.435)       0.197        0.022
17   1.42     2.60      0.284       (  0.435)       0.256        0.028
18   1.50     2.70      0.295       (  0.435)       0.266        0.030
19   1.58     2.40      0.262       (  0.435)       0.236        0.026
20   1.67     2.70      0.295       (  0.435)       0.266        0.030
21   1.75     3.30      0.361       (  0.435)       0.325        0.036
22   1.83     3.10      0.339       (  0.435)       0.305        0.034
23   1.92     2.90      0.317       (  0.435)       0.285        0.032
24   2.00     3.00      0.328       (  0.435)       0.295        0.033
25   2.08     3.10      0.339       (  0.435)       0.305        0.034
26   2.17     4.20      0.459       (  0.435)       0.413        0.046
27   2.25     5.00      0.546          0.435    (  0.492)        0.112
28   2.33     3.50      0.382       (  0.435)       0.344        0.038
29   2.42     6.80      0.743          0.435    (  0.669)        0.309
30   2.50     7.30      0.798          0.435    (  0.718)        0.363
31   2.58     8.20      0.896          0.435    (  0.806)        0.461
32   2.67     5.90      0.645          0.435    (  0.580)        0.210
33   2.75     2.00      0.219       (  0.435)       0.197        0.022
34   2.83     1.80      0.197       (  0.435)       0.177        0.020
35   2.92     1.80      0.197       (  0.435)       0.177        0.020
36   3.00     0.60      0.066       (  0.435)       0.059        0.007
           (Loss Rate Not Used)
   Sum =     100.0                                 Sum =     2.2
     Flood volume = Effective rainfall      0.18(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =       1.4(Ac.Ft)
     Total soil loss =      0.73(In)
     Total soil loss =     5.555(Ac.Ft)
     Total rainfall =      0.91(In)
     Flood volume =       60479.6 Cubic Feet
     Total soil loss =      241983.3 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =     27.712(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        7.5      15.0      22.5      30.0
-----------------------------------------------------------------------
  0+ 5       0.0006      0.09  Q         |         |         |         |
  0+10       0.0039      0.47  Q         |         |         |         |
  0+15       0.0096      0.83  VQ        |         |         |         |
  0+20       0.0161      0.95  VQ        |         |         |         |
  0+25       0.0237      1.10  VQ        |         |         |         |
  0+30       0.0324      1.27  VQ        |         |         |         |
  0+35       0.0422      1.41  |Q        |         |         |         |
  0+40       0.0524      1.48  |Q        |         |         |         |
  0+45       0.0631      1.55  |VQ       |         |         |         |
  0+50       0.0743      1.63  | Q       |         |         |         |
  0+55       0.0853      1.60  | Q       |         |         |         |
  1+ 0       0.0962      1.59  | Q       |         |         |         |
  1+ 5       0.1079      1.69  | QV      |         |         |         |
  1+10       0.1208      1.88  | QV      |         |         |         |
```

```
    1+15       0.1347       2.02  | QV      |         |         |         |
    1+20       0.1490       2.07  | Q V     |         |         |         |
    1+25       0.1634       2.09  | Q V     |         |         |         |
    1+30       0.1789       2.24  | Q  V    |         |         |         |
    1+35       0.1955       2.42  |  Q V    |         |         |         |
    1+40       0.2124       2.45  |  Q  V   |         |         |         |
    1+45       0.2299       2.55  |  Q  V   |         |         |         |
    1+50       0.2492       2.79  |  Q   V  |         |         |         |
    1+55       0.2694       2.93  |  Q   V  |         |         |         |
    2+ 0       0.2895       2.92  |  Q    V |         |         |         |
    2+ 5       0.3097       2.93  |  Q    V |         |         |         |
    2+10       0.3308       3.07  |   Q    V|         |         |         |
    2+15       0.3574       3.86  |    Q    V         |         |         |
    2+20       0.3954       5.51  |      Q  |V        |         |         |
    2+25       0.4443       7.10  |        Q| V       |         |         |
    2+30       0.5380      13.61  |         |    V  Q |         |         |
    2+35       0.6924      22.42  |         |        V|        Q|         |
    2+40       0.8833      27.71  |         |         |    V    |     Q   |
    2+45       1.0517      24.45  |         |         |         V Q       |
    2+50       1.1568      15.26  |         |         Q         |  V      |
    2+55       1.2198       9.15  |         | Q       |         |    V    |
    3+ 0       1.2653       6.61  |       Q |         |         |     V   |
    3+ 5       1.2988       4.85  |     Q   |         |         |      V  |
    3+10       1.3226       3.46  |   Q     |         |         |       V |
    3+15       1.3400       2.53  |  Q      |         |         |       V |
    3+20       1.3535       1.96  | Q       |         |         |       V |
    3+25       1.3641       1.53  | Q       |         |         |        V|
    3+30       1.3719       1.13  |Q        |         |         |        V|
    3+35       1.3784       0.95  |Q        |         |         |        V|
    3+40       1.3831       0.69  Q         |         |         |        V|
    3+45       1.3865       0.48  Q         |         |         |        V|
    3+50       1.3878       0.19  Q         |         |         |        V|
    3+55       1.3881       0.04  Q         |         |         |        V|
    4+ 0       1.3883       0.03  Q         |         |         |        V|
    4+ 5       1.3884       0.02  Q         |         |         |        V|
    4+10       1.3884       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

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             Study date  05/07/21 File: kx2exh62.out

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Existing Condition
2-year 6-hour storm


--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time =    0.155 Hr.
Lag time =     9.31 Min.
25% of lag time =     2.33 Min.
40% of lag time =     3.72 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]
       91.50         1.29              118.04

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50         3.17              290.06

STORM EVENT (YEAR) =    2.00
```

Area Averaged 2-Year Rainfall = 1.290(In)
Area Averaged 100-Year Rainfall = 3.170(In)

Point rain (area averaged) = 1.290(In)
Areal adjustment factor = 99.97 %
Adjusted average point rain = 1.290(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
91.500	80.20	0.000

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.2	63.3	0.435	0.000	0.435	1.000	0.435
					Sum (F) =	0.435

Area averaged mean soil loss (F) (In/Hr) = 0.435
Minimum soil loss rate ((In/Hr)) = 0.217
(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	(hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	53.703	6.852	6.319
2	0.167	107.406	29.212	26.938
3	0.250	161.109	28.296	26.093
4	0.333	214.812	11.756	10.841
5	0.417	268.515	6.492	5.987
6	0.500	322.218	4.496	4.146
7	0.583	375.921	3.239	2.987
8	0.667	429.624	2.380	2.195
9	0.750	483.328	1.763	1.625
10	0.833	537.031	1.517	1.399
11	0.917	590.734	1.140	1.052
12	1.000	644.437	0.899	0.829
13	1.083	698.140	0.669	0.617
14	1.167	751.843	0.538	0.496
15	1.250	805.546	0.750	0.692
			Sum = 100.000	Sum= 92.215

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	0.077	(0.435)	0.070	0.008
2	0.17	0.60	0.093	(0.435)	0.084	0.009
3	0.25	0.60	0.093	(0.435)	0.084	0.009
4	0.33	0.60	0.093	(0.435)	0.084	0.009
5	0.42	0.60	0.093	(0.435)	0.084	0.009
6	0.50	0.70	0.108	(0.435)	0.097	0.011
7	0.58	0.70	0.108	(0.435)	0.097	0.011
8	0.67	0.70	0.108	(0.435)	0.097	0.011

9	0.75	0.70	0.108	(0.435)	0.097	0.011
10	0.83	0.70	0.108	(0.435)	0.097	0.011
11	0.92	0.70	0.108	(0.435)	0.097	0.011
12	1.00	0.80	0.124	(0.435)	0.111	0.012
13	1.08	0.80	0.124	(0.435)	0.111	0.012
14	1.17	0.80	0.124	(0.435)	0.111	0.012
15	1.25	0.80	0.124	(0.435)	0.111	0.012
16	1.33	0.80	0.124	(0.435)	0.111	0.012
17	1.42	0.80	0.124	(0.435)	0.111	0.012
18	1.50	0.80	0.124	(0.435)	0.111	0.012
19	1.58	0.80	0.124	(0.435)	0.111	0.012
20	1.67	0.80	0.124	(0.435)	0.111	0.012
21	1.75	0.80	0.124	(0.435)	0.111	0.012
22	1.83	0.80	0.124	(0.435)	0.111	0.012
23	1.92	0.80	0.124	(0.435)	0.111	0.012
24	2.00	0.90	0.139	(0.435)	0.125	0.014
25	2.08	0.80	0.124	(0.435)	0.111	0.012
26	2.17	0.90	0.139	(0.435)	0.125	0.014
27	2.25	0.90	0.139	(0.435)	0.125	0.014
28	2.33	0.90	0.139	(0.435)	0.125	0.014
29	2.42	0.90	0.139	(0.435)	0.125	0.014
30	2.50	0.90	0.139	(0.435)	0.125	0.014
31	2.58	0.90	0.139	(0.435)	0.125	0.014
32	2.67	0.90	0.139	(0.435)	0.125	0.014
33	2.75	1.00	0.155	(0.435)	0.139	0.015
34	2.83	1.00	0.155	(0.435)	0.139	0.015
35	2.92	1.00	0.155	(0.435)	0.139	0.015
36	3.00	1.00	0.155	(0.435)	0.139	0.015
37	3.08	1.00	0.155	(0.435)	0.139	0.015
38	3.17	1.10	0.170	(0.435)	0.153	0.017
39	3.25	1.10	0.170	(0.435)	0.153	0.017
40	3.33	1.10	0.170	(0.435)	0.153	0.017
41	3.42	1.20	0.186	(0.435)	0.167	0.019
42	3.50	1.30	0.201	(0.435)	0.181	0.020
43	3.58	1.40	0.217	(0.435)	0.195	0.022
44	3.67	1.40	0.217	(0.435)	0.195	0.022
45	3.75	1.50	0.232	(0.435)	0.209	0.023
46	3.83	1.50	0.232	(0.435)	0.209	0.023
47	3.92	1.60	0.248	(0.435)	0.223	0.025
48	4.00	1.60	0.248	(0.435)	0.223	0.025
49	4.08	1.70	0.263	(0.435)	0.237	0.026
50	4.17	1.80	0.279	(0.435)	0.251	0.028
51	4.25	1.90	0.294	(0.435)	0.265	0.029
52	4.33	2.00	0.310	(0.435)	0.279	0.031
53	4.42	2.10	0.325	(0.435)	0.292	0.032
54	4.50	2.10	0.325	(0.435)	0.292	0.032
55	4.58	2.20	0.340	(0.435)	0.306	0.034
56	4.67	2.30	0.356	(0.435)	0.320	0.036
57	4.75	2.40	0.371	(0.435)	0.334	0.037
58	4.83	2.40	0.371	(0.435)	0.334	0.037
59	4.92	2.50	0.387	(0.435)	0.348	0.039
60	5.00	2.60	0.402	(0.435)	0.362	0.040
61	5.08	3.10	0.480	(0.435)	0.432	0.048
62	5.17	3.60	0.557	0.435	(0.501)	0.123
63	5.25	3.90	0.604	0.435	(0.543)	0.169
64	5.33	4.20	0.650	0.435	(0.585)	0.215
65	5.42	4.70	0.727	0.435	(0.655)	0.293
66	5.50	5.60	0.867	0.435	(0.780)	0.432
67	5.58	1.90	0.294	(0.435)	0.265	0.029
68	5.67	0.90	0.139	(0.435)	0.125	0.014
69	5.75	0.60	0.093	(0.435)	0.084	0.009
70	5.83	0.50	0.077	(0.435)	0.070	0.008
71	5.92	0.30	0.046	(0.435)	0.042	0.005

```
72   6.00     0.20      0.031       (  0.435)       0.028        0.003
            (Loss Rate Not Used)
   Sum =     100.0                                   Sum =     2.4
     Flood volume = Effective rainfall      0.20(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =       1.5(Ac.Ft)
     Total soil loss =      1.09(In)
     Total soil loss =     8.284(Ac.Ft)
     Total rainfall =      1.29(In)
     Flood volume =       67500.4 Cubic Feet
     Total soil loss =      360831.9 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =     23.804(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        7.5      15.0      22.5      30.0
-----------------------------------------------------------------------
  0+ 5       0.0003      0.05  Q         |         |         |         |
  0+10       0.0022      0.27  Q         |         |         |         |
  0+15       0.0057      0.51  Q         |         |         |         |
  0+20       0.0101      0.64  Q         |         |         |         |
  0+25       0.0149      0.70  Q         |         |         |         |
  0+30       0.0200      0.75  Q         |         |         |         |
  0+35       0.0257      0.82  VQ        |         |         |         |
  0+40       0.0318      0.88  VQ        |         |         |         |
  0+45       0.0381      0.92  VQ        |         |         |         |
  0+50       0.0445      0.94  |Q        |         |         |         |
  0+55       0.0511      0.95  |Q        |         |         |         |
  1+ 0       0.0579      0.98  |Q        |         |         |         |
  1+ 5       0.0649      1.03  |Q        |         |         |         |
  1+10       0.0723      1.08  |Q        |         |         |         |
  1+15       0.0799      1.10  |QV       |         |         |         |
  1+20       0.0876      1.11  |QV       |         |         |         |
  1+25       0.0953      1.12  |QV       |         |         |         |
  1+30       0.1031      1.13  |QV       |         |         |         |
  1+35       0.1109      1.13  |QV       |         |         |         |
  1+40       0.1187      1.13  |Q V      |         |         |         |
  1+45       0.1265      1.14  |Q V      |         |         |         |
  1+50       0.1343      1.14  |Q V      |         |         |         |
  1+55       0.1422      1.14  |Q V      |         |         |         |
  2+ 0       0.1501      1.15  |Q V      |         |         |         |
  2+ 5       0.1583      1.18  |Q  V     |         |         |         |
  2+10       0.1665      1.19  |Q  V     |         |         |         |
  2+15       0.1748      1.21  |Q  V     |         |         |         |
  2+20       0.1834      1.24  |Q  V     |         |         |         |
  2+25       0.1920      1.26  |Q  V     |         |         |         |
  2+30       0.2007      1.26  |Q   V    |         |         |         |
  2+35       0.2095      1.27  |Q   V    |         |         |         |
  2+40       0.2183      1.27  |Q   V    |         |         |         |
  2+45       0.2271      1.29  |Q   V    |         |         |         |
  2+50       0.2363      1.33  |Q    V   |         |         |         |
  2+55       0.2457      1.37  |Q    V   |         |         |         |
  3+ 0       0.2553      1.39  |Q    V   |         |         |         |
  3+ 5       0.2650      1.40  |Q    V   |         |         |         |
  3+10       0.2747      1.42  |Q     V  |         |         |         |
  3+15       0.2848      1.46  |Q     V  |         |         |         |
  3+20       0.2952      1.51  | Q    V  |         |         |         |
  3+25       0.3058      1.54  | Q    V  |         |         |         |
```

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    3+30       0.3168      1.60  | Q     V |         |         |         |
    3+35       0.3285      1.70  | Q     V |         |         |         |
    3+40       0.3410      1.81  | Q     V |         |         |         |
    3+45       0.3540      1.89  | Q      V|         |         |         |
    3+50       0.3675      1.96  | Q      V|         |         |         |
    3+55       0.3815      2.04  | Q      V|         |         |         |
    4+ 0       0.3961      2.11  | Q       V         |         |         |
    4+ 5       0.4111      2.18  | Q       V         |         |         |
    4+10       0.4267      2.27  |  Q      |V        |         |         |
    4+15       0.4431      2.38  |  Q      |V        |         |         |
    4+20       0.4604      2.50  |  Q      |V        |         |         |
    4+25       0.4785      2.63  |  Q      | V       |         |         |
    4+30       0.4975      2.76  |  Q      | V       |         |         |
    4+35       0.5172      2.85  |  Q      |  V      |         |         |
    4+40       0.5375      2.95  |  Q      |  V      |         |         |
    4+45       0.5586      3.07  |   Q     |   V     |         |         |
    4+50       0.5806      3.19  |   Q     |   V     |         |         |
    4+55       0.6032      3.28  |   Q     |    V    |         |         |
    5+ 0       0.6265      3.38  |   Q     |     V   |         |         |
    5+ 5       0.6508      3.54  |   Q     |     V   |         |         |
    5+10       0.6804      4.30  |    Q    |      V  |         |         |
    5+15       0.7276      6.85  |        Q|       V |         |         |
    5+20       0.7995     10.45  |         |  Q      V         |         |
    5+25       0.8978     14.28  |         |        Q|  V      |         |
    5+30       1.0318     19.45  |         |         |    QV   |         |
    5+35       1.1957     23.80  |         |         |         VQ        |
    5+40       1.3200     18.05  |         |         |   Q     |   V     |
    5+45       1.3860      9.58  |         | Q       |         |    V    |
    5+50       1.4288      6.21  |       Q |         |         |     V   |
    5+55       1.4601      4.55  |     Q   |         |         |      V  |
    6+ 0       1.4836      3.41  |   Q     |         |         |       V |
    6+ 5       1.5013      2.57  |  Q      |         |         |       V |
    6+10       1.5145      1.93  | Q       |         |         |        V|
    6+15       1.5248      1.49  |Q        |         |         |        V|
    6+20       1.5327      1.14  |Q        |         |         |        V|
    6+25       1.5387      0.87  |Q        |         |         |        V|
    6+30       1.5431      0.65  Q         |         |         |        V|
    6+35       1.5465      0.48  Q         |         |         |        V|
    6+40       1.5489      0.35  Q         |         |         |        V|
    6+45       1.5492      0.05  Q         |         |         |        V|
    6+50       1.5494      0.03  Q         |         |         |        V|
    6+55       1.5495      0.02  Q         |         |         |        V|
    7+ 0       1.5495      0.01  Q         |         |         |        V|
    7+ 5       1.5496      0.00  Q         |         |         |        V|
    7+10       1.5496      0.00  Q         |         |         |        V|
-----------------------------------------------------------------------
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      U n i t   H y d r o g r a p h   A n a l y s i s

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            Study date  05/07/21 File: kx2exh242.out


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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Existing Condition
2-year 24-hour storm



--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time =    0.155 Hr.
Lag time =     9.31 Min.
25% of lag time =     2.33 Min.
40% of lag time =     3.72 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]
       91.50         2.25               205.88

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50         5.87               537.11
```

STORM EVENT (YEAR) = 2.00
Area Averaged 2-Year Rainfall = 2.250(In)
Area Averaged 100-Year Rainfall = 5.870(In)

Point rain (area averaged) = 2.250(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 2.250(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
91.500	80.20	0.000

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-1	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.2	63.3	0.435	0.000	0.435	1.000	0.435
					Sum (F) =	0.435

Area averaged mean soil loss (F) (In/Hr) = 0.435
Minimum soil loss rate ((In/Hr)) = 0.217
(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 (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	53.703	6.852	6.319
2	0.167	107.406	29.212	26.938
3	0.250	161.109	28.296	26.093
4	0.333	214.812	11.756	10.841
5	0.417	268.515	6.492	5.987
6	0.500	322.218	4.496	4.146
7	0.583	375.921	3.239	2.987
8	0.667	429.624	2.380	2.195
9	0.750	483.328	1.763	1.625
10	0.833	537.031	1.517	1.399
11	0.917	590.734	1.140	1.052
12	1.000	644.437	0.899	0.829
13	1.083	698.140	0.669	0.617
14	1.167	751.843	0.538	0.496
15	1.250	805.546	0.750	0.692
			Sum = 100.000	Sum= 92.215

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	0.018	(0.770)	0.016	0.002
2	0.17	0.07	0.018	(0.767)	0.016	0.002
3	0.25	0.07	0.018	(0.764)	0.016	0.002
4	0.33	0.10	0.027	(0.761)	0.024	0.003
5	0.42	0.10	0.027	(0.759)	0.024	0.003
6	0.50	0.10	0.027	(0.756)	0.024	0.003
7	0.58	0.10	0.027	(0.753)	0.024	0.003

8	0.67	0.10	0.027	(0.750)	0.024	0.003
9	0.75	0.10	0.027	(0.747)	0.024	0.003
10	0.83	0.13	0.036	(0.744)	0.032	0.004
11	0.92	0.13	0.036	(0.741)	0.032	0.004
12	1.00	0.13	0.036	(0.738)	0.032	0.004
13	1.08	0.10	0.027	(0.735)	0.024	0.003
14	1.17	0.10	0.027	(0.732)	0.024	0.003
15	1.25	0.10	0.027	(0.729)	0.024	0.003
16	1.33	0.10	0.027	(0.726)	0.024	0.003
17	1.42	0.10	0.027	(0.723)	0.024	0.003
18	1.50	0.10	0.027	(0.721)	0.024	0.003
19	1.58	0.10	0.027	(0.718)	0.024	0.003
20	1.67	0.10	0.027	(0.715)	0.024	0.003
21	1.75	0.10	0.027	(0.712)	0.024	0.003
22	1.83	0.13	0.036	(0.709)	0.032	0.004
23	1.92	0.13	0.036	(0.706)	0.032	0.004
24	2.00	0.13	0.036	(0.703)	0.032	0.004
25	2.08	0.13	0.036	(0.700)	0.032	0.004
26	2.17	0.13	0.036	(0.698)	0.032	0.004
27	2.25	0.13	0.036	(0.695)	0.032	0.004
28	2.33	0.13	0.036	(0.692)	0.032	0.004
29	2.42	0.13	0.036	(0.689)	0.032	0.004
30	2.50	0.13	0.036	(0.686)	0.032	0.004
31	2.58	0.17	0.045	(0.684)	0.040	0.004
32	2.67	0.17	0.045	(0.681)	0.040	0.004
33	2.75	0.17	0.045	(0.678)	0.040	0.004
34	2.83	0.17	0.045	(0.675)	0.040	0.004
35	2.92	0.17	0.045	(0.672)	0.040	0.004
36	3.00	0.17	0.045	(0.670)	0.040	0.004
37	3.08	0.17	0.045	(0.667)	0.040	0.004
38	3.17	0.17	0.045	(0.664)	0.040	0.004
39	3.25	0.17	0.045	(0.661)	0.040	0.004
40	3.33	0.17	0.045	(0.659)	0.040	0.004
41	3.42	0.17	0.045	(0.656)	0.040	0.004
42	3.50	0.17	0.045	(0.653)	0.040	0.004
43	3.58	0.17	0.045	(0.650)	0.040	0.004
44	3.67	0.17	0.045	(0.648)	0.040	0.004
45	3.75	0.17	0.045	(0.645)	0.040	0.004
46	3.83	0.20	0.054	(0.642)	0.049	0.005
47	3.92	0.20	0.054	(0.639)	0.049	0.005
48	4.00	0.20	0.054	(0.637)	0.049	0.005
49	4.08	0.20	0.054	(0.634)	0.049	0.005
50	4.17	0.20	0.054	(0.631)	0.049	0.005
51	4.25	0.20	0.054	(0.629)	0.049	0.005
52	4.33	0.23	0.063	(0.626)	0.057	0.006
53	4.42	0.23	0.063	(0.623)	0.057	0.006
54	4.50	0.23	0.063	(0.621)	0.057	0.006
55	4.58	0.23	0.063	(0.618)	0.057	0.006
56	4.67	0.23	0.063	(0.615)	0.057	0.006
57	4.75	0.23	0.063	(0.613)	0.057	0.006
58	4.83	0.27	0.072	(0.610)	0.065	0.007
59	4.92	0.27	0.072	(0.607)	0.065	0.007
60	5.00	0.27	0.072	(0.605)	0.065	0.007
61	5.08	0.20	0.054	(0.602)	0.049	0.005
62	5.17	0.20	0.054	(0.599)	0.049	0.005
63	5.25	0.20	0.054	(0.597)	0.049	0.005
64	5.33	0.23	0.063	(0.594)	0.057	0.006
65	5.42	0.23	0.063	(0.592)	0.057	0.006
66	5.50	0.23	0.063	(0.589)	0.057	0.006
67	5.58	0.27	0.072	(0.586)	0.065	0.007
68	5.67	0.27	0.072	(0.584)	0.065	0.007
69	5.75	0.27	0.072	(0.581)	0.065	0.007
70	5.83	0.27	0.072	(0.579)	0.065	0.007

71	5.92	0.27	0.072	(0.576)	0.065	0.007
72	6.00	0.27	0.072	(0.574)	0.065	0.007
73	6.08	0.30	0.081	(0.571)	0.073	0.008
74	6.17	0.30	0.081	(0.569)	0.073	0.008
75	6.25	0.30	0.081	(0.566)	0.073	0.008
76	6.33	0.30	0.081	(0.563)	0.073	0.008
77	6.42	0.30	0.081	(0.561)	0.073	0.008
78	6.50	0.30	0.081	(0.558)	0.073	0.008
79	6.58	0.33	0.090	(0.556)	0.081	0.009
80	6.67	0.33	0.090	(0.553)	0.081	0.009
81	6.75	0.33	0.090	(0.551)	0.081	0.009
82	6.83	0.33	0.090	(0.548)	0.081	0.009
83	6.92	0.33	0.090	(0.546)	0.081	0.009
84	7.00	0.33	0.090	(0.543)	0.081	0.009
85	7.08	0.33	0.090	(0.541)	0.081	0.009
86	7.17	0.33	0.090	(0.539)	0.081	0.009
87	7.25	0.33	0.090	(0.536)	0.081	0.009
88	7.33	0.37	0.099	(0.534)	0.089	0.010
89	7.42	0.37	0.099	(0.531)	0.089	0.010
90	7.50	0.37	0.099	(0.529)	0.089	0.010
91	7.58	0.40	0.108	(0.526)	0.097	0.011
92	7.67	0.40	0.108	(0.524)	0.097	0.011
93	7.75	0.40	0.108	(0.522)	0.097	0.011
94	7.83	0.43	0.117	(0.519)	0.105	0.012
95	7.92	0.43	0.117	(0.517)	0.105	0.012
96	8.00	0.43	0.117	(0.514)	0.105	0.012
97	8.08	0.50	0.135	(0.512)	0.121	0.013
98	8.17	0.50	0.135	(0.510)	0.121	0.013
99	8.25	0.50	0.135	(0.507)	0.121	0.013
100	8.33	0.50	0.135	(0.505)	0.121	0.013
101	8.42	0.50	0.135	(0.502)	0.121	0.013
102	8.50	0.50	0.135	(0.500)	0.121	0.013
103	8.58	0.53	0.144	(0.498)	0.130	0.014
104	8.67	0.53	0.144	(0.495)	0.130	0.014
105	8.75	0.53	0.144	(0.493)	0.130	0.014
106	8.83	0.57	0.153	(0.491)	0.138	0.015
107	8.92	0.57	0.153	(0.488)	0.138	0.015
108	9.00	0.57	0.153	(0.486)	0.138	0.015
109	9.08	0.63	0.171	(0.484)	0.154	0.017
110	9.17	0.63	0.171	(0.481)	0.154	0.017
111	9.25	0.63	0.171	(0.479)	0.154	0.017
112	9.33	0.67	0.180	(0.477)	0.162	0.018
113	9.42	0.67	0.180	(0.475)	0.162	0.018
114	9.50	0.67	0.180	(0.472)	0.162	0.018
115	9.58	0.70	0.189	(0.470)	0.170	0.019
116	9.67	0.70	0.189	(0.468)	0.170	0.019
117	9.75	0.70	0.189	(0.466)	0.170	0.019
118	9.83	0.73	0.198	(0.463)	0.178	0.020
119	9.92	0.73	0.198	(0.461)	0.178	0.020
120	10.00	0.73	0.198	(0.459)	0.178	0.020
121	10.08	0.50	0.135	(0.457)	0.121	0.013
122	10.17	0.50	0.135	(0.454)	0.121	0.013
123	10.25	0.50	0.135	(0.452)	0.121	0.013
124	10.33	0.50	0.135	(0.450)	0.121	0.013
125	10.42	0.50	0.135	(0.448)	0.121	0.013
126	10.50	0.50	0.135	(0.446)	0.121	0.013
127	10.58	0.67	0.180	(0.444)	0.162	0.018
128	10.67	0.67	0.180	(0.441)	0.162	0.018
129	10.75	0.67	0.180	(0.439)	0.162	0.018
130	10.83	0.67	0.180	(0.437)	0.162	0.018
131	10.92	0.67	0.180	(0.435)	0.162	0.018
132	11.00	0.67	0.180	(0.433)	0.162	0.018
133	11.08	0.63	0.171	(0.431)	0.154	0.017

134	11.17	0.63	0.171	(0.429)	0.154	0.017
135	11.25	0.63	0.171	(0.426)	0.154	0.017
136	11.33	0.63	0.171	(0.424)	0.154	0.017
137	11.42	0.63	0.171	(0.422)	0.154	0.017
138	11.50	0.63	0.171	(0.420)	0.154	0.017
139	11.58	0.57	0.153	(0.418)	0.138	0.015
140	11.67	0.57	0.153	(0.416)	0.138	0.015
141	11.75	0.57	0.153	(0.414)	0.138	0.015
142	11.83	0.60	0.162	(0.412)	0.146	0.016
143	11.92	0.60	0.162	(0.410)	0.146	0.016
144	12.00	0.60	0.162	(0.408)	0.146	0.016
145	12.08	0.83	0.225	(0.406)	0.202	0.022
146	12.17	0.83	0.225	(0.404)	0.202	0.022
147	12.25	0.83	0.225	(0.402)	0.202	0.022
148	12.33	0.87	0.234	(0.400)	0.211	0.023
149	12.42	0.87	0.234	(0.398)	0.211	0.023
150	12.50	0.87	0.234	(0.396)	0.211	0.023
151	12.58	0.93	0.252	(0.394)	0.227	0.025
152	12.67	0.93	0.252	(0.392)	0.227	0.025
153	12.75	0.93	0.252	(0.390)	0.227	0.025
154	12.83	0.97	0.261	(0.388)	0.235	0.026
155	12.92	0.97	0.261	(0.386)	0.235	0.026
156	13.00	0.97	0.261	(0.384)	0.235	0.026
157	13.08	1.13	0.306	(0.382)	0.275	0.031
158	13.17	1.13	0.306	(0.380)	0.275	0.031
159	13.25	1.13	0.306	(0.378)	0.275	0.031
160	13.33	1.13	0.306	(0.376)	0.275	0.031
161	13.42	1.13	0.306	(0.374)	0.275	0.031
162	13.50	1.13	0.306	(0.372)	0.275	0.031
163	13.58	0.77	0.207	(0.370)	0.186	0.021
164	13.67	0.77	0.207	(0.368)	0.186	0.021
165	13.75	0.77	0.207	(0.367)	0.186	0.021
166	13.83	0.77	0.207	(0.365)	0.186	0.021
167	13.92	0.77	0.207	(0.363)	0.186	0.021
168	14.00	0.77	0.207	(0.361)	0.186	0.021
169	14.08	0.90	0.243	(0.359)	0.219	0.024
170	14.17	0.90	0.243	(0.357)	0.219	0.024
171	14.25	0.90	0.243	(0.355)	0.219	0.024
172	14.33	0.87	0.234	(0.354)	0.211	0.023
173	14.42	0.87	0.234	(0.352)	0.211	0.023
174	14.50	0.87	0.234	(0.350)	0.211	0.023
175	14.58	0.87	0.234	(0.348)	0.211	0.023
176	14.67	0.87	0.234	(0.346)	0.211	0.023
177	14.75	0.87	0.234	(0.345)	0.211	0.023
178	14.83	0.83	0.225	(0.343)	0.202	0.022
179	14.92	0.83	0.225	(0.341)	0.202	0.022
180	15.00	0.83	0.225	(0.339)	0.202	0.022
181	15.08	0.80	0.216	(0.338)	0.194	0.022
182	15.17	0.80	0.216	(0.336)	0.194	0.022
183	15.25	0.80	0.216	(0.334)	0.194	0.022
184	15.33	0.77	0.207	(0.333)	0.186	0.021
185	15.42	0.77	0.207	(0.331)	0.186	0.021
186	15.50	0.77	0.207	(0.329)	0.186	0.021
187	15.58	0.63	0.171	(0.327)	0.154	0.017
188	15.67	0.63	0.171	(0.326)	0.154	0.017
189	15.75	0.63	0.171	(0.324)	0.154	0.017
190	15.83	0.63	0.171	(0.322)	0.154	0.017
191	15.92	0.63	0.171	(0.321)	0.154	0.017
192	16.00	0.63	0.171	(0.319)	0.154	0.017
193	16.08	0.13	0.036	(0.317)	0.032	0.004
194	16.17	0.13	0.036	(0.316)	0.032	0.004
195	16.25	0.13	0.036	(0.314)	0.032	0.004
196	16.33	0.13	0.036	(0.313)	0.032	0.004

197	16.42	0.13	0.036	(0.311)	0.032	0.004
198	16.50	0.13	0.036	(0.309)	0.032	0.004
199	16.58	0.10	0.027	(0.308)	0.024	0.003
200	16.67	0.10	0.027	(0.306)	0.024	0.003
201	16.75	0.10	0.027	(0.305)	0.024	0.003
202	16.83	0.10	0.027	(0.303)	0.024	0.003
203	16.92	0.10	0.027	(0.302)	0.024	0.003
204	17.00	0.10	0.027	(0.300)	0.024	0.003
205	17.08	0.17	0.045	(0.299)	0.040	0.004
206	17.17	0.17	0.045	(0.297)	0.040	0.004
207	17.25	0.17	0.045	(0.296)	0.040	0.004
208	17.33	0.17	0.045	(0.294)	0.040	0.004
209	17.42	0.17	0.045	(0.293)	0.040	0.004
210	17.50	0.17	0.045	(0.291)	0.040	0.004
211	17.58	0.17	0.045	(0.290)	0.040	0.004
212	17.67	0.17	0.045	(0.288)	0.040	0.004
213	17.75	0.17	0.045	(0.287)	0.040	0.004
214	17.83	0.13	0.036	(0.285)	0.032	0.004
215	17.92	0.13	0.036	(0.284)	0.032	0.004
216	18.00	0.13	0.036	(0.283)	0.032	0.004
217	18.08	0.13	0.036	(0.281)	0.032	0.004
218	18.17	0.13	0.036	(0.280)	0.032	0.004
219	18.25	0.13	0.036	(0.279)	0.032	0.004
220	18.33	0.13	0.036	(0.277)	0.032	0.004
221	18.42	0.13	0.036	(0.276)	0.032	0.004
222	18.50	0.13	0.036	(0.274)	0.032	0.004
223	18.58	0.10	0.027	(0.273)	0.024	0.003
224	18.67	0.10	0.027	(0.272)	0.024	0.003
225	18.75	0.10	0.027	(0.271)	0.024	0.003
226	18.83	0.07	0.018	(0.269)	0.016	0.002
227	18.92	0.07	0.018	(0.268)	0.016	0.002
228	19.00	0.07	0.018	(0.267)	0.016	0.002
229	19.08	0.10	0.027	(0.265)	0.024	0.003
230	19.17	0.10	0.027	(0.264)	0.024	0.003
231	19.25	0.10	0.027	(0.263)	0.024	0.003
232	19.33	0.13	0.036	(0.262)	0.032	0.004
233	19.42	0.13	0.036	(0.260)	0.032	0.004
234	19.50	0.13	0.036	(0.259)	0.032	0.004
235	19.58	0.10	0.027	(0.258)	0.024	0.003
236	19.67	0.10	0.027	(0.257)	0.024	0.003
237	19.75	0.10	0.027	(0.256)	0.024	0.003
238	19.83	0.07	0.018	(0.255)	0.016	0.002
239	19.92	0.07	0.018	(0.253)	0.016	0.002
240	20.00	0.07	0.018	(0.252)	0.016	0.002
241	20.08	0.10	0.027	(0.251)	0.024	0.003
242	20.17	0.10	0.027	(0.250)	0.024	0.003
243	20.25	0.10	0.027	(0.249)	0.024	0.003
244	20.33	0.10	0.027	(0.248)	0.024	0.003
245	20.42	0.10	0.027	(0.247)	0.024	0.003
246	20.50	0.10	0.027	(0.246)	0.024	0.003
247	20.58	0.10	0.027	(0.245)	0.024	0.003
248	20.67	0.10	0.027	(0.244)	0.024	0.003
249	20.75	0.10	0.027	(0.243)	0.024	0.003
250	20.83	0.07	0.018	(0.242)	0.016	0.002
251	20.92	0.07	0.018	(0.241)	0.016	0.002
252	21.00	0.07	0.018	(0.240)	0.016	0.002
253	21.08	0.10	0.027	(0.239)	0.024	0.003
254	21.17	0.10	0.027	(0.238)	0.024	0.003
255	21.25	0.10	0.027	(0.237)	0.024	0.003
256	21.33	0.07	0.018	(0.236)	0.016	0.002
257	21.42	0.07	0.018	(0.235)	0.016	0.002
258	21.50	0.07	0.018	(0.234)	0.016	0.002
259	21.58	0.10	0.027	(0.234)	0.024	0.003

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260  21.67     0.10      0.027       (  0.233)       0.024         0.003
261  21.75     0.10      0.027       (  0.232)       0.024         0.003
262  21.83     0.07      0.018       (  0.231)       0.016         0.002
263  21.92     0.07      0.018       (  0.230)       0.016         0.002
264  22.00     0.07      0.018       (  0.229)       0.016         0.002
265  22.08     0.10      0.027       (  0.229)       0.024         0.003
266  22.17     0.10      0.027       (  0.228)       0.024         0.003
267  22.25     0.10      0.027       (  0.227)       0.024         0.003
268  22.33     0.07      0.018       (  0.227)       0.016         0.002
269  22.42     0.07      0.018       (  0.226)       0.016         0.002
270  22.50     0.07      0.018       (  0.225)       0.016         0.002
271  22.58     0.07      0.018       (  0.225)       0.016         0.002
272  22.67     0.07      0.018       (  0.224)       0.016         0.002
273  22.75     0.07      0.018       (  0.223)       0.016         0.002
274  22.83     0.07      0.018       (  0.223)       0.016         0.002
275  22.92     0.07      0.018       (  0.222)       0.016         0.002
276  23.00     0.07      0.018       (  0.222)       0.016         0.002
277  23.08     0.07      0.018       (  0.221)       0.016         0.002
278  23.17     0.07      0.018       (  0.221)       0.016         0.002
279  23.25     0.07      0.018       (  0.220)       0.016         0.002
280  23.33     0.07      0.018       (  0.220)       0.016         0.002
281  23.42     0.07      0.018       (  0.219)       0.016         0.002
282  23.50     0.07      0.018       (  0.219)       0.016         0.002
283  23.58     0.07      0.018       (  0.218)       0.016         0.002
284  23.67     0.07      0.018       (  0.218)       0.016         0.002
285  23.75     0.07      0.018       (  0.218)       0.016         0.002
286  23.83     0.07      0.018       (  0.218)       0.016         0.002
287  23.92     0.07      0.018       (  0.217)       0.016         0.002
288  24.00     0.07      0.018       (  0.217)       0.016         0.002
            (Loss Rate Not Used)
    Sum =     100.0                                  Sum =     2.7
      Flood volume = Effective rainfall      0.22(In)
       times area      91.5(Ac.)/[(In)/(Ft.)] =       1.7(Ac.Ft)
      Total soil loss =      2.02(In)
      Total soil loss =    15.438(Ac.Ft)
      Total rainfall =      2.25(In)
      Flood volume =       74719.3 Cubic Feet
      Total soil loss =      672473.4 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =      2.761(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       0.0005      0.06  Q         |         |         |         |
   0+15       0.0012      0.11  Q         |         |         |         |
   0+20       0.0021      0.13  Q         |         |         |         |
   0+25       0.0033      0.17  Q         |         |         |         |
   0+30       0.0047      0.20  Q         |         |         |         |
   0+35       0.0061      0.21  Q         |         |         |         |
   0+40       0.0077      0.22  Q         |         |         |         |
   0+45       0.0092      0.23  Q         |         |         |         |
   0+50       0.0109      0.24  Q         |         |         |         |
   0+55       0.0127      0.27  VQ        |         |         |         |
   1+ 0       0.0148      0.29  VQ        |         |         |         |
   1+ 5       0.0168      0.30  VQ        |         |         |         |
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 1+10        0.0188        0.28  VQ          |           |           |           |
 1+15        0.0206        0.27  VQ          |           |           |           |
 1+20        0.0224        0.26  VQ          |           |           |           |
 1+25        0.0242        0.26  VQ          |           |           |           |
 1+30        0.0259        0.26  VQ          |           |           |           |
 1+35        0.0277        0.25  VQ          |           |           |           |
 1+40        0.0294        0.25  VQ          |           |           |           |
 1+45        0.0312        0.25  VQ          |           |           |           |
 1+50        0.0329        0.26  VQ          |           |           |           |
 1+55        0.0349        0.28  VQ          |           |           |           |
 2+ 0        0.0370        0.30  VQ          |           |           |           |
 2+ 5        0.0391        0.31  VQ          |           |           |           |
 2+10        0.0413        0.32  VQ          |           |           |           |
 2+15        0.0435        0.32   |Q         |           |           |           |
 2+20        0.0458        0.32   |Q         |           |           |           |
 2+25        0.0480        0.33   |Q         |           |           |           |
 2+30        0.0503        0.33   |Q         |           |           |           |
 2+35        0.0526        0.33   |Q         |           |           |           |
 2+40        0.0550        0.36   |Q         |           |           |           |
 2+45        0.0577        0.38   |Q         |           |           |           |
 2+50        0.0604        0.39   |Q         |           |           |           |
 2+55        0.0632        0.40   |Q         |           |           |           |
 3+ 0        0.0659        0.40   |Q         |           |           |           |
 3+ 5        0.0687        0.41   |Q         |           |           |           |
 3+10        0.0716        0.41   |Q         |           |           |           |
 3+15        0.0744        0.41   |Q         |           |           |           |
 3+20        0.0772        0.41   |Q         |           |           |           |
 3+25        0.0801        0.41   |Q         |           |           |           |
 3+30        0.0829        0.41   |Q         |           |           |           |
 3+35        0.0858        0.41   |Q         |           |           |           |
 3+40        0.0886        0.41   |QV        |           |           |           |
 3+45        0.0915        0.42   |QV        |           |           |           |
 3+50        0.0944        0.42   |QV        |           |           |           |
 3+55        0.0974        0.45   |QV        |           |           |           |
 4+ 0        0.1007        0.47   |QV        |           |           |           |
 4+ 5        0.1040        0.48   |QV        |           |           |           |
 4+10        0.1073        0.48   |QV        |           |           |           |
 4+15        0.1107        0.49   |QV        |           |           |           |
 4+20        0.1141        0.50   |QV        |           |           |           |
 4+25        0.1177        0.52   | Q        |           |           |           |
 4+30        0.1214        0.55   | Q        |           |           |           |
 4+35        0.1253        0.56   | Q        |           |           |           |
 4+40        0.1292        0.56   | QV       |           |           |           |
 4+45        0.1331        0.57   | QV       |           |           |           |
 4+50        0.1371        0.58   | QV       |           |           |           |
 4+55        0.1412        0.60   | QV       |           |           |           |
 5+ 0        0.1456        0.63   | QV       |           |           |           |
 5+ 5        0.1499        0.63   | QV       |           |           |           |
 5+10        0.1539        0.59   | QV       |           |           |           |
 5+15        0.1577        0.54   | QV       |           |           |           |
 5+20        0.1614        0.53   | QV       |           |           |           |
 5+25        0.1652        0.55   | QV       |           |           |           |
 5+30        0.1691        0.57   | QV       |           |           |           |
 5+35        0.1731        0.58   | Q V      |           |           |           |
 5+40        0.1772        0.61   | Q V      |           |           |           |
 5+45        0.1816        0.63   | Q V      |           |           |           |
 5+50        0.1860        0.64   | Q V      |           |           |           |
 5+55        0.1905        0.65   | Q V      |           |           |           |
 6+ 0        0.1950        0.65   | Q V      |           |           |           |
 6+ 5        0.1995        0.66   | Q V      |           |           |           |
 6+10        0.2042        0.69   | Q V      |           |           |           |
 6+15        0.2091        0.71   | Q V      |           |           |           |
 6+20        0.2141        0.72   | Q V      |           |           |           |
```

```
 6+25       0.2192       0.73 | Q  V    |         |         |         |
 6+30       0.2242       0.73 | Q  V    |         |         |         |
 6+35       0.2293       0.74 | Q  V    |         |         |         |
 6+40       0.2346       0.77 |  Q V    |         |         |         |
 6+45       0.2401       0.80 |  Q V    |         |         |         |
 6+50       0.2457       0.81 |  Q V    |         |         |         |
 6+55       0.2513       0.81 |  Q V    |         |         |         |
 7+ 0       0.2569       0.82 |  Q V    |         |         |         |
 7+ 5       0.2626       0.82 |  Q  V   |         |         |         |
 7+10       0.2682       0.82 |  Q  V   |         |         |         |
 7+15       0.2739       0.83 |  Q  V   |         |         |         |
 7+20       0.2797       0.83 |  Q  V   |         |         |         |
 7+25       0.2856       0.86 |  Q  V   |         |         |         |
 7+30       0.2916       0.88 |  Q  V   |         |         |         |
 7+35       0.2978       0.90 |  Q  V   |         |         |         |
 7+40       0.3042       0.93 |  Q   V  |         |         |         |
 7+45       0.3108       0.96 |  Q   V  |         |         |         |
 7+50       0.3175       0.97 |  Q   V  |         |         |         |
 7+55       0.3244       1.01 |   Q  V  |         |         |         |
 8+ 0       0.3316       1.03 |   Q  V  |         |         |         |
 8+ 5       0.3389       1.06 |   Q  V  |         |         |         |
 8+10       0.3466       1.12 |   Q   V |         |         |         |
 8+15       0.3546       1.17 |   Q   V |         |         |         |
 8+20       0.3628       1.19 |   Q   V |         |         |         |
 8+25       0.3711       1.21 |   Q   V |         |         |         |
 8+30       0.3795       1.22 |   Q   V |         |         |         |
 8+35       0.3880       1.23 |   Q    V|         |         |         |
 8+40       0.3967       1.26 |    Q   V|         |         |         |
 8+45       0.4055       1.29 |    Q   V|         |         |         |
 8+50       0.4145       1.31 |    Q   V|         |         |         |
 8+55       0.4238       1.34 |    Q   V|         |         |         |
 9+ 0       0.4332       1.37 |    Q    V         |         |         |
 9+ 5       0.4428       1.39 |    Q    V         |         |         |
 9+10       0.4528       1.45 |    Q    V         |         |         |
 9+15       0.4631       1.50 |     Q   V         |         |         |
 9+20       0.4737       1.53 |     Q   |V        |         |         |
 9+25       0.4845       1.57 |     Q   |V        |         |         |
 9+30       0.4955       1.60 |     Q   |V        |         |         |
 9+35       0.5067       1.63 |     Q   |V        |         |         |
 9+40       0.5182       1.66 |     Q   | V       |         |         |
 9+45       0.5298       1.69 |     Q   | V       |         |         |
 9+50       0.5416       1.71 |     Q   | V       |         |         |
 9+55       0.5536       1.75 |     Q   | V       |         |         |
10+ 0       0.5659       1.78 |      Q  |  V      |         |         |
10+ 5       0.5780       1.75 |      Q  |  V      |         |         |
10+10       0.5889       1.59 |     Q   |  V      |         |         |
10+15       0.5988       1.44 |    Q    |  V      |         |         |
10+20       0.6083       1.37 |    Q    |   V     |         |         |
10+25       0.6175       1.34 |    Q    |   V     |         |         |
10+30       0.6265       1.31 |    Q    |   V     |         |         |
10+35       0.6357       1.33 |    Q    |   V     |         |         |
10+40       0.6455       1.43 |    Q    |    V    |         |         |
10+45       0.6562       1.54 |     Q   |    V    |         |         |
10+50       0.6671       1.58 |     Q   |    V    |         |         |
10+55       0.6781       1.60 |     Q   |    V    |         |         |
11+ 0       0.6893       1.62 |     Q   |     V   |         |         |
11+ 5       0.7004       1.62 |     Q   |     V   |         |         |
11+10       0.7115       1.60 |     Q   |     V   |         |         |
11+15       0.7224       1.58 |     Q   |     V   |         |         |
11+20       0.7333       1.58 |     Q   |      V  |         |         |
11+25       0.7442       1.58 |     Q   |      V  |         |         |
11+30       0.7550       1.58 |     Q   |      V  |         |         |
11+35       0.7658       1.57 |     Q   |      V  |         |         |
```

```
11+40       0.7763      1.52  |     Q   |       V |         |         |
11+45       0.7865      1.48  |    Q    |       V |         |         |
11+50       0.7965      1.46  |    Q    |       V |         |         |
11+55       0.8067      1.47  |    Q    |       V |         |         |
12+ 0       0.8169      1.49  |    Q    |        V|         |         |
12+ 5       0.8275      1.53  |     Q   |        V|         |         |
12+10       0.8392      1.70  |     Q   |        V|         |         |
12+15       0.8521      1.87  |      Q  |        V|         |         |
12+20       0.8654      1.94  |      Q  |         V         |         |
12+25       0.8792      2.00  |       Q |         V         |         |
12+30       0.8934      2.05  |       Q |         V         |         |
12+35       0.9078      2.09  |       Q |         |V        |         |
12+40       0.9226      2.16  |       Q |         |V        |         |
12+45       0.9379      2.22  |       Q |         |V        |         |
12+50       0.9535      2.26  |        Q|         | V       |         |
12+55       0.9694      2.30  |        Q|         | V       |         |
13+ 0       0.9855      2.34  |        Q|         | V       |         |
13+ 5       1.0019      2.39  |        Q|         |  V      |         |
13+10       1.0193      2.52  |         Q         |  V      |         |
13+15       1.0376      2.65  |         Q         |   V     |         |
13+20       1.0562      2.71  |         Q         |   V     |         |
13+25       1.0751      2.74  |         Q         |    V    |         |
13+30       1.0941      2.76  |         |Q        |    V    |         |
13+35       1.1128      2.71  |         Q         |    V    |         |
13+40       1.1298      2.46  |        Q|         |     V   |         |
13+45       1.1450      2.21  |       Q |         |     V   |         |
13+50       1.1595      2.11  |       Q |         |      V  |         |
13+55       1.1737      2.06  |       Q |         |      V  |         |
14+ 0       1.1876      2.02  |       Q |         |      V  |         |
14+ 5       1.2014      2.02  |       Q |         |       V |         |
14+10       1.2159      2.09  |       Q |         |       V |         |
14+15       1.2308      2.17  |       Q |         |       V |         |
14+20       1.2459      2.19  |       Q |         |        V|         |
14+25       1.2609      2.18  |       Q |         |        V|         |
14+30       1.2758      2.16  |       Q |         |        V|         |
14+35       1.2907      2.16  |       Q |         |         V         |
14+40       1.3056      2.16  |       Q |         |         V         |
14+45       1.3204      2.15  |       Q |         |         V         |
14+50       1.3352      2.15  |       Q |         |         |V        |
14+55       1.3498      2.13  |       Q |         |         |V        |
15+ 0       1.3643      2.10  |       Q |         |         |V        |
15+ 5       1.3787      2.09  |       Q |         |         | V       |
15+10       1.3929      2.06  |       Q |         |         | V       |
15+15       1.4069      2.03  |       Q |         |         | V       |
15+20       1.4207      2.02  |       Q |         |         |  V      |
15+25       1.4344      1.98  |      Q  |         |         |  V      |
15+30       1.4479      1.95  |      Q  |         |         |  V      |
15+35       1.4611      1.92  |      Q  |         |         |   V     |
15+40       1.4736      1.81  |      Q  |         |         |   V     |
15+45       1.4854      1.71  |     Q   |         |         |   V     |
15+50       1.4968      1.67  |     Q   |         |         |   V     |
15+55       1.5082      1.64  |     Q   |         |         |    V    |
16+ 0       1.5194      1.63  |     Q   |         |         |    V    |
16+ 5       1.5299      1.53  |     Q   |         |         |    V    |
16+10       1.5379      1.16  |   Q     |         |         |    V    |
16+15       1.5433      0.80  |  Q      |         |         |    V    |
16+20       1.5478      0.64  | Q       |         |         |     V   |
16+25       1.5516      0.56  | Q       |         |         |     V   |
16+30       1.5551      0.50  |Q        |         |         |     V   |
16+35       1.5582      0.45  |Q        |         |         |     V   |
16+40       1.5609      0.40  |Q        |         |         |     V   |
16+45       1.5633      0.35  |Q        |         |         |     V   |
16+50       1.5655      0.32  |Q        |         |         |     V   |
```

```
16+55       1.5675      0.30  |Q        |         |         |     V   |
17+ 0       1.5695      0.28  |Q        |         |         |     V   |
17+ 5       1.5715      0.28  |Q        |         |         |     V   |
17+10       1.5737      0.32  |Q        |         |         |     V   |
17+15       1.5762      0.36  |Q        |         |         |     V   |
17+20       1.5788      0.38  |Q        |         |         |     V   |
17+25       1.5815      0.39  |Q        |         |         |     V   |
17+30       1.5842      0.40  |Q        |         |         |     V   |
17+35       1.5869      0.40  |Q        |         |         |      V  |
17+40       1.5897      0.40  |Q        |         |         |      V  |
17+45       1.5925      0.41  |Q        |         |         |      V  |
17+50       1.5953      0.40  |Q        |         |         |      V  |
17+55       1.5979      0.38  |Q        |         |         |      V  |
18+ 0       1.6004      0.36  |Q        |         |         |      V  |
18+ 5       1.6028      0.35  |Q        |         |         |      V  |
18+10       1.6052      0.35  |Q        |         |         |      V  |
18+15       1.6075      0.34  |Q        |         |         |      V  |
18+20       1.6099      0.34  |Q        |         |         |      V  |
18+25       1.6122      0.34  |Q        |         |         |      V  |
18+30       1.6145      0.34  |Q        |         |         |      V  |
18+35       1.6168      0.33  |Q        |         |         |      V  |
18+40       1.6189      0.30  |Q        |         |         |      V  |
18+45       1.6208      0.28  |Q        |         |         |      V  |
18+50       1.6226      0.26  |Q        |         |         |      V  |
18+55       1.6242      0.23   Q        |         |         |      V  |
19+ 0       1.6257      0.21   Q        |         |         |      V  |
19+ 5       1.6270      0.20   Q        |         |         |      V  |
19+10       1.6285      0.22   Q        |         |         |      V  |
19+15       1.6301      0.23   Q        |         |         |       V |
19+20       1.6318      0.25   Q        |         |         |       V |
19+25       1.6337      0.27  |Q        |         |         |       V |
19+30       1.6358      0.30  |Q        |         |         |       V |
19+35       1.6379      0.30  |Q        |         |         |       V |
19+40       1.6398      0.28  |Q        |         |         |       V |
19+45       1.6416      0.26  |Q        |         |         |       V |
19+50       1.6434      0.25  |Q        |         |         |       V |
19+55       1.6449      0.23   Q        |         |         |       V |
20+ 0       1.6463      0.20   Q        |         |         |       V |
20+ 5       1.6477      0.20   Q        |         |         |       V |
20+10       1.6491      0.21   Q        |         |         |       V |
20+15       1.6507      0.23   Q        |         |         |       V |
20+20       1.6524      0.24   Q        |         |         |       V |
20+25       1.6541      0.24   Q        |         |         |       V |
20+30       1.6557      0.24   Q        |         |         |       V |
20+35       1.6574      0.25   Q        |         |         |       V |
20+40       1.6591      0.25   Q        |         |         |       V |
20+45       1.6608      0.25   Q        |         |         |       V |
20+50       1.6625      0.24   Q        |         |         |       V |
20+55       1.6640      0.22   Q        |         |         |       V |
21+ 0       1.6653      0.19   Q        |         |         |       V |
21+ 5       1.6666      0.19   Q        |         |         |       V |
21+10       1.6681      0.21   Q        |         |         |       V |
21+15       1.6697      0.23   Q        |         |         |       V |
21+20       1.6712      0.23   Q        |         |         |       V |
21+25       1.6727      0.21   Q        |         |         |        V|
21+30       1.6740      0.19   Q        |         |         |        V|
21+35       1.6753      0.19   Q        |         |         |        V|
21+40       1.6767      0.21   Q        |         |         |        V|
21+45       1.6783      0.23   Q        |         |         |        V|
21+50       1.6799      0.23   Q        |         |         |        V|
21+55       1.6813      0.21   Q        |         |         |        V|
22+ 0       1.6826      0.19   Q        |         |         |        V|
22+ 5       1.6839      0.19   Q        |         |         |        V|
```

```
   22+10       1.6853      0.21  Q         |         |         |        V|
   22+15       1.6869      0.23  Q         |         |         |        V|
   22+20       1.6884      0.23  Q         |         |         |        V|
   22+25       1.6899      0.21  Q         |         |         |        V|
   22+30       1.6912      0.19  Q         |         |         |        V|
   22+35       1.6924      0.18  Q         |         |         |        V|
   22+40       1.6936      0.18  Q         |         |         |        V|
   22+45       1.6948      0.17  Q         |         |         |        V|
   22+50       1.6960      0.17  Q         |         |         |        V|
   22+55       1.6972      0.17  Q         |         |         |        V|
   23+ 0       1.6983      0.17  Q         |         |         |        V|
   23+ 5       1.6995      0.17  Q         |         |         |        V|
   23+10       1.7007      0.17  Q         |         |         |        V|
   23+15       1.7018      0.17  Q         |         |         |        V|
   23+20       1.7030      0.17  Q         |         |         |        V|
   23+25       1.7041      0.17  Q         |         |         |        V|
   23+30       1.7053      0.17  Q         |         |         |        V|
   23+35       1.7064      0.17  Q         |         |         |        V|
   23+40       1.7075      0.17  Q         |         |         |        V|
   23+45       1.7087      0.17  Q         |         |         |        V|
   23+50       1.7098      0.17  Q         |         |         |        V|
   23+55       1.7110      0.17  Q         |         |         |        V|
   24+ 0       1.7121      0.17  Q         |         |         |        V|
   24+ 5       1.7132      0.15  Q         |         |         |        V|
   24+10       1.7139      0.11  Q         |         |         |        V|
   24+15       1.7143      0.06  Q         |         |         |        V|
   24+20       1.7146      0.04  Q         |         |         |        V|
   24+25       1.7148      0.03  Q         |         |         |        V|
   24+30       1.7149      0.02  Q         |         |         |        V|
   24+35       1.7150      0.02  Q         |         |         |        V|
   24+40       1.7151      0.01  Q         |         |         |        V|
   24+45       1.7152      0.01  Q         |         |         |        V|
   24+50       1.7152      0.01  Q         |         |         |        V|
   24+55       1.7153      0.00  Q         |         |         |        V|
   25+ 0       1.7153      0.00  Q         |         |         |        V|
   25+ 5       1.7153      0.00  Q         |         |         |        V|
   25+10       1.7153      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

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2008, Version 8.1
      Study date  05/07/21 File: kxprh1100.out

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

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Proposed Condition
100-year 1-hour storm



-------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =    0.071 Hr.
Lag time =     4.26 Min.
25% of lag time =     1.06 Min.
40% of lag time =     1.70 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]
       91.50         0.53               48.31

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50         1.59              145.49
```

```
STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    0.528(In)
Area Averaged 100-Year Rainfall =    1.590(In)

Point rain (area averaged) =    1.590(In)
Areal adjustment factor =   99.92 %
Adjusted average point rain =    1.589(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
     5.890           69.00         0.010
    72.810           67.90         0.650
    12.800           72.30         0.900
 Total Area Entered =     91.50(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     0.010        0.192       0.064      0.012
67.9  83.7      0.201     0.650        0.084       0.796      0.066
72.3  86.4      0.171     0.900        0.033       0.140      0.005
                                                   Sum (F) =   0.083
Area averaged mean soil loss (F) (In/Hr) =  0.083
Minimum soil loss rate ((In/Hr)) =  0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) =   0.380
---------------------------------------------------------------------
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       117.475         24.463            22.559
    2   0.167       234.951         48.785            44.987
    3   0.250       352.426         13.536            12.482
    4   0.333       469.902          6.154             5.675
    5   0.417       587.377          3.437             3.170
    6   0.500       704.853          2.016             1.859
    7   0.583       822.328          1.608             1.483
                              Sum = 100.000   Sum=      92.215
----------------------------------------------------------------------


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

  Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
      (Hr.)  Percent   (In/Hr)         Max   |   Low         (In/Hr)
   1   0.08     4.40      0.839          0.083    (  0.319)        0.755
   2   0.17     4.50      0.858          0.083    (  0.326)        0.774
   3   0.25     5.40      1.029          0.083    (  0.391)        0.946
   4   0.33     5.40      1.029          0.083    (  0.391)        0.946
   5   0.42     5.70      1.087          0.083    (  0.413)        1.003
   6   0.50     6.40      1.220          0.083    (  0.464)        1.137
   7   0.58     7.90      1.506          0.083    (  0.572)        1.423
   8   0.67     9.10      1.735          0.083    (  0.659)        1.651
   9   0.75    12.80      2.440          0.083    (  0.927)        2.357
```

```
10   0.83    25.60      4.880          0.083    (  1.855)        4.797
11   0.92     7.90      1.506          0.083    (  0.572)        1.423
12   1.00     4.90      0.934          0.083    (  0.355)        0.851
            (Loss Rate Not Used)
   Sum =     100.0                                 Sum =    18.1
     Flood volume = Effective rainfall      1.51(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =      11.5(Ac.Ft)
     Total soil loss =      0.08(In)
     Total soil loss =     0.636(Ac.Ft)
     Total rainfall =      1.59(In)
     Flood volume =      499967.0 Cubic Feet
     Total soil loss =       27705.7 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =    294.950(CFS)
     --------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         1 - H O U R   S T O R M
                    R u n o f f     H y d r o g r a p h
     --------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       75.0     150.0     225.0     300.0
-----------------------------------------------------------------------
  0+ 5       0.1174     17.05  V Q       |         |         |         |
  0+10       0.4720     51.48  |V    Q   |         |         |         |
  0+15       0.9241     65.65  |  V    Q |         |         |         |
  0+20       1.4606     77.90  |    V    Q         |         |         |
  0+25       2.0379     83.83  |      V  |Q        |         |         |
  0+30       2.6706     91.86  |        V| Q       |         |         |
  0+35       3.4057    106.74  |         |V  Q     |         |         |
  0+40       4.2811    127.11  |         |   V Q   |         |         |
  0+45       5.3698    158.09  |         |       V |Q        |         |
  0+50       7.0911    249.93  |         |         |   V     |  Q      |
  0+55       9.1224    294.95  |         |         |         |V       Q|
  1+ 0      10.2663    166.09  |         |         | Q       |    V    |
  1+ 5      10.9272     95.95  |         | Q       |         |       V |
  1+10      11.2078     40.75  |    Q    |         |         |        V|
  1+15      11.3577     21.76  | Q       |         |         |        V|
  1+20      11.4435     12.46  |Q        |         |         |        V|
  1+25      11.4690      3.69  Q         |         |         |        V|
  1+30      11.4777      1.26  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 05/07/21 File: kxprh3100.out

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

Program License Serial Number 4029

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

English Units used in output format

Keller Crossing – Area C
Hydrology Proposed Condition
100-year 3-hour storm

Drainage Area = 91.50(Ac.) = 0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 91.50(Ac.) = 0.143 Sq. Mi.
Length along longest watercourse = 2880.00(Ft.)
Length along longest watercourse measured to centroid = 1560.00(Ft.)
Length along longest watercourse = 0.545 Mi.
Length along longest watercourse measured to centroid = 0.295 Mi.
Difference in elevation = 102.70(Ft.)
Slope along watercourse = 188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time = 0.071 Hr.
Lag time = 4.26 Min.
25% of lag time = 1.06 Min.
40% of lag time = 1.70 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]
91.50	0.91	83.36

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
91.50	2.33	213.19

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.911(In)
Area Averaged 100-Year Rainfall = 2.330(In)

Point rain (area averaged) = 2.330(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 2.329(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.890	69.00	0.010
72.810	67.90	0.650
12.800	72.30	0.900

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.010	0.192	0.064	0.012
67.9	83.7	0.201	0.650	0.084	0.796	0.066
72.3	86.4	0.171	0.900	0.033	0.140	0.005
					Sum (F) =	0.083

Area averaged mean soil loss (F) (In/Hr) = 0.083
Minimum soil loss rate ((In/Hr)) = 0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.380

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

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	117.475	24.463	22.559
2	0.167	234.951	48.785	44.987
3	0.250	352.426	13.536	12.482
4	0.333	469.902	6.154	5.675
5	0.417	587.377	3.437	3.170
6	0.500	704.853	2.016	1.859
7	0.583	822.328	1.608	1.483
			Sum = 100.000	Sum= 92.215

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	0.363	0.083	(0.138)	0.280
2	0.17	1.30	0.363	0.083	(0.138)	0.280
3	0.25	1.10	0.307	0.083	(0.117)	0.224
4	0.33	1.50	0.419	0.083	(0.159)	0.336
5	0.42	1.50	0.419	0.083	(0.159)	0.336
6	0.50	1.80	0.503	0.083	(0.191)	0.420
7	0.58	1.50	0.419	0.083	(0.159)	0.336
8	0.67	1.80	0.503	0.083	(0.191)	0.420
9	0.75	1.80	0.503	0.083	(0.191)	0.420
10	0.83	1.50	0.419	0.083	(0.159)	0.336
11	0.92	1.60	0.447	0.083	(0.170)	0.364

```
12   1.00     1.80      0.503          0.083    (  0.191)        0.420
13   1.08     2.20      0.615          0.083    (  0.234)        0.531
14   1.17     2.20      0.615          0.083    (  0.234)        0.531
15   1.25     2.20      0.615          0.083    (  0.234)        0.531
16   1.33     2.00      0.559          0.083    (  0.212)        0.476
17   1.42     2.60      0.727          0.083    (  0.276)        0.643
18   1.50     2.70      0.755          0.083    (  0.287)        0.671
19   1.58     2.40      0.671          0.083    (  0.255)        0.587
20   1.67     2.70      0.755          0.083    (  0.287)        0.671
21   1.75     3.30      0.922          0.083    (  0.350)        0.839
22   1.83     3.10      0.866          0.083    (  0.329)        0.783
23   1.92     2.90      0.811          0.083    (  0.308)        0.727
24   2.00     3.00      0.838          0.083    (  0.319)        0.755
25   2.08     3.10      0.866          0.083    (  0.329)        0.783
26   2.17     4.20      1.174          0.083    (  0.446)        1.090
27   2.25     5.00      1.397          0.083    (  0.531)        1.314
28   2.33     3.50      0.978          0.083    (  0.372)        0.895
29   2.42     6.80      1.901          0.083    (  0.722)        1.817
30   2.50     7.30      2.040          0.083    (  0.775)        1.957
31   2.58     8.20      2.292          0.083    (  0.871)        2.208
32   2.67     5.90      1.649          0.083    (  0.627)        1.566
33   2.75     2.00      0.559          0.083    (  0.212)        0.476
34   2.83     1.80      0.503          0.083    (  0.191)        0.420
35   2.92     1.80      0.503          0.083    (  0.191)        0.420
36   3.00     0.60      0.168       (  0.083)       0.064        0.104
           (Loss Rate Not Used)
   Sum =     100.0                                 Sum =    25.0
     Flood volume = Effective rainfall      2.08(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =      15.9(Ac.Ft)
     Total soil loss =      0.25(In)
     Total soil loss =     1.896(Ac.Ft)
     Total rainfall =      2.33(In)
     Flood volume =      691016.1 Cubic Feet
     Total soil loss =       82571.9 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =    176.391(CFS)
     --------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         3 - H O U R   S T O R M
                    R u n o f f     H y d r o g r a p h
     --------------------------------------------------------------------
                Hydrograph in   5   Minute intervals ((CFS))

     --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
--------------------------------------------------------------------------
  0+ 5       0.0435      6.32  VQ        |         |         |         |
  0+10       0.1738     18.92  V  Q      |         |         |         |
  0+15       0.3195     21.15  V   Q     |         |         |         |
  0+20       0.4761     22.75  |V  Q     |         |         |         |
  0+25       0.6688     27.97  |V   Q    |         |         |         |
  0+30       0.8854     31.46  | V   Q   |         |         |         |
  0+35       1.1211     34.22  | V   Q   |         |         |         |
  0+40       1.3527     33.63  |  V  Q   |         |         |         |
  0+45       1.6073     36.96  |   V  Q  |         |         |         |
  0+50       1.8557     36.07  |   V  Q  |         |         |         |
  0+55       2.0850     33.29  |    VQ   |         |         |         |
  1+ 0       2.3260     35.00  |    V Q  |         |         |         |
  1+ 5       2.6011     39.94  |     VQ  |         |         |         |
  1+10       2.9158     45.69  |      V Q|         |         |         |
  1+15       3.2418     47.34  |       VQ|         |         |         |
  1+20       3.5642     46.82  |       VQ|         |         |         |
  1+25       3.8988     48.58  |        Q|         |         |         |
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    1+30       4.2870     56.36  |         VQ        |         |         |
    1+35       4.6841     57.66  |         |Q        |         |         |
    1+40       5.0760     56.91  |         |QV       |         |         |
    1+45       5.5168     64.00  |         | QV      |         |         |
    1+50       6.0070     71.18  |         |   QV    |         |         |
    1+55       6.4892     70.01  |         |   Q V   |         |         |
    2+ 0       6.9611     68.53  |         |  Q   V  |         |         |
    2+ 5       7.4430     69.96  |         |  Q    V |         |         |
    2+10       7.9833     78.45  |         |    Q    V         |         |
    2+15       8.6569     97.81  |         |        Q|V        |         |
    2+20       9.3615    102.31  |         |         Q  V      |         |
    2+25      10.1112    108.86  |         |         |Q   V    |         |
    2+30      11.1486    150.63  |         |         |       V Q         |
    2+35      12.3404    173.05  |         |         |         |V  Q     |
    2+40      13.5553    176.39  |         |         |         |   VQ    |
    2+45      14.4455    129.27  |         |         |    Q    |      V  |
    2+50      14.9544     73.88  |         |   Q     |         |       V |
    2+55      15.3437     56.53  |         |Q        |         |        V|
    3+ 0      15.6271     41.15  |       Q |         |         |        V|
    3+ 5      15.7648     20.00  |   Q     |         |         |        V|
    3+10      15.8215      8.22  |Q        |         |         |        V|
    3+15      15.8449      3.41  Q         |         |         |        V|
    3+20      15.8569      1.73  Q         |         |         |        V|
    3+25      15.8625      0.82  Q         |         |         |        V|
    3+30      15.8635      0.15  Q         |         |         |        V|
-----------------------------------------------------------------------
```

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

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Study date 05/07/21 File: kxprh6100.out

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

Program License Serial Number 4029

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

English Units used in output format

Keller Crossing – Area C
Hydrology Proposed Condition
100-year 6-hour storm

Drainage Area = 91.50(Ac.) = 0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 91.50(Ac.) = 0.143 Sq. Mi.
Length along longest watercourse = 2880.00(Ft.)
Length along longest watercourse measured to centroid = 1560.00(Ft.)
Length along longest watercourse = 0.545 Mi.
Length along longest watercourse measured to centroid = 0.295 Mi.
Difference in elevation = 102.70(Ft.)
Slope along watercourse = 188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time = 0.071 Hr.
Lag time = 4.26 Min.
25% of lag time = 1.06 Min.
40% of lag time = 1.70 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]
91.50	1.29	118.04

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
91.50	3.17	290.06

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 1.290(In)
Area Averaged 100-Year Rainfall = 3.170(In)

Point rain (area averaged) = 3.170(In)
Areal adjustment factor = 99.97 %
Adjusted average point rain = 3.169(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.890	69.00	0.010
72.810	67.90	0.650
12.800	72.30	0.900

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.010	0.192	0.064	0.012
67.9	83.7	0.201	0.650	0.084	0.796	0.066
72.3	86.4	0.171	0.900	0.033	0.140	0.005
					Sum (F) =	0.083

Area averaged mean soil loss (F) (In/Hr) = 0.083
Minimum soil loss rate ((In/Hr)) = 0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.380

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

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	117.475	24.463	22.559
2	0.167	234.951	48.785	44.987
3	0.250	352.426	13.536	12.482
4	0.333	469.902	6.154	5.675
5	0.417	587.377	3.437	3.170
6	0.500	704.853	2.016	1.859
7	0.583	822.328	1.608	1.483
			Sum = 100.000	Sum= 92.215

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	Loss rate(In./Hr) Low	Effective (In/Hr)
1	0.08	0.50	0.190	(0.083)	0.072	0.118
2	0.17	0.60	0.228	0.083	(0.087)	0.145
3	0.25	0.60	0.228	0.083	(0.087)	0.145
4	0.33	0.60	0.228	0.083	(0.087)	0.145
5	0.42	0.60	0.228	0.083	(0.087)	0.145
6	0.50	0.70	0.266	0.083	(0.101)	0.183
7	0.58	0.70	0.266	0.083	(0.101)	0.183
8	0.67	0.70	0.266	0.083	(0.101)	0.183
9	0.75	0.70	0.266	0.083	(0.101)	0.183
10	0.83	0.70	0.266	0.083	(0.101)	0.183
11	0.92	0.70	0.266	0.083	(0.101)	0.183

12	1.00	0.80	0.304	0.083	(0.116)	0.221
13	1.08	0.80	0.304	0.083	(0.116)	0.221
14	1.17	0.80	0.304	0.083	(0.116)	0.221
15	1.25	0.80	0.304	0.083	(0.116)	0.221
16	1.33	0.80	0.304	0.083	(0.116)	0.221
17	1.42	0.80	0.304	0.083	(0.116)	0.221
18	1.50	0.80	0.304	0.083	(0.116)	0.221
19	1.58	0.80	0.304	0.083	(0.116)	0.221
20	1.67	0.80	0.304	0.083	(0.116)	0.221
21	1.75	0.80	0.304	0.083	(0.116)	0.221
22	1.83	0.80	0.304	0.083	(0.116)	0.221
23	1.92	0.80	0.304	0.083	(0.116)	0.221
24	2.00	0.90	0.342	0.083	(0.130)	0.259
25	2.08	0.80	0.304	0.083	(0.116)	0.221
26	2.17	0.90	0.342	0.083	(0.130)	0.259
27	2.25	0.90	0.342	0.083	(0.130)	0.259
28	2.33	0.90	0.342	0.083	(0.130)	0.259
29	2.42	0.90	0.342	0.083	(0.130)	0.259
30	2.50	0.90	0.342	0.083	(0.130)	0.259
31	2.58	0.90	0.342	0.083	(0.130)	0.259
32	2.67	0.90	0.342	0.083	(0.130)	0.259
33	2.75	1.00	0.380	0.083	(0.145)	0.297
34	2.83	1.00	0.380	0.083	(0.145)	0.297
35	2.92	1.00	0.380	0.083	(0.145)	0.297
36	3.00	1.00	0.380	0.083	(0.145)	0.297
37	3.08	1.00	0.380	0.083	(0.145)	0.297
38	3.17	1.10	0.418	0.083	(0.159)	0.335
39	3.25	1.10	0.418	0.083	(0.159)	0.335
40	3.33	1.10	0.418	0.083	(0.159)	0.335
41	3.42	1.20	0.456	0.083	(0.173)	0.373
42	3.50	1.30	0.494	0.083	(0.188)	0.411
43	3.58	1.40	0.532	0.083	(0.202)	0.449
44	3.67	1.40	0.532	0.083	(0.202)	0.449
45	3.75	1.50	0.570	0.083	(0.217)	0.487
46	3.83	1.50	0.570	0.083	(0.217)	0.487
47	3.92	1.60	0.608	0.083	(0.231)	0.525
48	4.00	1.60	0.608	0.083	(0.231)	0.525
49	4.08	1.70	0.646	0.083	(0.246)	0.563
50	4.17	1.80	0.685	0.083	(0.260)	0.601
51	4.25	1.90	0.723	0.083	(0.275)	0.639
52	4.33	2.00	0.761	0.083	(0.289)	0.677
53	4.42	2.10	0.799	0.083	(0.303)	0.715
54	4.50	2.10	0.799	0.083	(0.303)	0.715
55	4.58	2.20	0.837	0.083	(0.318)	0.753
56	4.67	2.30	0.875	0.083	(0.332)	0.791
57	4.75	2.40	0.913	0.083	(0.347)	0.829
58	4.83	2.40	0.913	0.083	(0.347)	0.829
59	4.92	2.50	0.951	0.083	(0.361)	0.867
60	5.00	2.60	0.989	0.083	(0.376)	0.905
61	5.08	3.10	1.179	0.083	(0.448)	1.095
62	5.17	3.60	1.369	0.083	(0.520)	1.286
63	5.25	3.90	1.483	0.083	(0.564)	1.400
64	5.33	4.20	1.597	0.083	(0.607)	1.514
65	5.42	4.70	1.787	0.083	(0.679)	1.704
66	5.50	5.60	2.130	0.083	(0.809)	2.046
67	5.58	1.90	0.723	0.083	(0.275)	0.639
68	5.67	0.90	0.342	0.083	(0.130)	0.259
69	5.75	0.60	0.228	0.083	(0.087)	0.145
70	5.83	0.50	0.190	(0.083)	0.072	0.118
71	5.92	0.30	0.114	(0.083)	0.043	0.071
72	6.00	0.20	0.076	(0.083)	0.029	0.047
		(Loss Rate Not Used)				
	Sum =	100.0			Sum =	32.1

```
     Flood volume = Effective rainfall       2.68(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =      20.4(Ac.Ft)
     Total soil loss =      0.49(In)
     Total soil loss =     3.742(Ac.Ft)
     Total rainfall =      3.17(In)
     Flood volume =      889570.2 Cubic Feet
     Total soil loss =      162998.3 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =    157.186(CFS)
     --------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         6 - H O U R   S T O R M
                    R u n o f f     H y d r o g r a p h
     --------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
-----------------------------------------------------------------------
  0+ 5       0.0183      2.66  Q         |         |         |         |
  0+10       0.0774      8.57  VQ        |         |         |         |
  0+15       0.1549     11.25  V Q       |         |         |         |
  0+20       0.2393     12.26  V Q       |         |         |         |
  0+25       0.3274     12.79  V Q       |         |         |         |
  0+30       0.4234     13.95  V Q       |         |         |         |
  0+35       0.5328     15.89  |V Q      |         |         |         |
  0+40       0.6458     16.40  |V Q      |         |         |         |
  0+45       0.7602     16.62  |V Q      |         |         |         |
  0+50       0.8755     16.74  |V Q      |         |         |         |
  0+55       0.9913     16.81  |V Q      |         |         |         |
  1+ 0       1.1133     17.72  | VQ      |         |         |         |
  1+ 5       1.2471     19.43  | VQ      |         |         |         |
  1+10       1.3843     19.91  | VQ      |         |         |         |
  1+15       1.5229     20.12  | V Q     |         |         |         |
  1+20       1.6623     20.25  |  VQ     |         |         |         |
  1+25       1.8022     20.32  |  VQ     |         |         |         |
  1+30       1.9425     20.37  |  VQ     |         |         |         |
  1+35       2.0828     20.37  |   Q     |         |         |         |
  1+40       2.2231     20.37  |   Q     |         |         |         |
  1+45       2.3634     20.37  |   Q     |         |         |         |
  1+50       2.5037     20.37  |   Q     |         |         |         |
  1+55       2.6440     20.37  |   QV    |         |         |         |
  2+ 0       2.7903     21.23  |   QV    |         |         |         |
  2+ 5       2.9424     22.08  |   QV    |         |         |         |
  2+10       3.0918     21.71  |   Q V   |         |         |         |
  2+15       3.2513     23.16  |   Q V   |         |         |         |
  2+20       3.4134     23.54  |   Q V   |         |         |         |
  2+25       3.5767     23.70  |   Q  V  |         |         |         |
  2+30       3.7407     23.81  |   Q  V  |         |         |         |
  2+35       3.9048     23.82  |   Q  V  |         |         |         |
  2+40       4.0692     23.88  |   Q  V  |         |         |         |
  2+45       4.2396     24.74  |   Q   V |         |         |         |
  2+50       4.4218     26.45  |    Q  V |         |         |         |
  2+55       4.6072     26.93  |    Q   V|         |         |         |
  3+ 0       4.7941     27.14  |    Q   V|         |         |         |
  3+ 5       4.9819     27.26  |    Q   V|         |         |         |
  3+10       5.1761     28.19  |    Q    V         |         |         |
  3+15       5.3824     29.96  |    Q    V         |         |         |
  3+20       5.5920     30.43  |     Q   V         |         |         |
  3+25       5.8090     31.51  |     Q   |V        |         |         |
  3+30       6.0445     34.20  |     Q   |V        |         |         |
  3+35       6.3015     37.31  |      Q  | V       |         |         |
  3+40       6.5754     39.77  |      Q  | V       |         |         |
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    3+45       6.8609      41.44  |       Q |  V      |         |         |
    3+50       7.1609      43.56  |       Q |   V     |         |         |
    3+55       7.4718      45.14  |        Q|   V     |         |         |
    4+ 0       7.7968      47.20  |        Q|    V    |         |         |
    4+ 5       8.1323      48.71  |        Q|    V    |         |         |
    4+10       8.4874      51.57  |         Q     V   |         |         |
    4+15       8.8648      54.79  |         Q      V  |         |         |
    4+20       9.2650      58.12  |         |Q      V |         |         |
    4+25       9.6890      61.56  |         | Q     V |         |         |
    4+30      10.1308      64.15  |         | Q      V|         |         |
    4+35      10.5850      65.95  |         |  Q      V         |         |
    4+40      11.0600      68.98  |         |  Q      |V        |         |
    4+45      11.5578      72.27  |         |   Q     | V       |         |
    4+50      12.0729      74.80  |         |   Q     |  V      |         |
    4+55      12.6000      76.53  |         |    Q    |   V     |         |
    5+ 0      13.1476      79.51  |         |    Q    |    V    |         |
    5+ 5      13.7415      86.23  |         |      Q  |     V   |         |
    5+10      14.4295      99.90  |         |        Q|       V |         |
    5+15      15.2132     113.80  |         |         | Q      V|         |
    5+20      16.0752     125.16  |         |         |    Q    |V        |
    5+25      17.0243     137.82  |         |         |      Q  |  V      |
    5+30      18.1069     157.19  |         |         |         |Q   V    |
    5+35      19.1045     144.85  |         |         |       Q |      V  |
    5+40      19.6496      79.15  |         |    Q    |         |       V |
    5+45      19.9582      44.81  |       Q |         |         |        V|
    5+50      20.1507      27.94  |    Q    |         |         |        V|
    5+55      20.2784      18.54  |  Q      |         |         |        V|
    6+ 0      20.3582      11.59  | Q       |         |         |        V|
    6+ 5      20.3965       5.56  |Q        |         |         |        V|
    6+10      20.4104       2.02  Q         |         |         |        V|
    6+15      20.4168       0.93  Q         |         |         |        V|
    6+20      20.4199       0.46  Q         |         |         |        V|
    6+25      20.4212       0.19  Q         |         |         |        V|
    6+30      20.4217       0.07  Q         |         |         |        V|
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      U n i t   H y d r o g r a p h   A n a l y s i s

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            Study date  05/07/21 File: kxprh24100.out

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Proposed Condition
100-year 24-hour storm



--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.016
Lag time =    0.071 Hr.
Lag time =     4.26 Min.
25% of lag time =     1.06 Min.
40% of lag time =     1.70 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]
       91.50         2.25              205.88

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50         5.87              537.11
```

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.250(In)
Area Averaged 100-Year Rainfall = 5.870(In)

Point rain (area averaged) = 5.870(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 5.869(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
5.890	69.00	0.010
72.810	67.90	0.650
12.800	72.30	0.900

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
69.0	84.4	0.194	0.010	0.192	0.064	0.012
67.9	83.7	0.201	0.650	0.084	0.796	0.066
72.3	86.4	0.171	0.900	0.033	0.140	0.005
					Sum (F) =	0.083

Area averaged mean soil loss (F) (In/Hr) = 0.083
Minimum soil loss rate ((In/Hr)) = 0.042
(for 24 hour storm duration)
Soil low loss rate (decimal) = 0.380

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

Unit Hydrograph Data

Unit time period (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	117.475	24.463	22.559
2	0.167	234.951	48.785	44.987
3	0.250	352.426	13.536	12.482
4	0.333	469.902	6.154	5.675
5	0.417	587.377	3.437	3.170
6	0.500	704.853	2.016	1.859
7	0.583	822.328	1.608	1.483
			Sum = 100.000	Sum= 92.215

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	Loss rate(In./Hr) Low	Effective (In/Hr)
1	0.08	0.07	0.047	(0.148)	0.018	0.029
2	0.17	0.07	0.047	(0.147)	0.018	0.029
3	0.25	0.07	0.047	(0.147)	0.018	0.029
4	0.33	0.10	0.070	(0.146)	0.027	0.044
5	0.42	0.10	0.070	(0.146)	0.027	0.044
6	0.50	0.10	0.070	(0.145)	0.027	0.044
7	0.58	0.10	0.070	(0.144)	0.027	0.044
8	0.67	0.10	0.070	(0.144)	0.027	0.044
9	0.75	0.10	0.070	(0.143)	0.027	0.044
10	0.83	0.13	0.094	(0.143)	0.036	0.058
11	0.92	0.13	0.094	(0.142)	0.036	0.058

12	1.00	0.13	0.094	(0.142)	0.036	0.058
13	1.08	0.10	0.070	(0.141)	0.027	0.044
14	1.17	0.10	0.070	(0.141)	0.027	0.044
15	1.25	0.10	0.070	(0.140)	0.027	0.044
16	1.33	0.10	0.070	(0.139)	0.027	0.044
17	1.42	0.10	0.070	(0.139)	0.027	0.044
18	1.50	0.10	0.070	(0.138)	0.027	0.044
19	1.58	0.10	0.070	(0.138)	0.027	0.044
20	1.67	0.10	0.070	(0.137)	0.027	0.044
21	1.75	0.10	0.070	(0.137)	0.027	0.044
22	1.83	0.13	0.094	(0.136)	0.036	0.058
23	1.92	0.13	0.094	(0.136)	0.036	0.058
24	2.00	0.13	0.094	(0.135)	0.036	0.058
25	2.08	0.13	0.094	(0.134)	0.036	0.058
26	2.17	0.13	0.094	(0.134)	0.036	0.058
27	2.25	0.13	0.094	(0.133)	0.036	0.058
28	2.33	0.13	0.094	(0.133)	0.036	0.058
29	2.42	0.13	0.094	(0.132)	0.036	0.058
30	2.50	0.13	0.094	(0.132)	0.036	0.058
31	2.58	0.17	0.117	(0.131)	0.045	0.073
32	2.67	0.17	0.117	(0.131)	0.045	0.073
33	2.75	0.17	0.117	(0.130)	0.045	0.073
34	2.83	0.17	0.117	(0.130)	0.045	0.073
35	2.92	0.17	0.117	(0.129)	0.045	0.073
36	3.00	0.17	0.117	(0.129)	0.045	0.073
37	3.08	0.17	0.117	(0.128)	0.045	0.073
38	3.17	0.17	0.117	(0.127)	0.045	0.073
39	3.25	0.17	0.117	(0.127)	0.045	0.073
40	3.33	0.17	0.117	(0.126)	0.045	0.073
41	3.42	0.17	0.117	(0.126)	0.045	0.073
42	3.50	0.17	0.117	(0.125)	0.045	0.073
43	3.58	0.17	0.117	(0.125)	0.045	0.073
44	3.67	0.17	0.117	(0.124)	0.045	0.073
45	3.75	0.17	0.117	(0.124)	0.045	0.073
46	3.83	0.20	0.141	(0.123)	0.054	0.087
47	3.92	0.20	0.141	(0.123)	0.054	0.087
48	4.00	0.20	0.141	(0.122)	0.054	0.087
49	4.08	0.20	0.141	(0.122)	0.054	0.087
50	4.17	0.20	0.141	(0.121)	0.054	0.087
51	4.25	0.20	0.141	(0.121)	0.054	0.087
52	4.33	0.23	0.164	(0.120)	0.062	0.102
53	4.42	0.23	0.164	(0.120)	0.062	0.102
54	4.50	0.23	0.164	(0.119)	0.062	0.102
55	4.58	0.23	0.164	(0.119)	0.062	0.102
56	4.67	0.23	0.164	(0.118)	0.062	0.102
57	4.75	0.23	0.164	(0.118)	0.062	0.102
58	4.83	0.27	0.188	(0.117)	0.071	0.116
59	4.92	0.27	0.188	(0.117)	0.071	0.116
60	5.00	0.27	0.188	(0.116)	0.071	0.116
61	5.08	0.20	0.141	(0.116)	0.054	0.087
62	5.17	0.20	0.141	(0.115)	0.054	0.087
63	5.25	0.20	0.141	(0.115)	0.054	0.087
64	5.33	0.23	0.164	(0.114)	0.062	0.102
65	5.42	0.23	0.164	(0.114)	0.062	0.102
66	5.50	0.23	0.164	(0.113)	0.062	0.102
67	5.58	0.27	0.188	(0.113)	0.071	0.116
68	5.67	0.27	0.188	(0.112)	0.071	0.116
69	5.75	0.27	0.188	(0.112)	0.071	0.116
70	5.83	0.27	0.188	(0.111)	0.071	0.116
71	5.92	0.27	0.188	(0.111)	0.071	0.116
72	6.00	0.27	0.188	(0.110)	0.071	0.116
73	6.08	0.30	0.211	(0.110)	0.080	0.131
74	6.17	0.30	0.211	(0.109)	0.080	0.131

75	6.25	0.30	0.211	(0.109)	0.080	0.131
76	6.33	0.30	0.211	(0.108)	0.080	0.131
77	6.42	0.30	0.211	(0.108)	0.080	0.131
78	6.50	0.30	0.211	(0.107)	0.080	0.131
79	6.58	0.33	0.235	(0.107)	0.089	0.146
80	6.67	0.33	0.235	(0.106)	0.089	0.146
81	6.75	0.33	0.235	(0.106)	0.089	0.146
82	6.83	0.33	0.235	(0.105)	0.089	0.146
83	6.92	0.33	0.235	(0.105)	0.089	0.146
84	7.00	0.33	0.235	(0.104)	0.089	0.146
85	7.08	0.33	0.235	(0.104)	0.089	0.146
86	7.17	0.33	0.235	(0.103)	0.089	0.146
87	7.25	0.33	0.235	(0.103)	0.089	0.146
88	7.33	0.37	0.258	(0.102)	0.098	0.160
89	7.42	0.37	0.258	(0.102)	0.098	0.160
90	7.50	0.37	0.258	(0.101)	0.098	0.160
91	7.58	0.40	0.282	0.101	(0.107)	0.181
92	7.67	0.40	0.282	0.101	(0.107)	0.181
93	7.75	0.40	0.282	0.100	(0.107)	0.182
94	7.83	0.43	0.305	0.100	(0.116)	0.206
95	7.92	0.43	0.305	0.099	(0.116)	0.206
96	8.00	0.43	0.305	0.099	(0.116)	0.206
97	8.08	0.50	0.352	0.098	(0.134)	0.254
98	8.17	0.50	0.352	0.098	(0.134)	0.254
99	8.25	0.50	0.352	0.097	(0.134)	0.255
100	8.33	0.50	0.352	0.097	(0.134)	0.255
101	8.42	0.50	0.352	0.096	(0.134)	0.256
102	8.50	0.50	0.352	0.096	(0.134)	0.256
103	8.58	0.53	0.376	0.096	(0.143)	0.280
104	8.67	0.53	0.376	0.095	(0.143)	0.281
105	8.75	0.53	0.376	0.095	(0.143)	0.281
106	8.83	0.57	0.399	0.094	(0.152)	0.305
107	8.92	0.57	0.399	0.094	(0.152)	0.305
108	9.00	0.57	0.399	0.093	(0.152)	0.306
109	9.08	0.63	0.446	0.093	(0.169)	0.353
110	9.17	0.63	0.446	0.092	(0.169)	0.354
111	9.25	0.63	0.446	0.092	(0.169)	0.354
112	9.33	0.67	0.470	0.092	(0.178)	0.378
113	9.42	0.67	0.470	0.091	(0.178)	0.378
114	9.50	0.67	0.470	0.091	(0.178)	0.379
115	9.58	0.70	0.493	0.090	(0.187)	0.403
116	9.67	0.70	0.493	0.090	(0.187)	0.403
117	9.75	0.70	0.493	0.089	(0.187)	0.404
118	9.83	0.73	0.516	0.089	(0.196)	0.428
119	9.92	0.73	0.516	0.089	(0.196)	0.428
120	10.00	0.73	0.516	0.088	(0.196)	0.428
121	10.08	0.50	0.352	0.088	(0.134)	0.264
122	10.17	0.50	0.352	0.087	(0.134)	0.265
123	10.25	0.50	0.352	0.087	(0.134)	0.265
124	10.33	0.50	0.352	0.086	(0.134)	0.266
125	10.42	0.50	0.352	0.086	(0.134)	0.266
126	10.50	0.50	0.352	0.086	(0.134)	0.267
127	10.58	0.67	0.470	0.085	(0.178)	0.384
128	10.67	0.67	0.470	0.085	(0.178)	0.385
129	10.75	0.67	0.470	0.084	(0.178)	0.385
130	10.83	0.67	0.470	0.084	(0.178)	0.386
131	10.92	0.67	0.470	0.083	(0.178)	0.386
132	11.00	0.67	0.470	0.083	(0.178)	0.386
133	11.08	0.63	0.446	0.083	(0.169)	0.363
134	11.17	0.63	0.446	0.082	(0.169)	0.364
135	11.25	0.63	0.446	0.082	(0.169)	0.364
136	11.33	0.63	0.446	0.081	(0.169)	0.365
137	11.42	0.63	0.446	0.081	(0.169)	0.365

138	11.50	0.63	0.446	0.081	(0.169)	0.365
139	11.58	0.57	0.399	0.080	(0.152)	0.319
140	11.67	0.57	0.399	0.080	(0.152)	0.319
141	11.75	0.57	0.399	0.079	(0.152)	0.320
142	11.83	0.60	0.423	0.079	(0.161)	0.344
143	11.92	0.60	0.423	0.079	(0.161)	0.344
144	12.00	0.60	0.423	0.078	(0.161)	0.344
145	12.08	0.83	0.587	0.078	(0.223)	0.509
146	12.17	0.83	0.587	0.077	(0.223)	0.509
147	12.25	0.83	0.587	0.077	(0.223)	0.510
148	12.33	0.87	0.610	0.077	(0.232)	0.534
149	12.42	0.87	0.610	0.076	(0.232)	0.534
150	12.50	0.87	0.610	0.076	(0.232)	0.534
151	12.58	0.93	0.657	0.076	(0.250)	0.582
152	12.67	0.93	0.657	0.075	(0.250)	0.582
153	12.75	0.93	0.657	0.075	(0.250)	0.583
154	12.83	0.97	0.681	0.074	(0.259)	0.606
155	12.92	0.97	0.681	0.074	(0.259)	0.607
156	13.00	0.97	0.681	0.074	(0.259)	0.607
157	13.08	1.13	0.798	0.073	(0.303)	0.725
158	13.17	1.13	0.798	0.073	(0.303)	0.725
159	13.25	1.13	0.798	0.073	(0.303)	0.726
160	13.33	1.13	0.798	0.072	(0.303)	0.726
161	13.42	1.13	0.798	0.072	(0.303)	0.726
162	13.50	1.13	0.798	0.071	(0.303)	0.727
163	13.58	0.77	0.540	0.071	(0.205)	0.469
164	13.67	0.77	0.540	0.071	(0.205)	0.469
165	13.75	0.77	0.540	0.070	(0.205)	0.470
166	13.83	0.77	0.540	0.070	(0.205)	0.470
167	13.92	0.77	0.540	0.070	(0.205)	0.470
168	14.00	0.77	0.540	0.069	(0.205)	0.471
169	14.08	0.90	0.634	0.069	(0.241)	0.565
170	14.17	0.90	0.634	0.069	(0.241)	0.565
171	14.25	0.90	0.634	0.068	(0.241)	0.566
172	14.33	0.87	0.610	0.068	(0.232)	0.542
173	14.42	0.87	0.610	0.068	(0.232)	0.543
174	14.50	0.87	0.610	0.067	(0.232)	0.543
175	14.58	0.87	0.610	0.067	(0.232)	0.544
176	14.67	0.87	0.610	0.067	(0.232)	0.544
177	14.75	0.87	0.610	0.066	(0.232)	0.544
178	14.83	0.83	0.587	0.066	(0.223)	0.521
179	14.92	0.83	0.587	0.065	(0.223)	0.521
180	15.00	0.83	0.587	0.065	(0.223)	0.522
181	15.08	0.80	0.563	0.065	(0.214)	0.499
182	15.17	0.80	0.563	0.064	(0.214)	0.499
183	15.25	0.80	0.563	0.064	(0.214)	0.499
184	15.33	0.77	0.540	0.064	(0.205)	0.476
185	15.42	0.77	0.540	0.063	(0.205)	0.476
186	15.50	0.77	0.540	0.063	(0.205)	0.477
187	15.58	0.63	0.446	0.063	(0.169)	0.383
188	15.67	0.63	0.446	0.063	(0.169)	0.384
189	15.75	0.63	0.446	0.062	(0.169)	0.384
190	15.83	0.63	0.446	0.062	(0.169)	0.384
191	15.92	0.63	0.446	0.062	(0.169)	0.384
192	16.00	0.63	0.446	0.061	(0.169)	0.385
193	16.08	0.13	0.094	(0.061)	0.036	0.058
194	16.17	0.13	0.094	(0.061)	0.036	0.058
195	16.25	0.13	0.094	(0.060)	0.036	0.058
196	16.33	0.13	0.094	(0.060)	0.036	0.058
197	16.42	0.13	0.094	(0.060)	0.036	0.058
198	16.50	0.13	0.094	(0.059)	0.036	0.058
199	16.58	0.10	0.070	(0.059)	0.027	0.044
200	16.67	0.10	0.070	(0.059)	0.027	0.044

201	16.75	0.10	0.070	(0.059)	0.027	0.044
202	16.83	0.10	0.070	(0.058)	0.027	0.044
203	16.92	0.10	0.070	(0.058)	0.027	0.044
204	17.00	0.10	0.070	(0.058)	0.027	0.044
205	17.08	0.17	0.117	(0.057)	0.045	0.073
206	17.17	0.17	0.117	(0.057)	0.045	0.073
207	17.25	0.17	0.117	(0.057)	0.045	0.073
208	17.33	0.17	0.117	(0.056)	0.045	0.073
209	17.42	0.17	0.117	(0.056)	0.045	0.073
210	17.50	0.17	0.117	(0.056)	0.045	0.073
211	17.58	0.17	0.117	(0.056)	0.045	0.073
212	17.67	0.17	0.117	(0.055)	0.045	0.073
213	17.75	0.17	0.117	(0.055)	0.045	0.073
214	17.83	0.13	0.094	(0.055)	0.036	0.058
215	17.92	0.13	0.094	(0.055)	0.036	0.058
216	18.00	0.13	0.094	(0.054)	0.036	0.058
217	18.08	0.13	0.094	(0.054)	0.036	0.058
218	18.17	0.13	0.094	(0.054)	0.036	0.058
219	18.25	0.13	0.094	(0.053)	0.036	0.058
220	18.33	0.13	0.094	(0.053)	0.036	0.058
221	18.42	0.13	0.094	(0.053)	0.036	0.058
222	18.50	0.13	0.094	(0.053)	0.036	0.058
223	18.58	0.10	0.070	(0.052)	0.027	0.044
224	18.67	0.10	0.070	(0.052)	0.027	0.044
225	18.75	0.10	0.070	(0.052)	0.027	0.044
226	18.83	0.07	0.047	(0.052)	0.018	0.029
227	18.92	0.07	0.047	(0.051)	0.018	0.029
228	19.00	0.07	0.047	(0.051)	0.018	0.029
229	19.08	0.10	0.070	(0.051)	0.027	0.044
230	19.17	0.10	0.070	(0.051)	0.027	0.044
231	19.25	0.10	0.070	(0.050)	0.027	0.044
232	19.33	0.13	0.094	(0.050)	0.036	0.058
233	19.42	0.13	0.094	(0.050)	0.036	0.058
234	19.50	0.13	0.094	(0.050)	0.036	0.058
235	19.58	0.10	0.070	(0.050)	0.027	0.044
236	19.67	0.10	0.070	(0.049)	0.027	0.044
237	19.75	0.10	0.070	(0.049)	0.027	0.044
238	19.83	0.07	0.047	(0.049)	0.018	0.029
239	19.92	0.07	0.047	(0.049)	0.018	0.029
240	20.00	0.07	0.047	(0.048)	0.018	0.029
241	20.08	0.10	0.070	(0.048)	0.027	0.044
242	20.17	0.10	0.070	(0.048)	0.027	0.044
243	20.25	0.10	0.070	(0.048)	0.027	0.044
244	20.33	0.10	0.070	(0.048)	0.027	0.044
245	20.42	0.10	0.070	(0.047)	0.027	0.044
246	20.50	0.10	0.070	(0.047)	0.027	0.044
247	20.58	0.10	0.070	(0.047)	0.027	0.044
248	20.67	0.10	0.070	(0.047)	0.027	0.044
249	20.75	0.10	0.070	(0.047)	0.027	0.044
250	20.83	0.07	0.047	(0.046)	0.018	0.029
251	20.92	0.07	0.047	(0.046)	0.018	0.029
252	21.00	0.07	0.047	(0.046)	0.018	0.029
253	21.08	0.10	0.070	(0.046)	0.027	0.044
254	21.17	0.10	0.070	(0.046)	0.027	0.044
255	21.25	0.10	0.070	(0.045)	0.027	0.044
256	21.33	0.07	0.047	(0.045)	0.018	0.029
257	21.42	0.07	0.047	(0.045)	0.018	0.029
258	21.50	0.07	0.047	(0.045)	0.018	0.029
259	21.58	0.10	0.070	(0.045)	0.027	0.044
260	21.67	0.10	0.070	(0.045)	0.027	0.044
261	21.75	0.10	0.070	(0.045)	0.027	0.044
262	21.83	0.07	0.047	(0.044)	0.018	0.029
263	21.92	0.07	0.047	(0.044)	0.018	0.029

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264  22.00     0.07      0.047       (  0.044)       0.018         0.029
265  22.08     0.10      0.070       (  0.044)       0.027         0.044
266  22.17     0.10      0.070       (  0.044)       0.027         0.044
267  22.25     0.10      0.070       (  0.044)       0.027         0.044
268  22.33     0.07      0.047       (  0.043)       0.018         0.029
269  22.42     0.07      0.047       (  0.043)       0.018         0.029
270  22.50     0.07      0.047       (  0.043)       0.018         0.029
271  22.58     0.07      0.047       (  0.043)       0.018         0.029
272  22.67     0.07      0.047       (  0.043)       0.018         0.029
273  22.75     0.07      0.047       (  0.043)       0.018         0.029
274  22.83     0.07      0.047       (  0.043)       0.018         0.029
275  22.92     0.07      0.047       (  0.043)       0.018         0.029
276  23.00     0.07      0.047       (  0.043)       0.018         0.029
277  23.08     0.07      0.047       (  0.042)       0.018         0.029
278  23.17     0.07      0.047       (  0.042)       0.018         0.029
279  23.25     0.07      0.047       (  0.042)       0.018         0.029
280  23.33     0.07      0.047       (  0.042)       0.018         0.029
281  23.42     0.07      0.047       (  0.042)       0.018         0.029
282  23.50     0.07      0.047       (  0.042)       0.018         0.029
283  23.58     0.07      0.047       (  0.042)       0.018         0.029
284  23.67     0.07      0.047       (  0.042)       0.018         0.029
285  23.75     0.07      0.047       (  0.042)       0.018         0.029
286  23.83     0.07      0.047       (  0.042)       0.018         0.029
287  23.92     0.07      0.047       (  0.042)       0.018         0.029
288  24.00     0.07      0.047       (  0.042)       0.018         0.029
             (Loss Rate Not Used)
    Sum =     100.0                                 Sum =    54.9
      Flood volume = Effective rainfall      4.57(In)
       times area      91.5(Ac.)/[(In)/(Ft.)] =      34.9(Ac.Ft)
      Total soil loss =      1.29(In)
      Total soil loss =     9.871(Ac.Ft)
      Total rainfall =      5.87(In)
      Flood volume =     1519359.3 Cubic Feet
      Total soil loss =      429983.4 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     66.833(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R   S T O R M
                     R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       17.5      35.0      52.5      70.0
 -----------------------------------------------------------------------
   0+ 5       0.0045      0.66  Q         |         |         |         |
   0+10       0.0181      1.97  VQ        |         |         |         |
   0+15       0.0341      2.33  VQ        |         |         |         |
   0+20       0.0536      2.82  VQ        |         |         |         |
   0+25       0.0782      3.57  V Q       |         |         |         |
   0+30       0.1044      3.81  V Q       |         |         |         |
   0+35       0.1315      3.93  V Q       |         |         |         |
   0+40       0.1589      3.98  V Q       |         |         |         |
   0+45       0.1865      4.01  V Q       |         |         |         |
   0+50       0.2165      4.36  V Q       |         |         |         |
   0+55       0.2510      5.01  V Q       |         |         |         |
   1+ 0       0.2868      5.19  V Q       |         |         |         |
   1+ 5       0.3209      4.95  V Q       |         |         |         |
   1+10       0.3508      4.34  V Q       |         |         |         |
   1+15       0.3796      4.18  V Q       |         |         |         |
   1+20       0.4080      4.12  V Q       |         |         |         |
   1+25       0.4361      4.08  V Q       |         |         |         |
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1+30       0.4640      4.05  V Q        |         |         |         |
1+35       0.4917      4.03  V Q        |         |         |         |
1+40       0.5195      4.03  V Q        |         |         |         |
1+45       0.5472      4.03  V Q        |         |         |         |
1+50       0.5772      4.36  V Q        |         |         |         |
1+55       0.6117      5.01  V Q        |         |         |         |
2+ 0       0.6475      5.19  V Q        |         |         |         |
2+ 5       0.6838      5.28  V  Q       |         |         |         |
2+10       0.7205      5.32  V  Q       |         |         |         |
2+15       0.7573      5.35  V  Q       |         |         |         |
2+20       0.7943      5.37  V  Q       |         |         |         |
2+25       0.8313      5.37  V  Q       |         |         |         |
2+30       0.8683      5.37  V  Q       |         |         |         |
2+35       0.9076      5.70  |V Q       |         |         |         |
2+40       0.9513      6.36  |V Q       |         |         |         |
2+45       0.9964      6.54  |V Q       |         |         |         |
2+50       1.0420      6.62  |V Q       |         |         |         |
2+55       1.0879      6.67  |V Q       |         |         |         |
3+ 0       1.1340      6.69  |V Q       |         |         |         |
3+ 5       1.1802      6.71  |V Q       |         |         |         |
3+10       1.2264      6.71  |V Q       |         |         |         |
3+15       1.2727      6.71  |V Q       |         |         |         |
3+20       1.3189      6.71  |V Q       |         |         |         |
3+25       1.3652      6.71  |V Q       |         |         |         |
3+30       1.4114      6.71  |V Q       |         |         |         |
3+35       1.4577      6.71  |V Q       |         |         |         |
3+40       1.5039      6.71  |V Q       |         |         |         |
3+45       1.5501      6.71  |V Q       |         |         |         |
3+50       1.5986      7.04  |V  Q      |         |         |         |
3+55       1.6517      7.70  |V  Q      |         |         |         |
4+ 0       1.7059      7.88  |V  Q      |         |         |         |
4+ 5       1.7608      7.96  | V Q      |         |         |         |
4+10       1.8159      8.01  | V Q      |         |         |         |
4+15       1.8713      8.04  | V Q      |         |         |         |
4+20       1.9290      8.39  | V Q      |         |         |         |
4+25       1.9913      9.04  | V  Q     |         |         |         |
4+30       2.0548      9.22  | V  Q     |         |         |         |
4+35       2.1189      9.31  | V  Q     |         |         |         |
4+40       2.1833      9.35  | V  Q     |         |         |         |
4+45       2.2479      9.38  | V  Q     |         |         |         |
4+50       2.3149      9.73  | V  Q     |         |         |         |
4+55       2.3864     10.38  | V  Q     |         |         |         |
5+ 0       2.4592     10.57  | V   Q    |         |         |         |
5+ 5       2.5280      9.99  | V  Q     |         |         |         |
5+10       2.5881      8.73  | V Q      |         |         |         |
5+15       2.6459      8.39  |  VQ      |         |         |         |
5+20       2.7049      8.58  |  VQ      |         |         |         |
5+25       2.7679      9.14  |  V Q     |         |         |         |
5+30       2.8317      9.27  |  V Q     |         |         |         |
5+35       2.8980      9.63  |  V Q     |         |         |         |
5+40       2.9692     10.34  |  V Q     |         |         |         |
5+45       3.0418     10.54  |  V  Q    |         |         |         |
5+50       3.1152     10.65  |  V  Q    |         |         |         |
5+55       3.1888     10.69  |  V  Q    |         |         |         |
6+ 0       3.2626     10.72  |  V  Q    |         |         |         |
6+ 5       3.3389     11.07  |  V  Q    |         |         |         |
6+10       3.4197     11.73  |  V  Q    |         |         |         |
6+15       3.5017     11.91  |   V Q    |         |         |         |
6+20       3.5843     11.99  |   V Q    |         |         |         |
6+25       3.6672     12.04  |   V Q    |         |         |         |
6+30       3.7502     12.06  |   V Q    |         |         |         |
6+35       3.8357     12.41  |   V  Q   |         |         |         |
6+40       3.9258     13.07  |   V  Q   |         |         |         |
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  6+45      4.0170      13.25   |   V  Q  |         |         |         |
  6+50      4.1088      13.33   |   V  Q  |         |         |         |
  6+55      4.2010      13.38   |   V  Q  |         |         |         |
  7+ 0      4.2933      13.41   |   V  Q  |         |         |         |
  7+ 5      4.3858      13.43   |    V Q  |         |         |         |
  7+10      4.4783      13.43   |    V Q  |         |         |         |
  7+15      4.5708      13.43   |    V Q  |         |         |         |
  7+20      4.6655      13.76   |    V Q  |         |         |         |
  7+25      4.7648      14.41   |    V  Q |         |         |         |
  7+30      4.8653      14.59   |    V  Q |         |         |         |
  7+35      4.9696      15.14   |    V  Q |         |         |         |
  7+40      5.0806      16.12   |    V   Q|         |         |         |
  7+45      5.1939      16.44   |    V   Q|         |         |         |
  7+50      5.3119      17.14   |     V  Q|         |         |         |
  7+55      5.4380      18.31   |     V   Q         |         |         |
  8+ 0      5.5666      18.68   |     V   Q         |         |         |
  8+ 5      5.7040      19.94   |     V   |Q        |         |         |
  8+10      5.8567      22.17   |     V   | Q       |         |         |
  8+15      6.0141      22.85   |     V   |  Q      |         |         |
  8+20      6.1738      23.19   |      V  |  Q      |         |         |
  8+25      6.3348      23.38   |      V  |  Q      |         |         |
  8+30      6.4967      23.51   |      V  |  Q      |         |         |
  8+35      6.6630      24.15   |      V  |  Q      |         |         |
  8+40      6.8369      25.25   |      V  |   Q     |         |         |
  8+45      7.0131      25.58   |       V |   Q     |         |         |
  8+50      7.1942      26.29   |       V |    Q    |         |         |
  8+55      7.3833      27.46   |       V |    Q    |         |         |
  9+ 0      7.5750      27.84   |       V |    Q    |         |         |
  9+ 5      7.7755      29.11   |       V |     Q   |         |         |
  9+10      7.9913      31.34   |        V|      Q  |         |         |
  9+15      8.2118      32.01   |        V|       Q |         |         |
  9+20      8.4382      32.88   |        V|       Q |         |         |
  9+25      8.6732      34.12   |        V|        Q|         |         |
  9+30      8.9111      34.55   |         V        Q|         |         |
  9+35      9.1544      35.32   |         V         Q         |         |
  9+40      9.4057      36.49   |         V         Q         |         |
  9+45      9.6596      36.87   |         |V        |Q        |         |
  9+50      9.9186      37.60   |         |V        |Q        |         |
  9+55     10.1856      38.78   |         |V        | Q       |         |
 10+ 0     10.4553      39.15   |         |V        | Q       |         |
 10+ 5     10.7008      35.65   |         | V       Q         |         |
 10+10     10.8962      28.37   |         | V   Q   |         |         |
 10+15     11.0780      26.40   |         | V  Q    |         |         |
 10+20     11.2539      25.54   |         | V Q     |         |         |
 10+25     11.4264      25.06   |         |  VQ     |         |         |
 10+30     11.5972      24.79   |         |  VQ     |         |         |
 10+35     11.7847      27.23   |         |  V Q    |         |         |
 10+40     12.0089      32.56   |         |  V    Q |         |         |
 10+45     12.2435      34.06   |         |   V    Q|         |         |
 10+50     12.4830      34.77   |         |   V    Q|         |         |
 10+55     12.7252      35.18   |         |   V     Q         |         |
 11+ 0     12.9692      35.43   |         |   V     Q         |         |
 11+ 5     13.2111      35.11   |         |    V    Q         |         |
 11+10     13.4459      34.10   |         |    V   Q|         |         |
 11+15     13.6789      33.84   |         |    V   Q|         |         |
 11+20     13.9113      33.74   |         |    V   Q|         |         |
 11+25     14.1435      33.71   |         |     V  Q|         |         |
 11+30     14.3756      33.70   |         |     V  Q|         |         |
 11+35     14.6004      32.64   |         |     V Q |         |         |
 11+40     14.8109      30.57   |         |     VQ  |         |         |
 11+45     15.0176      30.02   |         |      Q  |         |         |
 11+50     15.2264      30.32   |         |      Q  |         |         |
 11+55     15.4417      31.26   |         |      Q  |         |         |
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12+ 0      15.6587     31.50  |         |      VQ |         |         |
12+ 5      15.9019     35.31  |         |       V Q         |         |
12+10      16.1968     42.82  |         |       V |   Q     |         |
12+15      16.5064     44.95  |         |       V |    Q    |         |
12+20      16.8265     46.49  |         |        V|     Q   |         |
12+25      17.1578     48.10  |         |        V|      Q  |         |
12+30      17.4934     48.73  |         |         V      Q  |         |
12+35      17.8392     50.21  |         |         V       Q |         |
12+40      18.2003     52.43  |         |         V        Q|         |
12+45      18.5659     53.09  |         |         |V        Q         |
12+50      18.9375     53.96  |         |         |V        Q         |
12+55      19.3177     55.20  |         |         | V       |Q        |
13+ 0      19.7007     55.62  |         |         | V       |Q        |
13+ 5      20.1037     58.50  |         |         |  V      |  Q      |
13+10      20.5437     63.89  |         |         |  V      |     Q   |
13+15      20.9944     65.44  |         |         |   V     |      Q  |
13+20      21.4501     66.17  |         |         |   V     |      Q  |
13+25      21.9087     66.58  |         |         |    V    |       Q |
13+30      22.3690     66.83  |         |         |    V    |       Q |
13+35      22.7905     61.21  |         |         |     V   |   Q     |
13+40      23.1323     49.62  |         |         |     V Q |         |
13+45      23.4520     46.43  |         |         |     Q   |         |
13+50      23.7620     45.00  |         |         |    Q V  |         |
13+55      24.0664     44.21  |         |         |    Q V  |         |
14+ 0      24.3679     43.76  |         |         |    Q V  |         |
14+ 5      24.6815     45.53  |         |         |     Q V |         |
14+10      25.0244     49.79  |         |         |       Q |         |
14+15      25.3756     51.00  |         |         |        Q|         |
14+20      25.7271     51.03  |         |         |        Q|         |
14+25      26.0736     50.31  |         |         |       QV|         |
14+30      26.4194     50.22  |         |         |       Q V         |
14+35      26.7656     50.26  |         |         |       Q V         |
14+40      27.1114     50.22  |         |         |       Q |V        |
14+45      27.4572     50.20  |         |         |       Q |V        |
14+50      27.7993     49.67  |         |         |       Q |V        |
14+55      28.1343     48.65  |         |         |      Q  | V       |
15+ 0      28.4675     48.38  |         |         |      Q  | V       |
15+ 5      28.7964     47.75  |         |         |      Q  |  V      |
15+10      29.1177     46.65  |         |         |     Q   |  V      |
15+15      29.4369     46.35  |         |         |     Q   |  V      |
15+20      29.7515     45.68  |         |         |     Q   |   V     |
15+25      30.0585     44.58  |         |         |    Q    |   V     |
15+30      30.3634     44.27  |         |         |    Q    |   V     |
15+35      30.6527     42.01  |         |         |   Q     |    V    |
15+40      30.9126     37.74  |         |         |Q        |    V    |
15+45      31.1644     36.56  |         |         Q         |    V    |
15+50      31.4124     36.02  |         |         Q         |     V   |
15+55      31.6587     35.75  |         |         Q         |     V   |
16+ 0      31.9039     35.60  |         |         Q         |     V   |
16+ 5      32.0975     28.12  |         |     Q   |         |     V   |
16+10      32.1899     13.42  |      Q  |         |         |     V   |
16+15      32.2543      9.35  |    Q    |         |         |     V   |
16+20      32.3060      7.50  |   Q     |         |         |      V  |
16+25      32.3505      6.46  |  Q      |         |         |      V  |
16+30      32.3908      5.86  |  Q      |         |         |      V  |
16+35      32.4255      5.04  | Q       |         |         |      V  |
16+40      32.4558      4.39  | Q       |         |         |      V  |
16+45      32.4847      4.21  | Q       |         |         |      V  |
16+50      32.5131      4.12  | Q       |         |         |      V  |
16+55      32.5412      4.08  | Q       |         |         |      V  |
17+ 0      32.5691      4.05  | Q       |         |         |      V  |
17+ 5      32.6014      4.69  | Q       |         |         |      V  |
17+10      32.6427      6.00  |  Q      |         |         |      V  |
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17+15     32.6865     6.36  |  Q         |          |          |      V   |
17+20     32.7314     6.52  |  Q         |          |          |      V   |
17+25     32.7770     6.62  |  Q         |          |          |      V   |
17+30     32.8229     6.67  |  Q         |          |          |      V   |
17+35     32.8692     6.71  |  Q         |          |          |      V   |
17+40     32.9154     6.71  |  Q         |          |          |      V   |
17+45     32.9616     6.71  |  Q         |          |          |      V   |
17+50     33.0056     6.39  |  Q         |          |          |      V   |
17+55     33.0451     5.73  |  Q         |          |          |      V   |
18+ 0     33.0833     5.55  |  Q         |          |          |      V   |
18+ 5     33.1210     5.47  |  Q         |          |          |      V   |
18+10     33.1583     5.42  |  Q         |          |          |       V  |
18+15     33.1954     5.39  |  Q         |          |          |       V  |
18+20     33.2324     5.37  |  Q         |          |          |       V  |
18+25     33.2694     5.37  |  Q         |          |          |       V  |
18+30     33.3064     5.37  |  Q         |          |          |       V  |
18+35     33.3411     5.04  | Q          |          |          |       V  |
18+40     33.3714     4.39  | Q          |          |          |       V  |
18+45     33.4003     4.21  | Q          |          |          |       V  |
18+50     33.4265     3.79  | Q          |          |          |       V  |
18+55     33.4478     3.09  |Q           |          |          |       V  |
19+ 0     33.4676     2.88  |Q           |          |          |       V  |
19+ 5     33.4891     3.11  |Q           |          |          |       V  |
19+10     33.5147     3.72  | Q          |          |          |       V  |
19+15     33.5413     3.87  | Q          |          |          |       V  |
19+20     33.5707     4.26  | Q          |          |          |       V  |
19+25     33.6049     4.96  | Q          |          |          |       V  |
19+30     33.6405     5.17  | Q          |          |          |       V  |
19+35     33.6746     4.95  | Q          |          |          |       V  |
19+40     33.7045     4.34  | Q          |          |          |       V  |
19+45     33.7333     4.18  | Q          |          |          |       V  |
19+50     33.7594     3.79  | Q          |          |          |       V  |
19+55     33.7807     3.09  |Q           |          |          |       V  |
20+ 0     33.8006     2.88  |Q           |          |          |       V  |
20+ 5     33.8220     3.11  |Q           |          |          |       V  |
20+10     33.8476     3.72  | Q          |          |          |       V  |
20+15     33.8743     3.87  | Q          |          |          |       V  |
20+20     33.9014     3.93  | Q          |          |          |       V  |
20+25     33.9288     3.98  | Q          |          |          |       V  |
20+30     33.9564     4.01  | Q          |          |          |       V  |
20+35     33.9841     4.03  | Q          |          |          |       V  |
20+40     34.0119     4.03  | Q          |          |          |         V|
20+45     34.0396     4.03  | Q          |          |          |         V|
20+50     34.0651     3.70  | Q          |          |          |         V|
20+55     34.0861     3.05  |Q           |          |          |         V|
21+ 0     34.1058     2.86  |Q           |          |          |         V|
21+ 5     34.1272     3.11  |Q           |          |          |         V|
21+10     34.1528     3.72  | Q          |          |          |         V|
21+15     34.1795     3.87  | Q          |          |          |         V|
21+20     34.2043     3.61  | Q          |          |          |         V|
21+25     34.2249     3.00  |Q           |          |          |         V|
21+30     34.2445     2.84  |Q           |          |          |         V|
21+35     34.2659     3.11  |Q           |          |          |         V|
21+40     34.2915     3.72  | Q          |          |          |         V|
21+45     34.3182     3.87  | Q          |          |          |         V|
21+50     34.3430     3.61  | Q          |          |          |         V|
21+55     34.3637     3.00  |Q           |          |          |         V|
22+ 0     34.3832     2.84  |Q           |          |          |         V|
22+ 5     34.4047     3.11  |Q           |          |          |         V|
22+10     34.4303     3.72  | Q          |          |          |         V|
22+15     34.4569     3.87  | Q          |          |          |         V|
22+20     34.4818     3.61  | Q          |          |          |         V|
22+25     34.5024     3.00  |Q           |          |          |         V|
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   22+30      34.5220      2.84  |Q        |         |         |        V|
   22+35      34.5411      2.78  |Q        |         |         |        V|
   22+40      34.5600      2.73  |Q        |         |         |        V|
   22+45      34.5786      2.71  |Q        |         |         |        V|
   22+50      34.5971      2.69  |Q        |         |         |        V|
   22+55      34.6156      2.69  |Q        |         |         |        V|
   23+ 0      34.6341      2.69  |Q        |         |         |        V|
   23+ 5      34.6526      2.69  |Q        |         |         |        V|
   23+10      34.6711      2.69  |Q        |         |         |        V|
   23+15      34.6896      2.69  |Q        |         |         |        V|
   23+20      34.7081      2.69  |Q        |         |         |        V|
   23+25      34.7266      2.69  |Q        |         |         |        V|
   23+30      34.7451      2.69  |Q        |         |         |        V|
   23+35      34.7636      2.69  |Q        |         |         |        V|
   23+40      34.7821      2.69  |Q        |         |         |        V|
   23+45      34.8006      2.69  |Q        |         |         |        V|
   23+50      34.8191      2.69  |Q        |         |         |        V|
   23+55      34.8376      2.69  |Q        |         |         |        V|
   24+ 0      34.8561      2.69  |Q        |         |         |        V|
   24+ 5      34.8700      2.03  |Q        |         |         |        V|
   24+10      34.8750      0.72  Q         |         |         |        V|
   24+15      34.8774      0.35  Q         |         |         |        V|
   24+20      34.8787      0.19  Q         |         |         |        V|
   24+25      34.8794      0.10  Q         |         |         |        V|
   24+30      34.8797      0.04  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 05/07/21 File: kxexh1100.out

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

Program License Serial Number 4029

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

English Units used in output format

Keller Crossing – Area C
Hydrology Existing Condition
100-year 1-hour storm

Drainage Area = 91.50(Ac.) = 0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 91.50(Ac.) = 0.143 Sq. Mi.
Length along longest watercourse = 2880.00(Ft.)
Length along longest watercourse measured to centroid = 1560.00(Ft.)
Length along longest watercourse = 0.545 Mi.
Length along longest watercourse measured to centroid = 0.295 Mi.
Difference in elevation = 102.70(Ft.)
Slope along watercourse = 188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.155 Hr.
Lag time = 9.31 Min.
25% of lag time = 2.33 Min.
40% of lag time = 3.72 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]
91.50	0.53	48.31

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
91.50	1.59	145.49

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.528(In)
Area Averaged 100-Year Rainfall = 1.590(In)

Point rain (area averaged) = 1.590(In)
Areal adjustment factor = 99.92 %
Adjusted average point rain = 1.589(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
91.500	80.20	0.000

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.2	91.1	0.115	0.000	0.115	1.000	0.115
					Sum (F) =	0.115

Area averaged mean soil loss (F) (In/Hr) = 0.115
Minimum soil loss rate ((In/Hr)) = 0.058
(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	(hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	53.703	6.852	6.319
2	0.167	107.406	29.212	26.938
3	0.250	161.109	28.296	26.093
4	0.333	214.812	11.756	10.841
5	0.417	268.515	6.492	5.987
6	0.500	322.218	4.496	4.146
7	0.583	375.921	3.239	2.987
8	0.667	429.624	2.380	2.195
9	0.750	483.328	1.763	1.625
10	0.833	537.031	1.517	1.399
11	0.917	590.734	1.140	1.052
12	1.000	644.437	0.899	0.829
13	1.083	698.140	0.669	0.617
14	1.167	751.843	0.538	0.496
15	1.250	805.546	0.750	0.692
			Sum = 100.000	Sum= 92.215

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	0.839	0.115	(0.755)	0.723
2	0.17	4.50	0.858	0.115	(0.772)	0.742
3	0.25	5.40	1.029	0.115	(0.927)	0.914
4	0.33	5.40	1.029	0.115	(0.927)	0.914
5	0.42	5.70	1.087	0.115	(0.978)	0.971

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  6   0.50     6.40      1.220          0.115    (  1.098)        1.105
  7   0.58     7.90      1.506          0.115    (  1.355)        1.391
  8   0.67     9.10      1.735          0.115    (  1.561)        1.619
  9   0.75    12.80      2.440          0.115    (  2.196)        2.325
 10   0.83    25.60      4.880          0.115    (  4.392)        4.765
 11   0.92     7.90      1.506          0.115    (  1.355)        1.391
 12   1.00     4.90      0.934          0.115    (  0.841)        0.819
            (Loss Rate Not Used)
    Sum =     100.0                                     Sum =    17.7
      Flood volume = Effective rainfall      1.47(In)
       times area      91.5(Ac.)/[(In)/(Ft.)] =      11.2(Ac.Ft)
      Total soil loss =      0.12(In)
      Total soil loss =     0.880(Ac.Ft)
      Total rainfall =      1.59(In)
      Flood volume =      489329.8 Cubic Feet
      Total soil loss =       38342.8 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =    236.581(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          1 - H O U R    S T O R M
                     R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       75.0     150.0     225.0     300.0
-----------------------------------------------------------------------
  0+ 5       0.0315      4.57   Q         |         |         |         |
  0+10       0.1981     24.19   V  Q      |         |         |         |
  0+15       0.5058     44.67   |V   Q    |         |         |         |
  0+20       0.9028     57.64   |  V   Q  |         |         |         |
  0+25       1.3643     67.02   |   V   Q |         |         |         |
  0+30       1.8766     74.38   |     V  Q|         |         |         |
  0+35       2.4589     84.55   |       V |Q        |         |         |
  0+40       3.1488    100.17   |         |V Q      |         |         |
  0+45       3.9875    121.78   |         |   V Q   |         |         |
  0+50       5.1427    167.75   |         |       V | Q       |         |
  0+55       6.7721    236.58   |         |         |   V     |Q        |
  1+ 0       8.2688    217.32   |         |         |       QV|         |
  1+ 5       9.2478    142.16   |         |       Q |         | V       |
  1+10       9.8555     88.23   |         |Q        |         |    V    |
  1+15      10.2308     54.50   |      Q  |         |         |     V   |
  1+20      10.4932     38.10   |    Q    |         |         |      V  |
  1+25      10.6869     28.13   |  Q      |         |         |       V |
  1+30      10.8326     21.16   | Q       |         |         |       V |
  1+35      10.9469     16.60   | Q       |         |         |       V |
  1+40      11.0342     12.67   |Q        |         |         |        V|
  1+45      11.1014      9.76   |Q        |         |         |        V|
  1+50      11.1512      7.23   Q         |         |         |        V|
  1+55      11.1892      5.51   Q         |         |         |        V|
  2+ 0      11.2201      4.49   Q         |         |         |        V|
  2+ 5      11.2296      1.37   Q         |         |         |        V|
  2+10      11.2335      0.57   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 05/07/21 File: kxexh3100.out

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

Program License Serial Number 4029

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

English Units used in output format

Keller Crossing – Area C
Hydrology Existing Condition
100-year 3-hour storm

Drainage Area = 91.50(Ac.) = 0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment = 91.50(Ac.) = 0.143 Sq. Mi.
Length along longest watercourse = 2880.00(Ft.)
Length along longest watercourse measured to centroid = 1560.00(Ft.)
Length along longest watercourse = 0.545 Mi.
Length along longest watercourse measured to centroid = 0.295 Mi.
Difference in elevation = 102.70(Ft.)
Slope along watercourse = 188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time = 0.155 Hr.
Lag time = 9.31 Min.
25% of lag time = 2.33 Min.
40% of lag time = 3.72 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]
91.50	0.91	83.36

100 YEAR Area rainfall data:

Area(Ac.)[1]	Rainfall(In)[2]	Weighting[1*2]
91.50	2.33	213.19

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 0.911(In)
Area Averaged 100-Year Rainfall = 2.330(In)

Point rain (area averaged) = 2.330(In)
Areal adjustment factor = 99.96 %
Adjusted average point rain = 2.329(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
91.500	80.20	0.000

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.2	91.1	0.115	0.000	0.115	1.000	0.115
					Sum (F) =	0.115

Area averaged mean soil loss (F) (In/Hr) = 0.115
Minimum soil loss rate ((In/Hr)) = 0.058
(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	(hrs)	Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	53.703	6.852	6.319
2	0.167	107.406	29.212	26.938
3	0.250	161.109	28.296	26.093
4	0.333	214.812	11.756	10.841
5	0.417	268.515	6.492	5.987
6	0.500	322.218	4.496	4.146
7	0.583	375.921	3.239	2.987
8	0.667	429.624	2.380	2.195
9	0.750	483.328	1.763	1.625
10	0.833	537.031	1.517	1.399
11	0.917	590.734	1.140	1.052
12	1.000	644.437	0.899	0.829
13	1.083	698.140	0.669	0.617
14	1.167	751.843	0.538	0.496
15	1.250	805.546	0.750	0.692
			Sum = 100.000	Sum= 92.215

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	Loss rate(In./Hr) Low	Effective (In/Hr)
1	0.08	1.30	0.363	0.115	(0.327)	0.248
2	0.17	1.30	0.363	0.115	(0.327)	0.248
3	0.25	1.10	0.307	0.115	(0.277)	0.192
4	0.33	1.50	0.419	0.115	(0.377)	0.304
5	0.42	1.50	0.419	0.115	(0.377)	0.304
6	0.50	1.80	0.503	0.115	(0.453)	0.388
7	0.58	1.50	0.419	0.115	(0.377)	0.304

8	0.67	1.80	0.503	0.115	(0.453)	0.388
9	0.75	1.80	0.503	0.115	(0.453)	0.388
10	0.83	1.50	0.419	0.115	(0.377)	0.304
11	0.92	1.60	0.447	0.115	(0.402)	0.332
12	1.00	1.80	0.503	0.115	(0.453)	0.388
13	1.08	2.20	0.615	0.115	(0.553)	0.499
14	1.17	2.20	0.615	0.115	(0.553)	0.499
15	1.25	2.20	0.615	0.115	(0.553)	0.499
16	1.33	2.00	0.559	0.115	(0.503)	0.444
17	1.42	2.60	0.727	0.115	(0.654)	0.611
18	1.50	2.70	0.755	0.115	(0.679)	0.639
19	1.58	2.40	0.671	0.115	(0.604)	0.555
20	1.67	2.70	0.755	0.115	(0.679)	0.639
21	1.75	3.30	0.922	0.115	(0.830)	0.807
22	1.83	3.10	0.866	0.115	(0.780)	0.751
23	1.92	2.90	0.811	0.115	(0.729)	0.695
24	2.00	3.00	0.838	0.115	(0.755)	0.723
25	2.08	3.10	0.866	0.115	(0.780)	0.751
26	2.17	4.20	1.174	0.115	(1.056)	1.058
27	2.25	5.00	1.397	0.115	(1.258)	1.282
28	2.33	3.50	0.978	0.115	(0.880)	0.863
29	2.42	6.80	1.901	0.115	(1.710)	1.785
30	2.50	7.30	2.040	0.115	(1.836)	1.925
31	2.58	8.20	2.292	0.115	(2.063)	2.176
32	2.67	5.90	1.649	0.115	(1.484)	1.534
33	2.75	2.00	0.559	0.115	(0.503)	0.444
34	2.83	1.80	0.503	0.115	(0.453)	0.388
35	2.92	1.80	0.503	0.115	(0.453)	0.388
36	3.00	0.60	0.168	0.115	(0.151)	0.052

```
            (Loss Rate Not Used)
   Sum =     100.0                                  Sum =    23.8
     Flood volume = Effective rainfall      1.98(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =      15.1(Ac.Ft)
     Total soil loss =      0.35(In)
     Total soil loss =     2.641(Ac.Ft)
     Total rainfall =      2.33(In)
     Flood volume =      658559.6 Cubic Feet
     Total soil loss =      115028.5 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =    157.983(CFS)
     --------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         3 - H O U R    S T O R M
                    R u n o f f     H y d r o g r a p h
     --------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
-----------------------------------------------------------------------
  0+ 5       0.0108      1.57  Q         |         |         |         |
  0+10       0.0676      8.25  VQ        |         |         |         |
  0+15       0.1665     14.37  V Q       |         |         |         |
  0+20       0.2785     16.26  V  Q      |         |         |         |
  0+25       0.4114     19.29  |V Q      |         |         |         |
  0+30       0.5709     23.17  |V  Q     |         |         |         |
  0+35       0.7535     26.51  |V   Q    |         |         |         |
  0+40       0.9460     27.95  | V   Q    |         |         |         |
  0+45       1.1501     29.63  |  V Q    |         |         |         |
  0+50       1.3667     31.44  |  V  Q   |         |         |         |
  0+55       1.5770     30.53  |   V Q   |         |         |         |
  1+ 0       1.7847     30.16  |   V Q   |         |         |         |
  1+ 5       2.0101     32.73  |    VQ   |         |         |         |
```

```
    1+10       2.2677     37.40  |    V Q  |         |         |         |
    1+15       2.5510     41.14  |     V Q |         |         |         |
    1+20       2.8427     42.35  |      VQ |         |         |         |
    1+25       3.1376     42.82  |       Q |         |         |         |
    1+30       3.4596     46.76  |        Q|         |         |         |
    1+35       3.8122     51.20  |         Q         |         |         |
    1+40       4.1706     52.04  |         QV        |         |         |
    1+45       4.5455     54.45  |         Q V       |         |         |
    1+50       4.9645     60.83  |         | QV      |         |         |
    1+55       5.4080     64.39  |         | Q V     |         |         |
    2+ 0       5.8489     64.02  |         | Q  V    |         |         |
    2+ 5       6.2921     64.36  |         | Q   V   |         |         |
    2+10       6.7599     67.92  |         |  Q   V  |         |         |
    2+15       7.3032     78.88  |         |    Q   V|         |         |
    2+20       7.9291     90.88  |         |       Q V         |         |
    2+25       8.5832     94.98  |         |       Q | V       |         |
    2+30       9.3706    114.34  |         |         | Q V     |         |
    2+35      10.3496    142.14  |         |         |      VQ |         |
    2+40      11.4376    157.98  |         |         |         VQ        |
    2+45      12.4503    147.04  |         |         |        Q| V       |
    2+50      13.1926    107.79  |         |         |Q        |   V     |
    2+55      13.7138     75.68  |         |    Q    |         |     V   |
    3+ 0      14.1260     59.84  |         |Q        |         |      V  |
    3+ 5      14.4229     43.12  |       Q |         |         |       V |
    3+10      14.6173     28.22  |    Q    |         |         |       V |
    3+15      14.7540     19.85  |  Q      |         |         |        V|
    3+20      14.8573     15.00  |  Q      |         |         |        V|
    3+25      14.9358     11.40  | Q       |         |         |        V|
    3+30      14.9933      8.35  |Q        |         |         |        V|
    3+35      15.0385      6.56  |Q        |         |         |        V|
    3+40      15.0713      4.76  Q         |         |         |        V|
    3+45      15.0943      3.34  Q         |         |         |        V|
    3+50      15.1074      1.90  Q         |         |         |        V|
    3+55      15.1128      0.78  Q         |         |         |        V|
    4+ 0      15.1162      0.49  Q         |         |         |        V|
    4+ 5      15.1182      0.29  Q         |         |         |        V|
    4+10      15.1184      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

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             Study date  05/07/21 File: kxexh6100.out

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

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Existing Condition
100-year 6-hour storm



--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time =    0.155 Hr.
Lag time =     9.31 Min.
25% of lag time =     2.33 Min.
40% of lag time =     3.72 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]
       91.50         1.29             118.04

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50         3.17             290.06
```

```
STORM EVENT (YEAR) =  100.00
Area Averaged 2-Year Rainfall =    1.290(In)
Area Averaged 100-Year Rainfall =    3.170(In)

Point rain (area averaged) =    3.170(In)
Areal adjustment factor =   99.97 %
Adjusted average point rain =    3.169(In)

Sub-Area Data:
Area(Ac.)         Runoff Index   Impervious %
    91.500           80.20          0.000
 Total Area Entered =     91.50(Ac.)


RI    RI   Infil. Rate Impervious   Adj. Infil. Rate  Area%     F
AMC2 AMC-3     (In/Hr)    (Dec.%)     (In/Hr)      (Dec.)    (In/Hr)
80.2  91.1      0.115     0.000        0.115       1.000      0.115
                                                   Sum (F) =   0.115
Area averaged mean soil loss (F) (In/Hr) =  0.115
Minimum soil loss rate ((In/Hr)) =  0.058
(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        53.703          6.852             6.319
    2   0.167       107.406         29.212            26.938
    3   0.250       161.109         28.296            26.093
    4   0.333       214.812         11.756            10.841
    5   0.417       268.515          6.492             5.987
    6   0.500       322.218          4.496             4.146
    7   0.583       375.921          3.239             2.987
    8   0.667       429.624          2.380             2.195
    9   0.750       483.328          1.763             1.625
   10   0.833       537.031          1.517             1.399
   11   0.917       590.734          1.140             1.052
   12   1.000       644.437          0.899             0.829
   13   1.083       698.140          0.669             0.617
   14   1.167       751.843          0.538             0.496
   15   1.250       805.546          0.750             0.692
                              Sum = 100.000   Sum=      92.215
-----------------------------------------------------------------------


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

 Unit Time   Pattern   Storm Rain     Loss rate(In./Hr)     Effective
      (Hr.)  Percent   (In/Hr)         Max    |   Low        (In/Hr)
  1   0.08      0.50      0.190          0.115     (  0.171)        0.075
  2   0.17      0.60      0.228          0.115     (  0.205)        0.113
  3   0.25      0.60      0.228          0.115     (  0.205)        0.113
  4   0.33      0.60      0.228          0.115     (  0.205)        0.113
  5   0.42      0.60      0.228          0.115     (  0.205)        0.113
  6   0.50      0.70      0.266          0.115     (  0.240)        0.151
  7   0.58      0.70      0.266          0.115     (  0.240)        0.151
```

8	0.67	0.70	0.266	0.115	(0.240)	0.151
9	0.75	0.70	0.266	0.115	(0.240)	0.151
10	0.83	0.70	0.266	0.115	(0.240)	0.151
11	0.92	0.70	0.266	0.115	(0.240)	0.151
12	1.00	0.80	0.304	0.115	(0.274)	0.189
13	1.08	0.80	0.304	0.115	(0.274)	0.189
14	1.17	0.80	0.304	0.115	(0.274)	0.189
15	1.25	0.80	0.304	0.115	(0.274)	0.189
16	1.33	0.80	0.304	0.115	(0.274)	0.189
17	1.42	0.80	0.304	0.115	(0.274)	0.189
18	1.50	0.80	0.304	0.115	(0.274)	0.189
19	1.58	0.80	0.304	0.115	(0.274)	0.189
20	1.67	0.80	0.304	0.115	(0.274)	0.189
21	1.75	0.80	0.304	0.115	(0.274)	0.189
22	1.83	0.80	0.304	0.115	(0.274)	0.189
23	1.92	0.80	0.304	0.115	(0.274)	0.189
24	2.00	0.90	0.342	0.115	(0.308)	0.227
25	2.08	0.80	0.304	0.115	(0.274)	0.189
26	2.17	0.90	0.342	0.115	(0.308)	0.227
27	2.25	0.90	0.342	0.115	(0.308)	0.227
28	2.33	0.90	0.342	0.115	(0.308)	0.227
29	2.42	0.90	0.342	0.115	(0.308)	0.227
30	2.50	0.90	0.342	0.115	(0.308)	0.227
31	2.58	0.90	0.342	0.115	(0.308)	0.227
32	2.67	0.90	0.342	0.115	(0.308)	0.227
33	2.75	1.00	0.380	0.115	(0.342)	0.265
34	2.83	1.00	0.380	0.115	(0.342)	0.265
35	2.92	1.00	0.380	0.115	(0.342)	0.265
36	3.00	1.00	0.380	0.115	(0.342)	0.265
37	3.08	1.00	0.380	0.115	(0.342)	0.265
38	3.17	1.10	0.418	0.115	(0.376)	0.303
39	3.25	1.10	0.418	0.115	(0.376)	0.303
40	3.33	1.10	0.418	0.115	(0.376)	0.303
41	3.42	1.20	0.456	0.115	(0.411)	0.341
42	3.50	1.30	0.494	0.115	(0.445)	0.379
43	3.58	1.40	0.532	0.115	(0.479)	0.417
44	3.67	1.40	0.532	0.115	(0.479)	0.417
45	3.75	1.50	0.570	0.115	(0.513)	0.455
46	3.83	1.50	0.570	0.115	(0.513)	0.455
47	3.92	1.60	0.608	0.115	(0.548)	0.493
48	4.00	1.60	0.608	0.115	(0.548)	0.493
49	4.08	1.70	0.646	0.115	(0.582)	0.531
50	4.17	1.80	0.685	0.115	(0.616)	0.569
51	4.25	1.90	0.723	0.115	(0.650)	0.607
52	4.33	2.00	0.761	0.115	(0.685)	0.645
53	4.42	2.10	0.799	0.115	(0.719)	0.683
54	4.50	2.10	0.799	0.115	(0.719)	0.683
55	4.58	2.20	0.837	0.115	(0.753)	0.721
56	4.67	2.30	0.875	0.115	(0.787)	0.759
57	4.75	2.40	0.913	0.115	(0.821)	0.797
58	4.83	2.40	0.913	0.115	(0.821)	0.797
59	4.92	2.50	0.951	0.115	(0.856)	0.835
60	5.00	2.60	0.989	0.115	(0.890)	0.873
61	5.08	3.10	1.179	0.115	(1.061)	1.063
62	5.17	3.60	1.369	0.115	(1.232)	1.254
63	5.25	3.90	1.483	0.115	(1.335)	1.368
64	5.33	4.20	1.597	0.115	(1.437)	1.482
65	5.42	4.70	1.787	0.115	(1.609)	1.672
66	5.50	5.60	2.130	0.115	(1.917)	2.014
67	5.58	1.90	0.723	0.115	(0.650)	0.607
68	5.67	0.90	0.342	0.115	(0.308)	0.227
69	5.75	0.60	0.228	0.115	(0.205)	0.113
70	5.83	0.50	0.190	0.115	(0.171)	0.075

```
71   5.92     0.30      0.114       (  0.115)       0.103        0.011
72   6.00     0.20      0.076       (  0.115)       0.068        0.008
            (Loss Rate Not Used)
   Sum =     100.0                                   Sum =    29.8
     Flood volume = Effective rainfall      2.48(In)
      times area      91.5(Ac.)/[(In)/(Ft.)] =      18.9(Ac.Ft)
     Total soil loss =      0.69(In)
     Total soil loss =     5.243(Ac.Ft)
     Total rainfall =      3.17(In)
     Flood volume =      824165.5 Cubic Feet
     Total soil loss =      228403.0 Cubic Feet
     --------------------------------------------------------------------
      Peak flow rate of this hydrograph =    141.529(CFS)
     --------------------------------------------------------------------
     ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                         6 - H O U R   S T O R M
                    R u n o f f     H y d r o g r a p h
     --------------------------------------------------------------------
                 Hydrograph in   5   Minute intervals ((CFS))

     --------------------------------------------------------------------
Time(h+m) Volume Ac.Ft   Q(CFS)  0       50.0     100.0     150.0     200.0
---------------------------------------------------------------------
  0+ 5       0.0033      0.47  Q         |         |         |         |
  0+10       0.0220      2.73  Q         |         |         |         |
  0+15       0.0613      5.70  VQ        |         |         |         |
  0+20       0.1130      7.50  VQ        |         |         |         |
  0+25       0.1706      8.36  VQ        |         |         |         |
  0+30       0.2335      9.14  VQ        |         |         |         |
  0+35       0.3062     10.55  V Q       |         |         |         |
  0+40       0.3876     11.82  V Q       |         |         |         |
  0+45       0.4732     12.44  |VQ       |         |         |         |
  0+50       0.5616     12.83  |VQ       |         |         |         |
  0+55       0.6519     13.12  |VQ       |         |         |         |
  1+ 0       0.7454     13.58  |VQ       |         |         |         |
  1+ 5       0.8471     14.76  |VQ       |         |         |         |
  1+10       0.9564     15.88  | VQ      |         |         |         |
  1+15       1.0695     16.41  | VQ      |         |         |         |
  1+20       1.1845     16.71  | VQ      |         |         |         |
  1+25       1.3009     16.90  | VQ      |         |         |         |
  1+30       1.4182     17.03  | VQ      |         |         |         |
  1+35       1.5362     17.14  |  Q      |         |         |         |
  1+40       1.6549     17.22  |  Q      |         |         |         |
  1+45       1.7739     17.28  |  Q      |         |         |         |
  1+50       1.8931     17.32  |  QV     |         |         |         |
  1+55       2.0126     17.35  |  QV     |         |         |         |
  2+ 0       2.1339     17.61  |  QV     |         |         |         |
  2+ 5       2.2607     18.42  |  QV     |         |         |         |
  2+10       2.3892     18.65  |  Q V    |         |         |         |
  2+15       2.5207     19.10  |  Q V    |         |         |         |
  2+20       2.6578     19.90  |  Q V    |         |         |         |
  2+25       2.7972     20.25  |   QV    |         |         |         |
  2+30       2.9379     20.43  |   Q V   |         |         |         |
  2+35       3.0795     20.56  |   Q V   |         |         |         |
  2+40       3.2217     20.65  |   Q V   |         |         |         |
  2+45       3.3661     20.96  |   Q  V  |         |         |         |
  2+50       3.5179     22.04  |   Q  V  |         |         |         |
  2+55       3.6768     23.08  |   Q  V  |         |         |         |
  3+ 0       3.8388     23.52  |   Q   V |         |         |         |
  3+ 5       4.0025     23.77  |   Q   V |         |         |         |
  3+10       4.1692     24.20  |   Q   V |         |         |         |
  3+15       4.3437     25.34  |    Q   V|         |         |         |
  3+20       4.5258     26.44  |    Q   V|         |         |         |
```

```
    3+25       4.7128     27.15  |    Q   V|         |         |         |
    3+30       4.9104     28.70  |    Q    V         |         |         |
    3+35       5.1250     31.15  |     Q   V         |         |         |
    3+40       5.3573     33.73  |     Q   |V        |         |         |
    3+45       5.6032     35.71  |      Q  |V        |         |         |
    3+50       5.8623     37.61  |      Q  | V       |         |         |
    3+55       6.1338     39.43  |      Q  | V       |         |         |
    4+ 0       6.4180     41.26  |       Q |  V      |         |         |
    4+ 5       6.7142     43.01  |       Q |   V     |         |         |
    4+10       7.0246     45.07  |        Q|   V     |         |         |
    4+15       7.3540     47.84  |        Q|    V    |         |         |
    4+20       7.7046     50.90  |         Q     V   |         |         |
    4+25       8.0770     54.07  |         Q      V  |         |         |
    4+30       8.4703     57.10  |         |Q     V  |         |         |
    4+35       8.8794     59.41  |         |Q      V |         |         |
    4+40       9.3051     61.80  |         | Q      V|         |         |
    4+45       9.7514     64.80  |         | Q       V         |         |
    4+50      10.2179     67.75  |         |  Q      |V        |         |
    4+55      10.7002     70.02  |         |   Q     | V       |         |
    5+ 0      11.1987     72.38  |         |   Q     |  V      |         |
    5+ 5      11.7244     76.33  |         |    Q    |   V     |         |
    5+10      12.3069     84.59  |         |     Q   |     V   |         |
    5+15      12.9710     96.43  |         |        Q|      V  |         |
    5+20      13.7144    107.94  |         |         |Q      V |         |
    5+25      14.5333    118.89  |         |         |  Q      V         |
    5+30      15.4471    132.69  |         |         |     Q   | V       |
    5+35      16.4218    141.53  |         |         |       Q |   V     |
    5+40      17.2106    114.53  |         |         | Q       |     V   |
    5+45      17.7160     73.38  |         |   Q     |         |      V  |
    5+50      18.0535     49.00  |        Q|         |         |       V |
    5+55      18.2946     35.01  |      Q  |         |         |       V |
    6+ 0      18.4676     25.13  |    Q    |         |         |        V|
    6+ 5      18.5923     18.11  |  Q      |         |         |        V|
    6+10      18.6851     13.46  | Q       |         |         |        V|
    6+15      18.7559     10.29  | Q       |         |         |        V|
    6+20      18.8093      7.75  |Q        |         |         |        V|
    6+25      18.8489      5.75  |Q        |         |         |        V|
    6+30      18.8776      4.17  Q         |         |         |        V|
    6+35      18.8982      2.98  Q         |         |         |        V|
    6+40      18.9122      2.04  Q         |         |         |        V|
    6+45      18.9169      0.69  Q         |         |         |        V|
    6+50      18.9188      0.28  Q         |         |         |        V|
    6+55      18.9197      0.13  Q         |         |         |        V|
    7+ 0      18.9201      0.06  Q         |         |         |        V|
    7+ 5      18.9202      0.01  Q         |         |         |        V|
    7+10      18.9202      0.01  Q         |         |         |         V
-----------------------------------------------------------------------
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      U n i t   H y d r o g r a p h   A n a l y s i s

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            Study date  05/07/21 File: kxexh24100.out

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


Program License Serial Number 4029

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

 English Units used in output format



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

Keller Crossing – Area C
Hydrology Existing Condition
100-year 24-hour storm



--------------------------------------------------------------------
Drainage Area =      91.50(Ac.)  =      0.143 Sq. Mi.
Drainage Area for Depth-Area Areal Adjustment =      91.50(Ac.)  =      0.143
Sq. Mi.
Length along longest watercourse =    2880.00(Ft.)
Length along longest watercourse measured to centroid =    1560.00(Ft.)
Length along longest watercourse =      0.545 Mi.
Length along longest watercourse measured to centroid =      0.295 Mi.
Difference in elevation =     102.70(Ft.)
Slope along watercourse =    188.2833 Ft./Mi.
Average Manning's 'N' = 0.035
Lag time =    0.155 Hr.
Lag time =     9.31 Min.
25% of lag time =     2.33 Min.
40% of lag time =     3.72 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]
       91.50          2.25              205.88

100 YEAR Area rainfall data:


Area(Ac.)[1]       Rainfall(In)[2]      Weighting[1*2]
       91.50          5.87              537.11
```

STORM EVENT (YEAR) = 100.00
Area Averaged 2-Year Rainfall = 2.250(In)
Area Averaged 100-Year Rainfall = 5.870(In)

Point rain (area averaged) = 5.870(In)
Areal adjustment factor = 99.98 %
Adjusted average point rain = 5.869(In)

Sub-Area Data:

Area(Ac.)	Runoff Index	Impervious %
91.500	80.20	0.000

Total Area Entered = 91.50(Ac.)

RI AMC2	RI AMC-3	Infil. Rate (In/Hr)	Impervious (Dec.%)	Adj. Infil. Rate (In/Hr)	Area% (Dec.)	F (In/Hr)
80.2	91.1	0.115	0.000	0.115	1.000	0.115
					Sum (F) =	0.115

Area averaged mean soil loss (F) (In/Hr) = 0.115
Minimum soil loss rate ((In/Hr)) = 0.058
(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 (hrs)		Time % of lag	Distribution Graph %	Unit Hydrograph (CFS)
1	0.083	53.703	6.852	6.319
2	0.167	107.406	29.212	26.938
3	0.250	161.109	28.296	26.093
4	0.333	214.812	11.756	10.841
5	0.417	268.515	6.492	5.987
6	0.500	322.218	4.496	4.146
7	0.583	375.921	3.239	2.987
8	0.667	429.624	2.380	2.195
9	0.750	483.328	1.763	1.625
10	0.833	537.031	1.517	1.399
11	0.917	590.734	1.140	1.052
12	1.000	644.437	0.899	0.829
13	1.083	698.140	0.669	0.617
14	1.167	751.843	0.538	0.496
15	1.250	805.546	0.750	0.692
			Sum = 100.000	Sum= 92.215

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	0.047	(0.205)	0.042	0.005
2	0.17	0.07	0.047	(0.204)	0.042	0.005
3	0.25	0.07	0.047	(0.203)	0.042	0.005
4	0.33	0.10	0.070	(0.202)	0.063	0.007
5	0.42	0.10	0.070	(0.201)	0.063	0.007
6	0.50	0.10	0.070	(0.201)	0.063	0.007
7	0.58	0.10	0.070	(0.200)	0.063	0.007

8	0.67	0.10	0.070	(0.199)	0.063	0.007
9	0.75	0.10	0.070	(0.198)	0.063	0.007
10	0.83	0.13	0.094	(0.198)	0.085	0.009
11	0.92	0.13	0.094	(0.197)	0.085	0.009
12	1.00	0.13	0.094	(0.196)	0.085	0.009
13	1.08	0.10	0.070	(0.195)	0.063	0.007
14	1.17	0.10	0.070	(0.194)	0.063	0.007
15	1.25	0.10	0.070	(0.194)	0.063	0.007
16	1.33	0.10	0.070	(0.193)	0.063	0.007
17	1.42	0.10	0.070	(0.192)	0.063	0.007
18	1.50	0.10	0.070	(0.191)	0.063	0.007
19	1.58	0.10	0.070	(0.191)	0.063	0.007
20	1.67	0.10	0.070	(0.190)	0.063	0.007
21	1.75	0.10	0.070	(0.189)	0.063	0.007
22	1.83	0.13	0.094	(0.188)	0.085	0.009
23	1.92	0.13	0.094	(0.188)	0.085	0.009
24	2.00	0.13	0.094	(0.187)	0.085	0.009
25	2.08	0.13	0.094	(0.186)	0.085	0.009
26	2.17	0.13	0.094	(0.185)	0.085	0.009
27	2.25	0.13	0.094	(0.185)	0.085	0.009
28	2.33	0.13	0.094	(0.184)	0.085	0.009
29	2.42	0.13	0.094	(0.183)	0.085	0.009
30	2.50	0.13	0.094	(0.182)	0.085	0.009
31	2.58	0.17	0.117	(0.182)	0.106	0.012
32	2.67	0.17	0.117	(0.181)	0.106	0.012
33	2.75	0.17	0.117	(0.180)	0.106	0.012
34	2.83	0.17	0.117	(0.179)	0.106	0.012
35	2.92	0.17	0.117	(0.179)	0.106	0.012
36	3.00	0.17	0.117	(0.178)	0.106	0.012
37	3.08	0.17	0.117	(0.177)	0.106	0.012
38	3.17	0.17	0.117	(0.176)	0.106	0.012
39	3.25	0.17	0.117	(0.176)	0.106	0.012
40	3.33	0.17	0.117	(0.175)	0.106	0.012
41	3.42	0.17	0.117	(0.174)	0.106	0.012
42	3.50	0.17	0.117	(0.173)	0.106	0.012
43	3.58	0.17	0.117	(0.173)	0.106	0.012
44	3.67	0.17	0.117	(0.172)	0.106	0.012
45	3.75	0.17	0.117	(0.171)	0.106	0.012
46	3.83	0.20	0.141	(0.171)	0.127	0.014
47	3.92	0.20	0.141	(0.170)	0.127	0.014
48	4.00	0.20	0.141	(0.169)	0.127	0.014
49	4.08	0.20	0.141	(0.168)	0.127	0.014
50	4.17	0.20	0.141	(0.168)	0.127	0.014
51	4.25	0.20	0.141	(0.167)	0.127	0.014
52	4.33	0.23	0.164	(0.166)	0.148	0.016
53	4.42	0.23	0.164	(0.166)	0.148	0.016
54	4.50	0.23	0.164	(0.165)	0.148	0.016
55	4.58	0.23	0.164	(0.164)	0.148	0.016
56	4.67	0.23	0.164	(0.163)	0.148	0.016
57	4.75	0.23	0.164	(0.163)	0.148	0.016
58	4.83	0.27	0.188	0.162	(0.169)	0.026
59	4.92	0.27	0.188	0.161	(0.169)	0.026
60	5.00	0.27	0.188	0.161	(0.169)	0.027
61	5.08	0.20	0.141	(0.160)	0.127	0.014
62	5.17	0.20	0.141	(0.159)	0.127	0.014
63	5.25	0.20	0.141	(0.159)	0.127	0.014
64	5.33	0.23	0.164	(0.158)	0.148	0.016
65	5.42	0.23	0.164	(0.157)	0.148	0.016
66	5.50	0.23	0.164	(0.156)	0.148	0.016
67	5.58	0.27	0.188	0.156	(0.169)	0.032
68	5.67	0.27	0.188	0.155	(0.169)	0.033
69	5.75	0.27	0.188	0.154	(0.169)	0.033
70	5.83	0.27	0.188	0.154	(0.169)	0.034

71	5.92	0.27	0.188	0.153	(0.169)	0.035
72	6.00	0.27	0.188	0.152	(0.169)	0.035
73	6.08	0.30	0.211	0.152	(0.190)	0.060
74	6.17	0.30	0.211	0.151	(0.190)	0.060
75	6.25	0.30	0.211	0.150	(0.190)	0.061
76	6.33	0.30	0.211	0.150	(0.190)	0.062
77	6.42	0.30	0.211	0.149	(0.190)	0.062
78	6.50	0.30	0.211	0.148	(0.190)	0.063
79	6.58	0.33	0.235	0.148	(0.211)	0.087
80	6.67	0.33	0.235	0.147	(0.211)	0.088
81	6.75	0.33	0.235	0.146	(0.211)	0.088
82	6.83	0.33	0.235	0.146	(0.211)	0.089
83	6.92	0.33	0.235	0.145	(0.211)	0.090
84	7.00	0.33	0.235	0.144	(0.211)	0.090
85	7.08	0.33	0.235	0.144	(0.211)	0.091
86	7.17	0.33	0.235	0.143	(0.211)	0.092
87	7.25	0.33	0.235	0.142	(0.211)	0.092
88	7.33	0.37	0.258	0.142	(0.232)	0.116
89	7.42	0.37	0.258	0.141	(0.232)	0.117
90	7.50	0.37	0.258	0.140	(0.232)	0.118
91	7.58	0.40	0.282	0.140	(0.254)	0.142
92	7.67	0.40	0.282	0.139	(0.254)	0.143
93	7.75	0.40	0.282	0.139	(0.254)	0.143
94	7.83	0.43	0.305	0.138	(0.275)	0.167
95	7.92	0.43	0.305	0.137	(0.275)	0.168
96	8.00	0.43	0.305	0.137	(0.275)	0.169
97	8.08	0.50	0.352	0.136	(0.317)	0.216
98	8.17	0.50	0.352	0.135	(0.317)	0.217
99	8.25	0.50	0.352	0.135	(0.317)	0.217
100	8.33	0.50	0.352	0.134	(0.317)	0.218
101	8.42	0.50	0.352	0.133	(0.317)	0.219
102	8.50	0.50	0.352	0.133	(0.317)	0.219
103	8.58	0.53	0.376	0.132	(0.338)	0.243
104	8.67	0.53	0.376	0.132	(0.338)	0.244
105	8.75	0.53	0.376	0.131	(0.338)	0.245
106	8.83	0.57	0.399	0.130	(0.359)	0.269
107	8.92	0.57	0.399	0.130	(0.359)	0.269
108	9.00	0.57	0.399	0.129	(0.359)	0.270
109	9.08	0.63	0.446	0.129	(0.401)	0.318
110	9.17	0.63	0.446	0.128	(0.401)	0.318
111	9.25	0.63	0.446	0.127	(0.401)	0.319
112	9.33	0.67	0.470	0.127	(0.423)	0.343
113	9.42	0.67	0.470	0.126	(0.423)	0.343
114	9.50	0.67	0.470	0.125	(0.423)	0.344
115	9.58	0.70	0.493	0.125	(0.444)	0.368
116	9.67	0.70	0.493	0.124	(0.444)	0.369
117	9.75	0.70	0.493	0.124	(0.444)	0.369
118	9.83	0.73	0.516	0.123	(0.465)	0.393
119	9.92	0.73	0.516	0.122	(0.465)	0.394
120	10.00	0.73	0.516	0.122	(0.465)	0.395
121	10.08	0.50	0.352	0.121	(0.317)	0.231
122	10.17	0.50	0.352	0.121	(0.317)	0.231
123	10.25	0.50	0.352	0.120	(0.317)	0.232
124	10.33	0.50	0.352	0.120	(0.317)	0.233
125	10.42	0.50	0.352	0.119	(0.317)	0.233
126	10.50	0.50	0.352	0.118	(0.317)	0.234
127	10.58	0.67	0.470	0.118	(0.423)	0.352
128	10.67	0.67	0.470	0.117	(0.423)	0.352
129	10.75	0.67	0.470	0.117	(0.423)	0.353
130	10.83	0.67	0.470	0.116	(0.423)	0.353
131	10.92	0.67	0.470	0.116	(0.423)	0.354
132	11.00	0.67	0.470	0.115	(0.423)	0.355
133	11.08	0.63	0.446	0.114	(0.401)	0.332

134	11.17	0.63	0.446	0.114	(0.401)	0.332
135	11.25	0.63	0.446	0.113	(0.401)	0.333
136	11.33	0.63	0.446	0.113	(0.401)	0.333
137	11.42	0.63	0.446	0.112	(0.401)	0.334
138	11.50	0.63	0.446	0.112	(0.401)	0.334
139	11.58	0.57	0.399	0.111	(0.359)	0.288
140	11.67	0.57	0.399	0.110	(0.359)	0.289
141	11.75	0.57	0.399	0.110	(0.359)	0.289
142	11.83	0.60	0.423	0.109	(0.380)	0.313
143	11.92	0.60	0.423	0.109	(0.380)	0.314
144	12.00	0.60	0.423	0.108	(0.380)	0.314
145	12.08	0.83	0.587	0.108	(0.528)	0.479
146	12.17	0.83	0.587	0.107	(0.528)	0.480
147	12.25	0.83	0.587	0.107	(0.528)	0.480
148	12.33	0.87	0.610	0.106	(0.549)	0.504
149	12.42	0.87	0.610	0.106	(0.549)	0.505
150	12.50	0.87	0.610	0.105	(0.549)	0.505
151	12.58	0.93	0.657	0.105	(0.592)	0.553
152	12.67	0.93	0.657	0.104	(0.592)	0.553
153	12.75	0.93	0.657	0.104	(0.592)	0.554
154	12.83	0.97	0.681	0.103	(0.613)	0.578
155	12.92	0.97	0.681	0.102	(0.613)	0.578
156	13.00	0.97	0.681	0.102	(0.613)	0.579
157	13.08	1.13	0.798	0.101	(0.718)	0.697
158	13.17	1.13	0.798	0.101	(0.718)	0.697
159	13.25	1.13	0.798	0.100	(0.718)	0.698
160	13.33	1.13	0.798	0.100	(0.718)	0.698
161	13.42	1.13	0.798	0.099	(0.718)	0.699
162	13.50	1.13	0.798	0.099	(0.718)	0.699
163	13.58	0.77	0.540	0.098	(0.486)	0.442
164	13.67	0.77	0.540	0.098	(0.486)	0.442
165	13.75	0.77	0.540	0.097	(0.486)	0.443
166	13.83	0.77	0.540	0.097	(0.486)	0.443
167	13.92	0.77	0.540	0.096	(0.486)	0.444
168	14.00	0.77	0.540	0.096	(0.486)	0.444
169	14.08	0.90	0.634	0.095	(0.570)	0.538
170	14.17	0.90	0.634	0.095	(0.570)	0.539
171	14.25	0.90	0.634	0.094	(0.570)	0.539
172	14.33	0.87	0.610	0.094	(0.549)	0.516
173	14.42	0.87	0.610	0.093	(0.549)	0.517
174	14.50	0.87	0.610	0.093	(0.549)	0.517
175	14.58	0.87	0.610	0.093	(0.549)	0.518
176	14.67	0.87	0.610	0.092	(0.549)	0.518
177	14.75	0.87	0.610	0.092	(0.549)	0.519
178	14.83	0.83	0.587	0.091	(0.528)	0.496
179	14.92	0.83	0.587	0.091	(0.528)	0.496
180	15.00	0.83	0.587	0.090	(0.528)	0.497
181	15.08	0.80	0.563	0.090	(0.507)	0.474
182	15.17	0.80	0.563	0.089	(0.507)	0.474
183	15.25	0.80	0.563	0.089	(0.507)	0.475
184	15.33	0.77	0.540	0.088	(0.486)	0.452
185	15.42	0.77	0.540	0.088	(0.486)	0.452
186	15.50	0.77	0.540	0.087	(0.486)	0.453
187	15.58	0.63	0.446	0.087	(0.401)	0.359
188	15.67	0.63	0.446	0.087	(0.401)	0.360
189	15.75	0.63	0.446	0.086	(0.401)	0.360
190	15.83	0.63	0.446	0.086	(0.401)	0.360
191	15.92	0.63	0.446	0.085	(0.401)	0.361
192	16.00	0.63	0.446	0.085	(0.401)	0.361
193	16.08	0.13	0.094	0.084	(0.085)	0.010
194	16.17	0.13	0.094	0.084	(0.085)	0.010
195	16.25	0.13	0.094	0.083	(0.085)	0.010
196	16.33	0.13	0.094	0.083	(0.085)	0.011

197	16.42	0.13	0.094	0.083	(0.085)	0.011
198	16.50	0.13	0.094	0.082	(0.085)	0.012
199	16.58	0.10	0.070	(0.082)	0.063	0.007
200	16.67	0.10	0.070	(0.081)	0.063	0.007
201	16.75	0.10	0.070	(0.081)	0.063	0.007
202	16.83	0.10	0.070	(0.081)	0.063	0.007
203	16.92	0.10	0.070	(0.080)	0.063	0.007
204	17.00	0.10	0.070	(0.080)	0.063	0.007
205	17.08	0.17	0.117	0.079	(0.106)	0.038
206	17.17	0.17	0.117	0.079	(0.106)	0.038
207	17.25	0.17	0.117	0.079	(0.106)	0.039
208	17.33	0.17	0.117	0.078	(0.106)	0.039
209	17.42	0.17	0.117	0.078	(0.106)	0.040
210	17.50	0.17	0.117	0.077	(0.106)	0.040
211	17.58	0.17	0.117	0.077	(0.106)	0.040
212	17.67	0.17	0.117	0.077	(0.106)	0.041
213	17.75	0.17	0.117	0.076	(0.106)	0.041
214	17.83	0.13	0.094	0.076	(0.085)	0.018
215	17.92	0.13	0.094	0.075	(0.085)	0.018
216	18.00	0.13	0.094	0.075	(0.085)	0.019
217	18.08	0.13	0.094	0.075	(0.085)	0.019
218	18.17	0.13	0.094	0.074	(0.085)	0.020
219	18.25	0.13	0.094	0.074	(0.085)	0.020
220	18.33	0.13	0.094	0.074	(0.085)	0.020
221	18.42	0.13	0.094	0.073	(0.085)	0.021
222	18.50	0.13	0.094	0.073	(0.085)	0.021
223	18.58	0.10	0.070	(0.073)	0.063	0.007
224	18.67	0.10	0.070	(0.072)	0.063	0.007
225	18.75	0.10	0.070	(0.072)	0.063	0.007
226	18.83	0.07	0.047	(0.072)	0.042	0.005
227	18.92	0.07	0.047	(0.071)	0.042	0.005
228	19.00	0.07	0.047	(0.071)	0.042	0.005
229	19.08	0.10	0.070	(0.071)	0.063	0.007
230	19.17	0.10	0.070	(0.070)	0.063	0.007
231	19.25	0.10	0.070	(0.070)	0.063	0.007
232	19.33	0.13	0.094	0.070	(0.085)	0.024
233	19.42	0.13	0.094	0.069	(0.085)	0.025
234	19.50	0.13	0.094	0.069	(0.085)	0.025
235	19.58	0.10	0.070	(0.069)	0.063	0.007
236	19.67	0.10	0.070	(0.068)	0.063	0.007
237	19.75	0.10	0.070	(0.068)	0.063	0.007
238	19.83	0.07	0.047	(0.068)	0.042	0.005
239	19.92	0.07	0.047	(0.067)	0.042	0.005
240	20.00	0.07	0.047	(0.067)	0.042	0.005
241	20.08	0.10	0.070	(0.067)	0.063	0.007
242	20.17	0.10	0.070	(0.066)	0.063	0.007
243	20.25	0.10	0.070	(0.066)	0.063	0.007
244	20.33	0.10	0.070	(0.066)	0.063	0.007
245	20.42	0.10	0.070	(0.066)	0.063	0.007
246	20.50	0.10	0.070	(0.065)	0.063	0.007
247	20.58	0.10	0.070	(0.065)	0.063	0.007
248	20.67	0.10	0.070	(0.065)	0.063	0.007
249	20.75	0.10	0.070	(0.064)	0.063	0.007
250	20.83	0.07	0.047	(0.064)	0.042	0.005
251	20.92	0.07	0.047	(0.064)	0.042	0.005
252	21.00	0.07	0.047	(0.064)	0.042	0.005
253	21.08	0.10	0.070	(0.063)	0.063	0.007
254	21.17	0.10	0.070	0.063	(0.063)	0.007
255	21.25	0.10	0.070	0.063	(0.063)	0.007
256	21.33	0.07	0.047	(0.063)	0.042	0.005
257	21.42	0.07	0.047	(0.062)	0.042	0.005
258	21.50	0.07	0.047	(0.062)	0.042	0.005
259	21.58	0.10	0.070	0.062	(0.063)	0.008

```
260  21.67     0.10      0.070          0.062    (  0.063)        0.009
261  21.75     0.10      0.070          0.062    (  0.063)        0.009
262  21.83     0.07      0.047       (  0.061)       0.042        0.005
263  21.92     0.07      0.047       (  0.061)       0.042        0.005
264  22.00     0.07      0.047       (  0.061)       0.042        0.005
265  22.08     0.10      0.070          0.061    (  0.063)        0.010
266  22.17     0.10      0.070          0.061    (  0.063)        0.010
267  22.25     0.10      0.070          0.060    (  0.063)        0.010
268  22.33     0.07      0.047       (  0.060)       0.042        0.005
269  22.42     0.07      0.047       (  0.060)       0.042        0.005
270  22.50     0.07      0.047       (  0.060)       0.042        0.005
271  22.58     0.07      0.047       (  0.060)       0.042        0.005
272  22.67     0.07      0.047       (  0.059)       0.042        0.005
273  22.75     0.07      0.047       (  0.059)       0.042        0.005
274  22.83     0.07      0.047       (  0.059)       0.042        0.005
275  22.92     0.07      0.047       (  0.059)       0.042        0.005
276  23.00     0.07      0.047       (  0.059)       0.042        0.005
277  23.08     0.07      0.047       (  0.059)       0.042        0.005
278  23.17     0.07      0.047       (  0.059)       0.042        0.005
279  23.25     0.07      0.047       (  0.058)       0.042        0.005
280  23.33     0.07      0.047       (  0.058)       0.042        0.005
281  23.42     0.07      0.047       (  0.058)       0.042        0.005
282  23.50     0.07      0.047       (  0.058)       0.042        0.005
283  23.58     0.07      0.047       (  0.058)       0.042        0.005
284  23.67     0.07      0.047       (  0.058)       0.042        0.005
285  23.75     0.07      0.047       (  0.058)       0.042        0.005
286  23.83     0.07      0.047       (  0.058)       0.042        0.005
287  23.92     0.07      0.047       (  0.058)       0.042        0.005
288  24.00     0.07      0.047       (  0.058)       0.042        0.005
            (Loss Rate Not Used)
    Sum =     100.0                                 Sum =    43.3
      Flood volume = Effective rainfall      3.61(In)
       times area      91.5(Ac.)/[(In)/(Ft.)] =      27.5(Ac.Ft)
      Total soil loss =      2.26(In)
      Total soil loss =    17.244(Ac.Ft)
      Total rainfall =      5.87(In)
      Flood volume =     1198202.3 Cubic Feet
      Total soil loss =      751140.5 Cubic Feet
      --------------------------------------------------------------------
       Peak flow rate of this hydrograph =     62.787(CFS)
      --------------------------------------------------------------------
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
                          24 - H O U R   S T O R M
                     R u n o f f     H y d r o g r a p h
      --------------------------------------------------------------------
                  Hydrograph in   5   Minute intervals ((CFS))

      --------------------------------------------------------------------
 Time(h+m) Volume Ac.Ft   Q(CFS)  0       17.5      35.0      52.5      70.0
 -----------------------------------------------------------------------
   0+ 5       0.0002      0.03  Q         |         |         |         |
   0+10       0.0013      0.16  Q         |         |         |         |
   0+15       0.0032      0.28  Q         |         |         |         |
   0+20       0.0056      0.34  Q         |         |         |         |
   0+25       0.0086      0.44  Q         |         |         |         |
   0+30       0.0121      0.52  Q         |         |         |         |
   0+35       0.0160      0.56  Q         |         |         |         |
   0+40       0.0200      0.58  Q         |         |         |         |
   0+45       0.0241      0.60  Q         |         |         |         |
   0+50       0.0284      0.63  Q         |         |         |         |
   0+55       0.0332      0.70  Q         |         |         |         |
   1+ 0       0.0385      0.77  Q         |         |         |         |
   1+ 5       0.0439      0.79  Q         |         |         |         |
```

1+10	0.0490	0.74	Q
1+15	0.0538	0.69	Q
1+20	0.0585	0.68	Q
1+25	0.0631	0.67	Q
1+30	0.0677	0.67	Q
1+35	0.0722	0.66	Q
1+40	0.0768	0.66	Q
1+45	0.0813	0.66	Q
1+50	0.0859	0.67	Q
1+55	0.0910	0.73	Q
2+ 0	0.0964	0.79	Q
2+ 5	0.1021	0.82	Q
2+10	0.1078	0.83	Q
2+15	0.1136	0.84	Q
2+20	0.1194	0.85	Q
2+25	0.1252	0.85	Q
2+30	0.1311	0.85	Q
2+35	0.1371	0.87	Q
2+40	0.1436	0.94	Q
2+45	0.1505	1.00	Q
2+50	0.1576	1.03	Q
2+55	0.1648	1.04	Q
3+ 0	0.1720	1.06	Q
3+ 5	0.1793	1.06	Q
3+10	0.1867	1.07	Q
3+15	0.1941	1.07	Q
3+20	0.2015	1.07	Q
3+25	0.2089	1.08	Q
3+30	0.2163	1.08	Q
3+35	0.2238	1.08	Q
3+40	0.2312	1.08	Q
3+45	0.2387	1.08	Q
3+50	0.2462	1.10	Q
3+55	0.2542	1.16	Q
4+ 0	0.2626	1.22	Q
4+ 5	0.2712	1.25	Q
4+10	0.2799	1.26	Q
4+15	0.2887	1.27	Q
4+20	0.2976	1.29	Q
4+25	0.3070	1.36	Q
4+30	0.3168	1.43	Q
4+35	0.3268	1.46	Q
4+40	0.3370	1.47	Q
4+45	0.3472	1.48	Q
4+50	0.3579	1.55	Q
4+55	0.3704	1.81	VQ
5+ 0	0.3847	2.09	VQ
5+ 5	0.3995	2.15	VQ
5+10	0.4124	1.88	VQ
5+15	0.4234	1.59	Q
5+20	0.4337	1.50	Q
5+25	0.4441	1.51	Q
5+30	0.4546	1.54	Q
5+35	0.4659	1.64	Q
5+40	0.4801	2.06	VQ
5+45	0.4972	2.49	VQ
5+50	0.5158	2.69	VQ
5+55	0.5352	2.83	VQ
6+ 0	0.5555	2.95	VQ
6+ 5	0.5775	3.19	VQ
6+10	0.6045	3.91	V Q
6+15	0.6362	4.60	V Q
6+20	0.6702	4.94	V Q

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 6+25       0.7057      5.16  |VQ       |         |         |         |
 6+30       0.7424      5.33  |V Q      |         |         |         |
 6+35       0.7811      5.62  |V Q      |         |         |         |
 6+40       0.8249      6.37  |V Q      |         |         |         |
 6+45       0.8738      7.09  |V  Q     |         |         |         |
 6+50       0.9250      7.44  |V  Q     |         |         |         |
 6+55       0.9778      7.67  |V  Q     |         |         |         |
 7+ 0       1.0319      7.85  |V  Q     |         |         |         |
 7+ 5       1.0869      7.99  |V  Q     |         |         |         |
 7+10       1.1428      8.12  |V  Q     |         |         |         |
 7+15       1.1995      8.23  |V  Q     |         |         |         |
 7+20       1.2579      8.47  |V  Q     |         |         |         |
 7+25       1.3212      9.19  |V   Q    |         |         |         |
 7+30       1.3892      9.88  | V  Q    |         |         |         |
 7+35       1.4606     10.36  | V  Q    |         |         |         |
 7+40       1.5378     11.21  | V   Q   |         |         |         |
 7+45       1.6204     11.99  | V   Q   |         |         |         |
 7+50       1.7066     12.52  | V    Q  |         |         |         |
 7+55       1.7990     13.41  | V    Q  |         |         |         |
 8+ 0       1.8969     14.22  | V     Q |         |         |         |
 8+ 5       1.9997     14.93  | V     Q |         |         |         |
 8+10       2.1131     16.47  |  V     Q|         |         |         |
 8+15       2.2365     17.91  |  V      Q         |         |         |
 8+20       2.3645     18.60  |  V      Q         |         |         |
 8+25       2.4956     19.02  |  V      Q         |         |         |
 8+30       2.6288     19.35  |  V      |Q        |         |         |
 8+35       2.7648     19.74  |   V     |Q        |         |         |
 8+40       2.9065     20.57  |   V     |Q        |         |         |
 8+45       3.0536     21.36  |   V     | Q       |         |         |
 8+50       3.2044     21.90  |   V     | Q       |         |         |
 8+55       3.3613     22.79  |   V     |  Q      |         |         |
 9+ 0       3.5239     23.61  |    V    |  Q      |         |         |
 9+ 5       3.6914     24.32  |    V    |  Q      |         |         |
 9+10       3.8695     25.86  |    V    |   Q     |         |         |
 9+15       4.0576     27.31  |    V    |    Q    |         |         |
 9+20       4.2513     28.12  |     V   |     Q   |         |         |
 9+25       4.4522     29.17  |     V   |     Q   |         |         |
 9+30       4.6594     30.09  |     V   |      Q  |         |         |
 9+35       4.8711     30.74  |      V  |      Q  |         |         |
 9+40       5.0895     31.71  |      V  |       Q |         |         |
 9+45       5.3139     32.59  |      V  |       Q |         |         |
 9+50       5.5425     33.19  |       V |       Q |         |         |
 9+55       5.7776     34.14  |       V |        Q|         |         |
10+ 0       6.0186     34.99  |       V |        Q|         |         |
10+ 5       6.2555     34.40  |        V|        Q|         |         |
10+10       6.4639     30.26  |        V|      Q  |         |         |
10+15       6.6445     26.21  |        V|   Q     |         |         |
10+20       6.8139     24.60  |        V|   Q     |         |         |
10+25       6.9776     23.76  |         V  Q      |         |         |
10+30       7.1374     23.21  |         V  Q      |         |         |
10+35       7.2996     23.56  |         V  Q      |         |         |
10+40       7.4818     26.45  |         V    Q    |         |         |
10+45       7.6839     29.34  |         |V    Q   |         |         |
10+50       7.8936     30.45  |         |V     Q  |         |         |
10+55       8.1074     31.04  |         |V     Q  |         |         |
11+ 0       8.3241     31.46  |         | V    Q  |         |         |
11+ 5       8.5419     31.62  |         | V     Q |         |         |
11+10       8.7568     31.21  |         | V    Q  |         |         |
11+15       8.9685     30.73  |         |  V   Q  |         |         |
11+20       9.1799     30.69  |         |  V   Q  |         |         |
11+25       9.3915     30.73  |         |  V   Q  |         |         |
11+30       9.6035     30.78  |         |  V   Q  |         |         |
11+35       9.8138     30.54  |         |   V  Q  |         |         |
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11+40      10.0158     29.33   |         |   V Q   |         |         |
11+45      10.2100     28.20   |         |   V Q   |         |         |
11+50      10.4018     27.86   |         |    Q    |         |         |
11+55      10.5962     28.23   |         |    VQ   |         |         |
12+ 0      10.7938     28.68   |         |    VQ   |         |         |
12+ 5      10.9995     29.87   |         |    V Q  |         |         |
12+10      11.2362     34.38   |         |     V  Q|         |         |
12+15      11.5029     38.72   |         |     V   | Q       |         |
12+20      11.7833     40.71   |         |      V  |  Q      |         |
12+25      12.0751     42.38   |         |      V  |   Q     |         |
12+30      12.3762     43.72   |         |      V  |   Q     |         |
12+35      12.6848     44.81   |         |       V |    Q    |         |
12+40      13.0060     46.63   |         |       V |     Q   |         |
12+45      13.3384     48.26   |         |        V|      Q  |         |
12+50      13.6778     49.28   |         |        V|       Q |         |
12+55      14.0254     50.48   |         |         V       Q |         |
13+ 0      14.3803     51.52   |         |         V        Q|         |
13+ 5      14.7442     52.84   |         |         |V        Q         |
13+10      15.1327     56.41   |         |         | V       | Q       |
13+15      15.5447     59.82   |         |         | V       |   Q     |
13+20      15.9668     61.30   |         |         |  V      |    Q    |
13+25      16.3949     62.16   |         |         |  V      |    Q    |
13+30      16.8273     62.79   |         |         |   V     |    Q    |
13+35      17.2517     61.61   |         |         |    V    |    Q    |
13+40      17.6305     55.01   |         |         |    V    |Q        |
13+45      17.9649     48.55   |         |         |     VQ  |         |
13+50      18.2816     45.98   |         |         |     Q   |         |
13+55      18.5888     44.61   |         |         |    Q V  |         |
14+ 0      18.8898     43.70   |         |         |   Q  V  |         |
14+ 5      19.1903     43.64   |         |         |   Q  V  |         |
14+10      19.5051     45.71   |         |         |     Q V |         |
14+15      19.8348     47.87   |         |         |      QV |         |
14+20      20.1683     48.42   |         |         |      Q V|         |
14+25      20.4997     48.12   |         |         |      Q V|         |
14+30      20.8285     47.73   |         |         |      Q  V         |
14+35      21.1566     47.64   |         |         |      Q  V         |
14+40      21.4846     47.62   |         |         |      Q  |V        |
14+45      21.8120     47.54   |         |         |      Q  |V        |
14+50      22.1391     47.50   |         |         |      Q  | V       |
14+55      22.4626     46.96   |         |         |     Q   | V       |
15+ 0      22.7823     46.43   |         |         |     Q   |  V      |
15+ 5      23.0998     46.10   |         |         |     Q   |  V      |
15+10      23.4124     45.39   |         |         |    Q    |   V     |
15+15      23.7207     44.77   |         |         |    Q    |   V     |
15+20      24.0259     44.32   |         |         |    Q    |   V     |
15+25      24.3257     43.53   |         |         |   Q     |    V    |
15+30      24.6205     42.80   |         |         |   Q     |    V    |
15+35      24.9090     41.89   |         |         |  Q      |     V   |
15+40      25.1789     39.19   |         |         | Q       |     V   |
15+45      25.4311     36.62   |         |         Q         |     V   |
15+50      25.6758     35.53   |         |         Q         |      V  |
15+55      25.9163     34.92   |         |        Q|         |      V  |
16+ 0      26.1539     34.50   |         |        Q|         |       V |
16+ 5      26.3741     31.98   |         |       Q |         |       V |
16+10      26.5276     22.29   |         | Q       |         |       V |
16+15      26.6168     12.95   |      Q  |         |         |       V |
16+20      26.6790      9.02   |    Q    |         |         |       V |
16+25      26.7261      6.84   |  Q      |         |         |       V |
16+30      26.7628      5.33   |  Q      |         |         |       V |
16+35      26.7919      4.22   | Q       |         |         |       V |
16+40      26.8146      3.30   |Q        |         |         |       V |
16+45      26.8323      2.56   |Q        |         |         |        V|
16+50      26.8462      2.03   |Q        |         |         |        V|
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16+55      26.8575      1.63  Q          |         |         |        V|
17+ 0      26.8666      1.33  Q          |         |         |        V|
17+ 5      26.8755      1.30  Q          |         |         |        V|
17+10      26.8890      1.95  |Q         |         |         |        V|
17+15      26.9064      2.53  |Q         |         |         |        V|
17+20      26.9262      2.88  |Q         |         |         |        V|
17+25      26.9475      3.09  |Q         |         |         |        V|
17+30      26.9699      3.25  |Q         |         |         |        V|
17+35      26.9930      3.37  |Q         |         |         |        V|
17+40      27.0169      3.47  |Q         |         |         |        V|
17+45      27.0413      3.55  | Q        |         |         |        V|
17+50      27.0653      3.47  |Q         |         |         |        V|
17+55      27.0853      2.91  |Q         |         |         |        V|
18+ 0      27.1015      2.36  |Q         |         |         |        V|
18+ 5      27.1164      2.15  |Q         |         |         |        V|
18+10      27.1306      2.06  |Q         |         |         |        V|
18+15      27.1445      2.02  |Q         |         |         |        V|
18+20      27.1582      1.99  |Q         |         |         |        V|
18+25      27.1717      1.97  |Q         |         |         |        V|
18+30      27.1852      1.96  |Q         |         |         |        V|
18+35      27.1981      1.87  |Q         |         |         |        V|
18+40      27.2084      1.49  Q          |         |         |        V|
18+45      27.2161      1.12  Q          |         |         |        V|
18+50      27.2227      0.95  Q          |         |         |        V|
18+55      27.2282      0.80  Q          |         |         |        V|
19+ 0      27.2327      0.67  Q          |         |         |        V|
19+ 5      27.2370      0.62  Q          |         |         |        V|
19+10      27.2414      0.64  Q          |         |         |        V|
19+15      27.2460      0.67  Q          |         |         |        V|
19+20      27.2513      0.78  Q          |         |         |        V|
19+25      27.2599      1.24  Q          |         |         |        V|
19+30      27.2716      1.70  Q          |         |         |        V|
19+35      27.2839      1.79  |Q         |         |         |        V|
19+40      27.2937      1.41  Q          |         |         |        V|
19+45      27.3006      1.01  Q          |         |         |        V|
19+50      27.3066      0.86  Q          |         |         |        V|
19+55      27.3116      0.73  Q          |         |         |        V|
20+ 0      27.3159      0.63  Q          |         |         |        V|
20+ 5      27.3200      0.59  Q          |         |         |        V|
20+10      27.3243      0.62  Q          |         |         |        V|
20+15      27.3288      0.66  Q          |         |         |        V|
20+20      27.3334      0.66  Q          |         |         |        V|
20+25      27.3379      0.66  Q          |         |         |        V|
20+30      27.3425      0.67  Q          |         |         |        V|
20+35      27.3471      0.66  Q          |         |         |        V|
20+40      27.3516      0.65  Q          |         |         |        V|
20+45      27.3560      0.64  Q          |         |         |        V|
20+50      27.3603      0.63  Q          |         |         |        V|
20+55      27.3642      0.57  Q          |         |         |        V|
21+ 0      27.3677      0.51  Q          |         |         |        V|
21+ 5      27.3711      0.50  Q          |         |         |        V|
21+10      27.3749      0.55  Q          |         |         |        V|
21+15      27.3791      0.61  Q          |         |         |        V|
21+20      27.3834      0.62  Q          |         |         |        V|
21+25      27.3872      0.56  Q          |         |         |        V|
21+30      27.3907      0.50  Q          |         |         |        V|
21+35      27.3941      0.50  Q          |         |         |        V|
21+40      27.3982      0.59  Q          |         |         |        V|
21+45      27.4029      0.68  Q          |         |         |        V|
21+50      27.4077      0.70  Q          |         |         |        V|
21+55      27.4120      0.62  Q          |         |         |        V|
22+ 0      27.4156      0.53  Q          |         |         |        V|
22+ 5      27.4192      0.52  Q          |         |         |        V|
```

22+10	27.4236	0.64	Q	|	|	|	V|
22+15	27.4289	0.77	Q	|	|	|	V|
22+20	27.4344	0.79	Q	|	|	|	V|
22+25	27.4390	0.68	Q	|	|	|	V|
22+30	27.4429	0.56	Q	|	|	|	V|
22+35	27.4464	0.51	Q	|	|	|	V|
22+40	27.4498	0.49	Q	|	|	|	V|
22+45	27.4530	0.48	Q	|	|	|	V|
22+50	27.4562	0.47	Q	|	|	|	V|
22+55	27.4594	0.46	Q	|	|	|	V|
23+ 0	27.4625	0.45	Q	|	|	|	V|
23+ 5	27.4656	0.45	Q	|	|	|	V|
23+10	27.4686	0.44	Q	|	|	|	V|
23+15	27.4717	0.44	Q	|	|	|	V|
23+20	27.4747	0.44	Q	|	|	|	V|
23+25	27.4777	0.44	Q	|	|	|	V|
23+30	27.4807	0.43	Q	|	|	|	V|
23+35	27.4837	0.43	Q	|	|	|	V|
23+40	27.4866	0.43	Q	|	|	|	V|
23+45	27.4896	0.43	Q	|	|	|	V|
23+50	27.4926	0.43	Q	|	|	|	V|
23+55	27.4956	0.43	Q	|	|	|	V|
24+ 0	27.4986	0.43	Q	|	|	|	V|
24+ 5	27.5014	0.40	Q	|	|	|	V|
24+10	27.5033	0.28	Q	|	|	|	V|
24+15	27.5043	0.15	Q	|	|	|	V|
24+20	27.5050	0.10	Q	|	|	|	V|
24+25	27.5056	0.08	Q	|	|	|	V|
24+30	27.5059	0.06	Q	|	|	|	V|
24+35	27.5062	0.04	Q	|	|	|	V|
24+40	27.5065	0.03	Q	|	|	|	V|
24+45	27.5066	0.02	Q	|	|	|	V|
24+50	27.5067	0.02	Q	|	|	|	V|
24+55	27.5068	0.01	Q	|	|	|	V|
25+ 0	27.5069	0.01	Q	|	|	|	V|
25+ 5	27.5069	0.01	Q	|	|	|	V|
25+10	27.5069	0.00	Q	|	|	|	V

Detention Basin Routing For Basin C

```
                    FLOOD HYDROGRAPH ROUTING PROGRAM
            Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                         Study date: 05/07/21

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

Keller Crossing – Basin C
Detention Basin Routing
Inflow Hydrograph 2-year 1-hour storm

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


Program License Serial Number 4029

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

             From study/file name: kx2prh12.rte
****************************HYDROGRAPH DATA****************************
             Number of intervals =    18
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =       79.811 (CFS)
             Total volume =       2.770 (Ac.Ft)
      Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************



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

User entry of depth-outflow-storage data
---------------------------------------------------------------------
Total number of inflow hydrograph intervals = 18
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
---------------------------------------------------------------------
---------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
----------------------------------------------------------------------
---------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)      (Ac.Ft)    (Ac.Ft)
----------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      1.693      1.910      1.686        1.700
   2.000      3.806      2.340      3.798        3.814
   3.000      6.534      2.710      6.525        6.543
   4.000      9.741      3.030      9.731        9.751
   5.000     13.275     33.320     13.160       13.390
   6.000     16.265     88.430     15.960       16.570
---------------------------------------------------------------------
             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      20.0    39.91   59.86   79.81 (Ft.)
 0.083     3.90    0.02      0.013  OI      |       |       |       |      0.01
 0.167    11.76    0.08      0.067  O   I   |       |       |       |      0.04
 0.250    14.89    0.18      0.158  O    I  |       |       |       |      0.09
 0.333    17.51    0.30      0.268  O      I|       |       |       |      0.16
 0.417    18.79    0.44      0.390  O      I|       |       |       |      0.23
 0.500    20.47    0.59      0.522  O       I       |       |       |      0.31
 0.583    23.56    0.75      0.669  O       |I      |       |       |      0.40
 0.667    27.75    0.95      0.840  O       |  I    |       |       |      0.50
 0.750    35.56    1.19      1.050  O       |     I |       |       |      0.62
 0.833    64.27    1.56      1.385  O       |       |       |I      |      0.82
 0.917    79.81    1.95      1.869  O       |       |       |       I      1.08
 1.000    40.78    2.03      2.270  O       |       I       |       |      1.27
 1.083    23.26    2.07      2.477  O       |I      |       |       |      1.37
 1.167    10.11    2.09      2.577  O   I   |       |       |       |      1.42
 1.250     5.47    2.10      2.617  O I     |       |       |       |      1.44
 1.333     3.23    2.10      2.632  OI      |       |       |       |      1.44
 1.417     0.82    2.10      2.632  O       |       |       |       |      1.44
 1.500     0.29    2.10      2.621  O       |       |       |       |      1.44
 1.583     0.00    2.10      2.607  O       |       |       |       |      1.43
 1.667     0.00    2.09      2.593  O       |       |       |       |      1.43
 1.750     0.00    2.09      2.579  O       |       |       |       |      1.42
 1.833     0.00    2.09      2.564  O       |       |       |       |      1.41
 1.917     0.00    2.08      2.550  O       |       |       |       |      1.41
 2.000     0.00    2.08      2.536  O       |       |       |       |      1.40
 2.083     0.00    2.08      2.521  O       |       |       |       |      1.39
 2.167     0.00    2.08      2.507  O       |       |       |       |      1.39
 2.250     0.00    2.07      2.493  O       |       |       |       |      1.38
 2.333     0.00    2.07      2.478  O       |       |       |       |      1.37
 2.417     0.00    2.07      2.464  O       |       |       |       |      1.36
 2.500     0.00    2.06      2.450  O       |       |       |       |      1.36
 2.583     0.00    2.06      2.436  O       |       |       |       |      1.35
 2.667     0.00    2.06      2.421  O       |       |       |       |      1.34
 2.750     0.00    2.06      2.407  O       |       |       |       |      1.34
 2.833     0.00    2.05      2.393  O       |       |       |       |      1.33
 2.917     0.00    2.05      2.379  O       |       |       |       |      1.32
 3.000     0.00    2.05      2.365  O       |       |       |       |      1.32
 3.083     0.00    2.04      2.351  O       |       |       |       |      1.31
 3.167     0.00    2.04      2.337  O       |       |       |       |      1.30
 3.250     0.00    2.04      2.323  O       |       |       |       |      1.30
 3.333     0.00    2.04      2.309  O       |       |       |       |      1.29
 3.417     0.00    2.03      2.295  O       |       |       |       |      1.28
 3.500     0.00    2.03      2.281  O       |       |       |       |      1.28
 3.583     0.00    2.03      2.267  O       |       |       |       |      1.27
 3.667     0.00    2.02      2.253  O       |       |       |       |      1.26
 3.750     0.00    2.02      2.239  O       |       |       |       |      1.26
 3.833     0.00    2.02      2.225  O       |       |       |       |      1.25
 3.917     0.00    2.02      2.211  O       |       |       |       |      1.25
 4.000     0.00    2.01      2.197  O       |       |       |       |      1.24
 4.083     0.00    2.01      2.183  O       |       |       |       |      1.23
 4.167     0.00    2.01      2.170  O       |       |       |       |      1.23
 4.250     0.00    2.00      2.156  O       |       |       |       |      1.22
 4.333     0.00    2.00      2.142  O       |       |       |       |      1.21
 4.417     0.00    2.00      2.128  O       |       |       |       |      1.21
 4.500     0.00    2.00      2.114  O       |       |       |       |      1.20
 4.583     0.00    1.99      2.101  O       |       |       |       |      1.19
 4.667     0.00    1.99      2.087  O       |       |       |       |      1.19
 4.750     0.00    1.99      2.073  O       |       |       |       |      1.18
 4.833     0.00    1.98      2.060  O       |       |       |       |      1.17
 4.917     0.00    1.98      2.046  O       |       |       |       |      1.17
 5.000     0.00    1.98      2.032  O       |       |       |       |      1.16
 5.083     0.00    1.98      2.019  O       |       |       |       |      1.15
 5.167     0.00    1.97      2.005  O       |       |       |       |      1.15
```

5.250	0.00	1.97	1.991	O	|	|	|	|	1.14
5.333	0.00	1.97	1.978	O	|	|	|	|	1.13
5.417	0.00	1.97	1.964	O	|	|	|	|	1.13
5.500	0.00	1.96	1.951	O	|	|	|	|	1.12
5.583	0.00	1.96	1.937	O	|	|	|	|	1.12
5.667	0.00	1.96	1.924	O	|	|	|	|	1.11
5.750	0.00	1.95	1.910	O	|	|	|	|	1.10
5.833	0.00	1.95	1.897	O	|	|	|	|	1.10
5.917	0.00	1.95	1.883	O	|	|	|	|	1.09
6.000	0.00	1.95	1.870	O	|	|	|	|	1.08
6.083	0.00	1.94	1.857	O	|	|	|	|	1.08
6.167	0.00	1.94	1.843	O	|	|	|	|	1.07
6.250	0.00	1.94	1.830	O	|	|	|	|	1.06
6.333	0.00	1.94	1.817	O	|	|	|	|	1.06
6.417	0.00	1.93	1.803	O	|	|	|	|	1.05
6.500	0.00	1.93	1.790	O	|	|	|	|	1.05
6.583	0.00	1.93	1.777	O	|	|	|	|	1.04
6.667	0.00	1.92	1.763	O	|	|	|	|	1.03
6.750	0.00	1.92	1.750	O	|	|	|	|	1.03
6.833	0.00	1.92	1.737	O	|	|	|	|	1.02
6.917	0.00	1.92	1.724	O	|	|	|	|	1.01
7.000	0.00	1.91	1.711	O	|	|	|	|	1.01
7.083	0.00	1.91	1.697	O	|	|	|	|	1.00
7.167	0.00	1.90	1.684	O	|	|	|	|	0.99
7.250	0.00	1.89	1.671	O	|	|	|	|	0.99
7.333	0.00	1.87	1.658	O	|	|	|	|	0.98
7.417	0.00	1.86	1.645	O	|	|	|	|	0.97
7.500	0.00	1.84	1.633	O	|	|	|	|	0.96
7.583	0.00	1.83	1.620	O	|	|	|	|	0.96
7.667	0.00	1.81	1.608	O	|	|	|	|	0.95
7.750	0.00	1.80	1.595	O	|	|	|	|	0.94
7.833	0.00	1.79	1.583	O	|	|	|	|	0.93
7.917	0.00	1.77	1.571	O	|	|	|	|	0.93
8.000	0.00	1.76	1.558	O	|	|	|	|	0.92
8.083	0.00	1.74	1.546	O	|	|	|	|	0.91
8.167	0.00	1.73	1.534	O	|	|	|	|	0.91
8.250	0.00	1.72	1.522	O	|	|	|	|	0.90
8.333	0.00	1.70	1.511	O	|	|	|	|	0.89
8.417	0.00	1.69	1.499	O	|	|	|	|	0.89
8.500	0.00	1.68	1.487	O	|	|	|	|	0.88
8.583	0.00	1.67	1.476	O	|	|	|	|	0.87
8.667	0.00	1.65	1.464	O	|	|	|	|	0.87
8.750	0.00	1.64	1.453	O	|	|	|	|	0.86
8.833	0.00	1.63	1.442	O	|	|	|	|	0.85
8.917	0.00	1.61	1.431	O	|	|	|	|	0.85
9.000	0.00	1.60	1.420	O	|	|	|	|	0.84
9.083	0.00	1.59	1.409	O	|	|	|	|	0.83
9.167	0.00	1.58	1.398	O	|	|	|	|	0.83
9.250	0.00	1.56	1.387	O	|	|	|	|	0.82
9.333	0.00	1.55	1.376	O	|	|	|	|	0.81
9.417	0.00	1.54	1.366	O	|	|	|	|	0.81
9.500	0.00	1.53	1.355	O	|	|	|	|	0.80
9.583	0.00	1.52	1.344	O	|	|	|	|	0.79
9.667	0.00	1.51	1.334	O	|	|	|	|	0.79
9.750	0.00	1.49	1.324	O	|	|	|	|	0.78
9.833	0.00	1.48	1.314	O	|	|	|	|	0.78
9.917	0.00	1.47	1.303	O	|	|	|	|	0.77
10.000	0.00	1.46	1.293	O	|	|	|	|	0.76
10.083	0.00	1.45	1.283	O	|	|	|	|	0.76
10.167	0.00	1.44	1.273	O	|	|	|	|	0.75
10.250	0.00	1.43	1.263	O	|	|	|	|	0.75
10.333	0.00	1.41	1.254	O	|	|	|	|	0.74
10.417	0.00	1.40	1.244	O	|	|	|	|	0.73
10.500	0.00	1.39	1.234	O	|	|	|	|	0.73
10.583	0.00	1.38	1.225	O	|	|	|	|	0.72
10.667	0.00	1.37	1.215	O	|	|	|	|	0.72

10.750	0.00	1.36	1.206	O	|	|	|	|	0.71
10.833	0.00	1.35	1.197	O	|	|	|	|	0.71
10.917	0.00	1.34	1.187	O	|	|	|	|	0.70
11.000	0.00	1.33	1.178	O	|	|	|	|	0.70
11.083	0.00	1.32	1.169	O	|	|	|	|	0.69
11.167	0.00	1.31	1.160	O	|	|	|	|	0.69
11.250	0.00	1.30	1.151	O	|	|	|	|	0.68
11.333	0.00	1.29	1.142	O	|	|	|	|	0.67
11.417	0.00	1.28	1.133	O	|	|	|	|	0.67
11.500	0.00	1.27	1.124	O	|	|	|	|	0.66
11.583	0.00	1.26	1.116	O	|	|	|	|	0.66
11.667	0.00	1.25	1.107	O	|	|	|	|	0.65
11.750	0.00	1.24	1.099	O	|	|	|	|	0.65
11.833	0.00	1.23	1.090	O	|	|	|	|	0.64
11.917	0.00	1.22	1.082	O	|	|	|	|	0.64
12.000	0.00	1.21	1.073	O	|	|	|	|	0.63
12.083	0.00	1.20	1.065	O	|	|	|	|	0.63
12.167	0.00	1.19	1.057	O	|	|	|	|	0.62
12.250	0.00	1.18	1.049	O	|	|	|	|	0.62
12.333	0.00	1.17	1.040	O	|	|	|	|	0.61
12.417	0.00	1.16	1.032	O	|	|	|	|	0.61
12.500	0.00	1.16	1.024	O	|	|	|	|	0.61
12.583	0.00	1.15	1.016	O	|	|	|	|	0.60
12.667	0.00	1.14	1.009	O	|	|	|	|	0.60
12.750	0.00	1.13	1.001	O	|	|	|	|	0.59
12.833	0.00	1.12	0.993	O	|	|	|	|	0.59
12.917	0.00	1.11	0.985	O	|	|	|	|	0.58
13.000	0.00	1.10	0.978	O	|	|	|	|	0.58
13.083	0.00	1.09	0.970	O	|	|	|	|	0.57
13.167	0.00	1.09	0.963	O	|	|	|	|	0.57
13.250	0.00	1.08	0.955	O	|	|	|	|	0.56
13.333	0.00	1.07	0.948	O	|	|	|	|	0.56
13.417	0.00	1.06	0.940	O	|	|	|	|	0.56
13.500	0.00	1.05	0.933	O	|	|	|	|	0.55
13.583	0.00	1.04	0.926	O	|	|	|	|	0.55
13.667	0.00	1.04	0.919	O	|	|	|	|	0.54
13.750	0.00	1.03	0.912	O	|	|	|	|	0.54
13.833	0.00	1.02	0.905	O	|	|	|	|	0.53
13.917	0.00	1.01	0.898	O	|	|	|	|	0.53
14.000	0.00	1.00	0.891	O	|	|	|	|	0.53
14.083	0.00	1.00	0.884	O	|	|	|	|	0.52
14.167	0.00	0.99	0.877	O	|	|	|	|	0.52
14.250	0.00	0.98	0.870	O	|	|	|	|	0.51
14.333	0.00	0.97	0.863	O	|	|	|	|	0.51
14.417	0.00	0.97	0.857	O	|	|	|	|	0.51
14.500	0.00	0.96	0.850	O	|	|	|	|	0.50
14.583	0.00	0.95	0.844	O	|	|	|	|	0.50
14.667	0.00	0.94	0.837	O	|	|	|	|	0.49
14.750	0.00	0.94	0.831	O	|	|	|	|	0.49
14.833	0.00	0.93	0.824	O	|	|	|	|	0.49
14.917	0.00	0.92	0.818	O	|	|	|	|	0.48
15.000	0.00	0.92	0.811	O	|	|	|	|	0.48
15.083	0.00	0.91	0.805	O	|	|	|	|	0.48
15.167	0.00	0.90	0.799	O	|	|	|	|	0.47
15.250	0.00	0.89	0.793	O	|	|	|	|	0.47
15.333	0.00	0.89	0.787	O	|	|	|	|	0.46
15.417	0.00	0.88	0.780	O	|	|	|	|	0.46
15.500	0.00	0.87	0.774	O	|	|	|	|	0.46
15.583	0.00	0.87	0.768	O	|	|	|	|	0.45
15.667	0.00	0.86	0.762	O	|	|	|	|	0.45
15.750	0.00	0.85	0.757	O	|	|	|	|	0.45
15.833	0.00	0.85	0.751	O	|	|	|	|	0.44
15.917	0.00	0.84	0.745	O	|	|	|	|	0.44
16.000	0.00	0.83	0.739	O	|	|	|	|	0.44
16.083	0.00	0.83	0.733	O	|	|	|	|	0.43
16.167	0.00	0.82	0.728	O	|	|	|	|	0.43

16.250	0.00	0.81	0.722	O	|	|	|	|	0.43
16.333	0.00	0.81	0.717	O	|	|	|	|	0.42
16.417	0.00	0.80	0.711	O	|	|	|	|	0.42
16.500	0.00	0.80	0.705	O	|	|	|	|	0.42
16.583	0.00	0.79	0.700	O	|	|	|	|	0.41
16.667	0.00	0.78	0.695	O	|	|	|	|	0.41
16.750	0.00	0.78	0.689	O	|	|	|	|	0.41
16.833	0.00	0.77	0.684	O	|	|	|	|	0.40
16.917	0.00	0.77	0.679	O	|	|	|	|	0.40
17.000	0.00	0.76	0.673	O	|	|	|	|	0.40
17.083	0.00	0.75	0.668	O	|	|	|	|	0.39
17.167	0.00	0.75	0.663	O	|	|	|	|	0.39
17.250	0.00	0.74	0.658	O	|	|	|	|	0.39
17.333	0.00	0.74	0.653	O	|	|	|	|	0.39
17.417	0.00	0.73	0.648	O	|	|	|	|	0.38
17.500	0.00	0.73	0.643	O	|	|	|	|	0.38
17.583	0.00	0.72	0.638	O	|	|	|	|	0.38
17.667	0.00	0.71	0.633	O	|	|	|	|	0.37
17.750	0.00	0.71	0.628	O	|	|	|	|	0.37
17.833	0.00	0.70	0.623	O	|	|	|	|	0.37
17.917	0.00	0.70	0.618	O	|	|	|	|	0.37
18.000	0.00	0.69	0.613	O	|	|	|	|	0.36
18.083	0.00	0.69	0.609	O	|	|	|	|	0.36
18.167	0.00	0.68	0.604	O	|	|	|	|	0.36
18.250	0.00	0.68	0.599	O	|	|	|	|	0.35
18.333	0.00	0.67	0.595	O	|	|	|	|	0.35
18.417	0.00	0.67	0.590	O	|	|	|	|	0.35
18.500	0.00	0.66	0.585	O	|	|	|	|	0.35
18.583	0.00	0.66	0.581	O	|	|	|	|	0.34
18.667	0.00	0.65	0.576	O	|	|	|	|	0.34
18.750	0.00	0.65	0.572	O	|	|	|	|	0.34
18.833	0.00	0.64	0.568	O	|	|	|	|	0.34
18.917	0.00	0.64	0.563	O	|	|	|	|	0.33
19.000	0.00	0.63	0.559	O	|	|	|	|	0.33
19.083	0.00	0.63	0.554	O	|	|	|	|	0.33
19.167	0.00	0.62	0.550	O	|	|	|	|	0.32
19.250	0.00	0.62	0.546	O	|	|	|	|	0.32
19.333	0.00	0.61	0.542	O	|	|	|	|	0.32
19.417	0.00	0.61	0.538	O	|	|	|	|	0.32
19.500	0.00	0.60	0.533	O	|	|	|	|	0.32
19.583	0.00	0.60	0.529	O	|	|	|	|	0.31
19.667	0.00	0.59	0.525	O	|	|	|	|	0.31
19.750	0.00	0.59	0.521	O	|	|	|	|	0.31
19.833	0.00	0.58	0.517	O	|	|	|	|	0.31
19.917	0.00	0.58	0.513	O	|	|	|	|	0.30
20.000	0.00	0.57	0.509	O	|	|	|	|	0.30
20.083	0.00	0.57	0.505	O	|	|	|	|	0.30
20.167	0.00	0.57	0.501	O	|	|	|	|	0.30
20.250	0.00	0.56	0.497	O	|	|	|	|	0.29
20.333	0.00	0.56	0.493	O	|	|	|	|	0.29
20.417	0.00	0.55	0.490	O	|	|	|	|	0.29
20.500	0.00	0.55	0.486	O	|	|	|	|	0.29
20.583	0.00	0.54	0.482	O	|	|	|	|	0.28
20.667	0.00	0.54	0.478	O	|	|	|	|	0.28
20.750	0.00	0.54	0.475	O	|	|	|	|	0.28
20.833	0.00	0.53	0.471	O	|	|	|	|	0.28
20.917	0.00	0.53	0.467	O	|	|	|	|	0.28
21.000	0.00	0.52	0.464	O	|	|	|	|	0.27
21.083	0.00	0.52	0.460	O	|	|	|	|	0.27
21.167	0.00	0.52	0.457	O	|	|	|	|	0.27
21.250	0.00	0.51	0.453	O	|	|	|	|	0.27
21.333	0.00	0.51	0.450	O	|	|	|	|	0.27
21.417	0.00	0.50	0.446	O	|	|	|	|	0.26
21.500	0.00	0.50	0.443	O	|	|	|	|	0.26
21.583	0.00	0.50	0.439	O	|	|	|	|	0.26
21.667	0.00	0.49	0.436	O	|	|	|	|	0.26

21.750	0.00	0.49	0.432	O	|	|	|	|	0.26
21.833	0.00	0.48	0.429	O	|	|	|	|	0.25
21.917	0.00	0.48	0.426	O	|	|	|	|	0.25
22.000	0.00	0.48	0.422	O	|	|	|	|	0.25
22.083	0.00	0.47	0.419	O	|	|	|	|	0.25
22.167	0.00	0.47	0.416	O	|	|	|	|	0.25
22.250	0.00	0.47	0.413	O	|	|	|	|	0.24
22.333	0.00	0.46	0.410	O	|	|	|	|	0.24
22.417	0.00	0.46	0.406	O	|	|	|	|	0.24
22.500	0.00	0.45	0.403	O	|	|	|	|	0.24
22.583	0.00	0.45	0.400	O	|	|	|	|	0.24
22.667	0.00	0.45	0.397	O	|	|	|	|	0.23
22.750	0.00	0.44	0.394	O	|	|	|	|	0.23
22.833	0.00	0.44	0.391	O	|	|	|	|	0.23
22.917	0.00	0.44	0.388	O	|	|	|	|	0.23
23.000	0.00	0.43	0.385	O	|	|	|	|	0.23
23.083	0.00	0.43	0.382	O	|	|	|	|	0.23
23.167	0.00	0.43	0.379	O	|	|	|	|	0.22
23.250	0.00	0.42	0.376	O	|	|	|	|	0.22
23.333	0.00	0.42	0.373	O	|	|	|	|	0.22
23.417	0.00	0.42	0.370	O	|	|	|	|	0.22
23.500	0.00	0.41	0.367	O	|	|	|	|	0.22
23.583	0.00	0.41	0.364	O	|	|	|	|	0.22
23.667	0.00	0.41	0.362	O	|	|	|	|	0.21
23.750	0.00	0.40	0.359	O	|	|	|	|	0.21
23.833	0.00	0.40	0.356	O	|	|	|	|	0.21
23.917	0.00	0.40	0.353	O	|	|	|	|	0.21
24.000	0.00	0.40	0.351	O	|	|	|	|	0.21
24.083	0.00	0.39	0.348	O	|	|	|	|	0.21
24.167	0.00	0.39	0.345	O	|	|	|	|	0.20
24.250	0.00	0.39	0.343	O	|	|	|	|	0.20
24.333	0.00	0.38	0.340	O	|	|	|	|	0.20
24.417	0.00	0.38	0.337	O	|	|	|	|	0.20
24.500	0.00	0.38	0.335	O	|	|	|	|	0.20
24.583	0.00	0.37	0.332	O	|	|	|	|	0.20
24.667	0.00	0.37	0.329	O	|	|	|	|	0.19
24.750	0.00	0.37	0.327	O	|	|	|	|	0.19
24.833	0.00	0.37	0.324	O	|	|	|	|	0.19
24.917	0.00	0.36	0.322	O	|	|	|	|	0.19
25.000	0.00	0.36	0.319	O	|	|	|	|	0.19
25.083	0.00	0.36	0.317	O	|	|	|	|	0.19
25.167	0.00	0.35	0.314	O	|	|	|	|	0.19
25.250	0.00	0.35	0.312	O	|	|	|	|	0.18
25.333	0.00	0.35	0.310	O	|	|	|	|	0.18
25.417	0.00	0.35	0.307	O	|	|	|	|	0.18
25.500	0.00	0.34	0.305	O	|	|	|	|	0.18
25.583	0.00	0.34	0.302	O	|	|	|	|	0.18
25.667	0.00	0.34	0.300	O	|	|	|	|	0.18
25.750	0.00	0.34	0.298	O	|	|	|	|	0.18
25.833	0.00	0.33	0.295	O	|	|	|	|	0.17
25.917	0.00	0.33	0.293	O	|	|	|	|	0.17
26.000	0.00	0.33	0.291	O	|	|	|	|	0.17
26.083	0.00	0.33	0.289	O	|	|	|	|	0.17
26.167	0.00	0.32	0.286	O	|	|	|	|	0.17
26.250	0.00	0.32	0.284	O	|	|	|	|	0.17
26.333	0.00	0.32	0.282	O	|	|	|	|	0.17
26.417	0.00	0.32	0.280	O	|	|	|	|	0.17
26.500	0.00	0.31	0.278	O	|	|	|	|	0.16
26.583	0.00	0.31	0.276	O	|	|	|	|	0.16
26.667	0.00	0.31	0.273	O	|	|	|	|	0.16
26.750	0.00	0.31	0.271	O	|	|	|	|	0.16
26.833	0.00	0.30	0.269	O	|	|	|	|	0.16
26.917	0.00	0.30	0.267	O	|	|	|	|	0.16
27.000	0.00	0.30	0.265	O	|	|	|	|	0.16
27.083	0.00	0.30	0.263	O	|	|	|	|	0.16
27.167	0.00	0.29	0.261	O	|	|	|	|	0.15

27.250	0.00	0.29	0.259	O	|	|	|	|	0.15
27.333	0.00	0.29	0.257	O	|	|	|	|	0.15
27.417	0.00	0.29	0.255	O	|	|	|	|	0.15
27.500	0.00	0.29	0.253	O	|	|	|	|	0.15
27.583	0.00	0.28	0.251	O	|	|	|	|	0.15
27.667	0.00	0.28	0.249	O	|	|	|	|	0.15
27.750	0.00	0.28	0.247	O	|	|	|	|	0.15
27.833	0.00	0.28	0.245	O	|	|	|	|	0.14
27.917	0.00	0.27	0.243	O	|	|	|	|	0.14
28.000	0.00	0.27	0.241	O	|	|	|	|	0.14
28.083	0.00	0.27	0.240	O	|	|	|	|	0.14
28.167	0.00	0.27	0.238	O	|	|	|	|	0.14
28.250	0.00	0.27	0.236	O	|	|	|	|	0.14
28.333	0.00	0.26	0.234	O	|	|	|	|	0.14
28.417	0.00	0.26	0.232	O	|	|	|	|	0.14
28.500	0.00	0.26	0.230	O	|	|	|	|	0.14
28.583	0.00	0.26	0.229	O	|	|	|	|	0.14
28.667	0.00	0.26	0.227	O	|	|	|	|	0.13
28.750	0.00	0.25	0.225	O	|	|	|	|	0.13
28.833	0.00	0.25	0.223	O	|	|	|	|	0.13
28.917	0.00	0.25	0.222	O	|	|	|	|	0.13
29.000	0.00	0.25	0.220	O	|	|	|	|	0.13
29.083	0.00	0.25	0.218	O	|	|	|	|	0.13
29.167	0.00	0.24	0.217	O	|	|	|	|	0.13
29.250	0.00	0.24	0.215	O	|	|	|	|	0.13
29.333	0.00	0.24	0.213	O	|	|	|	|	0.13
29.417	0.00	0.24	0.212	O	|	|	|	|	0.12
29.500	0.00	0.24	0.210	O	|	|	|	|	0.12
29.583	0.00	0.24	0.208	O	|	|	|	|	0.12
29.667	0.00	0.23	0.207	O	|	|	|	|	0.12
29.750	0.00	0.23	0.205	O	|	|	|	|	0.12
29.833	0.00	0.23	0.204	O	|	|	|	|	0.12
29.917	0.00	0.23	0.202	O	|	|	|	|	0.12
30.000	0.00	0.23	0.200	O	|	|	|	|	0.12
30.083	0.00	0.22	0.199	O	|	|	|	|	0.12
30.167	0.00	0.22	0.197	O	|	|	|	|	0.12
30.250	0.00	0.22	0.196	O	|	|	|	|	0.12
30.333	0.00	0.22	0.194	O	|	|	|	|	0.11
30.417	0.00	0.22	0.193	O	|	|	|	|	0.11
30.500	0.00	0.22	0.191	O	|	|	|	|	0.11
30.583	0.00	0.21	0.190	O	|	|	|	|	0.11
30.667	0.00	0.21	0.188	O	|	|	|	|	0.11
30.750	0.00	0.21	0.187	O	|	|	|	|	0.11
30.833	0.00	0.21	0.185	O	|	|	|	|	0.11
30.917	0.00	0.21	0.184	O	|	|	|	|	0.11
31.000	0.00	0.21	0.183	O	|	|	|	|	0.11
31.083	0.00	0.20	0.181	O	|	|	|	|	0.11
31.167	0.00	0.20	0.180	O	|	|	|	|	0.11
31.250	0.00	0.20	0.178	O	|	|	|	|	0.11
31.333	0.00	0.20	0.177	O	|	|	|	|	0.10
31.417	0.00	0.20	0.176	O	|	|	|	|	0.10
31.500	0.00	0.20	0.174	O	|	|	|	|	0.10
31.583	0.00	0.20	0.173	O	|	|	|	|	0.10
31.667	0.00	0.19	0.172	O	|	|	|	|	0.10
31.750	0.00	0.19	0.170	O	|	|	|	|	0.10
31.833	0.00	0.19	0.169	O	|	|	|	|	0.10
31.917	0.00	0.19	0.168	O	|	|	|	|	0.10
32.000	0.00	0.19	0.166	O	|	|	|	|	0.10
32.083	0.00	0.19	0.165	O	|	|	|	|	0.10
32.167	0.00	0.18	0.164	O	|	|	|	|	0.10
32.250	0.00	0.18	0.162	O	|	|	|	|	0.10
32.333	0.00	0.18	0.161	O	|	|	|	|	0.10
32.417	0.00	0.18	0.160	O	|	|	|	|	0.09
32.500	0.00	0.18	0.159	O	|	|	|	|	0.09
32.583	0.00	0.18	0.157	O	|	|	|	|	0.09
32.667	0.00	0.18	0.156	O	|	|	|	|	0.09

32.750	0.00	0.17	0.155	O	0.09
32.833	0.00	0.17	0.154	O	0.09
32.917	0.00	0.17	0.153	O	0.09
33.000	0.00	0.17	0.151	O	0.09
33.083	0.00	0.17	0.150	O	0.09
33.167	0.00	0.17	0.149	O	0.09
33.250	0.00	0.17	0.148	O	0.09
33.333	0.00	0.17	0.147	O	0.09
33.417	0.00	0.16	0.146	O	0.09
33.500	0.00	0.16	0.145	O	0.09
33.583	0.00	0.16	0.143	O	0.08
33.667	0.00	0.16	0.142	O	0.08
33.750	0.00	0.16	0.141	O	0.08
33.833	0.00	0.16	0.140	O	0.08
33.917	0.00	0.16	0.139	O	0.08
34.000	0.00	0.16	0.138	O	0.08
34.083	0.00	0.15	0.137	O	0.08
34.167	0.00	0.15	0.136	O	0.08
34.250	0.00	0.15	0.135	O	0.08
34.333	0.00	0.15	0.134	O	0.08
34.417	0.00	0.15	0.133	O	0.08
34.500	0.00	0.15	0.132	O	0.08
34.583	0.00	0.15	0.131	O	0.08
34.667	0.00	0.15	0.130	O	0.08
34.750	0.00	0.15	0.129	O	0.08
34.833	0.00	0.14	0.128	O	0.08
34.917	0.00	0.14	0.127	O	0.07
35.000	0.00	0.14	0.126	O	0.07
35.083	0.00	0.14	0.125	O	0.07
35.167	0.00	0.14	0.124	O	0.07
35.250	0.00	0.14	0.123	O	0.07
35.333	0.00	0.14	0.122	O	0.07
35.417	0.00	0.14	0.121	O	0.07
35.500	0.00	0.14	0.120	O	0.07
35.583	0.00	0.13	0.119	O	0.07
35.667	0.00	0.13	0.118	O	0.07
35.750	0.00	0.13	0.117	O	0.07
35.833	0.00	0.13	0.116	O	0.07
35.917	0.00	0.13	0.115	O	0.07
36.000	0.00	0.13	0.115	O	0.07
36.083	0.00	0.13	0.114	O	0.07
36.167	0.00	0.13	0.113	O	0.07
36.250	0.00	0.13	0.112	O	0.07
36.333	0.00	0.13	0.111	O	0.07
36.417	0.00	0.12	0.110	O	0.07
36.500	0.00	0.12	0.109	O	0.06
36.583	0.00	0.12	0.108	O	0.06
36.667	0.00	0.12	0.108	O	0.06
36.750	0.00	0.12	0.107	O	0.06
36.833	0.00	0.12	0.106	O	0.06
36.917	0.00	0.12	0.105	O	0.06
37.000	0.00	0.12	0.104	O	0.06
37.083	0.00	0.12	0.104	O	0.06
37.167	0.00	0.12	0.103	O	0.06
37.250	0.00	0.11	0.102	O	0.06
37.333	0.00	0.11	0.101	O	0.06
37.417	0.00	0.11	0.100	O	0.06
37.500	0.00	0.11	0.100	O	0.06
37.583	0.00	0.11	0.099	O	0.06
37.667	0.00	0.11	0.098	O	0.06
37.750	0.00	0.11	0.097	O	0.06
37.833	0.00	0.11	0.097	O	0.06
37.917	0.00	0.11	0.096	O	0.06
38.000	0.00	0.11	0.095	O	0.06
38.083	0.00	0.11	0.094	O	0.06
38.167	0.00	0.11	0.094	O	0.06

38.250	0.00	0.10	0.093	O	|	|	|	|	0.05
38.333	0.00	0.10	0.092	O	|	|	|	|	0.05
38.417	0.00	0.10	0.091	O	|	|	|	|	0.05
38.500	0.00	0.10	0.091	O	|	|	|	|	0.05
38.583	0.00	0.10	0.090	O	|	|	|	|	0.05
38.667	0.00	0.10	0.089	O	|	|	|	|	0.05
38.750	0.00	0.10	0.089	O	|	|	|	|	0.05
38.833	0.00	0.10	0.088	O	|	|	|	|	0.05
38.917	0.00	0.10	0.087	O	|	|	|	|	0.05
39.000	0.00	0.10	0.087	O	|	|	|	|	0.05
39.083	0.00	0.10	0.086	O	|	|	|	|	0.05
39.167	0.00	0.10	0.085	O	|	|	|	|	0.05
39.250	0.00	0.10	0.085	O	|	|	|	|	0.05
39.333	0.00	0.09	0.084	O	|	|	|	|	0.05
39.417	0.00	0.09	0.083	O	|	|	|	|	0.05
39.500	0.00	0.09	0.083	O	|	|	|	|	0.05
39.583	0.00	0.09	0.082	O	|	|	|	|	0.05
39.667	0.00	0.09	0.081	O	|	|	|	|	0.05
39.750	0.00	0.09	0.081	O	|	|	|	|	0.05
39.833	0.00	0.09	0.080	O	|	|	|	|	0.05
39.917	0.00	0.09	0.079	O	|	|	|	|	0.05
40.000	0.00	0.09	0.079	O	|	|	|	|	0.05
40.083	0.00	0.09	0.078	O	|	|	|	|	0.05
40.167	0.00	0.09	0.078	O	|	|	|	|	0.05
40.250	0.00	0.09	0.077	O	|	|	|	|	0.05
40.333	0.00	0.09	0.076	O	|	|	|	|	0.05
40.417	0.00	0.09	0.076	O	|	|	|	|	0.04
40.500	0.00	0.08	0.075	O	|	|	|	|	0.04
40.583	0.00	0.08	0.075	O	|	|	|	|	0.04
40.667	0.00	0.08	0.074	O	|	|	|	|	0.04
40.750	0.00	0.08	0.074	O	|	|	|	|	0.04
40.833	0.00	0.08	0.073	O	|	|	|	|	0.04
40.917	0.00	0.08	0.072	O	|	|	|	|	0.04
41.000	0.00	0.08	0.072	O	|	|	|	|	0.04
41.083	0.00	0.08	0.071	O	|	|	|	|	0.04
41.167	0.00	0.08	0.071	O	|	|	|	|	0.04
41.250	0.00	0.08	0.070	O	|	|	|	|	0.04
41.333	0.00	0.08	0.070	O	|	|	|	|	0.04
41.417	0.00	0.08	0.069	O	|	|	|	|	0.04
41.500	0.00	0.08	0.069	O	|	|	|	|	0.04
41.583	0.00	0.08	0.068	O	|	|	|	|	0.04
41.667	0.00	0.08	0.068	O	|	|	|	|	0.04
41.750	0.00	0.08	0.067	O	|	|	|	|	0.04
41.833	0.00	0.07	0.066	O	|	|	|	|	0.04
41.917	0.00	0.07	0.066	O	|	|	|	|	0.04
42.000	0.00	0.07	0.065	O	|	|	|	|	0.04
42.083	0.00	0.07	0.065	O	|	|	|	|	0.04
42.167	0.00	0.07	0.064	O	|	|	|	|	0.04
42.250	0.00	0.07	0.064	O	|	|	|	|	0.04
42.333	0.00	0.07	0.063	O	|	|	|	|	0.04
42.417	0.00	0.07	0.063	O	|	|	|	|	0.04
42.500	0.00	0.07	0.062	O	|	|	|	|	0.04
42.583	0.00	0.07	0.062	O	|	|	|	|	0.04
42.667	0.00	0.07	0.062	O	|	|	|	|	0.04
42.750	0.00	0.07	0.061	O	|	|	|	|	0.04
42.833	0.00	0.07	0.061	O	|	|	|	|	0.04
42.917	0.00	0.07	0.060	O	|	|	|	|	0.04
43.000	0.00	0.07	0.060	O	|	|	|	|	0.04
43.083	0.00	0.07	0.059	O	|	|	|	|	0.03
43.167	0.00	0.07	0.059	O	|	|	|	|	0.03
43.250	0.00	0.07	0.058	O	|	|	|	|	0.03
43.333	0.00	0.07	0.058	O	|	|	|	|	0.03
43.417	0.00	0.06	0.057	O	|	|	|	|	0.03
43.500	0.00	0.06	0.057	O	|	|	|	|	0.03
43.583	0.00	0.06	0.056	O	|	|	|	|	0.03
43.667	0.00	0.06	0.056	O	|	|	|	|	0.03

43.750	0.00	0.06	0.056	O	|	|	|	|	0.03
43.833	0.00	0.06	0.055	O	|	|	|	|	0.03
43.917	0.00	0.06	0.055	O	|	|	|	|	0.03
44.000	0.00	0.06	0.054	O	|	|	|	|	0.03
44.083	0.00	0.06	0.054	O	|	|	|	|	0.03
44.167	0.00	0.06	0.053	O	|	|	|	|	0.03
44.250	0.00	0.06	0.053	O	|	|	|	|	0.03
44.333	0.00	0.06	0.053	O	|	|	|	|	0.03
44.417	0.00	0.06	0.052	O	|	|	|	|	0.03
44.500	0.00	0.06	0.052	O	|	|	|	|	0.03
44.583	0.00	0.06	0.051	O	|	|	|	|	0.03
44.667	0.00	0.06	0.051	O	|	|	|	|	0.03
44.750	0.00	0.06	0.051	O	|	|	|	|	0.03
44.833	0.00	0.06	0.050	O	|	|	|	|	0.03
44.917	0.00	0.06	0.050	O	|	|	|	|	0.03
45.000	0.00	0.06	0.049	O	|	|	|	|	0.03
45.083	0.00	0.06	0.049	O	|	|	|	|	0.03
45.167	0.00	0.05	0.049	O	|	|	|	|	0.03
45.250	0.00	0.05	0.048	O	|	|	|	|	0.03
45.333	0.00	0.05	0.048	O	|	|	|	|	0.03
45.417	0.00	0.05	0.048	O	|	|	|	|	0.03
45.500	0.00	0.05	0.047	O	|	|	|	|	0.03
45.583	0.00	0.05	0.047	O	|	|	|	|	0.03
45.667	0.00	0.05	0.046	O	|	|	|	|	0.03
45.750	0.00	0.05	0.046	O	|	|	|	|	0.03
45.833	0.00	0.05	0.046	O	|	|	|	|	0.03
45.917	0.00	0.05	0.045	O	|	|	|	|	0.03
46.000	0.00	0.05	0.045	O	|	|	|	|	0.03
46.083	0.00	0.05	0.045	O	|	|	|	|	0.03
46.167	0.00	0.05	0.044	O	|	|	|	|	0.03
46.250	0.00	0.05	0.044	O	|	|	|	|	0.03
46.333	0.00	0.05	0.044	O	|	|	|	|	0.03
46.417	0.00	0.05	0.043	O	|	|	|	|	0.03
46.500	0.00	0.05	0.043	O	|	|	|	|	0.03
46.583	0.00	0.05	0.043	O	|	|	|	|	0.03
46.667	0.00	0.05	0.042	O	|	|	|	|	0.03
46.750	0.00	0.05	0.042	O	|	|	|	|	0.02
46.833	0.00	0.05	0.042	O	|	|	|	|	0.02
46.917	0.00	0.05	0.041	O	|	|	|	|	0.02
47.000	0.00	0.05	0.041	O	|	|	|	|	0.02
47.083	0.00	0.05	0.041	O	|	|	|	|	0.02
47.167	0.00	0.05	0.040	O	|	|	|	|	0.02
47.250	0.00	0.05	0.040	O	|	|	|	|	0.02
47.333	0.00	0.04	0.040	O	|	|	|	|	0.02
47.417	0.00	0.04	0.039	O	|	|	|	|	0.02
47.500	0.00	0.04	0.039	O	|	|	|	|	0.02
47.583	0.00	0.04	0.039	O	|	|	|	|	0.02
47.667	0.00	0.04	0.039	O	|	|	|	|	0.02
47.750	0.00	0.04	0.038	O	|	|	|	|	0.02
47.833	0.00	0.04	0.038	O	|	|	|	|	0.02
47.917	0.00	0.04	0.038	O	|	|	|	|	0.02
48.000	0.00	0.04	0.037	O	|	|	|	|	0.02
48.083	0.00	0.04	0.037	O	|	|	|	|	0.02
48.167	0.00	0.04	0.037	O	|	|	|	|	0.02
48.250	0.00	0.04	0.037	O	|	|	|	|	0.02
48.333	0.00	0.04	0.036	O	|	|	|	|	0.02
48.417	0.00	0.04	0.036	O	|	|	|	|	0.02
48.500	0.00	0.04	0.036	O	|	|	|	|	0.02
48.583	0.00	0.04	0.035	O	|	|	|	|	0.02
48.667	0.00	0.04	0.035	O	|	|	|	|	0.02
48.750	0.00	0.04	0.035	O	|	|	|	|	0.02
48.833	0.00	0.04	0.035	O	|	|	|	|	0.02
48.917	0.00	0.04	0.034	O	|	|	|	|	0.02
49.000	0.00	0.04	0.034	O	|	|	|	|	0.02
49.083	0.00	0.04	0.034	O	|	|	|	|	0.02
49.167	0.00	0.04	0.034	O	|	|	|	|	0.02

49.250	0.00	0.04	0.033	O	0.02
49.333	0.00	0.04	0.033	O	0.02
49.417	0.00	0.04	0.033	O	0.02
49.500	0.00	0.04	0.033	O	0.02
49.583	0.00	0.04	0.032	O	0.02
49.667	0.00	0.04	0.032	O	0.02
49.750	0.00	0.04	0.032	O	0.02
49.833	0.00	0.04	0.032	O	0.02
49.917	0.00	0.04	0.031	O	0.02
50.000	0.00	0.04	0.031	O	0.02
50.083	0.00	0.03	0.031	O	0.02
50.167	0.00	0.03	0.031	O	0.02
50.250	0.00	0.03	0.030	O	0.02
50.333	0.00	0.03	0.030	O	0.02
50.417	0.00	0.03	0.030	O	0.02
50.500	0.00	0.03	0.030	O	0.02
50.583	0.00	0.03	0.029	O	0.02
50.667	0.00	0.03	0.029	O	0.02
50.750	0.00	0.03	0.029	O	0.02
50.833	0.00	0.03	0.029	O	0.02
50.917	0.00	0.03	0.029	O	0.02
51.000	0.00	0.03	0.028	O	0.02
51.083	0.00	0.03	0.028	O	0.02
51.167	0.00	0.03	0.028	O	0.02
51.250	0.00	0.03	0.028	O	0.02
51.333	0.00	0.03	0.027	O	0.02
51.417	0.00	0.03	0.027	O	0.02
51.500	0.00	0.03	0.027	O	0.02
51.583	0.00	0.03	0.027	O	0.02
51.667	0.00	0.03	0.027	O	0.02
51.750	0.00	0.03	0.026	O	0.02
51.833	0.00	0.03	0.026	O	0.02
51.917	0.00	0.03	0.026	O	0.02
52.000	0.00	0.03	0.026	O	0.02
52.083	0.00	0.03	0.026	O	0.02
52.167	0.00	0.03	0.025	O	0.01
52.250	0.00	0.03	0.025	O	0.01
52.333	0.00	0.03	0.025	O	0.01
52.417	0.00	0.03	0.025	O	0.01
52.500	0.00	0.03	0.025	O	0.01
52.583	0.00	0.03	0.024	O	0.01
52.667	0.00	0.03	0.024	O	0.01
52.750	0.00	0.03	0.024	O	0.01
52.833	0.00	0.03	0.024	O	0.01
52.917	0.00	0.03	0.024	O	0.01
53.000	0.00	0.03	0.023	O	0.01
53.083	0.00	0.03	0.023	O	0.01
53.167	0.00	0.03	0.023	O	0.01
53.250	0.00	0.03	0.023	O	0.01
53.333	0.00	0.03	0.023	O	0.01
53.417	0.00	0.03	0.023	O	0.01
53.500	0.00	0.03	0.022	O	0.01
53.583	0.00	0.03	0.022	O	0.01
53.667	0.00	0.02	0.022	O	0.01
53.750	0.00	0.02	0.022	O	0.01
53.833	0.00	0.02	0.022	O	0.01
53.917	0.00	0.02	0.022	O	0.01
54.000	0.00	0.02	0.021	O	0.01
54.083	0.00	0.02	0.021	O	0.01
54.167	0.00	0.02	0.021	O	0.01
54.250	0.00	0.02	0.021	O	0.01
54.333	0.00	0.02	0.021	O	0.01
54.417	0.00	0.02	0.021	O	0.01
54.500	0.00	0.02	0.020	O	0.01
54.583	0.00	0.02	0.020	O	0.01
54.667	0.00	0.02	0.020	O	0.01

54.750	0.00	0.02	0.020	O	|	|	|	|	0.01
54.833	0.00	0.02	0.020	O	|	|	|	|	0.01
54.917	0.00	0.02	0.020	O	|	|	|	|	0.01
55.000	0.00	0.02	0.019	O	|	|	|	|	0.01
55.083	0.00	0.02	0.019	O	|	|	|	|	0.01
55.167	0.00	0.02	0.019	O	|	|	|	|	0.01
55.250	0.00	0.02	0.019	O	|	|	|	|	0.01
55.333	0.00	0.02	0.019	O	|	|	|	|	0.01
55.417	0.00	0.02	0.019	O	|	|	|	|	0.01
55.500	0.00	0.02	0.019	O	|	|	|	|	0.01
55.583	0.00	0.02	0.018	O	|	|	|	|	0.01
55.667	0.00	0.02	0.018	O	|	|	|	|	0.01
55.750	0.00	0.02	0.018	O	|	|	|	|	0.01
55.833	0.00	0.02	0.018	O	|	|	|	|	0.01
55.917	0.00	0.02	0.018	O	|	|	|	|	0.01
56.000	0.00	0.02	0.018	O	|	|	|	|	0.01
56.083	0.00	0.02	0.018	O	|	|	|	|	0.01
56.167	0.00	0.02	0.017	O	|	|	|	|	0.01
56.250	0.00	0.02	0.017	O	|	|	|	|	0.01
56.333	0.00	0.02	0.017	O	|	|	|	|	0.01
56.417	0.00	0.02	0.017	O	|	|	|	|	0.01
56.500	0.00	0.02	0.017	O	|	|	|	|	0.01
56.583	0.00	0.02	0.017	O	|	|	|	|	0.01
56.667	0.00	0.02	0.017	O	|	|	|	|	0.01
56.750	0.00	0.02	0.017	O	|	|	|	|	0.01
56.833	0.00	0.02	0.016	O	|	|	|	|	0.01
56.917	0.00	0.02	0.016	O	|	|	|	|	0.01
57.000	0.00	0.02	0.016	O	|	|	|	|	0.01
57.083	0.00	0.02	0.016	O	|	|	|	|	0.01
57.167	0.00	0.02	0.016	O	|	|	|	|	0.01
57.250	0.00	0.02	0.016	O	|	|	|	|	0.01
57.333	0.00	0.02	0.016	O	|	|	|	|	0.01
57.417	0.00	0.02	0.016	O	|	|	|	|	0.01
57.500	0.00	0.02	0.015	O	|	|	|	|	0.01
57.583	0.00	0.02	0.015	O	|	|	|	|	0.01
57.667	0.00	0.02	0.015	O	|	|	|	|	0.01
57.750	0.00	0.02	0.015	O	|	|	|	|	0.01
57.833	0.00	0.02	0.015	O	|	|	|	|	0.01
57.917	0.00	0.02	0.015	O	|	|	|	|	0.01
58.000	0.00	0.02	0.015	O	|	|	|	|	0.01
58.083	0.00	0.02	0.015	O	|	|	|	|	0.01
58.167	0.00	0.02	0.014	O	|	|	|	|	0.01
58.250	0.00	0.02	0.014	O	|	|	|	|	0.01
58.333	0.00	0.02	0.014	O	|	|	|	|	0.01
58.417	0.00	0.02	0.014	O	|	|	|	|	0.01
58.500	0.00	0.02	0.014	O	|	|	|	|	0.01
58.583	0.00	0.02	0.014	O	|	|	|	|	0.01
58.667	0.00	0.02	0.014	O	|	|	|	|	0.01
58.750	0.00	0.02	0.014	O	|	|	|	|	0.01
58.833	0.00	0.02	0.014	O	|	|	|	|	0.01
58.917	0.00	0.02	0.014	O	|	|	|	|	0.01
59.000	0.00	0.02	0.013	O	|	|	|	|	0.01
59.083	0.00	0.02	0.013	O	|	|	|	|	0.01
59.167	0.00	0.01	0.013	O	|	|	|	|	0.01
59.250	0.00	0.01	0.013	O	|	|	|	|	0.01
59.333	0.00	0.01	0.013	O	|	|	|	|	0.01
59.417	0.00	0.01	0.013	O	|	|	|	|	0.01
59.500	0.00	0.01	0.013	O	|	|	|	|	0.01
59.583	0.00	0.01	0.013	O	|	|	|	|	0.01
59.667	0.00	0.01	0.013	O	|	|	|	|	0.01
59.750	0.00	0.01	0.013	O	|	|	|	|	0.01
59.833	0.00	0.01	0.012	O	|	|	|	|	0.01
59.917	0.00	0.01	0.012	O	|	|	|	|	0.01
60.000	0.00	0.01	0.012	O	|	|	|	|	0.01
60.083	0.00	0.01	0.012	O	|	|	|	|	0.01
60.167	0.00	0.01	0.012	O	|	|	|	|	0.01

60.250	0.00	0.01	0.012	O	|	|	|	|	0.01
60.333	0.00	0.01	0.012	O	|	|	|	|	0.01
60.417	0.00	0.01	0.012	O	|	|	|	|	0.01
60.500	0.00	0.01	0.012	O	|	|	|	|	0.01
60.583	0.00	0.01	0.012	O	|	|	|	|	0.01
60.667	0.00	0.01	0.011	O	|	|	|	|	0.01
60.750	0.00	0.01	0.011	O	|	|	|	|	0.01
60.833	0.00	0.01	0.011	O	|	|	|	|	0.01
60.917	0.00	0.01	0.011	O	|	|	|	|	0.01
61.000	0.00	0.01	0.011	O	|	|	|	|	0.01
61.083	0.00	0.01	0.011	O	|	|	|	|	0.01
61.167	0.00	0.01	0.011	O	|	|	|	|	0.01
61.250	0.00	0.01	0.011	O	|	|	|	|	0.01
61.333	0.00	0.01	0.011	O	|	|	|	|	0.01
61.417	0.00	0.01	0.011	O	|	|	|	|	0.01
61.500	0.00	0.01	0.011	O	|	|	|	|	0.01
61.583	0.00	0.01	0.011	O	|	|	|	|	0.01
61.667	0.00	0.01	0.010	O	|	|	|	|	0.01
61.750	0.00	0.01	0.010	O	|	|	|	|	0.01
61.833	0.00	0.01	0.010	O	|	|	|	|	0.01
61.917	0.00	0.01	0.010	O	|	|	|	|	0.01
62.000	0.00	0.01	0.010	O	|	|	|	|	0.01
62.083	0.00	0.01	0.010	O	|	|	|	|	0.01
62.167	0.00	0.01	0.010	O	|	|	|	|	0.01
62.250	0.00	0.01	0.010	O	|	|	|	|	0.01
62.333	0.00	0.01	0.010	O	|	|	|	|	0.01
62.417	0.00	0.01	0.010	O	|	|	|	|	0.01
62.500	0.00	0.01	0.010	O	|	|	|	|	0.01
62.583	0.00	0.01	0.010	O	|	|	|	|	0.01
62.667	0.00	0.01	0.010	O	|	|	|	|	0.01
62.750	0.00	0.01	0.009	O	|	|	|	|	0.01
62.833	0.00	0.01	0.009	O	|	|	|	|	0.01
62.917	0.00	0.01	0.009	O	|	|	|	|	0.01
63.000	0.00	0.01	0.009	O	|	|	|	|	0.01
63.083	0.00	0.01	0.009	O	|	|	|	|	0.01
63.167	0.00	0.01	0.009	O	|	|	|	|	0.01
63.250	0.00	0.01	0.009	O	|	|	|	|	0.01
63.333	0.00	0.01	0.009	O	|	|	|	|	0.01
63.417	0.00	0.01	0.009	O	|	|	|	|	0.01
63.500	0.00	0.01	0.009	O	|	|	|	|	0.01
63.583	0.00	0.01	0.009	O	|	|	|	|	0.01
63.667	0.00	0.01	0.009	O	|	|	|	|	0.01
63.750	0.00	0.01	0.009	O	|	|	|	|	0.01
63.833	0.00	0.01	0.009	O	|	|	|	|	0.01
63.917	0.00	0.01	0.008	O	|	|	|	|	0.01
64.000	0.00	0.01	0.008	O	|	|	|	|	0.00
64.083	0.00	0.01	0.008	O	|	|	|	|	0.00
64.167	0.00	0.01	0.008	O	|	|	|	|	0.00
64.250	0.00	0.01	0.008	O	|	|	|	|	0.00
64.333	0.00	0.01	0.008	O	|	|	|	|	0.00
64.417	0.00	0.01	0.008	O	|	|	|	|	0.00
64.500	0.00	0.01	0.008	O	|	|	|	|	0.00
64.583	0.00	0.01	0.008	O	|	|	|	|	0.00
64.667	0.00	0.01	0.008	O	|	|	|	|	0.00
64.750	0.00	0.01	0.008	O	|	|	|	|	0.00
64.833	0.00	0.01	0.008	O	|	|	|	|	0.00
64.917	0.00	0.01	0.008	O	|	|	|	|	0.00
65.000	0.00	0.01	0.008	O	|	|	|	|	0.00
65.083	0.00	0.01	0.008	O	|	|	|	|	0.00
65.167	0.00	0.01	0.008	O	|	|	|	|	0.00
65.250	0.00	0.01	0.007	O	|	|	|	|	0.00
65.333	0.00	0.01	0.007	O	|	|	|	|	0.00
65.417	0.00	0.01	0.007	O	|	|	|	|	0.00
65.500	0.00	0.01	0.007	O	|	|	|	|	0.00
65.583	0.00	0.01	0.007	O	|	|	|	|	0.00
65.667	0.00	0.01	0.007	O	|	|	|	|	0.00

```
65.750    0.00    0.01     0.007  O       |        |        |        |       0.00
65.833    0.00    0.01     0.007  O       |        |        |        |       0.00
65.917    0.00    0.01     0.007  O       |        |        |        |       0.00
66.000    0.00    0.01     0.007  O       |        |        |        |       0.00
66.083    0.00    0.01     0.007  O       |        |        |        |       0.00
66.167    0.00    0.01     0.007  O       |        |        |        |       0.00
66.250    0.00    0.01     0.007  O       |        |        |        |       0.00
66.333    0.00    0.01     0.007  O       |        |        |        |       0.00
66.417    0.00    0.01     0.007  O       |        |        |        |       0.00
66.500    0.00    0.01     0.007  O       |        |        |        |       0.00
66.583    0.00    0.01     0.007  O       |        |        |        |       0.00
66.667    0.00    0.01     0.007  O       |        |        |        |       0.00
66.750    0.00    0.01     0.007  O       |        |        |        |       0.00
66.833    0.00    0.01     0.006  O       |        |        |        |       0.00
66.917    0.00    0.01     0.006  O       |        |        |        |       0.00
67.000    0.00    0.01     0.006  O       |        |        |        |       0.00
67.083    0.00    0.01     0.006  O       |        |        |        |       0.00
67.167    0.00    0.01     0.006  O       |        |        |        |       0.00
67.250    0.00    0.01     0.006  O       |        |        |        |       0.00
67.333    0.00    0.01     0.006  O       |        |        |        |       0.00
67.417    0.00    0.01     0.006  O       |        |        |        |       0.00
67.500    0.00    0.01     0.006  O       |        |        |        |       0.00
67.583    0.00    0.01     0.006  O       |        |        |        |       0.00
67.667    0.00    0.01     0.006  O       |        |        |        |       0.00
67.750    0.00    0.01     0.006  O       |        |        |        |       0.00
67.833    0.00    0.01     0.006  O       |        |        |        |       0.00
67.917    0.00    0.01     0.006  O       |        |        |        |       0.00
68.000    0.00    0.01     0.006  O       |        |        |        |       0.00
68.083    0.00    0.01     0.006  O       |        |        |        |       0.00
68.167    0.00    0.01     0.006  O       |        |        |        |       0.00
68.250    0.00    0.01     0.006  O       |        |        |        |       0.00
68.333    0.00    0.01     0.006  O       |        |        |        |       0.00
68.417    0.00    0.01     0.006  O       |        |        |        |       0.00
68.500    0.00    0.01     0.006  O       |        |        |        |       0.00
68.583    0.00    0.01     0.005  O       |        |        |        |       0.00
68.667    0.00    0.01     0.005  O       |        |        |        |       0.00
68.750    0.00    0.01     0.005  O       |        |        |        |       0.00
68.833    0.00    0.01     0.005  O       |        |        |        |       0.00
68.917    0.00    0.01     0.005  O       |        |        |        |       0.00
69.000    0.00    0.01     0.005  O       |        |        |        |       0.00
69.083    0.00    0.01     0.005  O       |        |        |        |       0.00
69.167    0.00    0.01     0.005  O       |        |        |        |       0.00
69.250    0.00    0.01     0.005  O       |        |        |        |       0.00
69.333    0.00    0.01     0.005  O       |        |        |        |       0.00
69.417    0.00    0.01     0.005  O       |        |        |        |       0.00
69.500    0.00    0.01     0.005  O       |        |        |        |       0.00
69.583    0.00    0.01     0.005  O       |        |        |        |       0.00
69.667    0.00    0.01     0.005  O       |        |        |        |       0.00
69.750    0.00    0.01     0.005  O       |        |        |        |       0.00
69.833    0.00    0.01     0.005  O       |        |        |        |       0.00
69.917    0.00    0.01     0.005  O       |        |        |        |       0.00
70.000    0.00    0.01     0.005  O       |        |        |        |       0.00
70.083    0.00    0.01     0.005  O       |        |        |        |       0.00
70.167    0.00    0.01     0.005  O       |        |        |        |       0.00
70.250    0.00    0.01     0.005  O       |        |        |        |       0.00
70.333    0.00    0.01     0.005  O       |        |        |        |       0.00
70.417    0.00    0.01     0.005  O       |        |        |        |       0.00
70.500    0.00    0.01     0.005  O       |        |        |        |       0.00
70.583    0.00    0.01     0.005  O       |        |        |        |       0.00
70.667    0.00    0.01     0.005  O       |        |        |        |       0.00
70.750    0.00    0.01     0.004  O       |        |        |        |       0.00
70.833    0.00    0.01     0.004  O       |        |        |        |       0.00
70.917    0.00    0.00     0.004  O       |        |        |        |       0.00
71.000    0.00    0.00     0.004  O       |        |        |        |       0.00
71.083    0.00    0.00     0.004  O       |        |        |        |       0.00
71.167    0.00    0.00     0.004  O       |        |        |        |       0.00
```

```
71.250    0.00    0.00    0.004  O       |       |       |       |     0.00
71.333    0.00    0.00    0.004  O       |       |       |       |     0.00
71.417    0.00    0.00    0.004  O       |       |       |       |     0.00
71.500    0.00    0.00    0.004  O       |       |       |       |     0.00
71.583    0.00    0.00    0.004  O       |       |       |       |     0.00
71.667    0.00    0.00    0.004  O       |       |       |       |     0.00
71.750    0.00    0.00    0.004  O       |       |       |       |     0.00
71.833    0.00    0.00    0.004  O       |       |       |       |     0.00
71.917    0.00    0.00    0.004  O       |       |       |       |     0.00
72.000    0.00    0.00    0.004  O       |       |       |       |     0.00
72.083    0.00    0.00    0.004  O       |       |       |       |     0.00
72.167    0.00    0.00    0.004  O       |       |       |       |     0.00
72.250    0.00    0.00    0.004  O       |       |       |       |     0.00
72.333    0.00    0.00    0.004  O       |       |       |       |     0.00
72.417    0.00    0.00    0.004  O       |       |       |       |     0.00
72.500    0.00    0.00    0.004  O       |       |       |       |     0.00
72.583    0.00    0.00    0.004  O       |       |       |       |     0.00
72.667    0.00    0.00    0.004  O       |       |       |       |     0.00
72.750    0.00    0.00    0.004  O       |       |       |       |     0.00
72.833    0.00    0.00    0.004  O       |       |       |       |     0.00
72.917    0.00    0.00    0.004  O       |       |       |       |     0.00
73.000    0.00    0.00    0.004  O       |       |       |       |     0.00
73.083    0.00    0.00    0.004  O       |       |       |       |     0.00
73.167    0.00    0.00    0.004  O       |       |       |       |     0.00
73.250    0.00    0.00    0.004  O       |       |       |       |     0.00
73.333    0.00    0.00    0.004  O       |       |       |       |     0.00
73.417    0.00    0.00    0.003  O       |       |       |       |     0.00
73.500    0.00    0.00    0.003  O       |       |       |       |     0.00
73.583    0.00    0.00    0.003  O       |       |       |       |     0.00
73.667    0.00    0.00    0.003  O       |       |       |       |     0.00
73.750    0.00    0.00    0.003  O       |       |       |       |     0.00
73.833    0.00    0.00    0.003  O       |       |       |       |     0.00
73.917    0.00    0.00    0.003  O       |       |       |       |     0.00
74.000    0.00    0.00    0.003  O       |       |       |       |     0.00
74.083    0.00    0.00    0.003  O       |       |       |       |     0.00
74.167    0.00    0.00    0.003  O       |       |       |       |     0.00
74.250    0.00    0.00    0.003  O       |       |       |       |     0.00
74.333    0.00    0.00    0.003  O       |       |       |       |     0.00
74.417    0.00    0.00    0.003  O       |       |       |       |     0.00
74.500    0.00    0.00    0.003  O       |       |       |       |     0.00
74.583    0.00    0.00    0.003  O       |       |       |       |     0.00
74.667    0.00    0.00    0.003  O       |       |       |       |     0.00
74.750    0.00    0.00    0.003  O       |       |       |       |     0.00
74.833    0.00    0.00    0.003  O       |       |       |       |     0.00
74.917    0.00    0.00    0.003  O       |       |       |       |     0.00
75.000    0.00    0.00    0.003  O       |       |       |       |     0.00
75.083    0.00    0.00    0.003  O       |       |       |       |     0.00
75.167    0.00    0.00    0.003  O       |       |       |       |     0.00
75.250    0.00    0.00    0.003  O       |       |       |       |     0.00
75.333    0.00    0.00    0.003  O       |       |       |       |     0.00
75.417    0.00    0.00    0.003  O       |       |       |       |     0.00
75.500    0.00    0.00    0.003  O       |       |       |       |     0.00
75.583    0.00    0.00    0.003  O       |       |       |       |     0.00
75.667    0.00    0.00    0.003  O       |       |       |       |     0.00
75.750    0.00    0.00    0.003  O       |       |       |       |     0.00
75.833    0.00    0.00    0.003  O       |       |       |       |     0.00
75.917    0.00    0.00    0.003  O       |       |       |       |     0.00
76.000    0.00    0.00    0.003  O       |       |       |       |     0.00
76.083    0.00    0.00    0.003  O       |       |       |       |     0.00
76.167    0.00    0.00    0.003  O       |       |       |       |     0.00
76.250    0.00    0.00    0.003  O       |       |       |       |     0.00
76.333    0.00    0.00    0.003  O       |       |       |       |     0.00
76.417    0.00    0.00    0.003  O       |       |       |       |     0.00
76.500    0.00    0.00    0.003  O       |       |       |       |     0.00
76.583    0.00    0.00    0.003  O       |       |       |       |     0.00
76.667    0.00    0.00    0.003  O       |       |       |       |     0.00
```

76.750	0.00	0.00	0.003	O	0.00
76.833	0.00	0.00	0.003	O	0.00
76.917	0.00	0.00	0.003	O	0.00
77.000	0.00	0.00	0.003	O	0.00
77.083	0.00	0.00	0.002	O	0.00
77.167	0.00	0.00	0.002	O	0.00
77.250	0.00	0.00	0.002	O	0.00
77.333	0.00	0.00	0.002	O	0.00
77.417	0.00	0.00	0.002	O	0.00
77.500	0.00	0.00	0.002	O	0.00
77.583	0.00	0.00	0.002	O	0.00
77.667	0.00	0.00	0.002	O	0.00
77.750	0.00	0.00	0.002	O	0.00
77.833	0.00	0.00	0.002	O	0.00
77.917	0.00	0.00	0.002	O	0.00
78.000	0.00	0.00	0.002	O	0.00
78.083	0.00	0.00	0.002	O	0.00
78.167	0.00	0.00	0.002	O	0.00
78.250	0.00	0.00	0.002	O	0.00
78.333	0.00	0.00	0.002	O	0.00
78.417	0.00	0.00	0.002	O	0.00
78.500	0.00	0.00	0.002	O	0.00
78.583	0.00	0.00	0.002	O	0.00
78.667	0.00	0.00	0.002	O	0.00
78.750	0.00	0.00	0.002	O	0.00
78.833	0.00	0.00	0.002	O	0.00
78.917	0.00	0.00	0.002	O	0.00
79.000	0.00	0.00	0.002	O	0.00
79.083	0.00	0.00	0.002	O	0.00
79.167	0.00	0.00	0.002	O	0.00
79.250	0.00	0.00	0.002	O	0.00
79.333	0.00	0.00	0.002	O	0.00
79.417	0.00	0.00	0.002	O	0.00
79.500	0.00	0.00	0.002	O	0.00
79.583	0.00	0.00	0.002	O	0.00
79.667	0.00	0.00	0.002	O	0.00
79.750	0.00	0.00	0.002	O	0.00
79.833	0.00	0.00	0.002	O	0.00
79.917	0.00	0.00	0.002	O	0.00
80.000	0.00	0.00	0.002	O	0.00
80.083	0.00	0.00	0.002	O	0.00
80.167	0.00	0.00	0.002	O	0.00
80.250	0.00	0.00	0.002	O	0.00
80.333	0.00	0.00	0.002	O	0.00
80.417	0.00	0.00	0.002	O	0.00
80.500	0.00	0.00	0.002	O	0.00
80.583	0.00	0.00	0.002	O	0.00
80.667	0.00	0.00	0.002	O	0.00
80.750	0.00	0.00	0.002	O	0.00
80.833	0.00	0.00	0.002	O	0.00
80.917	0.00	0.00	0.002	O	0.00
81.000	0.00	0.00	0.002	O	0.00
81.083	0.00	0.00	0.002	O	0.00
81.167	0.00	0.00	0.002	O	0.00
81.250	0.00	0.00	0.002	O	0.00

Remaining water in basin = 0.00 (Ac.Ft)

```
***************************HYDROGRAPH DATA***************************
             Number of intervals =   975
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =        2.101 (CFS)
             Total volume =       2.769 (Ac.Ft)
      Status of hydrographs being held in storage
```

```
              Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
    Peak (CFS)       0.000     0.000     0.000     0.000     0.000
    Vol (Ac.Ft)       0.000     0.000     0.000     0.000     0.000
***********************************************************************

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

```
                  FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                      Study date: 05/07/21

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

Keller Crossing – Basin C
Detention Basin Routing
Inflow Hydrograph 2-year 3-hour storm

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


Program License Serial Number 4029

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

             From study/file name: kx2prh32.rte
****************************HYDROGRAPH DATA***************************
             Number of intervals =    42
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =       49.895 (CFS)
             Total volume =       4.427 (Ac.Ft)
      Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************



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

User entry of depth-outflow-storage data
-------------------------------------------------------------------
Total number of inflow hydrograph intervals = 42
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
-------------------------------------------------------------------
-------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
--------------------------------------------------------------------
-------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)      (Ac.Ft)    (Ac.Ft)
--------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      1.693      1.910      1.686        1.700
   2.000      3.806      2.340      3.798        3.814
   3.000      6.534      2.710      6.525        6.543
   4.000      9.741      3.030      9.731        9.751
   5.000     13.275     33.320     13.160       13.390
   6.000     16.265     88.430     15.960       16.570
-------------------------------------------------------------------
             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      12.5   24.95   37.42   49.90 (Ft.)
 0.083    1.99    0.01      0.007  OI      |       |       |       |     0.00
 0.167    5.95    0.04      0.034  O  I    |       |       |       |     0.02
 0.250    6.75    0.09      0.077  O   I   |       |       |       |     0.05
 0.333    7.25    0.14      0.125  O   I   |       |       |       |     0.07
 0.417    8.58    0.20      0.178  O    I  |       |       |       |     0.11
 0.500    9.46    0.27      0.239  O     I |       |       |       |     0.14
 0.583   10.16    0.34      0.304  O     I |       |       |       |     0.18
 0.667   10.02    0.42      0.371  O     I |       |       |       |     0.22
 0.750   10.83    0.50      0.439  O     I |       |       |       |     0.26
 0.833   10.61    0.57      0.510  O     I |       |       |       |     0.30
 0.917    9.94    0.65      0.576  O     I |       |       |       |     0.34
 1.000   10.35    0.72      0.641  O     I |       |       |       |     0.38
 1.083   11.55    0.80      0.711  O      I|       |       |       |     0.42
 1.167   12.94    0.89      0.790  O       I       |       |       |     0.47
 1.250   13.34    0.99      0.874  O       I       |       |       |     0.52
 1.333   13.21    1.08      0.958  O       I       |       |       |     0.57
 1.417   13.64    1.18      1.043  O       I       |       |       |     0.62
 1.500   15.53    1.28      1.135  O       |I      |       |       |     0.67
 1.583   15.84    1.39      1.234  O       | I     |       |       |     0.73
 1.667   15.66    1.50      1.332  O       | I     |       |       |     0.79
 1.750   17.38    1.62      1.435  |O      |  I    |       |       |     0.85
 1.833   19.12    1.75      1.549  |O      |   I   |       |       |     0.92
 1.917   18.84    1.88      1.668  |O      |   I   |       |       |     0.99
 2.000   18.48    1.93      1.783  |O      |  I    |       |       |     1.04
 2.083   18.83    1.95      1.898  |O      |   I   |       |       |     1.10
 2.167   20.88    1.98      2.021  |O      |    I  |       |       |     1.16
 2.250   25.58    2.01      2.168  |O      |       I       |       |     1.22
 2.333   26.67    2.04      2.334  |O      |       |I      |       |     1.30
 2.417   29.11    2.08      2.511  |O      |       | I     |       |     1.39
 2.500   41.40    2.12      2.740  |O      |       |       | I     |     1.50
 2.583   49.09    2.18      3.037  |O      |       |       |      I|     1.64
 2.667   49.90    2.25      3.362  |O      |       |       |       I     1.79
 2.750   34.87    2.31      3.638  |O      |       |      I|       |     1.92
 2.833   20.58    2.34      3.813  |O      |    I  |       |       |     2.00
 2.917   16.04    2.36      3.923  |O      | I     |       |       |     2.04
 3.000   12.00    2.37      4.003  |O     I|       |       |       |     2.07
 3.083    6.19    2.37      4.050  |O I    |       |       |       |     2.09
 3.167    2.43    2.37      4.063  |O      |       |       |       |     2.09
 3.250    1.05    2.37      4.059  IO      |       |       |       |     2.09
 3.333    0.54    2.37      4.048  IO      |       |       |       |     2.09
 3.417    0.26    2.37      4.034  IO      |       |       |       |     2.08
 3.500    0.06    2.37      4.019  IO      |       |       |       |     2.08
 3.583    0.00    2.37      4.003  IO      |       |       |       |     2.07
 3.667    0.00    2.36      3.987  IO      |       |       |       |     2.07
 3.750    0.00    2.36      3.970  IO      |       |       |       |     2.06
 3.833    0.00    2.36      3.954  IO      |       |       |       |     2.05
 3.917    0.00    2.36      3.938  IO      |       |       |       |     2.05
 4.000    0.00    2.36      3.922  IO      |       |       |       |     2.04
 4.083    0.00    2.35      3.905  IO      |       |       |       |     2.04
 4.167    0.00    2.35      3.889  IO      |       |       |       |     2.03
 4.250    0.00    2.35      3.873  IO      |       |       |       |     2.02
 4.333    0.00    2.35      3.857  IO      |       |       |       |     2.02
 4.417    0.00    2.34      3.841  IO      |       |       |       |     2.01
 4.500    0.00    2.34      3.825  IO      |       |       |       |     2.01
 4.583    0.00    2.34      3.808  IO      |       |       |       |     2.00
 4.667    0.00    2.34      3.792  IO      |       |       |       |     1.99
 4.750    0.00    2.33      3.776  IO      |       |       |       |     1.99
 4.833    0.00    2.33      3.760  IO      |       |       |       |     1.98
 4.917    0.00    2.33      3.744  IO      |       |       |       |     1.97
 5.000    0.00    2.32      3.728  IO      |       |       |       |     1.96
 5.083    0.00    2.32      3.712  IO      |       |       |       |     1.96
 5.167    0.00    2.32      3.696  IO      |       |       |       |     1.95
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5.250	0.00	2.31	3.680	IO	|	|	|	|	1.94
5.333	0.00	2.31	3.664	IO	|	|	|	|	1.93
5.417	0.00	2.31	3.648	IO	|	|	|	|	1.93
5.500	0.00	2.30	3.632	IO	|	|	|	|	1.92
5.583	0.00	2.30	3.617	IO	|	|	|	|	1.91
5.667	0.00	2.30	3.601	IO	|	|	|	|	1.90
5.750	0.00	2.30	3.585	IO	|	|	|	|	1.90
5.833	0.00	2.29	3.569	IO	|	|	|	|	1.89
5.917	0.00	2.29	3.553	IO	|	|	|	|	1.88
6.000	0.00	2.29	3.538	IO	|	|	|	|	1.87
6.083	0.00	2.28	3.522	IO	|	|	|	|	1.87
6.167	0.00	2.28	3.506	IO	|	|	|	|	1.86
6.250	0.00	2.28	3.490	IO	|	|	|	|	1.85
6.333	0.00	2.27	3.475	IO	|	|	|	|	1.84
6.417	0.00	2.27	3.459	IO	|	|	|	|	1.84
6.500	0.00	2.27	3.444	IO	|	|	|	|	1.83
6.583	0.00	2.26	3.428	IO	|	|	|	|	1.82
6.667	0.00	2.26	3.412	IO	|	|	|	|	1.81
6.750	0.00	2.26	3.397	IO	|	|	|	|	1.81
6.833	0.00	2.25	3.381	IO	|	|	|	|	1.80
6.917	0.00	2.25	3.366	IO	|	|	|	|	1.79
7.000	0.00	2.25	3.350	IO	|	|	|	|	1.78
7.083	0.00	2.24	3.335	IO	|	|	|	|	1.78
7.167	0.00	2.24	3.319	IO	|	|	|	|	1.77
7.250	0.00	2.24	3.304	IO	|	|	|	|	1.76
7.333	0.00	2.23	3.289	IO	|	|	|	|	1.76
7.417	0.00	2.23	3.273	IO	|	|	|	|	1.75
7.500	0.00	2.23	3.258	IO	|	|	|	|	1.74
7.583	0.00	2.23	3.243	IO	|	|	|	|	1.73
7.667	0.00	2.22	3.227	IO	|	|	|	|	1.73
7.750	0.00	2.22	3.212	IO	|	|	|	|	1.72
7.833	0.00	2.22	3.197	IO	|	|	|	|	1.71
7.917	0.00	2.21	3.181	IO	|	|	|	|	1.70
8.000	0.00	2.21	3.166	IO	|	|	|	|	1.70
8.083	0.00	2.21	3.151	IO	|	|	|	|	1.69
8.167	0.00	2.20	3.136	IO	|	|	|	|	1.68
8.250	0.00	2.20	3.121	IO	|	|	|	|	1.68
8.333	0.00	2.20	3.105	IO	|	|	|	|	1.67
8.417	0.00	2.19	3.090	IO	|	|	|	|	1.66
8.500	0.00	2.19	3.075	IO	|	|	|	|	1.65
8.583	0.00	2.19	3.060	IO	|	|	|	|	1.65
8.667	0.00	2.19	3.045	IO	|	|	|	|	1.64
8.750	0.00	2.18	3.030	IO	|	|	|	|	1.63
8.833	0.00	2.18	3.015	IO	|	|	|	|	1.63
8.917	0.00	2.18	3.000	IO	|	|	|	|	1.62
9.000	0.00	2.17	2.985	IO	|	|	|	|	1.61
9.083	0.00	2.17	2.970	IO	|	|	|	|	1.60
9.167	0.00	2.17	2.955	IO	|	|	|	|	1.60
9.250	0.00	2.16	2.940	IO	|	|	|	|	1.59
9.333	0.00	2.16	2.925	IO	|	|	|	|	1.58
9.417	0.00	2.16	2.910	IO	|	|	|	|	1.58
9.500	0.00	2.15	2.896	IO	|	|	|	|	1.57
9.583	0.00	2.15	2.881	IO	|	|	|	|	1.56
9.667	0.00	2.15	2.866	IO	|	|	|	|	1.56
9.750	0.00	2.15	2.851	IO	|	|	|	|	1.55
9.833	0.00	2.14	2.836	IO	|	|	|	|	1.54
9.917	0.00	2.14	2.822	IO	|	|	|	|	1.53
10.000	0.00	2.14	2.807	IO	|	|	|	|	1.53
10.083	0.00	2.13	2.792	IO	|	|	|	|	1.52
10.167	0.00	2.13	2.778	IO	|	|	|	|	1.51
10.250	0.00	2.13	2.763	IO	|	|	|	|	1.51
10.333	0.00	2.12	2.748	IO	|	|	|	|	1.50
10.417	0.00	2.12	2.734	IO	|	|	|	|	1.49
10.500	0.00	2.12	2.719	IO	|	|	|	|	1.49
10.583	0.00	2.12	2.704	IO	|	|	|	|	1.48
10.667	0.00	2.11	2.690	IO	|	|	|	|	1.47

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10.750    0.00    2.11      2.675  IO       |        |        |        |      1.46
10.833    0.00    2.11      2.661  IO       |        |        |        |      1.46
10.917    0.00    2.10      2.646  IO       |        |        |        |      1.45
11.000    0.00    2.10      2.632  IO       |        |        |        |      1.44
11.083    0.00    2.10      2.617  IO       |        |        |        |      1.44
11.167    0.00    2.10      2.603  IO       |        |        |        |      1.43
11.250    0.00    2.09      2.589  IO       |        |        |        |      1.42
11.333    0.00    2.09      2.574  IO       |        |        |        |      1.42
11.417    0.00    2.09      2.560  IO       |        |        |        |      1.41
11.500    0.00    2.08      2.545  IO       |        |        |        |      1.40
11.583    0.00    2.08      2.531  IO       |        |        |        |      1.40
11.667    0.00    2.08      2.517  IO       |        |        |        |      1.39
11.750    0.00    2.07      2.502  IO       |        |        |        |      1.38
11.833    0.00    2.07      2.488  IO       |        |        |        |      1.38
11.917    0.00    2.07      2.474  IO       |        |        |        |      1.37
12.000    0.00    2.07      2.460  IO       |        |        |        |      1.36
12.083    0.00    2.06      2.445  IO       |        |        |        |      1.36
12.167    0.00    2.06      2.431  IO       |        |        |        |      1.35
12.250    0.00    2.06      2.417  IO       |        |        |        |      1.34
12.333    0.00    2.05      2.403  IO       |        |        |        |      1.34
12.417    0.00    2.05      2.389  IO       |        |        |        |      1.33
12.500    0.00    2.05      2.375  IO       |        |        |        |      1.32
12.583    0.00    2.05      2.361  IO       |        |        |        |      1.32
12.667    0.00    2.04      2.346  IO       |        |        |        |      1.31
12.750    0.00    2.04      2.332  IO       |        |        |        |      1.30
12.833    0.00    2.04      2.318  IO       |        |        |        |      1.30
12.917    0.00    2.03      2.304  IO       |        |        |        |      1.29
13.000    0.00    2.03      2.290  IO       |        |        |        |      1.28
13.083    0.00    2.03      2.276  IO       |        |        |        |      1.28
13.167    0.00    2.03      2.262  IO       |        |        |        |      1.27
13.250    0.00    2.02      2.248  IO       |        |        |        |      1.26
13.333    0.00    2.02      2.235  IO       |        |        |        |      1.26
13.417    0.00    2.02      2.221  IO       |        |        |        |      1.25
13.500    0.00    2.01      2.207  IO       |        |        |        |      1.24
13.583    0.00    2.01      2.193  IO       |        |        |        |      1.24
13.667    0.00    2.01      2.179  IO       |        |        |        |      1.23
13.750    0.00    2.01      2.165  IO       |        |        |        |      1.22
13.833    0.00    2.00      2.151  IO       |        |        |        |      1.22
13.917    0.00    2.00      2.138  IO       |        |        |        |      1.21
14.000    0.00    2.00      2.124  IO       |        |        |        |      1.20
14.083    0.00    1.99      2.110  IO       |        |        |        |      1.20
14.167    0.00    1.99      2.096  IO       |        |        |        |      1.19
14.250    0.00    1.99      2.083  IO       |        |        |        |      1.18
14.333    0.00    1.99      2.069  IO       |        |        |        |      1.18
14.417    0.00    1.98      2.055  IO       |        |        |        |      1.17
14.500    0.00    1.98      2.042  IO       |        |        |        |      1.17
14.583    0.00    1.98      2.028  IO       |        |        |        |      1.16
14.667    0.00    1.98      2.014  IO       |        |        |        |      1.15
14.750    0.00    1.97      2.001  IO       |        |        |        |      1.15
14.833    0.00    1.97      1.987  IO       |        |        |        |      1.14
14.917    0.00    1.97      1.974  IO       |        |        |        |      1.13
15.000    0.00    1.96      1.960  IO       |        |        |        |      1.13
15.083    0.00    1.96      1.947  IO       |        |        |        |      1.12
15.167    0.00    1.96      1.933  IO       |        |        |        |      1.11
15.250    0.00    1.96      1.920  IO       |        |        |        |      1.11
15.333    0.00    1.95      1.906  IO       |        |        |        |      1.10
15.417    0.00    1.95      1.893  IO       |        |        |        |      1.09
15.500    0.00    1.95      1.879  IO       |        |        |        |      1.09
15.583    0.00    1.95      1.866  IO       |        |        |        |      1.08
15.667    0.00    1.94      1.853  IO       |        |        |        |      1.08
15.750    0.00    1.94      1.839  IO       |        |        |        |      1.07
15.833    0.00    1.94      1.826  IO       |        |        |        |      1.06
15.917    0.00    1.93      1.812  IO       |        |        |        |      1.06
16.000    0.00    1.93      1.799  IO       |        |        |        |      1.05
16.083    0.00    1.93      1.786  IO       |        |        |        |      1.04
16.167    0.00    1.93      1.773  IO       |        |        |        |      1.04
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16.250    0.00    1.92    1.759  IO       |         |         |         |      1.03
16.333    0.00    1.92    1.746  IO       |         |         |         |      1.03
16.417    0.00    1.92    1.733  IO       |         |         |         |      1.02
16.500    0.00    1.92    1.720  IO       |         |         |         |      1.01
16.583    0.00    1.91    1.706  IO       |         |         |         |      1.01
16.667    0.00    1.91    1.693  IO       |         |         |         |      1.00
16.750    0.00    1.90    1.680  IO       |         |         |         |      0.99
16.833    0.00    1.88    1.667  IO       |         |         |         |      0.98
16.917    0.00    1.87    1.654  IO       |         |         |         |      0.98
17.000    0.00    1.85    1.642  IO       |         |         |         |      0.97
17.083    0.00    1.84    1.629  IO       |         |         |         |      0.96
17.167    0.00    1.82    1.616  IO       |         |         |         |      0.95
17.250    0.00    1.81    1.604  IO       |         |         |         |      0.95
17.333    0.00    1.80    1.591  IO       |         |         |         |      0.94
17.417    0.00    1.78    1.579  IO       |         |         |         |      0.93
17.500    0.00    1.77    1.567  IO       |         |         |         |      0.93
17.583    0.00    1.75    1.555  IO       |         |         |         |      0.92
17.667    0.00    1.74    1.543  IO       |         |         |         |      0.91
17.750    0.00    1.73    1.531  IO       |         |         |         |      0.90
17.833    0.00    1.71    1.519  IO       |         |         |         |      0.90
17.917    0.00    1.70    1.507  IO       |         |         |         |      0.89
18.000    0.00    1.69    1.495  IO       |         |         |         |      0.88
18.083    0.00    1.67    1.484  IO       |         |         |         |      0.88
18.167    0.00    1.66    1.472  IO       |         |         |         |      0.87
18.250    0.00    1.65    1.461  IO       |         |         |         |      0.86
18.333    0.00    1.64    1.450  IO       |         |         |         |      0.86
18.417    0.00    1.62    1.438  IO       |         |         |         |      0.85
18.500    0.00    1.61    1.427  IO       |         |         |         |      0.84
18.583    0.00    1.60    1.416  IO       |         |         |         |      0.84
18.667    0.00    1.59    1.405  IO       |         |         |         |      0.83
18.750    0.00    1.57    1.394  IO       |         |         |         |      0.82
18.833    0.00    1.56    1.384  IO       |         |         |         |      0.82
18.917    0.00    1.55    1.373  O        |         |         |         |      0.81
19.000    0.00    1.54    1.362  O        |         |         |         |      0.80
19.083    0.00    1.52    1.352  O        |         |         |         |      0.80
19.167    0.00    1.51    1.341  O        |         |         |         |      0.79
19.250    0.00    1.50    1.331  O        |         |         |         |      0.79
19.333    0.00    1.49    1.321  O        |         |         |         |      0.78
19.417    0.00    1.48    1.310  O        |         |         |         |      0.77
19.500    0.00    1.47    1.300  O        |         |         |         |      0.77
19.583    0.00    1.46    1.290  O        |         |         |         |      0.76
19.667    0.00    1.44    1.280  O        |         |         |         |      0.76
19.750    0.00    1.43    1.270  O        |         |         |         |      0.75
19.833    0.00    1.42    1.260  O        |         |         |         |      0.74
19.917    0.00    1.41    1.251  O        |         |         |         |      0.74
20.000    0.00    1.40    1.241  O        |         |         |         |      0.73
20.083    0.00    1.39    1.231  O        |         |         |         |      0.73
20.167    0.00    1.38    1.222  O        |         |         |         |      0.72
20.250    0.00    1.37    1.212  O        |         |         |         |      0.72
20.333    0.00    1.36    1.203  O        |         |         |         |      0.71
20.417    0.00    1.35    1.194  O        |         |         |         |      0.71
20.500    0.00    1.34    1.184  O        |         |         |         |      0.70
20.583    0.00    1.33    1.175  O        |         |         |         |      0.69
20.667    0.00    1.32    1.166  O        |         |         |         |      0.69
20.750    0.00    1.31    1.157  O        |         |         |         |      0.68
20.833    0.00    1.30    1.148  O        |         |         |         |      0.68
20.917    0.00    1.29    1.139  O        |         |         |         |      0.67
21.000    0.00    1.28    1.131  O        |         |         |         |      0.67
21.083    0.00    1.27    1.122  O        |         |         |         |      0.66
21.167    0.00    1.26    1.113  O        |         |         |         |      0.66
21.250    0.00    1.25    1.104  O        |         |         |         |      0.65
21.333    0.00    1.24    1.096  O        |         |         |         |      0.65
21.417    0.00    1.23    1.087  O        |         |         |         |      0.64
21.500    0.00    1.22    1.079  O        |         |         |         |      0.64
21.583    0.00    1.21    1.071  O        |         |         |         |      0.63
21.667    0.00    1.20    1.062  O        |         |         |         |      0.63
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21.750	0.00	1.19	1.054	O	|	|	|	|	0.62
21.833	0.00	1.18	1.046	O	|	|	|	|	0.62
21.917	0.00	1.17	1.038	O	|	|	|	|	0.61
22.000	0.00	1.16	1.030	O	|	|	|	|	0.61
22.083	0.00	1.15	1.022	O	|	|	|	|	0.60
22.167	0.00	1.14	1.014	O	|	|	|	|	0.60
22.250	0.00	1.14	1.006	O	|	|	|	|	0.59
22.333	0.00	1.13	0.998	O	|	|	|	|	0.59
22.417	0.00	1.12	0.991	O	|	|	|	|	0.59
22.500	0.00	1.11	0.983	O	|	|	|	|	0.58
22.583	0.00	1.10	0.975	O	|	|	|	|	0.58
22.667	0.00	1.09	0.968	O	|	|	|	|	0.57
22.750	0.00	1.08	0.960	O	|	|	|	|	0.57
22.833	0.00	1.08	0.953	O	|	|	|	|	0.56
22.917	0.00	1.07	0.945	O	|	|	|	|	0.56
23.000	0.00	1.06	0.938	O	|	|	|	|	0.55
23.083	0.00	1.05	0.931	O	|	|	|	|	0.55
23.167	0.00	1.04	0.924	O	|	|	|	|	0.55
23.250	0.00	1.03	0.917	O	|	|	|	|	0.54
23.333	0.00	1.03	0.909	O	|	|	|	|	0.54
23.417	0.00	1.02	0.902	O	|	|	|	|	0.53
23.500	0.00	1.01	0.895	O	|	|	|	|	0.53
23.583	0.00	1.00	0.889	O	|	|	|	|	0.52
23.667	0.00	0.99	0.882	O	|	|	|	|	0.52
23.750	0.00	0.99	0.875	O	|	|	|	|	0.52
23.833	0.00	0.98	0.868	O	|	|	|	|	0.51
23.917	0.00	0.97	0.861	O	|	|	|	|	0.51
24.000	0.00	0.96	0.855	O	|	|	|	|	0.50
24.083	0.00	0.96	0.848	O	|	|	|	|	0.50
24.167	0.00	0.95	0.841	O	|	|	|	|	0.50
24.250	0.00	0.94	0.835	O	|	|	|	|	0.49
24.333	0.00	0.93	0.829	O	|	|	|	|	0.49
24.417	0.00	0.93	0.822	O	|	|	|	|	0.49
24.500	0.00	0.92	0.816	O	|	|	|	|	0.48
24.583	0.00	0.91	0.809	O	|	|	|	|	0.48
24.667	0.00	0.91	0.803	O	|	|	|	|	0.47
24.750	0.00	0.90	0.797	O	|	|	|	|	0.47
24.833	0.00	0.89	0.791	O	|	|	|	|	0.47
24.917	0.00	0.89	0.785	O	|	|	|	|	0.46
25.000	0.00	0.88	0.779	O	|	|	|	|	0.46
25.083	0.00	0.87	0.773	O	|	|	|	|	0.46
25.167	0.00	0.86	0.767	O	|	|	|	|	0.45
25.250	0.00	0.86	0.761	O	|	|	|	|	0.45
25.333	0.00	0.85	0.755	O	|	|	|	|	0.45
25.417	0.00	0.84	0.749	O	|	|	|	|	0.44
25.500	0.00	0.84	0.743	O	|	|	|	|	0.44
25.583	0.00	0.83	0.737	O	|	|	|	|	0.44
25.667	0.00	0.83	0.732	O	|	|	|	|	0.43
25.750	0.00	0.82	0.726	O	|	|	|	|	0.43
25.833	0.00	0.81	0.720	O	|	|	|	|	0.43
25.917	0.00	0.81	0.715	O	|	|	|	|	0.42
26.000	0.00	0.80	0.709	O	|	|	|	|	0.42
26.083	0.00	0.79	0.704	O	|	|	|	|	0.42
26.167	0.00	0.79	0.698	O	|	|	|	|	0.41
26.250	0.00	0.78	0.693	O	|	|	|	|	0.41
26.333	0.00	0.78	0.688	O	|	|	|	|	0.41
26.417	0.00	0.77	0.682	O	|	|	|	|	0.40
26.500	0.00	0.76	0.677	O	|	|	|	|	0.40
26.583	0.00	0.76	0.672	O	|	|	|	|	0.40
26.667	0.00	0.75	0.667	O	|	|	|	|	0.39
26.750	0.00	0.75	0.661	O	|	|	|	|	0.39
26.833	0.00	0.74	0.656	O	|	|	|	|	0.39
26.917	0.00	0.73	0.651	O	|	|	|	|	0.38
27.000	0.00	0.73	0.646	O	|	|	|	|	0.38
27.083	0.00	0.72	0.641	O	|	|	|	|	0.38
27.167	0.00	0.72	0.636	O	|	|	|	|	0.38

27.250	0.00	0.71	0.631	O	|	|	|	|	0.37
27.333	0.00	0.71	0.626	O	|	|	|	|	0.37
27.417	0.00	0.70	0.622	O	|	|	|	|	0.37
27.500	0.00	0.70	0.617	O	|	|	|	|	0.36
27.583	0.00	0.69	0.612	O	|	|	|	|	0.36
27.667	0.00	0.69	0.607	O	|	|	|	|	0.36
27.750	0.00	0.68	0.602	O	|	|	|	|	0.36
27.833	0.00	0.67	0.598	O	|	|	|	|	0.35
27.917	0.00	0.67	0.593	O	|	|	|	|	0.35
28.000	0.00	0.66	0.589	O	|	|	|	|	0.35
28.083	0.00	0.66	0.584	O	|	|	|	|	0.34
28.167	0.00	0.65	0.580	O	|	|	|	|	0.34
28.250	0.00	0.65	0.575	O	|	|	|	|	0.34
28.333	0.00	0.64	0.571	O	|	|	|	|	0.34
28.417	0.00	0.64	0.566	O	|	|	|	|	0.33
28.500	0.00	0.63	0.562	O	|	|	|	|	0.33
28.583	0.00	0.63	0.557	O	|	|	|	|	0.33
28.667	0.00	0.62	0.553	O	|	|	|	|	0.33
28.750	0.00	0.62	0.549	O	|	|	|	|	0.32
28.833	0.00	0.61	0.545	O	|	|	|	|	0.32
28.917	0.00	0.61	0.540	O	|	|	|	|	0.32
29.000	0.00	0.60	0.536	O	|	|	|	|	0.32
29.083	0.00	0.60	0.532	O	|	|	|	|	0.31
29.167	0.00	0.60	0.528	O	|	|	|	|	0.31
29.250	0.00	0.59	0.524	O	|	|	|	|	0.31
29.333	0.00	0.59	0.520	O	|	|	|	|	0.31
29.417	0.00	0.58	0.516	O	|	|	|	|	0.30
29.500	0.00	0.58	0.512	O	|	|	|	|	0.30
29.583	0.00	0.57	0.508	O	|	|	|	|	0.30
29.667	0.00	0.57	0.504	O	|	|	|	|	0.30
29.750	0.00	0.56	0.500	O	|	|	|	|	0.30
29.833	0.00	0.56	0.496	O	|	|	|	|	0.29
29.917	0.00	0.56	0.492	O	|	|	|	|	0.29
30.000	0.00	0.55	0.488	O	|	|	|	|	0.29
30.083	0.00	0.55	0.485	O	|	|	|	|	0.29
30.167	0.00	0.54	0.481	O	|	|	|	|	0.28
30.250	0.00	0.54	0.477	O	|	|	|	|	0.28
30.333	0.00	0.53	0.474	O	|	|	|	|	0.28
30.417	0.00	0.53	0.470	O	|	|	|	|	0.28
30.500	0.00	0.53	0.466	O	|	|	|	|	0.28
30.583	0.00	0.52	0.463	O	|	|	|	|	0.27
30.667	0.00	0.52	0.459	O	|	|	|	|	0.27
30.750	0.00	0.51	0.455	O	|	|	|	|	0.27
30.833	0.00	0.51	0.452	O	|	|	|	|	0.27
30.917	0.00	0.51	0.448	O	|	|	|	|	0.26
31.000	0.00	0.50	0.445	O	|	|	|	|	0.26
31.083	0.00	0.50	0.442	O	|	|	|	|	0.26
31.167	0.00	0.49	0.438	O	|	|	|	|	0.26
31.250	0.00	0.49	0.435	O	|	|	|	|	0.26
31.333	0.00	0.49	0.431	O	|	|	|	|	0.25
31.417	0.00	0.48	0.428	O	|	|	|	|	0.25
31.500	0.00	0.48	0.425	O	|	|	|	|	0.25
31.583	0.00	0.48	0.421	O	|	|	|	|	0.25
31.667	0.00	0.47	0.418	O	|	|	|	|	0.25
31.750	0.00	0.47	0.415	O	|	|	|	|	0.25
31.833	0.00	0.46	0.412	O	|	|	|	|	0.24
31.917	0.00	0.46	0.409	O	|	|	|	|	0.24
32.000	0.00	0.46	0.405	O	|	|	|	|	0.24
32.083	0.00	0.45	0.402	O	|	|	|	|	0.24
32.167	0.00	0.45	0.399	O	|	|	|	|	0.24
32.250	0.00	0.45	0.396	O	|	|	|	|	0.23
32.333	0.00	0.44	0.393	O	|	|	|	|	0.23
32.417	0.00	0.44	0.390	O	|	|	|	|	0.23
32.500	0.00	0.44	0.387	O	|	|	|	|	0.23
32.583	0.00	0.43	0.384	O	|	|	|	|	0.23
32.667	0.00	0.43	0.381	O	|	|	|	|	0.23

32.750	0.00	0.43	0.378	O	|	|	|	|	0.22
32.833	0.00	0.42	0.375	O	|	|	|	|	0.22
32.917	0.00	0.42	0.372	O	|	|	|	|	0.22
33.000	0.00	0.42	0.369	O	|	|	|	|	0.22
33.083	0.00	0.41	0.366	O	|	|	|	|	0.22
33.167	0.00	0.41	0.364	O	|	|	|	|	0.21
33.250	0.00	0.41	0.361	O	|	|	|	|	0.21
33.333	0.00	0.40	0.358	O	|	|	|	|	0.21
33.417	0.00	0.40	0.355	O	|	|	|	|	0.21
33.500	0.00	0.40	0.352	O	|	|	|	|	0.21
33.583	0.00	0.39	0.350	O	|	|	|	|	0.21
33.667	0.00	0.39	0.347	O	|	|	|	|	0.20
33.750	0.00	0.39	0.344	O	|	|	|	|	0.20
33.833	0.00	0.39	0.342	O	|	|	|	|	0.20
33.917	0.00	0.38	0.339	O	|	|	|	|	0.20
34.000	0.00	0.38	0.336	O	|	|	|	|	0.20
34.083	0.00	0.38	0.334	O	|	|	|	|	0.20
34.167	0.00	0.37	0.331	O	|	|	|	|	0.20
34.250	0.00	0.37	0.329	O	|	|	|	|	0.19
34.333	0.00	0.37	0.326	O	|	|	|	|	0.19
34.417	0.00	0.37	0.324	O	|	|	|	|	0.19
34.500	0.00	0.36	0.321	O	|	|	|	|	0.19
34.583	0.00	0.36	0.319	O	|	|	|	|	0.19
34.667	0.00	0.36	0.316	O	|	|	|	|	0.19
34.750	0.00	0.35	0.314	O	|	|	|	|	0.19
34.833	0.00	0.35	0.311	O	|	|	|	|	0.18
34.917	0.00	0.35	0.309	O	|	|	|	|	0.18
35.000	0.00	0.35	0.306	O	|	|	|	|	0.18
35.083	0.00	0.34	0.304	O	|	|	|	|	0.18
35.167	0.00	0.34	0.302	O	|	|	|	|	0.18
35.250	0.00	0.34	0.299	O	|	|	|	|	0.18
35.333	0.00	0.34	0.297	O	|	|	|	|	0.18
35.417	0.00	0.33	0.295	O	|	|	|	|	0.17
35.500	0.00	0.33	0.293	O	|	|	|	|	0.17
35.583	0.00	0.33	0.290	O	|	|	|	|	0.17
35.667	0.00	0.32	0.288	O	|	|	|	|	0.17
35.750	0.00	0.32	0.286	O	|	|	|	|	0.17
35.833	0.00	0.32	0.284	O	|	|	|	|	0.17
35.917	0.00	0.32	0.281	O	|	|	|	|	0.17
36.000	0.00	0.31	0.279	O	|	|	|	|	0.16
36.083	0.00	0.31	0.277	O	|	|	|	|	0.16
36.167	0.00	0.31	0.275	O	|	|	|	|	0.16
36.250	0.00	0.31	0.273	O	|	|	|	|	0.16
36.333	0.00	0.31	0.271	O	|	|	|	|	0.16
36.417	0.00	0.30	0.269	O	|	|	|	|	0.16
36.500	0.00	0.30	0.266	O	|	|	|	|	0.16
36.583	0.00	0.30	0.264	O	|	|	|	|	0.16
36.667	0.00	0.30	0.262	O	|	|	|	|	0.15
36.750	0.00	0.29	0.260	O	|	|	|	|	0.15
36.833	0.00	0.29	0.258	O	|	|	|	|	0.15
36.917	0.00	0.29	0.256	O	|	|	|	|	0.15
37.000	0.00	0.29	0.254	O	|	|	|	|	0.15
37.083	0.00	0.28	0.252	O	|	|	|	|	0.15
37.167	0.00	0.28	0.250	O	|	|	|	|	0.15
37.250	0.00	0.28	0.248	O	|	|	|	|	0.15
37.333	0.00	0.28	0.247	O	|	|	|	|	0.15
37.417	0.00	0.28	0.245	O	|	|	|	|	0.14
37.500	0.00	0.27	0.243	O	|	|	|	|	0.14
37.583	0.00	0.27	0.241	O	|	|	|	|	0.14
37.667	0.00	0.27	0.239	O	|	|	|	|	0.14
37.750	0.00	0.27	0.237	O	|	|	|	|	0.14
37.833	0.00	0.27	0.235	O	|	|	|	|	0.14
37.917	0.00	0.26	0.233	O	|	|	|	|	0.14
38.000	0.00	0.26	0.232	O	|	|	|	|	0.14
38.083	0.00	0.26	0.230	O	|	|	|	|	0.14
38.167	0.00	0.26	0.228	O	|	|	|	|	0.13

38.250	0.00	0.26	0.226	O					0.13
38.333	0.00	0.25	0.225	O					0.13
38.417	0.00	0.25	0.223	O					0.13
38.500	0.00	0.25	0.221	O					0.13
38.583	0.00	0.25	0.219	O					0.13
38.667	0.00	0.25	0.218	O					0.13
38.750	0.00	0.24	0.216	O					0.13
38.833	0.00	0.24	0.214	O					0.13
38.917	0.00	0.24	0.213	O					0.13
39.000	0.00	0.24	0.211	O					0.12
39.083	0.00	0.24	0.209	O					0.12
39.167	0.00	0.23	0.208	O					0.12
39.250	0.00	0.23	0.206	O					0.12
39.333	0.00	0.23	0.205	O					0.12
39.417	0.00	0.23	0.203	O					0.12
39.500	0.00	0.23	0.201	O					0.12
39.583	0.00	0.23	0.200	O					0.12
39.667	0.00	0.22	0.198	O					0.12
39.750	0.00	0.22	0.197	O					0.12
39.833	0.00	0.22	0.195	O					0.12
39.917	0.00	0.22	0.194	O					0.11
40.000	0.00	0.22	0.192	O					0.11
40.083	0.00	0.22	0.191	O					0.11
40.167	0.00	0.21	0.189	O					0.11
40.250	0.00	0.21	0.188	O					0.11
40.333	0.00	0.21	0.186	O					0.11
40.417	0.00	0.21	0.185	O					0.11
40.500	0.00	0.21	0.184	O					0.11
40.583	0.00	0.21	0.182	O					0.11
40.667	0.00	0.20	0.181	O					0.11
40.750	0.00	0.20	0.179	O					0.11
40.833	0.00	0.20	0.178	O					0.11
40.917	0.00	0.20	0.177	O					0.10
41.000	0.00	0.20	0.175	O					0.10
41.083	0.00	0.20	0.174	O					0.10
41.167	0.00	0.19	0.172	O					0.10
41.250	0.00	0.19	0.171	O					0.10
41.333	0.00	0.19	0.170	O					0.10
41.417	0.00	0.19	0.168	O					0.10
41.500	0.00	0.19	0.167	O					0.10
41.583	0.00	0.19	0.166	O					0.10
41.667	0.00	0.19	0.165	O					0.10
41.750	0.00	0.18	0.163	O					0.10
41.833	0.00	0.18	0.162	O					0.10
41.917	0.00	0.18	0.161	O					0.09
42.000	0.00	0.18	0.160	O					0.09
42.083	0.00	0.18	0.158	O					0.09
42.167	0.00	0.18	0.157	O					0.09
42.250	0.00	0.18	0.156	O					0.09
42.333	0.00	0.17	0.155	O					0.09
42.417	0.00	0.17	0.153	O					0.09
42.500	0.00	0.17	0.152	O					0.09
42.583	0.00	0.17	0.151	O					0.09
42.667	0.00	0.17	0.150	O					0.09
42.750	0.00	0.17	0.149	O					0.09
42.833	0.00	0.17	0.148	O					0.09
42.917	0.00	0.17	0.146	O					0.09
43.000	0.00	0.16	0.145	O					0.09
43.083	0.00	0.16	0.144	O					0.09
43.167	0.00	0.16	0.143	O					0.08
43.250	0.00	0.16	0.142	O					0.08
43.333	0.00	0.16	0.141	O					0.08
43.417	0.00	0.16	0.140	O					0.08
43.500	0.00	0.16	0.139	O					0.08
43.583	0.00	0.16	0.138	O					0.08
43.667	0.00	0.15	0.137	O					0.08

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43.750    0.00    0.15      0.136  O       |       |       |       |      0.08
43.833    0.00    0.15      0.134  O       |       |       |       |      0.08
43.917    0.00    0.15      0.133  O       |       |       |       |      0.08
44.000    0.00    0.15      0.132  O       |       |       |       |      0.08
44.083    0.00    0.15      0.131  O       |       |       |       |      0.08
44.167    0.00    0.15      0.130  O       |       |       |       |      0.08
44.250    0.00    0.15      0.129  O       |       |       |       |      0.08
44.333    0.00    0.14      0.128  O       |       |       |       |      0.08
44.417    0.00    0.14      0.127  O       |       |       |       |      0.08
44.500    0.00    0.14      0.126  O       |       |       |       |      0.07
44.583    0.00    0.14      0.125  O       |       |       |       |      0.07
44.667    0.00    0.14      0.124  O       |       |       |       |      0.07
44.750    0.00    0.14      0.123  O       |       |       |       |      0.07
44.833    0.00    0.14      0.123  O       |       |       |       |      0.07
44.917    0.00    0.14      0.122  O       |       |       |       |      0.07
45.000    0.00    0.14      0.121  O       |       |       |       |      0.07
45.083    0.00    0.14      0.120  O       |       |       |       |      0.07
45.167    0.00    0.13      0.119  O       |       |       |       |      0.07
45.250    0.00    0.13      0.118  O       |       |       |       |      0.07
45.333    0.00    0.13      0.117  O       |       |       |       |      0.07
45.417    0.00    0.13      0.116  O       |       |       |       |      0.07
45.500    0.00    0.13      0.115  O       |       |       |       |      0.07
45.583    0.00    0.13      0.114  O       |       |       |       |      0.07
45.667    0.00    0.13      0.113  O       |       |       |       |      0.07
45.750    0.00    0.13      0.112  O       |       |       |       |      0.07
45.833    0.00    0.13      0.112  O       |       |       |       |      0.07
45.917    0.00    0.12      0.111  O       |       |       |       |      0.07
46.000    0.00    0.12      0.110  O       |       |       |       |      0.06
46.083    0.00    0.12      0.109  O       |       |       |       |      0.06
46.167    0.00    0.12      0.108  O       |       |       |       |      0.06
46.250    0.00    0.12      0.107  O       |       |       |       |      0.06
46.333    0.00    0.12      0.107  O       |       |       |       |      0.06
46.417    0.00    0.12      0.106  O       |       |       |       |      0.06
46.500    0.00    0.12      0.105  O       |       |       |       |      0.06
46.583    0.00    0.12      0.104  O       |       |       |       |      0.06
46.667    0.00    0.12      0.103  O       |       |       |       |      0.06
46.750    0.00    0.12      0.102  O       |       |       |       |      0.06
46.833    0.00    0.11      0.102  O       |       |       |       |      0.06
46.917    0.00    0.11      0.101  O       |       |       |       |      0.06
47.000    0.00    0.11      0.100  O       |       |       |       |      0.06
47.083    0.00    0.11      0.099  O       |       |       |       |      0.06
47.167    0.00    0.11      0.099  O       |       |       |       |      0.06
47.250    0.00    0.11      0.098  O       |       |       |       |      0.06
47.333    0.00    0.11      0.097  O       |       |       |       |      0.06
47.417    0.00    0.11      0.096  O       |       |       |       |      0.06
47.500    0.00    0.11      0.096  O       |       |       |       |      0.06
47.583    0.00    0.11      0.095  O       |       |       |       |      0.06
47.667    0.00    0.11      0.094  O       |       |       |       |      0.06
47.750    0.00    0.11      0.093  O       |       |       |       |      0.06
47.833    0.00    0.10      0.093  O       |       |       |       |      0.05
47.917    0.00    0.10      0.092  O       |       |       |       |      0.05
48.000    0.00    0.10      0.091  O       |       |       |       |      0.05
48.083    0.00    0.10      0.090  O       |       |       |       |      0.05
48.167    0.00    0.10      0.090  O       |       |       |       |      0.05
48.250    0.00    0.10      0.089  O       |       |       |       |      0.05
48.333    0.00    0.10      0.088  O       |       |       |       |      0.05
48.417    0.00    0.10      0.088  O       |       |       |       |      0.05
48.500    0.00    0.10      0.087  O       |       |       |       |      0.05
48.583    0.00    0.10      0.086  O       |       |       |       |      0.05
48.667    0.00    0.10      0.086  O       |       |       |       |      0.05
48.750    0.00    0.10      0.085  O       |       |       |       |      0.05
48.833    0.00    0.10      0.084  O       |       |       |       |      0.05
48.917    0.00    0.09      0.084  O       |       |       |       |      0.05
49.000    0.00    0.09      0.083  O       |       |       |       |      0.05
49.083    0.00    0.09      0.082  O       |       |       |       |      0.05
49.167    0.00    0.09      0.082  O       |       |       |       |      0.05
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49.250	0.00	0.09	0.081	O	|	|	|	|	0.05
49.333	0.00	0.09	0.081	O	|	|	|	|	0.05
49.417	0.00	0.09	0.080	O	|	|	|	|	0.05
49.500	0.00	0.09	0.079	O	|	|	|	|	0.05
49.583	0.00	0.09	0.079	O	|	|	|	|	0.05
49.667	0.00	0.09	0.078	O	|	|	|	|	0.05
49.750	0.00	0.09	0.077	O	|	|	|	|	0.05
49.833	0.00	0.09	0.077	O	|	|	|	|	0.05
49.917	0.00	0.09	0.076	O	|	|	|	|	0.05
50.000	0.00	0.09	0.076	O	|	|	|	|	0.04
50.083	0.00	0.08	0.075	O	|	|	|	|	0.04
50.167	0.00	0.08	0.075	O	|	|	|	|	0.04
50.250	0.00	0.08	0.074	O	|	|	|	|	0.04
50.333	0.00	0.08	0.073	O	|	|	|	|	0.04
50.417	0.00	0.08	0.073	O	|	|	|	|	0.04
50.500	0.00	0.08	0.072	O	|	|	|	|	0.04
50.583	0.00	0.08	0.072	O	|	|	|	|	0.04
50.667	0.00	0.08	0.071	O	|	|	|	|	0.04
50.750	0.00	0.08	0.071	O	|	|	|	|	0.04
50.833	0.00	0.08	0.070	O	|	|	|	|	0.04
50.917	0.00	0.08	0.069	O	|	|	|	|	0.04
51.000	0.00	0.08	0.069	O	|	|	|	|	0.04
51.083	0.00	0.08	0.068	O	|	|	|	|	0.04
51.167	0.00	0.08	0.068	O	|	|	|	|	0.04
51.250	0.00	0.08	0.067	O	|	|	|	|	0.04
51.333	0.00	0.08	0.067	O	|	|	|	|	0.04
51.417	0.00	0.07	0.066	O	|	|	|	|	0.04
51.500	0.00	0.07	0.066	O	|	|	|	|	0.04
51.583	0.00	0.07	0.065	O	|	|	|	|	0.04
51.667	0.00	0.07	0.065	O	|	|	|	|	0.04
51.750	0.00	0.07	0.064	O	|	|	|	|	0.04
51.833	0.00	0.07	0.064	O	|	|	|	|	0.04
51.917	0.00	0.07	0.063	O	|	|	|	|	0.04
52.000	0.00	0.07	0.063	O	|	|	|	|	0.04
52.083	0.00	0.07	0.062	O	|	|	|	|	0.04
52.167	0.00	0.07	0.062	O	|	|	|	|	0.04
52.250	0.00	0.07	0.061	O	|	|	|	|	0.04
52.333	0.00	0.07	0.061	O	|	|	|	|	0.04
52.417	0.00	0.07	0.060	O	|	|	|	|	0.04
52.500	0.00	0.07	0.060	O	|	|	|	|	0.04
52.583	0.00	0.07	0.059	O	|	|	|	|	0.04
52.667	0.00	0.07	0.059	O	|	|	|	|	0.03
52.750	0.00	0.07	0.059	O	|	|	|	|	0.03
52.833	0.00	0.07	0.058	O	|	|	|	|	0.03
52.917	0.00	0.07	0.058	O	|	|	|	|	0.03
53.000	0.00	0.06	0.057	O	|	|	|	|	0.03
53.083	0.00	0.06	0.057	O	|	|	|	|	0.03
53.167	0.00	0.06	0.056	O	|	|	|	|	0.03
53.250	0.00	0.06	0.056	O	|	|	|	|	0.03
53.333	0.00	0.06	0.055	O	|	|	|	|	0.03
53.417	0.00	0.06	0.055	O	|	|	|	|	0.03
53.500	0.00	0.06	0.055	O	|	|	|	|	0.03
53.583	0.00	0.06	0.054	O	|	|	|	|	0.03
53.667	0.00	0.06	0.054	O	|	|	|	|	0.03
53.750	0.00	0.06	0.053	O	|	|	|	|	0.03
53.833	0.00	0.06	0.053	O	|	|	|	|	0.03
53.917	0.00	0.06	0.053	O	|	|	|	|	0.03
54.000	0.00	0.06	0.052	O	|	|	|	|	0.03
54.083	0.00	0.06	0.052	O	|	|	|	|	0.03
54.167	0.00	0.06	0.051	O	|	|	|	|	0.03
54.250	0.00	0.06	0.051	O	|	|	|	|	0.03
54.333	0.00	0.06	0.051	O	|	|	|	|	0.03
54.417	0.00	0.06	0.050	O	|	|	|	|	0.03
54.500	0.00	0.06	0.050	O	|	|	|	|	0.03
54.583	0.00	0.06	0.049	O	|	|	|	|	0.03
54.667	0.00	0.06	0.049	O	|	|	|	|	0.03

54.750	0.00	0.05	0.049	O	|	|	|	|	0.03
54.833	0.00	0.05	0.048	O	|	|	|	|	0.03
54.917	0.00	0.05	0.048	O	|	|	|	|	0.03
55.000	0.00	0.05	0.047	O	|	|	|	|	0.03
55.083	0.00	0.05	0.047	O	|	|	|	|	0.03
55.167	0.00	0.05	0.047	O	|	|	|	|	0.03
55.250	0.00	0.05	0.046	O	|	|	|	|	0.03
55.333	0.00	0.05	0.046	O	|	|	|	|	0.03
55.417	0.00	0.05	0.046	O	|	|	|	|	0.03
55.500	0.00	0.05	0.045	O	|	|	|	|	0.03
55.583	0.00	0.05	0.045	O	|	|	|	|	0.03
55.667	0.00	0.05	0.045	O	|	|	|	|	0.03
55.750	0.00	0.05	0.044	O	|	|	|	|	0.03
55.833	0.00	0.05	0.044	O	|	|	|	|	0.03
55.917	0.00	0.05	0.044	O	|	|	|	|	0.03
56.000	0.00	0.05	0.043	O	|	|	|	|	0.03
56.083	0.00	0.05	0.043	O	|	|	|	|	0.03
56.167	0.00	0.05	0.043	O	|	|	|	|	0.03
56.250	0.00	0.05	0.042	O	|	|	|	|	0.02
56.333	0.00	0.05	0.042	O	|	|	|	|	0.02
56.417	0.00	0.05	0.042	O	|	|	|	|	0.02
56.500	0.00	0.05	0.041	O	|	|	|	|	0.02
56.583	0.00	0.05	0.041	O	|	|	|	|	0.02
56.667	0.00	0.05	0.041	O	|	|	|	|	0.02
56.750	0.00	0.05	0.040	O	|	|	|	|	0.02
56.833	0.00	0.05	0.040	O	|	|	|	|	0.02
56.917	0.00	0.04	0.040	O	|	|	|	|	0.02
57.000	0.00	0.04	0.039	O	|	|	|	|	0.02
57.083	0.00	0.04	0.039	O	|	|	|	|	0.02
57.167	0.00	0.04	0.039	O	|	|	|	|	0.02
57.250	0.00	0.04	0.038	O	|	|	|	|	0.02
57.333	0.00	0.04	0.038	O	|	|	|	|	0.02
57.417	0.00	0.04	0.038	O	|	|	|	|	0.02
57.500	0.00	0.04	0.038	O	|	|	|	|	0.02
57.583	0.00	0.04	0.037	O	|	|	|	|	0.02
57.667	0.00	0.04	0.037	O	|	|	|	|	0.02
57.750	0.00	0.04	0.037	O	|	|	|	|	0.02
57.833	0.00	0.04	0.036	O	|	|	|	|	0.02
57.917	0.00	0.04	0.036	O	|	|	|	|	0.02
58.000	0.00	0.04	0.036	O	|	|	|	|	0.02
58.083	0.00	0.04	0.036	O	|	|	|	|	0.02
58.167	0.00	0.04	0.035	O	|	|	|	|	0.02
58.250	0.00	0.04	0.035	O	|	|	|	|	0.02
58.333	0.00	0.04	0.035	O	|	|	|	|	0.02
58.417	0.00	0.04	0.035	O	|	|	|	|	0.02
58.500	0.00	0.04	0.034	O	|	|	|	|	0.02
58.583	0.00	0.04	0.034	O	|	|	|	|	0.02
58.667	0.00	0.04	0.034	O	|	|	|	|	0.02
58.750	0.00	0.04	0.033	O	|	|	|	|	0.02
58.833	0.00	0.04	0.033	O	|	|	|	|	0.02
58.917	0.00	0.04	0.033	O	|	|	|	|	0.02
59.000	0.00	0.04	0.033	O	|	|	|	|	0.02
59.083	0.00	0.04	0.032	O	|	|	|	|	0.02
59.167	0.00	0.04	0.032	O	|	|	|	|	0.02
59.250	0.00	0.04	0.032	O	|	|	|	|	0.02
59.333	0.00	0.04	0.032	O	|	|	|	|	0.02
59.417	0.00	0.04	0.031	O	|	|	|	|	0.02
59.500	0.00	0.04	0.031	O	|	|	|	|	0.02
59.583	0.00	0.03	0.031	O	|	|	|	|	0.02
59.667	0.00	0.03	0.031	O	|	|	|	|	0.02
59.750	0.00	0.03	0.030	O	|	|	|	|	0.02
59.833	0.00	0.03	0.030	O	|	|	|	|	0.02
59.917	0.00	0.03	0.030	O	|	|	|	|	0.02
60.000	0.00	0.03	0.030	O	|	|	|	|	0.02
60.083	0.00	0.03	0.030	O	|	|	|	|	0.02
60.167	0.00	0.03	0.029	O	|	|	|	|	0.02

60.250	0.00	0.03	0.029	O	|	|	|	|	0.02
60.333	0.00	0.03	0.029	O	|	|	|	|	0.02
60.417	0.00	0.03	0.029	O	|	|	|	|	0.02
60.500	0.00	0.03	0.028	O	|	|	|	|	0.02
60.583	0.00	0.03	0.028	O	|	|	|	|	0.02
60.667	0.00	0.03	0.028	O	|	|	|	|	0.02
60.750	0.00	0.03	0.028	O	|	|	|	|	0.02
60.833	0.00	0.03	0.028	O	|	|	|	|	0.02
60.917	0.00	0.03	0.027	O	|	|	|	|	0.02
61.000	0.00	0.03	0.027	O	|	|	|	|	0.02
61.083	0.00	0.03	0.027	O	|	|	|	|	0.02
61.167	0.00	0.03	0.027	O	|	|	|	|	0.02
61.250	0.00	0.03	0.027	O	|	|	|	|	0.02
61.333	0.00	0.03	0.026	O	|	|	|	|	0.02
61.417	0.00	0.03	0.026	O	|	|	|	|	0.02
61.500	0.00	0.03	0.026	O	|	|	|	|	0.02
61.583	0.00	0.03	0.026	O	|	|	|	|	0.02
61.667	0.00	0.03	0.026	O	|	|	|	|	0.02
61.750	0.00	0.03	0.025	O	|	|	|	|	0.01
61.833	0.00	0.03	0.025	O	|	|	|	|	0.01
61.917	0.00	0.03	0.025	O	|	|	|	|	0.01
62.000	0.00	0.03	0.025	O	|	|	|	|	0.01
62.083	0.00	0.03	0.025	O	|	|	|	|	0.01
62.167	0.00	0.03	0.024	O	|	|	|	|	0.01
62.250	0.00	0.03	0.024	O	|	|	|	|	0.01
62.333	0.00	0.03	0.024	O	|	|	|	|	0.01
62.417	0.00	0.03	0.024	O	|	|	|	|	0.01
62.500	0.00	0.03	0.024	O	|	|	|	|	0.01
62.583	0.00	0.03	0.023	O	|	|	|	|	0.01
62.667	0.00	0.03	0.023	O	|	|	|	|	0.01
62.750	0.00	0.03	0.023	O	|	|	|	|	0.01
62.833	0.00	0.03	0.023	O	|	|	|	|	0.01
62.917	0.00	0.03	0.023	O	|	|	|	|	0.01
63.000	0.00	0.03	0.023	O	|	|	|	|	0.01
63.083	0.00	0.03	0.022	O	|	|	|	|	0.01
63.167	0.00	0.03	0.022	O	|	|	|	|	0.01
63.250	0.00	0.02	0.022	O	|	|	|	|	0.01
63.333	0.00	0.02	0.022	O	|	|	|	|	0.01
63.417	0.00	0.02	0.022	O	|	|	|	|	0.01
63.500	0.00	0.02	0.021	O	|	|	|	|	0.01
63.583	0.00	0.02	0.021	O	|	|	|	|	0.01
63.667	0.00	0.02	0.021	O	|	|	|	|	0.01
63.750	0.00	0.02	0.021	O	|	|	|	|	0.01
63.833	0.00	0.02	0.021	O	|	|	|	|	0.01
63.917	0.00	0.02	0.021	O	|	|	|	|	0.01
64.000	0.00	0.02	0.021	O	|	|	|	|	0.01
64.083	0.00	0.02	0.020	O	|	|	|	|	0.01
64.167	0.00	0.02	0.020	O	|	|	|	|	0.01
64.250	0.00	0.02	0.020	O	|	|	|	|	0.01
64.333	0.00	0.02	0.020	O	|	|	|	|	0.01
64.417	0.00	0.02	0.020	O	|	|	|	|	0.01
64.500	0.00	0.02	0.020	O	|	|	|	|	0.01
64.583	0.00	0.02	0.019	O	|	|	|	|	0.01
64.667	0.00	0.02	0.019	O	|	|	|	|	0.01
64.750	0.00	0.02	0.019	O	|	|	|	|	0.01
64.833	0.00	0.02	0.019	O	|	|	|	|	0.01
64.917	0.00	0.02	0.019	O	|	|	|	|	0.01
65.000	0.00	0.02	0.019	O	|	|	|	|	0.01
65.083	0.00	0.02	0.019	O	|	|	|	|	0.01
65.167	0.00	0.02	0.018	O	|	|	|	|	0.01
65.250	0.00	0.02	0.018	O	|	|	|	|	0.01
65.333	0.00	0.02	0.018	O	|	|	|	|	0.01
65.417	0.00	0.02	0.018	O	|	|	|	|	0.01
65.500	0.00	0.02	0.018	O	|	|	|	|	0.01
65.583	0.00	0.02	0.018	O	|	|	|	|	0.01
65.667	0.00	0.02	0.018	O	|	|	|	|	0.01

65.750	0.00	0.02	0.017	O	|	|	|	|	0.01
65.833	0.00	0.02	0.017	O	|	|	|	|	0.01
65.917	0.00	0.02	0.017	O	|	|	|	|	0.01
66.000	0.00	0.02	0.017	O	|	|	|	|	0.01
66.083	0.00	0.02	0.017	O	|	|	|	|	0.01
66.167	0.00	0.02	0.017	O	|	|	|	|	0.01
66.250	0.00	0.02	0.017	O	|	|	|	|	0.01
66.333	0.00	0.02	0.017	O	|	|	|	|	0.01
66.417	0.00	0.02	0.016	O	|	|	|	|	0.01
66.500	0.00	0.02	0.016	O	|	|	|	|	0.01
66.583	0.00	0.02	0.016	O	|	|	|	|	0.01
66.667	0.00	0.02	0.016	O	|	|	|	|	0.01
66.750	0.00	0.02	0.016	O	|	|	|	|	0.01
66.833	0.00	0.02	0.016	O	|	|	|	|	0.01
66.917	0.00	0.02	0.016	O	|	|	|	|	0.01
67.000	0.00	0.02	0.016	O	|	|	|	|	0.01
67.083	0.00	0.02	0.015	O	|	|	|	|	0.01
67.167	0.00	0.02	0.015	O	|	|	|	|	0.01
67.250	0.00	0.02	0.015	O	|	|	|	|	0.01
67.333	0.00	0.02	0.015	O	|	|	|	|	0.01
67.417	0.00	0.02	0.015	O	|	|	|	|	0.01
67.500	0.00	0.02	0.015	O	|	|	|	|	0.01
67.583	0.00	0.02	0.015	O	|	|	|	|	0.01
67.667	0.00	0.02	0.015	O	|	|	|	|	0.01
67.750	0.00	0.02	0.014	O	|	|	|	|	0.01
67.833	0.00	0.02	0.014	O	|	|	|	|	0.01
67.917	0.00	0.02	0.014	O	|	|	|	|	0.01
68.000	0.00	0.02	0.014	O	|	|	|	|	0.01
68.083	0.00	0.02	0.014	O	|	|	|	|	0.01
68.167	0.00	0.02	0.014	O	|	|	|	|	0.01
68.250	0.00	0.02	0.014	O	|	|	|	|	0.01
68.333	0.00	0.02	0.014	O	|	|	|	|	0.01
68.417	0.00	0.02	0.014	O	|	|	|	|	0.01
68.500	0.00	0.02	0.013	O	|	|	|	|	0.01
68.583	0.00	0.02	0.013	O	|	|	|	|	0.01
68.667	0.00	0.01	0.013	O	|	|	|	|	0.01
68.750	0.00	0.01	0.013	O	|	|	|	|	0.01
68.833	0.00	0.01	0.013	O	|	|	|	|	0.01
68.917	0.00	0.01	0.013	O	|	|	|	|	0.01
69.000	0.00	0.01	0.013	O	|	|	|	|	0.01
69.083	0.00	0.01	0.013	O	|	|	|	|	0.01
69.167	0.00	0.01	0.013	O	|	|	|	|	0.01
69.250	0.00	0.01	0.013	O	|	|	|	|	0.01
69.333	0.00	0.01	0.012	O	|	|	|	|	0.01
69.417	0.00	0.01	0.012	O	|	|	|	|	0.01
69.500	0.00	0.01	0.012	O	|	|	|	|	0.01
69.583	0.00	0.01	0.012	O	|	|	|	|	0.01
69.667	0.00	0.01	0.012	O	|	|	|	|	0.01
69.750	0.00	0.01	0.012	O	|	|	|	|	0.01
69.833	0.00	0.01	0.012	O	|	|	|	|	0.01
69.917	0.00	0.01	0.012	O	|	|	|	|	0.01
70.000	0.00	0.01	0.012	O	|	|	|	|	0.01
70.083	0.00	0.01	0.012	O	|	|	|	|	0.01
70.167	0.00	0.01	0.012	O	|	|	|	|	0.01
70.250	0.00	0.01	0.011	O	|	|	|	|	0.01
70.333	0.00	0.01	0.011	O	|	|	|	|	0.01
70.417	0.00	0.01	0.011	O	|	|	|	|	0.01
70.500	0.00	0.01	0.011	O	|	|	|	|	0.01
70.583	0.00	0.01	0.011	O	|	|	|	|	0.01
70.667	0.00	0.01	0.011	O	|	|	|	|	0.01
70.750	0.00	0.01	0.011	O	|	|	|	|	0.01
70.833	0.00	0.01	0.011	O	|	|	|	|	0.01
70.917	0.00	0.01	0.011	O	|	|	|	|	0.01
71.000	0.00	0.01	0.011	O	|	|	|	|	0.01
71.083	0.00	0.01	0.011	O	|	|	|	|	0.01
71.167	0.00	0.01	0.011	O	|	|	|	|	0.01

71.250	0.00	0.01	0.010	O	|	|	|	|	0.01
71.333	0.00	0.01	0.010	O	|	|	|	|	0.01
71.417	0.00	0.01	0.010	O	|	|	|	|	0.01
71.500	0.00	0.01	0.010	O	|	|	|	|	0.01
71.583	0.00	0.01	0.010	O	|	|	|	|	0.01
71.667	0.00	0.01	0.010	O	|	|	|	|	0.01
71.750	0.00	0.01	0.010	O	|	|	|	|	0.01
71.833	0.00	0.01	0.010	O	|	|	|	|	0.01
71.917	0.00	0.01	0.010	O	|	|	|	|	0.01
72.000	0.00	0.01	0.010	O	|	|	|	|	0.01
72.083	0.00	0.01	0.010	O	|	|	|	|	0.01
72.167	0.00	0.01	0.010	O	|	|	|	|	0.01
72.250	0.00	0.01	0.010	O	|	|	|	|	0.01
72.333	0.00	0.01	0.009	O	|	|	|	|	0.01
72.417	0.00	0.01	0.009	O	|	|	|	|	0.01
72.500	0.00	0.01	0.009	O	|	|	|	|	0.01
72.583	0.00	0.01	0.009	O	|	|	|	|	0.01
72.667	0.00	0.01	0.009	O	|	|	|	|	0.01
72.750	0.00	0.01	0.009	O	|	|	|	|	0.01
72.833	0.00	0.01	0.009	O	|	|	|	|	0.01
72.917	0.00	0.01	0.009	O	|	|	|	|	0.01
73.000	0.00	0.01	0.009	O	|	|	|	|	0.01
73.083	0.00	0.01	0.009	O	|	|	|	|	0.01
73.167	0.00	0.01	0.009	O	|	|	|	|	0.01
73.250	0.00	0.01	0.009	O	|	|	|	|	0.01
73.333	0.00	0.01	0.009	O	|	|	|	|	0.01
73.417	0.00	0.01	0.009	O	|	|	|	|	0.01
73.500	0.00	0.01	0.008	O	|	|	|	|	0.00
73.583	0.00	0.01	0.008	O	|	|	|	|	0.00
73.667	0.00	0.01	0.008	O	|	|	|	|	0.00
73.750	0.00	0.01	0.008	O	|	|	|	|	0.00
73.833	0.00	0.01	0.008	O	|	|	|	|	0.00
73.917	0.00	0.01	0.008	O	|	|	|	|	0.00
74.000	0.00	0.01	0.008	O	|	|	|	|	0.00
74.083	0.00	0.01	0.008	O	|	|	|	|	0.00
74.167	0.00	0.01	0.008	O	|	|	|	|	0.00
74.250	0.00	0.01	0.008	O	|	|	|	|	0.00
74.333	0.00	0.01	0.008	O	|	|	|	|	0.00
74.417	0.00	0.01	0.008	O	|	|	|	|	0.00
74.500	0.00	0.01	0.008	O	|	|	|	|	0.00
74.583	0.00	0.01	0.008	O	|	|	|	|	0.00
74.667	0.00	0.01	0.008	O	|	|	|	|	0.00
74.750	0.00	0.01	0.008	O	|	|	|	|	0.00
74.833	0.00	0.01	0.007	O	|	|	|	|	0.00
74.917	0.00	0.01	0.007	O	|	|	|	|	0.00
75.000	0.00	0.01	0.007	O	|	|	|	|	0.00
75.083	0.00	0.01	0.007	O	|	|	|	|	0.00
75.167	0.00	0.01	0.007	O	|	|	|	|	0.00
75.250	0.00	0.01	0.007	O	|	|	|	|	0.00
75.333	0.00	0.01	0.007	O	|	|	|	|	0.00
75.417	0.00	0.01	0.007	O	|	|	|	|	0.00
75.500	0.00	0.01	0.007	O	|	|	|	|	0.00
75.583	0.00	0.01	0.007	O	|	|	|	|	0.00
75.667	0.00	0.01	0.007	O	|	|	|	|	0.00
75.750	0.00	0.01	0.007	O	|	|	|	|	0.00
75.833	0.00	0.01	0.007	O	|	|	|	|	0.00
75.917	0.00	0.01	0.007	O	|	|	|	|	0.00
76.000	0.00	0.01	0.007	O	|	|	|	|	0.00
76.083	0.00	0.01	0.007	O	|	|	|	|	0.00
76.167	0.00	0.01	0.007	O	|	|	|	|	0.00
76.250	0.00	0.01	0.007	O	|	|	|	|	0.00
76.333	0.00	0.01	0.006	O	|	|	|	|	0.00
76.417	0.00	0.01	0.006	O	|	|	|	|	0.00
76.500	0.00	0.01	0.006	O	|	|	|	|	0.00
76.583	0.00	0.01	0.006	O	|	|	|	|	0.00
76.667	0.00	0.01	0.006	O	|	|	|	|	0.00

76.750	0.00	0.01	0.006	O	|	|	|	|	0.00
76.833	0.00	0.01	0.006	O	|	|	|	|	0.00
76.917	0.00	0.01	0.006	O	|	|	|	|	0.00
77.000	0.00	0.01	0.006	O	|	|	|	|	0.00
77.083	0.00	0.01	0.006	O	|	|	|	|	0.00
77.167	0.00	0.01	0.006	O	|	|	|	|	0.00
77.250	0.00	0.01	0.006	O	|	|	|	|	0.00
77.333	0.00	0.01	0.006	O	|	|	|	|	0.00
77.417	0.00	0.01	0.006	O	|	|	|	|	0.00
77.500	0.00	0.01	0.006	O	|	|	|	|	0.00
77.583	0.00	0.01	0.006	O	|	|	|	|	0.00
77.667	0.00	0.01	0.006	O	|	|	|	|	0.00
77.750	0.00	0.01	0.006	O	|	|	|	|	0.00
77.833	0.00	0.01	0.006	O	|	|	|	|	0.00
77.917	0.00	0.01	0.006	O	|	|	|	|	0.00
78.000	0.00	0.01	0.006	O	|	|	|	|	0.00
78.083	0.00	0.01	0.006	O	|	|	|	|	0.00
78.167	0.00	0.01	0.005	O	|	|	|	|	0.00
78.250	0.00	0.01	0.005	O	|	|	|	|	0.00
78.333	0.00	0.01	0.005	O	|	|	|	|	0.00
78.417	0.00	0.01	0.005	O	|	|	|	|	0.00
78.500	0.00	0.01	0.005	O	|	|	|	|	0.00
78.583	0.00	0.01	0.005	O	|	|	|	|	0.00
78.667	0.00	0.01	0.005	O	|	|	|	|	0.00
78.750	0.00	0.01	0.005	O	|	|	|	|	0.00
78.833	0.00	0.01	0.005	O	|	|	|	|	0.00
78.917	0.00	0.01	0.005	O	|	|	|	|	0.00
79.000	0.00	0.01	0.005	O	|	|	|	|	0.00
79.083	0.00	0.01	0.005	O	|	|	|	|	0.00
79.167	0.00	0.01	0.005	O	|	|	|	|	0.00
79.250	0.00	0.01	0.005	O	|	|	|	|	0.00
79.333	0.00	0.01	0.005	O	|	|	|	|	0.00
79.417	0.00	0.01	0.005	O	|	|	|	|	0.00
79.500	0.00	0.01	0.005	O	|	|	|	|	0.00
79.583	0.00	0.01	0.005	O	|	|	|	|	0.00
79.667	0.00	0.01	0.005	O	|	|	|	|	0.00
79.750	0.00	0.01	0.005	O	|	|	|	|	0.00
79.833	0.00	0.01	0.005	O	|	|	|	|	0.00
79.917	0.00	0.01	0.005	O	|	|	|	|	0.00
80.000	0.00	0.01	0.005	O	|	|	|	|	0.00
80.083	0.00	0.01	0.005	O	|	|	|	|	0.00
80.167	0.00	0.01	0.005	O	|	|	|	|	0.00
80.250	0.00	0.01	0.005	O	|	|	|	|	0.00
80.333	0.00	0.01	0.004	O	|	|	|	|	0.00
80.417	0.00	0.01	0.004	O	|	|	|	|	0.00
80.500	0.00	0.00	0.004	O	|	|	|	|	0.00
80.583	0.00	0.00	0.004	O	|	|	|	|	0.00
80.667	0.00	0.00	0.004	O	|	|	|	|	0.00
80.750	0.00	0.00	0.004	O	|	|	|	|	0.00
80.833	0.00	0.00	0.004	O	|	|	|	|	0.00
80.917	0.00	0.00	0.004	O	|	|	|	|	0.00
81.000	0.00	0.00	0.004	O	|	|	|	|	0.00
81.083	0.00	0.00	0.004	O	|	|	|	|	0.00
81.167	0.00	0.00	0.004	O	|	|	|	|	0.00
81.250	0.00	0.00	0.004	O	|	|	|	|	0.00
81.333	0.00	0.00	0.004	O	|	|	|	|	0.00
81.417	0.00	0.00	0.004	O	|	|	|	|	0.00
81.500	0.00	0.00	0.004	O	|	|	|	|	0.00
81.583	0.00	0.00	0.004	O	|	|	|	|	0.00
81.667	0.00	0.00	0.004	O	|	|	|	|	0.00
81.750	0.00	0.00	0.004	O	|	|	|	|	0.00
81.833	0.00	0.00	0.004	O	|	|	|	|	0.00
81.917	0.00	0.00	0.004	O	|	|	|	|	0.00
82.000	0.00	0.00	0.004	O	|	|	|	|	0.00
82.083	0.00	0.00	0.004	O	|	|	|	|	0.00
82.167	0.00	0.00	0.004	O	|	|	|	|	0.00

82.250	0.00	0.00	0.004	O					0.00
82.333	0.00	0.00	0.004	O					0.00
82.417	0.00	0.00	0.004	O					0.00
82.500	0.00	0.00	0.004	O					0.00
82.583	0.00	0.00	0.004	O					0.00
82.667	0.00	0.00	0.004	O					0.00
82.750	0.00	0.00	0.004	O					0.00
82.833	0.00	0.00	0.004	O					0.00
82.917	0.00	0.00	0.004	O					0.00
83.000	0.00	0.00	0.003	O					0.00
83.083	0.00	0.00	0.003	O					0.00
83.167	0.00	0.00	0.003	O					0.00
83.250	0.00	0.00	0.003	O					0.00
83.333	0.00	0.00	0.003	O					0.00
83.417	0.00	0.00	0.003	O					0.00
83.500	0.00	0.00	0.003	O					0.00
83.583	0.00	0.00	0.003	O					0.00
83.667	0.00	0.00	0.003	O					0.00
83.750	0.00	0.00	0.003	O					0.00
83.833	0.00	0.00	0.003	O					0.00
83.917	0.00	0.00	0.003	O					0.00
84.000	0.00	0.00	0.003	O					0.00
84.083	0.00	0.00	0.003	O					0.00
84.167	0.00	0.00	0.003	O					0.00
84.250	0.00	0.00	0.003	O					0.00
84.333	0.00	0.00	0.003	O					0.00
84.417	0.00	0.00	0.003	O					0.00
84.500	0.00	0.00	0.003	O					0.00
84.583	0.00	0.00	0.003	O					0.00
84.667	0.00	0.00	0.003	O					0.00
84.750	0.00	0.00	0.003	O					0.00
84.833	0.00	0.00	0.003	O					0.00
84.917	0.00	0.00	0.003	O					0.00
85.000	0.00	0.00	0.003	O					0.00
85.083	0.00	0.00	0.003	O					0.00
85.167	0.00	0.00	0.003	O					0.00
85.250	0.00	0.00	0.003	O					0.00
85.333	0.00	0.00	0.003	O					0.00
85.417	0.00	0.00	0.003	O					0.00
85.500	0.00	0.00	0.003	O					0.00
85.583	0.00	0.00	0.003	O					0.00
85.667	0.00	0.00	0.003	O					0.00
85.750	0.00	0.00	0.003	O					0.00
85.833	0.00	0.00	0.003	O					0.00
85.917	0.00	0.00	0.003	O					0.00
86.000	0.00	0.00	0.003	O					0.00
86.083	0.00	0.00	0.003	O					0.00
86.167	0.00	0.00	0.003	O					0.00
86.250	0.00	0.00	0.003	O					0.00
86.333	0.00	0.00	0.003	O					0.00
86.417	0.00	0.00	0.003	O					0.00
86.500	0.00	0.00	0.003	O					0.00
86.583	0.00	0.00	0.002	O					0.00
86.667	0.00	0.00	0.002	O					0.00
86.750	0.00	0.00	0.002	O					0.00
86.833	0.00	0.00	0.002	O					0.00
86.917	0.00	0.00	0.002	O					0.00
87.000	0.00	0.00	0.002	O					0.00
87.083	0.00	0.00	0.002	O					0.00
87.167	0.00	0.00	0.002	O					0.00
87.250	0.00	0.00	0.002	O					0.00
87.333	0.00	0.00	0.002	O					0.00
87.417	0.00	0.00	0.002	O					0.00
87.500	0.00	0.00	0.002	O					0.00
87.583	0.00	0.00	0.002	O					0.00
87.667	0.00	0.00	0.002	O					0.00

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87.750    0.00    0.00      0.002  O       |       |       |       |      0.00
87.833    0.00    0.00      0.002  O       |       |       |       |      0.00
87.917    0.00    0.00      0.002  O       |       |       |       |      0.00
88.000    0.00    0.00      0.002  O       |       |       |       |      0.00
88.083    0.00    0.00      0.002  O       |       |       |       |      0.00
88.167    0.00    0.00      0.002  O       |       |       |       |      0.00
88.250    0.00    0.00      0.002  O       |       |       |       |      0.00
88.333    0.00    0.00      0.002  O       |       |       |       |      0.00
88.417    0.00    0.00      0.002  O       |       |       |       |      0.00
88.500    0.00    0.00      0.002  O       |       |       |       |      0.00
88.583    0.00    0.00      0.002  O       |       |       |       |      0.00
88.667    0.00    0.00      0.002  O       |       |       |       |      0.00
88.750    0.00    0.00      0.002  O       |       |       |       |      0.00
88.833    0.00    0.00      0.002  O       |       |       |       |      0.00
88.917    0.00    0.00      0.002  O       |       |       |       |      0.00
89.000    0.00    0.00      0.002  O       |       |       |       |      0.00
89.083    0.00    0.00      0.002  O       |       |       |       |      0.00
89.167    0.00    0.00      0.002  O       |       |       |       |      0.00
89.250    0.00    0.00      0.002  O       |       |       |       |      0.00
89.333    0.00    0.00      0.002  O       |       |       |       |      0.00
89.417    0.00    0.00      0.002  O       |       |       |       |      0.00
89.500    0.00    0.00      0.002  O       |       |       |       |      0.00
89.583    0.00    0.00      0.002  O       |       |       |       |      0.00
89.667    0.00    0.00      0.002  O       |       |       |       |      0.00
89.750    0.00    0.00      0.002  O       |       |       |       |      0.00
89.833    0.00    0.00      0.002  O       |       |       |       |      0.00
89.917    0.00    0.00      0.002  O       |       |       |       |      0.00
90.000    0.00    0.00      0.002  O       |       |       |       |      0.00
90.083    0.00    0.00      0.002  O       |       |       |       |      0.00
90.167    0.00    0.00      0.002  O       |       |       |       |      0.00
90.250    0.00    0.00      0.002  O       |       |       |       |      0.00
90.333    0.00    0.00      0.002  O       |       |       |       |      0.00
90.417    0.00    0.00      0.002  O       |       |       |       |      0.00
90.500    0.00    0.00      0.002  O       |       |       |       |      0.00
90.583    0.00    0.00      0.002  O       |       |       |       |      0.00
90.667    0.00    0.00      0.002  O       |       |       |       |      0.00
90.750    0.00    0.00      0.002  O       |       |       |       |      0.00
90.833    0.00    0.00      0.002  O       |       |       |       |      0.00

     Remaining water in basin =    0.00 (Ac.Ft)

     ***************************HYDROGRAPH DATA****************************
              Number of intervals =  1090
              Time interval =    5.0 (Min.)
              Maximum/Peak flow rate =        2.375 (CFS)
              Total volume =       4.426 (Ac.Ft)
       Status of hydrographs being held in storage
                  Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
       Peak (CFS)      0.000     0.000     0.000     0.000     0.000
       Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
     **********************************************************************

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

```
                     FLOOD HYDROGRAPH ROUTING PROGRAM
              Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                          Study date: 05/07/21

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

Keller Crossing – Basin C
Detention Basin Routing
Inflow Hydrograph 2-year 6-hour storm

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


Program License Serial Number 4029

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

             From study/file name: kx2prh62.rte
****************************HYDROGRAPH DATA****************************
             Number of intervals =    78
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =      44.972 (CFS)
             Total volume =      6.172 (Ac.Ft)
      Status of hydrographs being held in storage
                Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)     0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)     0.000     0.000     0.000     0.000     0.000
**********************************************************************



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

User entry of depth-outflow-storage data
---------------------------------------------------------------------
Total number of inflow hydrograph intervals = 78
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
---------------------------------------------------------------------
---------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
----------------------------------------------------------------------
---------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)      (Ac.Ft)    (Ac.Ft)
----------------------------------------------------------------------
   0.000      0.000      0.000      0.000       0.000
   1.000      1.693      1.910      1.686       1.700
   2.000      3.806      2.340      3.798       3.814
   3.000      6.534      2.710      6.525       6.543
   4.000      9.741      3.030      9.731       9.751
   5.000     13.275     33.320     13.160      13.390
   6.000     16.265     88.430     15.960      16.570
---------------------------------------------------------------------
             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      11.2   22.49   33.73   44.97 (Ft.)
 0.083    1.08    0.00      0.004  O       |       |       |       |    0.00
 0.167    3.46    0.02      0.019  O I     |       |       |       |    0.01
 0.250    4.49    0.05      0.046  O  I    |       |       |       |    0.03
 0.333    4.88    0.09      0.078  O  I    |       |       |       |    0.05
 0.417    5.09    0.13      0.112  O  I    |       |       |       |    0.07
 0.500    5.42    0.17      0.147  O  I    |       |       |       |    0.09
 0.583    5.95    0.21      0.185  O   I   |       |       |       |    0.11
 0.667    6.08    0.25      0.225  O   I   |       |       |       |    0.13
 0.750    6.13    0.30      0.265  O   I   |       |       |       |    0.16
 0.833    6.16    0.34      0.305  O   I   |       |       |       |    0.18
 0.917    6.18    0.39      0.345  O   I   |       |       |       |    0.20
 1.000    6.41    0.43      0.385  O   I   |       |       |       |    0.23
 1.083    6.84    0.48      0.428  O   I   |       |       |       |    0.25
 1.167    6.96    0.53      0.472  O   I   |       |       |       |    0.28
 1.250    7.02    0.58      0.516  O   I   |       |       |       |    0.30
 1.333    7.05    0.63      0.561  O    I  |       |       |       |    0.33
 1.417    7.07    0.68      0.605  O    I  |       |       |       |    0.36
 1.500    7.08    0.73      0.649  O    I  |       |       |       |    0.38
 1.583    7.08    0.78      0.692  O    I  |       |       |       |    0.41
 1.667    7.08    0.83      0.735  O    I  |       |       |       |    0.43
 1.750    7.08    0.88      0.778  O    I  |       |       |       |    0.46
 1.833    7.08    0.93      0.821  O    I  |       |       |       |    0.48
 1.917    7.08    0.97      0.863  O    I  |       |       |       |    0.51
 2.000    7.30    1.02      0.906  O    I  |       |       |       |    0.53
 2.083    7.51    1.07      0.949  O    I  |       |       |       |    0.56
 2.167    7.42    1.12      0.993  O    I  |       |       |       |    0.59
 2.250    7.78    1.17      1.038  O    I  |       |       |       |    0.61
 2.333    7.88    1.22      1.083  O    I  |       |       |       |    0.64
 2.417    7.92    1.27      1.129  O    I  |       |       |       |    0.67
 2.500    7.95    1.33      1.175  O    I  |       |       |       |    0.69
 2.583    7.95    1.38      1.220  O    I  |       |       |       |    0.72
 2.667    7.97    1.43      1.266  |O   I  |       |       |       |    0.75
 2.750    8.18    1.48      1.311  |O   I  |       |       |       |    0.77
 2.833    8.62    1.53      1.359  |O    I |       |       |       |    0.80
 2.917    8.74    1.59      1.408  |O    I |       |       |       |    0.83
 3.000    8.79    1.64      1.457  |O    I |       |       |       |    0.86
 3.083    8.82    1.70      1.506  |O    I |       |       |       |    0.89
 3.167    9.05    1.76      1.556  |O    I |       |       |       |    0.92
 3.250    9.50    1.81      1.607  |O    I |       |       |       |    0.95
 3.333    9.62    1.87      1.660  |O    I |       |       |       |    0.98
 3.417    9.89    1.91      1.715  |O     I|       |       |       |    1.01
 3.500   10.57    1.93      1.772  |O     I|       |       |       |    1.04
 3.583   11.36    1.94      1.834  |O      I       |       |       |    1.07
 3.667   11.98    1.95      1.901  |O      I       |       |       |    1.10
 3.750   12.40    1.97      1.971  |O      I       |       |       |    1.13
 3.833   12.93    1.98      2.045  |O      |I      |       |       |    1.17
 3.917   13.33    2.00      2.122  |O      |I      |       |       |    1.20
 4.000   13.85    2.01      2.202  |O      |I      |       |       |    1.24
 4.083   14.23    2.03      2.284  |O      | I     |       |       |    1.28
 4.167   14.95    2.05      2.371  |O      | I     |       |       |    1.32
 4.250   15.76    2.07      2.462  |O      |  I    |       |       |    1.36
 4.333   16.61    2.09      2.560  |O      |  I    |       |       |    1.41
 4.417   17.47    2.11      2.662  |O      |   I   |       |       |    1.46
 4.500   18.13    2.13      2.770  |O      |   I   |       |       |    1.51
 4.583   18.58    2.15      2.882  |O      |    I  |       |       |    1.56
 4.667   19.35    2.18      2.998  |O      |    I  |       |       |    1.62
 4.750   20.18    2.20      3.119  |O      |     I |       |       |    1.67
 4.833   20.81    2.23      3.245  |O      |     I |       |       |    1.73
 4.917   21.25    2.25      3.374  |O      |      I|       |       |    1.80
 5.000   22.00    2.28      3.508  |O      |      I|       |       |    1.86
 5.083   23.70    2.31      3.649  |O      |       I       |       |    1.93
 5.167   27.15    2.34      3.808  |O      |       |  I    |       |    2.00
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  5.250   30.65    2.37      3.991  |O      |       |    I  |       |     2.07
  5.333   33.57    2.39      4.196  |O      |       |      I|       |     2.14
  5.417   37.54    2.42      4.424  |O      |       |       | I     |     2.23
  5.500   44.97    2.46      4.691  |O      |       |       |       I     2.32
  5.583   42.71    2.50      4.976  |O      |       |       |     I |     2.43
  5.667   23.16    2.53      5.186  |O      |       I       |       |     2.51
  5.750   13.83    2.54      5.296  |O      |I      |       |       |     2.55
  5.833    9.26    2.55      5.358  |O    I |       |       |       |     2.57
  5.917    6.47    2.56      5.394  |O  I   |       |       |       |     2.58
  6.000    4.19    2.56      5.413  |OI     |       |       |       |     2.59
  6.083    2.11    2.56      5.417  |O      |       |       |       |     2.59
  6.167    0.79    2.56      5.410  IO      |       |       |       |     2.59
  6.250    0.37    2.56      5.396  IO      |       |       |       |     2.58
  6.333    0.19    2.55      5.381  IO      |       |       |       |     2.58
  6.417    0.08    2.55      5.364  IO      |       |       |       |     2.57
  6.500    0.03    2.55      5.347  IO      |       |       |       |     2.56
  6.583    0.00    2.55      5.329  IO      |       |       |       |     2.56
  6.667    0.00    2.54      5.312  IO      |       |       |       |     2.55
  6.750    0.00    2.54      5.294  IO      |       |       |       |     2.55
  6.833    0.00    2.54      5.277  IO      |       |       |       |     2.54
  6.917    0.00    2.54      5.259  IO      |       |       |       |     2.53
  7.000    0.00    2.53      5.242  IO      |       |       |       |     2.53
  7.083    0.00    2.53      5.224  IO      |       |       |       |     2.52
  7.167    0.00    2.53      5.207  IO      |       |       |       |     2.51
  7.250    0.00    2.53      5.189  IO      |       |       |       |     2.51
  7.333    0.00    2.53      5.172  IO      |       |       |       |     2.50
  7.417    0.00    2.52      5.155  IO      |       |       |       |     2.49
  7.500    0.00    2.52      5.137  IO      |       |       |       |     2.49
  7.583    0.00    2.52      5.120  IO      |       |       |       |     2.48
  7.667    0.00    2.52      5.103  IO      |       |       |       |     2.48
  7.750    0.00    2.51      5.085  IO      |       |       |       |     2.47
  7.833    0.00    2.51      5.068  IO      |       |       |       |     2.46
  7.917    0.00    2.51      5.051  IO      |       |       |       |     2.46
  8.000    0.00    2.51      5.033  IO      |       |       |       |     2.45
  8.083    0.00    2.50      5.016  IO      |       |       |       |     2.44
  8.167    0.00    2.50      4.999  IO      |       |       |       |     2.44
  8.250    0.00    2.50      4.982  IO      |       |       |       |     2.43
  8.333    0.00    2.50      4.965  IO      |       |       |       |     2.42
  8.417    0.00    2.49      4.947  IO      |       |       |       |     2.42
  8.500    0.00    2.49      4.930  IO      |       |       |       |     2.41
  8.583    0.00    2.49      4.913  IO      |       |       |       |     2.41
  8.667    0.00    2.49      4.896  IO      |       |       |       |     2.40
  8.750    0.00    2.49      4.879  IO      |       |       |       |     2.39
  8.833    0.00    2.48      4.862  IO      |       |       |       |     2.39
  8.917    0.00    2.48      4.845  IO      |       |       |       |     2.38
  9.000    0.00    2.48      4.827  IO      |       |       |       |     2.37
  9.083    0.00    2.48      4.810  IO      |       |       |       |     2.37
  9.167    0.00    2.47      4.793  IO      |       |       |       |     2.36
  9.250    0.00    2.47      4.776  IO      |       |       |       |     2.36
  9.333    0.00    2.47      4.759  IO      |       |       |       |     2.35
  9.417    0.00    2.47      4.742  IO      |       |       |       |     2.34
  9.500    0.00    2.46      4.725  IO      |       |       |       |     2.34
  9.583    0.00    2.46      4.708  IO      |       |       |       |     2.33
  9.667    0.00    2.46      4.691  IO      |       |       |       |     2.32
  9.750    0.00    2.46      4.674  IO      |       |       |       |     2.32
  9.833    0.00    2.46      4.658  IO      |       |       |       |     2.31
  9.917    0.00    2.45      4.641  IO      |       |       |       |     2.31
 10.000    0.00    2.45      4.624  IO      |       |       |       |     2.30
 10.083    0.00    2.45      4.607  IO      |       |       |       |     2.29
 10.167    0.00    2.45      4.590  IO      |       |       |       |     2.29
 10.250    0.00    2.44      4.573  IO      |       |       |       |     2.28
 10.333    0.00    2.44      4.556  IO      |       |       |       |     2.28
 10.417    0.00    2.44      4.540  IO      |       |       |       |     2.27
 10.500    0.00    2.44      4.523  IO      |       |       |       |     2.26
 10.583    0.00    2.43      4.506  IO      |       |       |       |     2.26
 10.667    0.00    2.43      4.489  IO      |       |       |       |     2.25
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10.750    0.00    2.43    4.472  IO    |    |    |    |    2.24
10.833    0.00    2.43    4.456  IO    |    |    |    |    2.24
10.917    0.00    2.43    4.439  IO    |    |    |    |    2.23
11.000    0.00    2.42    4.422  IO    |    |    |    |    2.23
11.083    0.00    2.42    4.406  IO    |    |    |    |    2.22
11.167    0.00    2.42    4.389  IO    |    |    |    |    2.21
11.250    0.00    2.42    4.372  IO    |    |    |    |    2.21
11.333    0.00    2.41    4.356  IO    |    |    |    |    2.20
11.417    0.00    2.41    4.339  IO    |    |    |    |    2.20
11.500    0.00    2.41    4.322  IO    |    |    |    |    2.19
11.583    0.00    2.41    4.306  IO    |    |    |    |    2.18
11.667    0.00    2.41    4.289  IO    |    |    |    |    2.18
11.750    0.00    2.40    4.273  IO    |    |    |    |    2.17
11.833    0.00    2.40    4.256  IO    |    |    |    |    2.17
11.917    0.00    2.40    4.240  IO    |    |    |    |    2.16
12.000    0.00    2.40    4.223  IO    |    |    |    |    2.15
12.083    0.00    2.39    4.207  IO    |    |    |    |    2.15
12.167    0.00    2.39    4.190  IO    |    |    |    |    2.14
12.250    0.00    2.39    4.174  IO    |    |    |    |    2.13
12.333    0.00    2.39    4.157  IO    |    |    |    |    2.13
12.417    0.00    2.39    4.141  IO    |    |    |    |    2.12
12.500    0.00    2.38    4.124  IO    |    |    |    |    2.12
12.583    0.00    2.38    4.108  IO    |    |    |    |    2.11
12.667    0.00    2.38    4.092  IO    |    |    |    |    2.10
12.750    0.00    2.38    4.075  IO    |    |    |    |    2.10
12.833    0.00    2.37    4.059  IO    |    |    |    |    2.09
12.917    0.00    2.37    4.043  IO    |    |    |    |    2.09
13.000    0.00    2.37    4.026  IO    |    |    |    |    2.08
13.083    0.00    2.37    4.010  IO    |    |    |    |    2.07
13.167    0.00    2.37    3.994  IO    |    |    |    |    2.07
13.250    0.00    2.36    3.977  IO    |    |    |    |    2.06
13.333    0.00    2.36    3.961  IO    |    |    |    |    2.06
13.417    0.00    2.36    3.945  IO    |    |    |    |    2.05
13.500    0.00    2.36    3.929  IO    |    |    |    |    2.04
13.583    0.00    2.35    3.912  IO    |    |    |    |    2.04
13.667    0.00    2.35    3.896  IO    |    |    |    |    2.03
13.750    0.00    2.35    3.880  IO    |    |    |    |    2.03
13.833    0.00    2.35    3.864  IO    |    |    |    |    2.02
13.917    0.00    2.35    3.848  IO    |    |    |    |    2.02
14.000    0.00    2.34    3.831  IO    |    |    |    |    2.01
14.083    0.00    2.34    3.815  IO    |    |    |    |    2.00
14.167    0.00    2.34    3.799  IO    |    |    |    |    2.00
14.250    0.00    2.34    3.783  IO    |    |    |    |    1.99
14.333    0.00    2.33    3.767  IO    |    |    |    |    1.98
14.417    0.00    2.33    3.751  IO    |    |    |    |    1.97
14.500    0.00    2.33    3.735  IO    |    |    |    |    1.97
14.583    0.00    2.32    3.719  IO    |    |    |    |    1.96
14.667    0.00    2.32    3.703  IO    |    |    |    |    1.95
14.750    0.00    2.32    3.687  IO    |    |    |    |    1.94
14.833    0.00    2.31    3.671  IO    |    |    |    |    1.94
14.917    0.00    2.31    3.655  IO    |    |    |    |    1.93
15.000    0.00    2.31    3.639  IO    |    |    |    |    1.92
15.083    0.00    2.30    3.623  IO    |    |    |    |    1.91
15.167    0.00    2.30    3.608  IO    |    |    |    |    1.91
15.250    0.00    2.30    3.592  IO    |    |    |    |    1.90
15.333    0.00    2.29    3.576  IO    |    |    |    |    1.89
15.417    0.00    2.29    3.560  IO    |    |    |    |    1.88
15.500    0.00    2.29    3.544  IO    |    |    |    |    1.88
15.583    0.00    2.28    3.529  IO    |    |    |    |    1.87
15.667    0.00    2.28    3.513  IO    |    |    |    |    1.86
15.750    0.00    2.28    3.497  IO    |    |    |    |    1.85
15.833    0.00    2.27    3.482  IO    |    |    |    |    1.85
15.917    0.00    2.27    3.466  IO    |    |    |    |    1.84
16.000    0.00    2.27    3.450  IO    |    |    |    |    1.83
16.083    0.00    2.26    3.435  IO    |    |    |    |    1.82
16.167    0.00    2.26    3.419  IO    |    |    |    |    1.82
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16.250    0.00    2.26      3.404  IO       |         |         |         |       1.81
16.333    0.00    2.25      3.388  IO       |         |         |         |       1.80
16.417    0.00    2.25      3.372  IO       |         |         |         |       1.79
16.500    0.00    2.25      3.357  IO       |         |         |         |       1.79
16.583    0.00    2.25      3.341  IO       |         |         |         |       1.78
16.667    0.00    2.24      3.326  IO       |         |         |         |       1.77
16.750    0.00    2.24      3.311  IO       |         |         |         |       1.77
16.833    0.00    2.24      3.295  IO       |         |         |         |       1.76
16.917    0.00    2.23      3.280  IO       |         |         |         |       1.75
17.000    0.00    2.23      3.264  IO       |         |         |         |       1.74
17.083    0.00    2.23      3.249  IO       |         |         |         |       1.74
17.167    0.00    2.22      3.234  IO       |         |         |         |       1.73
17.250    0.00    2.22      3.218  IO       |         |         |         |       1.72
17.333    0.00    2.22      3.203  IO       |         |         |         |       1.71
17.417    0.00    2.21      3.188  IO       |         |         |         |       1.71
17.500    0.00    2.21      3.173  IO       |         |         |         |       1.70
17.583    0.00    2.21      3.157  IO       |         |         |         |       1.69
17.667    0.00    2.20      3.142  IO       |         |         |         |       1.69
17.750    0.00    2.20      3.127  IO       |         |         |         |       1.68
17.833    0.00    2.20      3.112  IO       |         |         |         |       1.67
17.917    0.00    2.20      3.097  IO       |         |         |         |       1.66
18.000    0.00    2.19      3.082  IO       |         |         |         |       1.66
18.083    0.00    2.19      3.067  IO       |         |         |         |       1.65
18.167    0.00    2.19      3.052  IO       |         |         |         |       1.64
18.250    0.00    2.18      3.036  IO       |         |         |         |       1.64
18.333    0.00    2.18      3.021  IO       |         |         |         |       1.63
18.417    0.00    2.18      3.006  IO       |         |         |         |       1.62
18.500    0.00    2.17      2.991  IO       |         |         |         |       1.61
18.583    0.00    2.17      2.976  IO       |         |         |         |       1.61
18.667    0.00    2.17      2.962  IO       |         |         |         |       1.60
18.750    0.00    2.17      2.947  IO       |         |         |         |       1.59
18.833    0.00    2.16      2.932  IO       |         |         |         |       1.59
18.917    0.00    2.16      2.917  IO       |         |         |         |       1.58
19.000    0.00    2.16      2.902  IO       |         |         |         |       1.57
19.083    0.00    2.15      2.887  IO       |         |         |         |       1.57
19.167    0.00    2.15      2.872  IO       |         |         |         |       1.56
19.250    0.00    2.15      2.858  IO       |         |         |         |       1.55
19.333    0.00    2.14      2.843  IO       |         |         |         |       1.54
19.417    0.00    2.14      2.828  IO       |         |         |         |       1.54
19.500    0.00    2.14      2.813  IO       |         |         |         |       1.53
19.583    0.00    2.13      2.799  IO       |         |         |         |       1.52
19.667    0.00    2.13      2.784  IO       |         |         |         |       1.52
19.750    0.00    2.13      2.769  IO       |         |         |         |       1.51
19.833    0.00    2.13      2.755  IO       |         |         |         |       1.50
19.917    0.00    2.12      2.740  IO       |         |         |         |       1.50
20.000    0.00    2.12      2.725  IO       |         |         |         |       1.49
20.083    0.00    2.12      2.711  IO       |         |         |         |       1.48
20.167    0.00    2.11      2.696  IO       |         |         |         |       1.47
20.250    0.00    2.11      2.682  IO       |         |         |         |       1.47
20.333    0.00    2.11      2.667  IO       |         |         |         |       1.46
20.417    0.00    2.11      2.653  IO       |         |         |         |       1.45
20.500    0.00    2.10      2.638  IO       |         |         |         |       1.45
20.583    0.00    2.10      2.624  IO       |         |         |         |       1.44
20.667    0.00    2.10      2.609  IO       |         |         |         |       1.43
20.750    0.00    2.09      2.595  IO       |         |         |         |       1.43
20.833    0.00    2.09      2.580  IO       |         |         |         |       1.42
20.917    0.00    2.09      2.566  IO       |         |         |         |       1.41
21.000    0.00    2.08      2.552  IO       |         |         |         |       1.41
21.083    0.00    2.08      2.537  IO       |         |         |         |       1.40
21.167    0.00    2.08      2.523  IO       |         |         |         |       1.39
21.250    0.00    2.08      2.509  IO       |         |         |         |       1.39
21.333    0.00    2.07      2.494  IO       |         |         |         |       1.38
21.417    0.00    2.07      2.480  IO       |         |         |         |       1.37
21.500    0.00    2.07      2.466  IO       |         |         |         |       1.37
21.583    0.00    2.06      2.452  IO       |         |         |         |       1.36
21.667    0.00    2.06      2.437  IO       |         |         |         |       1.35
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21.750	0.00	2.06	2.423	IO	1.35
21.833	0.00	2.06	2.409	IO	1.34
21.917	0.00	2.05	2.395	IO	1.33
22.000	0.00	2.05	2.381	IO	1.33
22.083	0.00	2.05	2.367	IO	1.32
22.167	0.00	2.04	2.353	IO	1.31
22.250	0.00	2.04	2.338	IO	1.31
22.333	0.00	2.04	2.324	IO	1.30
22.417	0.00	2.04	2.310	IO	1.29
22.500	0.00	2.03	2.296	IO	1.29
22.583	0.00	2.03	2.282	IO	1.28
22.667	0.00	2.03	2.268	IO	1.27
22.750	0.00	2.02	2.254	IO	1.27
22.833	0.00	2.02	2.241	IO	1.26
22.917	0.00	2.02	2.227	IO	1.25
23.000	0.00	2.02	2.213	IO	1.25
23.083	0.00	2.01	2.199	IO	1.24
23.167	0.00	2.01	2.185	IO	1.23
23.250	0.00	2.01	2.171	IO	1.23
23.333	0.00	2.00	2.157	IO	1.22
23.417	0.00	2.00	2.144	IO	1.21
23.500	0.00	2.00	2.130	IO	1.21
23.583	0.00	2.00	2.116	IO	1.20
23.667	0.00	1.99	2.102	IO	1.19
23.750	0.00	1.99	2.089	IO	1.19
23.833	0.00	1.99	2.075	IO	1.18
23.917	0.00	1.98	2.061	IO	1.17
24.000	0.00	1.98	2.048	IO	1.17
24.083	0.00	1.98	2.034	IO	1.16
24.167	0.00	1.98	2.020	IO	1.15
24.250	0.00	1.97	2.007	IO	1.15
24.333	0.00	1.97	1.993	IO	1.14
24.417	0.00	1.97	1.979	IO	1.14
24.500	0.00	1.97	1.966	IO	1.13
24.583	0.00	1.96	1.952	IO	1.12
24.667	0.00	1.96	1.939	IO	1.12
24.750	0.00	1.96	1.925	IO	1.11
24.833	0.00	1.95	1.912	IO	1.10
24.917	0.00	1.95	1.898	IO	1.10
25.000	0.00	1.95	1.885	IO	1.09
25.083	0.00	1.95	1.872	IO	1.08
25.167	0.00	1.94	1.858	IO	1.08
25.250	0.00	1.94	1.845	IO	1.07
25.333	0.00	1.94	1.832	IO	1.07
25.417	0.00	1.94	1.818	IO	1.06
25.500	0.00	1.93	1.805	IO	1.05
25.583	0.00	1.93	1.792	IO	1.05
25.667	0.00	1.93	1.778	IO	1.04
25.750	0.00	1.92	1.765	IO	1.03
25.833	0.00	1.92	1.752	IO	1.03
25.917	0.00	1.92	1.739	IO	1.02
26.000	0.00	1.92	1.725	IO	1.02
26.083	0.00	1.91	1.712	IO	1.01
26.167	0.00	1.91	1.699	IO	1.00
26.250	0.00	1.90	1.686	IO	1.00
26.333	0.00	1.89	1.673	IO	0.99
26.417	0.00	1.87	1.660	IO	0.98
26.500	0.00	1.86	1.647	IO	0.97
26.583	0.00	1.84	1.634	IO	0.97
26.667	0.00	1.83	1.622	IO	0.96
26.750	0.00	1.82	1.609	IO	0.95
26.833	0.00	1.80	1.597	IO	0.94
26.917	0.00	1.79	1.584	IO	0.94
27.000	0.00	1.77	1.572	IO	0.93
27.083	0.00	1.76	1.560	IO	0.92
27.167	0.00	1.75	1.548	IO	0.91

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27.250    0.00    1.73      1.536  IO      |       |       |       |      0.91
27.333    0.00    1.72      1.524  IO      |       |       |       |      0.90
27.417    0.00    1.71      1.512  IO      |       |       |       |      0.89
27.500    0.00    1.69      1.500  IO      |       |       |       |      0.89
27.583    0.00    1.68      1.489  IO      |       |       |       |      0.88
27.667    0.00    1.67      1.477  IO      |       |       |       |      0.87
27.750    0.00    1.65      1.466  IO      |       |       |       |      0.87
27.833    0.00    1.64      1.454  IO      |       |       |       |      0.86
27.917    0.00    1.63      1.443  IO      |       |       |       |      0.85
28.000    0.00    1.62      1.432  IO      |       |       |       |      0.85
28.083    0.00    1.60      1.421  IO      |       |       |       |      0.84
28.167    0.00    1.59      1.410  IO      |       |       |       |      0.83
28.250    0.00    1.58      1.399  IO      |       |       |       |      0.83
28.333    0.00    1.57      1.388  IO      |       |       |       |      0.82
28.417    0.00    1.55      1.377  IO      |       |       |       |      0.81
28.500    0.00    1.54      1.367  IO      |       |       |       |      0.81
28.583    0.00    1.53      1.356  IO      |       |       |       |      0.80
28.667    0.00    1.52      1.346  IO      |       |       |       |      0.79
28.750    0.00    1.51      1.335  IO      |       |       |       |      0.79
28.833    0.00    1.49      1.325  IO      |       |       |       |      0.78
28.917    0.00    1.48      1.315  IO      |       |       |       |      0.78
29.000    0.00    1.47      1.305  IO      |       |       |       |      0.77
29.083    0.00    1.46      1.294  IO      |       |       |       |      0.76
29.167    0.00    1.45      1.284  IO      |       |       |       |      0.76
29.250    0.00    1.44      1.274  IO      |       |       |       |      0.75
29.333    0.00    1.43      1.265  IO      |       |       |       |      0.75
29.417    0.00    1.42      1.255  IO      |       |       |       |      0.74
29.500    0.00    1.40      1.245  O       |       |       |       |      0.74
29.583    0.00    1.39      1.235  O       |       |       |       |      0.73
29.667    0.00    1.38      1.226  O       |       |       |       |      0.72
29.750    0.00    1.37      1.216  O       |       |       |       |      0.72
29.833    0.00    1.36      1.207  O       |       |       |       |      0.71
29.917    0.00    1.35      1.198  O       |       |       |       |      0.71
30.000    0.00    1.34      1.188  O       |       |       |       |      0.70
30.083    0.00    1.33      1.179  O       |       |       |       |      0.70
30.167    0.00    1.32      1.170  O       |       |       |       |      0.69
30.250    0.00    1.31      1.161  O       |       |       |       |      0.69
30.333    0.00    1.30      1.152  O       |       |       |       |      0.68
30.417    0.00    1.29      1.143  O       |       |       |       |      0.68
30.500    0.00    1.28      1.134  O       |       |       |       |      0.67
30.583    0.00    1.27      1.125  O       |       |       |       |      0.66
30.667    0.00    1.26      1.117  O       |       |       |       |      0.66
30.750    0.00    1.25      1.108  O       |       |       |       |      0.65
30.833    0.00    1.24      1.100  O       |       |       |       |      0.65
30.917    0.00    1.23      1.091  O       |       |       |       |      0.64
31.000    0.00    1.22      1.083  O       |       |       |       |      0.64
31.083    0.00    1.21      1.074  O       |       |       |       |      0.63
31.167    0.00    1.20      1.066  O       |       |       |       |      0.63
31.250    0.00    1.19      1.058  O       |       |       |       |      0.62
31.333    0.00    1.18      1.049  O       |       |       |       |      0.62
31.417    0.00    1.17      1.041  O       |       |       |       |      0.62
31.500    0.00    1.17      1.033  O       |       |       |       |      0.61
31.583    0.00    1.16      1.025  O       |       |       |       |      0.61
31.667    0.00    1.15      1.017  O       |       |       |       |      0.60
31.750    0.00    1.14      1.009  O       |       |       |       |      0.60
31.833    0.00    1.13      1.002  O       |       |       |       |      0.59
31.917    0.00    1.12      0.994  O       |       |       |       |      0.59
32.000    0.00    1.11      0.986  O       |       |       |       |      0.58
32.083    0.00    1.10      0.979  O       |       |       |       |      0.58
32.167    0.00    1.10      0.971  O       |       |       |       |      0.57
32.250    0.00    1.09      0.964  O       |       |       |       |      0.57
32.333    0.00    1.08      0.956  O       |       |       |       |      0.56
32.417    0.00    1.07      0.949  O       |       |       |       |      0.56
32.500    0.00    1.06      0.941  O       |       |       |       |      0.56
32.583    0.00    1.05      0.934  O       |       |       |       |      0.55
32.667    0.00    1.05      0.927  O       |       |       |       |      0.55
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32.750	0.00	1.04	0.920	O	|	|	|	|	0.54
32.833	0.00	1.03	0.913	O	|	|	|	|	0.54
32.917	0.00	1.02	0.905	O	|	|	|	|	0.53
33.000	0.00	1.01	0.898	O	|	|	|	|	0.53
33.083	0.00	1.01	0.891	O	|	|	|	|	0.53
33.167	0.00	1.00	0.885	O	|	|	|	|	0.52
33.250	0.00	0.99	0.878	O	|	|	|	|	0.52
33.333	0.00	0.98	0.871	O	|	|	|	|	0.51
33.417	0.00	0.97	0.864	O	|	|	|	|	0.51
33.500	0.00	0.97	0.858	O	|	|	|	|	0.51
33.583	0.00	0.96	0.851	O	|	|	|	|	0.50
33.667	0.00	0.95	0.844	O	|	|	|	|	0.50
33.750	0.00	0.95	0.838	O	|	|	|	|	0.49
33.833	0.00	0.94	0.831	O	|	|	|	|	0.49
33.917	0.00	0.93	0.825	O	|	|	|	|	0.49
34.000	0.00	0.92	0.818	O	|	|	|	|	0.48
34.083	0.00	0.92	0.812	O	|	|	|	|	0.48
34.167	0.00	0.91	0.806	O	|	|	|	|	0.48
34.250	0.00	0.90	0.800	O	|	|	|	|	0.47
34.333	0.00	0.90	0.793	O	|	|	|	|	0.47
34.417	0.00	0.89	0.787	O	|	|	|	|	0.47
34.500	0.00	0.88	0.781	O	|	|	|	|	0.46
34.583	0.00	0.87	0.775	O	|	|	|	|	0.46
34.667	0.00	0.87	0.769	O	|	|	|	|	0.45
34.750	0.00	0.86	0.763	O	|	|	|	|	0.45
34.833	0.00	0.85	0.757	O	|	|	|	|	0.45
34.917	0.00	0.85	0.751	O	|	|	|	|	0.44
35.000	0.00	0.84	0.746	O	|	|	|	|	0.44
35.083	0.00	0.83	0.740	O	|	|	|	|	0.44
35.167	0.00	0.83	0.734	O	|	|	|	|	0.43
35.250	0.00	0.82	0.728	O	|	|	|	|	0.43
35.333	0.00	0.82	0.723	O	|	|	|	|	0.43
35.417	0.00	0.81	0.717	O	|	|	|	|	0.42
35.500	0.00	0.80	0.712	O	|	|	|	|	0.42
35.583	0.00	0.80	0.706	O	|	|	|	|	0.42
35.667	0.00	0.79	0.701	O	|	|	|	|	0.41
35.750	0.00	0.78	0.695	O	|	|	|	|	0.41
35.833	0.00	0.78	0.690	O	|	|	|	|	0.41
35.917	0.00	0.77	0.685	O	|	|	|	|	0.40
36.000	0.00	0.77	0.679	O	|	|	|	|	0.40
36.083	0.00	0.76	0.674	O	|	|	|	|	0.40
36.167	0.00	0.75	0.669	O	|	|	|	|	0.40
36.250	0.00	0.75	0.664	O	|	|	|	|	0.39
36.333	0.00	0.74	0.658	O	|	|	|	|	0.39
36.417	0.00	0.74	0.653	O	|	|	|	|	0.39
36.500	0.00	0.73	0.648	O	|	|	|	|	0.38
36.583	0.00	0.73	0.643	O	|	|	|	|	0.38
36.667	0.00	0.72	0.638	O	|	|	|	|	0.38
36.750	0.00	0.71	0.633	O	|	|	|	|	0.37
36.833	0.00	0.71	0.628	O	|	|	|	|	0.37
36.917	0.00	0.70	0.624	O	|	|	|	|	0.37
37.000	0.00	0.70	0.619	O	|	|	|	|	0.37
37.083	0.00	0.69	0.614	O	|	|	|	|	0.36
37.167	0.00	0.69	0.609	O	|	|	|	|	0.36
37.250	0.00	0.68	0.604	O	|	|	|	|	0.36
37.333	0.00	0.68	0.600	O	|	|	|	|	0.35
37.417	0.00	0.67	0.595	O	|	|	|	|	0.35
37.500	0.00	0.67	0.591	O	|	|	|	|	0.35
37.583	0.00	0.66	0.586	O	|	|	|	|	0.35
37.667	0.00	0.66	0.581	O	|	|	|	|	0.34
37.750	0.00	0.65	0.577	O	|	|	|	|	0.34
37.833	0.00	0.65	0.572	O	|	|	|	|	0.34
37.917	0.00	0.64	0.568	O	|	|	|	|	0.34
38.000	0.00	0.64	0.564	O	|	|	|	|	0.33
38.083	0.00	0.63	0.559	O	|	|	|	|	0.33
38.167	0.00	0.63	0.555	O	|	|	|	|	0.33

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38.250    0.00    0.62     0.551  O        |        |        |        |       0.33
38.333    0.00    0.62     0.546  O        |        |        |        |       0.32
38.417    0.00    0.61     0.542  O        |        |        |        |       0.32
38.500    0.00    0.61     0.538  O        |        |        |        |       0.32
38.583    0.00    0.60     0.534  O        |        |        |        |       0.32
38.667    0.00    0.60     0.530  O        |        |        |        |       0.31
38.750    0.00    0.59     0.526  O        |        |        |        |       0.31
38.833    0.00    0.59     0.522  O        |        |        |        |       0.31
38.917    0.00    0.58     0.517  O        |        |        |        |       0.31
39.000    0.00    0.58     0.513  O        |        |        |        |       0.30
39.083    0.00    0.57     0.510  O        |        |        |        |       0.30
39.167    0.00    0.57     0.506  O        |        |        |        |       0.30
39.250    0.00    0.57     0.502  O        |        |        |        |       0.30
39.333    0.00    0.56     0.498  O        |        |        |        |       0.29
39.417    0.00    0.56     0.494  O        |        |        |        |       0.29
39.500    0.00    0.55     0.490  O        |        |        |        |       0.29
39.583    0.00    0.55     0.486  O        |        |        |        |       0.29
39.667    0.00    0.54     0.483  O        |        |        |        |       0.29
39.750    0.00    0.54     0.479  O        |        |        |        |       0.28
39.833    0.00    0.54     0.475  O        |        |        |        |       0.28
39.917    0.00    0.53     0.471  O        |        |        |        |       0.28
40.000    0.00    0.53     0.468  O        |        |        |        |       0.28
40.083    0.00    0.52     0.464  O        |        |        |        |       0.27
40.167    0.00    0.52     0.461  O        |        |        |        |       0.27
40.250    0.00    0.52     0.457  O        |        |        |        |       0.27
40.333    0.00    0.51     0.453  O        |        |        |        |       0.27
40.417    0.00    0.51     0.450  O        |        |        |        |       0.27
40.500    0.00    0.50     0.446  O        |        |        |        |       0.26
40.583    0.00    0.50     0.443  O        |        |        |        |       0.26
40.667    0.00    0.50     0.440  O        |        |        |        |       0.26
40.750    0.00    0.49     0.436  O        |        |        |        |       0.26
40.833    0.00    0.49     0.433  O        |        |        |        |       0.26
40.917    0.00    0.48     0.429  O        |        |        |        |       0.25
41.000    0.00    0.48     0.426  O        |        |        |        |       0.25
41.083    0.00    0.48     0.423  O        |        |        |        |       0.25
41.167    0.00    0.47     0.420  O        |        |        |        |       0.25
41.250    0.00    0.47     0.416  O        |        |        |        |       0.25
41.333    0.00    0.47     0.413  O        |        |        |        |       0.24
41.417    0.00    0.46     0.410  O        |        |        |        |       0.24
41.500    0.00    0.46     0.407  O        |        |        |        |       0.24
41.583    0.00    0.46     0.404  O        |        |        |        |       0.24
41.667    0.00    0.45     0.400  O        |        |        |        |       0.24
41.750    0.00    0.45     0.397  O        |        |        |        |       0.23
41.833    0.00    0.44     0.394  O        |        |        |        |       0.23
41.917    0.00    0.44     0.391  O        |        |        |        |       0.23
42.000    0.00    0.44     0.388  O        |        |        |        |       0.23
42.083    0.00    0.43     0.385  O        |        |        |        |       0.23
42.167    0.00    0.43     0.382  O        |        |        |        |       0.23
42.250    0.00    0.43     0.379  O        |        |        |        |       0.22
42.333    0.00    0.42     0.376  O        |        |        |        |       0.22
42.417    0.00    0.42     0.373  O        |        |        |        |       0.22
42.500    0.00    0.42     0.371  O        |        |        |        |       0.22
42.583    0.00    0.41     0.368  O        |        |        |        |       0.22
42.667    0.00    0.41     0.365  O        |        |        |        |       0.22
42.750    0.00    0.41     0.362  O        |        |        |        |       0.21
42.833    0.00    0.41     0.359  O        |        |        |        |       0.21
42.917    0.00    0.40     0.356  O        |        |        |        |       0.21
43.000    0.00    0.40     0.354  O        |        |        |        |       0.21
43.083    0.00    0.40     0.351  O        |        |        |        |       0.21
43.167    0.00    0.39     0.348  O        |        |        |        |       0.21
43.250    0.00    0.39     0.345  O        |        |        |        |       0.20
43.333    0.00    0.39     0.343  O        |        |        |        |       0.20
43.417    0.00    0.38     0.340  O        |        |        |        |       0.20
43.500    0.00    0.38     0.338  O        |        |        |        |       0.20
43.583    0.00    0.38     0.335  O        |        |        |        |       0.20
43.667    0.00    0.37     0.332  O        |        |        |        |       0.20
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43.750	0.00	0.37	0.330	O	|	|	|	|	0.19
43.833	0.00	0.37	0.327	O	|	|	|	|	0.19
43.917	0.00	0.37	0.325	O	|	|	|	|	0.19
44.000	0.00	0.36	0.322	O	|	|	|	|	0.19
44.083	0.00	0.36	0.320	O	|	|	|	|	0.19
44.167	0.00	0.36	0.317	O	|	|	|	|	0.19
44.250	0.00	0.36	0.315	O	|	|	|	|	0.19
44.333	0.00	0.35	0.312	O	|	|	|	|	0.18
44.417	0.00	0.35	0.310	O	|	|	|	|	0.18
44.500	0.00	0.35	0.307	O	|	|	|	|	0.18
44.583	0.00	0.34	0.305	O	|	|	|	|	0.18
44.667	0.00	0.34	0.303	O	|	|	|	|	0.18
44.750	0.00	0.34	0.300	O	|	|	|	|	0.18
44.833	0.00	0.34	0.298	O	|	|	|	|	0.18
44.917	0.00	0.33	0.296	O	|	|	|	|	0.17
45.000	0.00	0.33	0.293	O	|	|	|	|	0.17
45.083	0.00	0.33	0.291	O	|	|	|	|	0.17
45.167	0.00	0.33	0.289	O	|	|	|	|	0.17
45.250	0.00	0.32	0.287	O	|	|	|	|	0.17
45.333	0.00	0.32	0.284	O	|	|	|	|	0.17
45.417	0.00	0.32	0.282	O	|	|	|	|	0.17
45.500	0.00	0.32	0.280	O	|	|	|	|	0.17
45.583	0.00	0.31	0.278	O	|	|	|	|	0.16
45.667	0.00	0.31	0.276	O	|	|	|	|	0.16
45.750	0.00	0.31	0.274	O	|	|	|	|	0.16
45.833	0.00	0.31	0.272	O	|	|	|	|	0.16
45.917	0.00	0.30	0.269	O	|	|	|	|	0.16
46.000	0.00	0.30	0.267	O	|	|	|	|	0.16
46.083	0.00	0.30	0.265	O	|	|	|	|	0.16
46.167	0.00	0.30	0.263	O	|	|	|	|	0.16
46.250	0.00	0.29	0.261	O	|	|	|	|	0.15
46.333	0.00	0.29	0.259	O	|	|	|	|	0.15
46.417	0.00	0.29	0.257	O	|	|	|	|	0.15
46.500	0.00	0.29	0.255	O	|	|	|	|	0.15
46.583	0.00	0.29	0.253	O	|	|	|	|	0.15
46.667	0.00	0.28	0.251	O	|	|	|	|	0.15
46.750	0.00	0.28	0.249	O	|	|	|	|	0.15
46.833	0.00	0.28	0.247	O	|	|	|	|	0.15
46.917	0.00	0.28	0.245	O	|	|	|	|	0.14
47.000	0.00	0.27	0.244	O	|	|	|	|	0.14
47.083	0.00	0.27	0.242	O	|	|	|	|	0.14
47.167	0.00	0.27	0.240	O	|	|	|	|	0.14
47.250	0.00	0.27	0.238	O	|	|	|	|	0.14
47.333	0.00	0.27	0.236	O	|	|	|	|	0.14
47.417	0.00	0.26	0.234	O	|	|	|	|	0.14
47.500	0.00	0.26	0.232	O	|	|	|	|	0.14
47.583	0.00	0.26	0.231	O	|	|	|	|	0.14
47.667	0.00	0.26	0.229	O	|	|	|	|	0.14
47.750	0.00	0.26	0.227	O	|	|	|	|	0.13
47.833	0.00	0.25	0.225	O	|	|	|	|	0.13
47.917	0.00	0.25	0.224	O	|	|	|	|	0.13
48.000	0.00	0.25	0.222	O	|	|	|	|	0.13
48.083	0.00	0.25	0.220	O	|	|	|	|	0.13
48.167	0.00	0.25	0.218	O	|	|	|	|	0.13
48.250	0.00	0.24	0.217	O	|	|	|	|	0.13
48.333	0.00	0.24	0.215	O	|	|	|	|	0.13
48.417	0.00	0.24	0.213	O	|	|	|	|	0.13
48.500	0.00	0.24	0.212	O	|	|	|	|	0.13
48.583	0.00	0.24	0.210	O	|	|	|	|	0.12
48.667	0.00	0.24	0.208	O	|	|	|	|	0.12
48.750	0.00	0.23	0.207	O	|	|	|	|	0.12
48.833	0.00	0.23	0.205	O	|	|	|	|	0.12
48.917	0.00	0.23	0.204	O	|	|	|	|	0.12
49.000	0.00	0.23	0.202	O	|	|	|	|	0.12
49.083	0.00	0.23	0.201	O	|	|	|	|	0.12
49.167	0.00	0.22	0.199	O	|	|	|	|	0.12

49.250	0.00	0.22	0.197	O	|	|	|	|	0.12
49.333	0.00	0.22	0.196	O	|	|	|	|	0.12
49.417	0.00	0.22	0.194	O	|	|	|	|	0.11
49.500	0.00	0.22	0.193	O	|	|	|	|	0.11
49.583	0.00	0.22	0.191	O	|	|	|	|	0.11
49.667	0.00	0.21	0.190	O	|	|	|	|	0.11
49.750	0.00	0.21	0.188	O	|	|	|	|	0.11
49.833	0.00	0.21	0.187	O	|	|	|	|	0.11
49.917	0.00	0.21	0.186	O	|	|	|	|	0.11
50.000	0.00	0.21	0.184	O	|	|	|	|	0.11
50.083	0.00	0.21	0.183	O	|	|	|	|	0.11
50.167	0.00	0.20	0.181	O	|	|	|	|	0.11
50.250	0.00	0.20	0.180	O	|	|	|	|	0.11
50.333	0.00	0.20	0.178	O	|	|	|	|	0.11
50.417	0.00	0.20	0.177	O	|	|	|	|	0.10
50.500	0.00	0.20	0.176	O	|	|	|	|	0.10
50.583	0.00	0.20	0.174	O	|	|	|	|	0.10
50.667	0.00	0.20	0.173	O	|	|	|	|	0.10
50.750	0.00	0.19	0.172	O	|	|	|	|	0.10
50.833	0.00	0.19	0.170	O	|	|	|	|	0.10
50.917	0.00	0.19	0.169	O	|	|	|	|	0.10
51.000	0.00	0.19	0.168	O	|	|	|	|	0.10
51.083	0.00	0.19	0.166	O	|	|	|	|	0.10
51.167	0.00	0.19	0.165	O	|	|	|	|	0.10
51.250	0.00	0.18	0.164	O	|	|	|	|	0.10
51.333	0.00	0.18	0.163	O	|	|	|	|	0.10
51.417	0.00	0.18	0.161	O	|	|	|	|	0.10
51.500	0.00	0.18	0.160	O	|	|	|	|	0.09
51.583	0.00	0.18	0.159	O	|	|	|	|	0.09
51.667	0.00	0.18	0.158	O	|	|	|	|	0.09
51.750	0.00	0.18	0.156	O	|	|	|	|	0.09
51.833	0.00	0.18	0.155	O	|	|	|	|	0.09
51.917	0.00	0.17	0.154	O	|	|	|	|	0.09
52.000	0.00	0.17	0.153	O	|	|	|	|	0.09
52.083	0.00	0.17	0.152	O	|	|	|	|	0.09
52.167	0.00	0.17	0.150	O	|	|	|	|	0.09
52.250	0.00	0.17	0.149	O	|	|	|	|	0.09
52.333	0.00	0.17	0.148	O	|	|	|	|	0.09
52.417	0.00	0.17	0.147	O	|	|	|	|	0.09
52.500	0.00	0.16	0.146	O	|	|	|	|	0.09
52.583	0.00	0.16	0.145	O	|	|	|	|	0.09
52.667	0.00	0.16	0.144	O	|	|	|	|	0.08
52.750	0.00	0.16	0.142	O	|	|	|	|	0.08
52.833	0.00	0.16	0.141	O	|	|	|	|	0.08
52.917	0.00	0.16	0.140	O	|	|	|	|	0.08
53.000	0.00	0.16	0.139	O	|	|	|	|	0.08
53.083	0.00	0.16	0.138	O	|	|	|	|	0.08
53.167	0.00	0.15	0.137	O	|	|	|	|	0.08
53.250	0.00	0.15	0.136	O	|	|	|	|	0.08
53.333	0.00	0.15	0.135	O	|	|	|	|	0.08
53.417	0.00	0.15	0.134	O	|	|	|	|	0.08
53.500	0.00	0.15	0.133	O	|	|	|	|	0.08
53.583	0.00	0.15	0.132	O	|	|	|	|	0.08
53.667	0.00	0.15	0.131	O	|	|	|	|	0.08
53.750	0.00	0.15	0.130	O	|	|	|	|	0.08
53.833	0.00	0.15	0.129	O	|	|	|	|	0.08
53.917	0.00	0.14	0.128	O	|	|	|	|	0.08
54.000	0.00	0.14	0.127	O	|	|	|	|	0.07
54.083	0.00	0.14	0.126	O	|	|	|	|	0.07
54.167	0.00	0.14	0.125	O	|	|	|	|	0.07
54.250	0.00	0.14	0.124	O	|	|	|	|	0.07
54.333	0.00	0.14	0.123	O	|	|	|	|	0.07
54.417	0.00	0.14	0.122	O	|	|	|	|	0.07
54.500	0.00	0.14	0.121	O	|	|	|	|	0.07
54.583	0.00	0.14	0.120	O	|	|	|	|	0.07
54.667	0.00	0.13	0.119	O	|	|	|	|	0.07

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54.750   0.00   0.13   0.118  O      |      |      |      |      0.07
54.833   0.00   0.13   0.117  O      |      |      |      |      0.07
54.917   0.00   0.13   0.116  O      |      |      |      |      0.07
55.000   0.00   0.13   0.116  O      |      |      |      |      0.07
55.083   0.00   0.13   0.115  O      |      |      |      |      0.07
55.167   0.00   0.13   0.114  O      |      |      |      |      0.07
55.250   0.00   0.13   0.113  O      |      |      |      |      0.07
55.333   0.00   0.13   0.112  O      |      |      |      |      0.07
55.417   0.00   0.13   0.111  O      |      |      |      |      0.07
55.500   0.00   0.12   0.110  O      |      |      |      |      0.07
55.583   0.00   0.12   0.109  O      |      |      |      |      0.06
55.667   0.00   0.12   0.109  O      |      |      |      |      0.06
55.750   0.00   0.12   0.108  O      |      |      |      |      0.06
55.833   0.00   0.12   0.107  O      |      |      |      |      0.06
55.917   0.00   0.12   0.106  O      |      |      |      |      0.06
56.000   0.00   0.12   0.105  O      |      |      |      |      0.06
56.083   0.00   0.12   0.104  O      |      |      |      |      0.06
56.167   0.00   0.12   0.104  O      |      |      |      |      0.06
56.250   0.00   0.12   0.103  O      |      |      |      |      0.06
56.333   0.00   0.12   0.102  O      |      |      |      |      0.06
56.417   0.00   0.11   0.101  O      |      |      |      |      0.06
56.500   0.00   0.11   0.100  O      |      |      |      |      0.06
56.583   0.00   0.11   0.100  O      |      |      |      |      0.06
56.667   0.00   0.11   0.099  O      |      |      |      |      0.06
56.750   0.00   0.11   0.098  O      |      |      |      |      0.06
56.833   0.00   0.11   0.097  O      |      |      |      |      0.06
56.917   0.00   0.11   0.097  O      |      |      |      |      0.06
57.000   0.00   0.11   0.096  O      |      |      |      |      0.06
57.083   0.00   0.11   0.095  O      |      |      |      |      0.06
57.167   0.00   0.11   0.094  O      |      |      |      |      0.06
57.250   0.00   0.11   0.094  O      |      |      |      |      0.06
57.333   0.00   0.10   0.093  O      |      |      |      |      0.05
57.417   0.00   0.10   0.092  O      |      |      |      |      0.05
57.500   0.00   0.10   0.091  O      |      |      |      |      0.05
57.583   0.00   0.10   0.091  O      |      |      |      |      0.05
57.667   0.00   0.10   0.090  O      |      |      |      |      0.05
57.750   0.00   0.10   0.089  O      |      |      |      |      0.05
57.833   0.00   0.10   0.089  O      |      |      |      |      0.05
57.917   0.00   0.10   0.088  O      |      |      |      |      0.05
58.000   0.00   0.10   0.087  O      |      |      |      |      0.05
58.083   0.00   0.10   0.087  O      |      |      |      |      0.05
58.167   0.00   0.10   0.086  O      |      |      |      |      0.05
58.250   0.00   0.10   0.085  O      |      |      |      |      0.05
58.333   0.00   0.10   0.085  O      |      |      |      |      0.05
58.417   0.00   0.09   0.084  O      |      |      |      |      0.05
58.500   0.00   0.09   0.083  O      |      |      |      |      0.05
58.583   0.00   0.09   0.083  O      |      |      |      |      0.05
58.667   0.00   0.09   0.082  O      |      |      |      |      0.05
58.750   0.00   0.09   0.081  O      |      |      |      |      0.05
58.833   0.00   0.09   0.081  O      |      |      |      |      0.05
58.917   0.00   0.09   0.080  O      |      |      |      |      0.05
59.000   0.00   0.09   0.080  O      |      |      |      |      0.05
59.083   0.00   0.09   0.079  O      |      |      |      |      0.05
59.167   0.00   0.09   0.078  O      |      |      |      |      0.05
59.250   0.00   0.09   0.078  O      |      |      |      |      0.05
59.333   0.00   0.09   0.077  O      |      |      |      |      0.05
59.417   0.00   0.09   0.077  O      |      |      |      |      0.05
59.500   0.00   0.09   0.076  O      |      |      |      |      0.04
59.583   0.00   0.09   0.075  O      |      |      |      |      0.04
59.667   0.00   0.08   0.075  O      |      |      |      |      0.04
59.750   0.00   0.08   0.074  O      |      |      |      |      0.04
59.833   0.00   0.08   0.074  O      |      |      |      |      0.04
59.917   0.00   0.08   0.073  O      |      |      |      |      0.04
60.000   0.00   0.08   0.072  O      |      |      |      |      0.04
60.083   0.00   0.08   0.072  O      |      |      |      |      0.04
60.167   0.00   0.08   0.071  O      |      |      |      |      0.04
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60.250    0.00    0.08      0.071  O       |        |        |        |      0.04
60.333    0.00    0.08      0.070  O       |        |        |        |      0.04
60.417    0.00    0.08      0.070  O       |        |        |        |      0.04
60.500    0.00    0.08      0.069  O       |        |        |        |      0.04
60.583    0.00    0.08      0.069  O       |        |        |        |      0.04
60.667    0.00    0.08      0.068  O       |        |        |        |      0.04
60.750    0.00    0.08      0.068  O       |        |        |        |      0.04
60.833    0.00    0.08      0.067  O       |        |        |        |      0.04
60.917    0.00    0.08      0.067  O       |        |        |        |      0.04
61.000    0.00    0.07      0.066  O       |        |        |        |      0.04
61.083    0.00    0.07      0.066  O       |        |        |        |      0.04
61.167    0.00    0.07      0.065  O       |        |        |        |      0.04
61.250    0.00    0.07      0.065  O       |        |        |        |      0.04
61.333    0.00    0.07      0.064  O       |        |        |        |      0.04
61.417    0.00    0.07      0.064  O       |        |        |        |      0.04
61.500    0.00    0.07      0.063  O       |        |        |        |      0.04
61.583    0.00    0.07      0.063  O       |        |        |        |      0.04
61.667    0.00    0.07      0.062  O       |        |        |        |      0.04
61.750    0.00    0.07      0.062  O       |        |        |        |      0.04
61.833    0.00    0.07      0.061  O       |        |        |        |      0.04
61.917    0.00    0.07      0.061  O       |        |        |        |      0.04
62.000    0.00    0.07      0.060  O       |        |        |        |      0.04
62.083    0.00    0.07      0.060  O       |        |        |        |      0.04
62.167    0.00    0.07      0.059  O       |        |        |        |      0.03
62.250    0.00    0.07      0.059  O       |        |        |        |      0.03
62.333    0.00    0.07      0.058  O       |        |        |        |      0.03
62.417    0.00    0.07      0.058  O       |        |        |        |      0.03
62.500    0.00    0.06      0.057  O       |        |        |        |      0.03
62.583    0.00    0.06      0.057  O       |        |        |        |      0.03
62.667    0.00    0.06      0.057  O       |        |        |        |      0.03
62.750    0.00    0.06      0.056  O       |        |        |        |      0.03
62.833    0.00    0.06      0.056  O       |        |        |        |      0.03
62.917    0.00    0.06      0.055  O       |        |        |        |      0.03
63.000    0.00    0.06      0.055  O       |        |        |        |      0.03
63.083    0.00    0.06      0.054  O       |        |        |        |      0.03
63.167    0.00    0.06      0.054  O       |        |        |        |      0.03
63.250    0.00    0.06      0.054  O       |        |        |        |      0.03
63.333    0.00    0.06      0.053  O       |        |        |        |      0.03
63.417    0.00    0.06      0.053  O       |        |        |        |      0.03
63.500    0.00    0.06      0.052  O       |        |        |        |      0.03
63.583    0.00    0.06      0.052  O       |        |        |        |      0.03
63.667    0.00    0.06      0.051  O       |        |        |        |      0.03
63.750    0.00    0.06      0.051  O       |        |        |        |      0.03
63.833    0.00    0.06      0.051  O       |        |        |        |      0.03
63.917    0.00    0.06      0.050  O       |        |        |        |      0.03
64.000    0.00    0.06      0.050  O       |        |        |        |      0.03
64.083    0.00    0.06      0.050  O       |        |        |        |      0.03
64.167    0.00    0.06      0.049  O       |        |        |        |      0.03
64.250    0.00    0.06      0.049  O       |        |        |        |      0.03
64.333    0.00    0.05      0.048  O       |        |        |        |      0.03
64.417    0.00    0.05      0.048  O       |        |        |        |      0.03
64.500    0.00    0.05      0.048  O       |        |        |        |      0.03
64.583    0.00    0.05      0.047  O       |        |        |        |      0.03
64.667    0.00    0.05      0.047  O       |        |        |        |      0.03
64.750    0.00    0.05      0.047  O       |        |        |        |      0.03
64.833    0.00    0.05      0.046  O       |        |        |        |      0.03
64.917    0.00    0.05      0.046  O       |        |        |        |      0.03
65.000    0.00    0.05      0.045  O       |        |        |        |      0.03
65.083    0.00    0.05      0.045  O       |        |        |        |      0.03
65.167    0.00    0.05      0.045  O       |        |        |        |      0.03
65.250    0.00    0.05      0.044  O       |        |        |        |      0.03
65.333    0.00    0.05      0.044  O       |        |        |        |      0.03
65.417    0.00    0.05      0.044  O       |        |        |        |      0.03
65.500    0.00    0.05      0.043  O       |        |        |        |      0.03
65.583    0.00    0.05      0.043  O       |        |        |        |      0.03
65.667    0.00    0.05      0.043  O       |        |        |        |      0.03
```

65.750	0.00	0.05	0.042	O	|	|	|	|	0.03
65.833	0.00	0.05	0.042	O	|	|	|	|	0.02
65.917	0.00	0.05	0.042	O	|	|	|	|	0.02
66.000	0.00	0.05	0.041	O	|	|	|	|	0.02
66.083	0.00	0.05	0.041	O	|	|	|	|	0.02
66.167	0.00	0.05	0.041	O	|	|	|	|	0.02
66.250	0.00	0.05	0.040	O	|	|	|	|	0.02
66.333	0.00	0.05	0.040	O	|	|	|	|	0.02
66.417	0.00	0.04	0.040	O	|	|	|	|	0.02
66.500	0.00	0.04	0.040	O	|	|	|	|	0.02
66.583	0.00	0.04	0.039	O	|	|	|	|	0.02
66.667	0.00	0.04	0.039	O	|	|	|	|	0.02
66.750	0.00	0.04	0.039	O	|	|	|	|	0.02
66.833	0.00	0.04	0.038	O	|	|	|	|	0.02
66.917	0.00	0.04	0.038	O	|	|	|	|	0.02
67.000	0.00	0.04	0.038	O	|	|	|	|	0.02
67.083	0.00	0.04	0.037	O	|	|	|	|	0.02
67.167	0.00	0.04	0.037	O	|	|	|	|	0.02
67.250	0.00	0.04	0.037	O	|	|	|	|	0.02
67.333	0.00	0.04	0.037	O	|	|	|	|	0.02
67.417	0.00	0.04	0.036	O	|	|	|	|	0.02
67.500	0.00	0.04	0.036	O	|	|	|	|	0.02
67.583	0.00	0.04	0.036	O	|	|	|	|	0.02
67.667	0.00	0.04	0.035	O	|	|	|	|	0.02
67.750	0.00	0.04	0.035	O	|	|	|	|	0.02
67.833	0.00	0.04	0.035	O	|	|	|	|	0.02
67.917	0.00	0.04	0.035	O	|	|	|	|	0.02
68.000	0.00	0.04	0.034	O	|	|	|	|	0.02
68.083	0.00	0.04	0.034	O	|	|	|	|	0.02
68.167	0.00	0.04	0.034	O	|	|	|	|	0.02
68.250	0.00	0.04	0.034	O	|	|	|	|	0.02
68.333	0.00	0.04	0.033	O	|	|	|	|	0.02
68.417	0.00	0.04	0.033	O	|	|	|	|	0.02
68.500	0.00	0.04	0.033	O	|	|	|	|	0.02
68.583	0.00	0.04	0.033	O	|	|	|	|	0.02
68.667	0.00	0.04	0.032	O	|	|	|	|	0.02
68.750	0.00	0.04	0.032	O	|	|	|	|	0.02
68.833	0.00	0.04	0.032	O	|	|	|	|	0.02
68.917	0.00	0.04	0.032	O	|	|	|	|	0.02
69.000	0.00	0.04	0.031	O	|	|	|	|	0.02
69.083	0.00	0.04	0.031	O	|	|	|	|	0.02
69.167	0.00	0.03	0.031	O	|	|	|	|	0.02
69.250	0.00	0.03	0.031	O	|	|	|	|	0.02
69.333	0.00	0.03	0.030	O	|	|	|	|	0.02
69.417	0.00	0.03	0.030	O	|	|	|	|	0.02
69.500	0.00	0.03	0.030	O	|	|	|	|	0.02
69.583	0.00	0.03	0.030	O	|	|	|	|	0.02
69.667	0.00	0.03	0.029	O	|	|	|	|	0.02
69.750	0.00	0.03	0.029	O	|	|	|	|	0.02
69.833	0.00	0.03	0.029	O	|	|	|	|	0.02
69.917	0.00	0.03	0.029	O	|	|	|	|	0.02
70.000	0.00	0.03	0.029	O	|	|	|	|	0.02
70.083	0.00	0.03	0.028	O	|	|	|	|	0.02
70.167	0.00	0.03	0.028	O	|	|	|	|	0.02
70.250	0.00	0.03	0.028	O	|	|	|	|	0.02
70.333	0.00	0.03	0.028	O	|	|	|	|	0.02
70.417	0.00	0.03	0.027	O	|	|	|	|	0.02
70.500	0.00	0.03	0.027	O	|	|	|	|	0.02
70.583	0.00	0.03	0.027	O	|	|	|	|	0.02
70.667	0.00	0.03	0.027	O	|	|	|	|	0.02
70.750	0.00	0.03	0.027	O	|	|	|	|	0.02
70.833	0.00	0.03	0.026	O	|	|	|	|	0.02
70.917	0.00	0.03	0.026	O	|	|	|	|	0.02
71.000	0.00	0.03	0.026	O	|	|	|	|	0.02
71.083	0.00	0.03	0.026	O	|	|	|	|	0.02
71.167	0.00	0.03	0.026	O	|	|	|	|	0.02

```
71.250    0.00    0.03     0.025  O        |        |        |        |      0.01
71.333    0.00    0.03     0.025  O        |        |        |        |      0.01
71.417    0.00    0.03     0.025  O        |        |        |        |      0.01
71.500    0.00    0.03     0.025  O        |        |        |        |      0.01
71.583    0.00    0.03     0.025  O        |        |        |        |      0.01
71.667    0.00    0.03     0.024  O        |        |        |        |      0.01
71.750    0.00    0.03     0.024  O        |        |        |        |      0.01
71.833    0.00    0.03     0.024  O        |        |        |        |      0.01
71.917    0.00    0.03     0.024  O        |        |        |        |      0.01
72.000    0.00    0.03     0.024  O        |        |        |        |      0.01
72.083    0.00    0.03     0.023  O        |        |        |        |      0.01
72.167    0.00    0.03     0.023  O        |        |        |        |      0.01
72.250    0.00    0.03     0.023  O        |        |        |        |      0.01
72.333    0.00    0.03     0.023  O        |        |        |        |      0.01
72.417    0.00    0.03     0.023  O        |        |        |        |      0.01
72.500    0.00    0.03     0.023  O        |        |        |        |      0.01
72.583    0.00    0.03     0.022  O        |        |        |        |      0.01
72.667    0.00    0.03     0.022  O        |        |        |        |      0.01
72.750    0.00    0.02     0.022  O        |        |        |        |      0.01
72.833    0.00    0.02     0.022  O        |        |        |        |      0.01
72.917    0.00    0.02     0.022  O        |        |        |        |      0.01
73.000    0.00    0.02     0.022  O        |        |        |        |      0.01
73.083    0.00    0.02     0.021  O        |        |        |        |      0.01
73.167    0.00    0.02     0.021  O        |        |        |        |      0.01
73.250    0.00    0.02     0.021  O        |        |        |        |      0.01
73.333    0.00    0.02     0.021  O        |        |        |        |      0.01
73.417    0.00    0.02     0.021  O        |        |        |        |      0.01
73.500    0.00    0.02     0.021  O        |        |        |        |      0.01
73.583    0.00    0.02     0.020  O        |        |        |        |      0.01
73.667    0.00    0.02     0.020  O        |        |        |        |      0.01
73.750    0.00    0.02     0.020  O        |        |        |        |      0.01
73.833    0.00    0.02     0.020  O        |        |        |        |      0.01
73.917    0.00    0.02     0.020  O        |        |        |        |      0.01
74.000    0.00    0.02     0.020  O        |        |        |        |      0.01
74.083    0.00    0.02     0.019  O        |        |        |        |      0.01
74.167    0.00    0.02     0.019  O        |        |        |        |      0.01
74.250    0.00    0.02     0.019  O        |        |        |        |      0.01
74.333    0.00    0.02     0.019  O        |        |        |        |      0.01
74.417    0.00    0.02     0.019  O        |        |        |        |      0.01
74.500    0.00    0.02     0.019  O        |        |        |        |      0.01
74.583    0.00    0.02     0.019  O        |        |        |        |      0.01
74.667    0.00    0.02     0.018  O        |        |        |        |      0.01
74.750    0.00    0.02     0.018  O        |        |        |        |      0.01
74.833    0.00    0.02     0.018  O        |        |        |        |      0.01
74.917    0.00    0.02     0.018  O        |        |        |        |      0.01
75.000    0.00    0.02     0.018  O        |        |        |        |      0.01
75.083    0.00    0.02     0.018  O        |        |        |        |      0.01
75.167    0.00    0.02     0.018  O        |        |        |        |      0.01
75.250    0.00    0.02     0.017  O        |        |        |        |      0.01
75.333    0.00    0.02     0.017  O        |        |        |        |      0.01
75.417    0.00    0.02     0.017  O        |        |        |        |      0.01
75.500    0.00    0.02     0.017  O        |        |        |        |      0.01
75.583    0.00    0.02     0.017  O        |        |        |        |      0.01
75.667    0.00    0.02     0.017  O        |        |        |        |      0.01
75.750    0.00    0.02     0.017  O        |        |        |        |      0.01
75.833    0.00    0.02     0.017  O        |        |        |        |      0.01
75.917    0.00    0.02     0.016  O        |        |        |        |      0.01
76.000    0.00    0.02     0.016  O        |        |        |        |      0.01
76.083    0.00    0.02     0.016  O        |        |        |        |      0.01
76.167    0.00    0.02     0.016  O        |        |        |        |      0.01
76.250    0.00    0.02     0.016  O        |        |        |        |      0.01
76.333    0.00    0.02     0.016  O        |        |        |        |      0.01
76.417    0.00    0.02     0.016  O        |        |        |        |      0.01
76.500    0.00    0.02     0.016  O        |        |        |        |      0.01
76.583    0.00    0.02     0.015  O        |        |        |        |      0.01
76.667    0.00    0.02     0.015  O        |        |        |        |      0.01
```

76.750	0.00	0.02	0.015	O	|	|	|	|	0.01
76.833	0.00	0.02	0.015	O	|	|	|	|	0.01
76.917	0.00	0.02	0.015	O	|	|	|	|	0.01
77.000	0.00	0.02	0.015	O	|	|	|	|	0.01
77.083	0.00	0.02	0.015	O	|	|	|	|	0.01
77.167	0.00	0.02	0.015	O	|	|	|	|	0.01
77.250	0.00	0.02	0.015	O	|	|	|	|	0.01
77.333	0.00	0.02	0.014	O	|	|	|	|	0.01
77.417	0.00	0.02	0.014	O	|	|	|	|	0.01
77.500	0.00	0.02	0.014	O	|	|	|	|	0.01
77.583	0.00	0.02	0.014	O	|	|	|	|	0.01
77.667	0.00	0.02	0.014	O	|	|	|	|	0.01
77.750	0.00	0.02	0.014	O	|	|	|	|	0.01
77.833	0.00	0.02	0.014	O	|	|	|	|	0.01
77.917	0.00	0.02	0.014	O	|	|	|	|	0.01
78.000	0.00	0.02	0.014	O	|	|	|	|	0.01
78.083	0.00	0.02	0.013	O	|	|	|	|	0.01
78.167	0.00	0.02	0.013	O	|	|	|	|	0.01
78.250	0.00	0.01	0.013	O	|	|	|	|	0.01
78.333	0.00	0.01	0.013	O	|	|	|	|	0.01
78.417	0.00	0.01	0.013	O	|	|	|	|	0.01
78.500	0.00	0.01	0.013	O	|	|	|	|	0.01
78.583	0.00	0.01	0.013	O	|	|	|	|	0.01
78.667	0.00	0.01	0.013	O	|	|	|	|	0.01
78.750	0.00	0.01	0.013	O	|	|	|	|	0.01
78.833	0.00	0.01	0.013	O	|	|	|	|	0.01
78.917	0.00	0.01	0.012	O	|	|	|	|	0.01
79.000	0.00	0.01	0.012	O	|	|	|	|	0.01
79.083	0.00	0.01	0.012	O	|	|	|	|	0.01
79.167	0.00	0.01	0.012	O	|	|	|	|	0.01
79.250	0.00	0.01	0.012	O	|	|	|	|	0.01
79.333	0.00	0.01	0.012	O	|	|	|	|	0.01
79.417	0.00	0.01	0.012	O	|	|	|	|	0.01
79.500	0.00	0.01	0.012	O	|	|	|	|	0.01
79.583	0.00	0.01	0.012	O	|	|	|	|	0.01
79.667	0.00	0.01	0.012	O	|	|	|	|	0.01
79.750	0.00	0.01	0.011	O	|	|	|	|	0.01
79.833	0.00	0.01	0.011	O	|	|	|	|	0.01
79.917	0.00	0.01	0.011	O	|	|	|	|	0.01
80.000	0.00	0.01	0.011	O	|	|	|	|	0.01
80.083	0.00	0.01	0.011	O	|	|	|	|	0.01
80.167	0.00	0.01	0.011	O	|	|	|	|	0.01
80.250	0.00	0.01	0.011	O	|	|	|	|	0.01
80.333	0.00	0.01	0.011	O	|	|	|	|	0.01
80.417	0.00	0.01	0.011	O	|	|	|	|	0.01
80.500	0.00	0.01	0.011	O	|	|	|	|	0.01
80.583	0.00	0.01	0.011	O	|	|	|	|	0.01
80.667	0.00	0.01	0.011	O	|	|	|	|	0.01
80.750	0.00	0.01	0.010	O	|	|	|	|	0.01
80.833	0.00	0.01	0.010	O	|	|	|	|	0.01
80.917	0.00	0.01	0.010	O	|	|	|	|	0.01
81.000	0.00	0.01	0.010	O	|	|	|	|	0.01
81.083	0.00	0.01	0.010	O	|	|	|	|	0.01
81.167	0.00	0.01	0.010	O	|	|	|	|	0.01
81.250	0.00	0.01	0.010	O	|	|	|	|	0.01
81.333	0.00	0.01	0.010	O	|	|	|	|	0.01
81.417	0.00	0.01	0.010	O	|	|	|	|	0.01
81.500	0.00	0.01	0.010	O	|	|	|	|	0.01
81.583	0.00	0.01	0.010	O	|	|	|	|	0.01
81.667	0.00	0.01	0.010	O	|	|	|	|	0.01
81.750	0.00	0.01	0.010	O	|	|	|	|	0.01
81.833	0.00	0.01	0.009	O	|	|	|	|	0.01
81.917	0.00	0.01	0.009	O	|	|	|	|	0.01
82.000	0.00	0.01	0.009	O	|	|	|	|	0.01
82.083	0.00	0.01	0.009	O	|	|	|	|	0.01
82.167	0.00	0.01	0.009	O	|	|	|	|	0.01

```
82.250    0.00    0.01     0.009  O        |        |        |        |      0.01
82.333    0.00    0.01     0.009  O        |        |        |        |      0.01
82.417    0.00    0.01     0.009  O        |        |        |        |      0.01
82.500    0.00    0.01     0.009  O        |        |        |        |      0.01
82.583    0.00    0.01     0.009  O        |        |        |        |      0.01
82.667    0.00    0.01     0.009  O        |        |        |        |      0.01
82.750    0.00    0.01     0.009  O        |        |        |        |      0.01
82.833    0.00    0.01     0.009  O        |        |        |        |      0.01
82.917    0.00    0.01     0.009  O        |        |        |        |      0.01
83.000    0.00    0.01     0.008  O        |        |        |        |      0.01
83.083    0.00    0.01     0.008  O        |        |        |        |      0.00
83.167    0.00    0.01     0.008  O        |        |        |        |      0.00
83.250    0.00    0.01     0.008  O        |        |        |        |      0.00
83.333    0.00    0.01     0.008  O        |        |        |        |      0.00
83.417    0.00    0.01     0.008  O        |        |        |        |      0.00
83.500    0.00    0.01     0.008  O        |        |        |        |      0.00
83.583    0.00    0.01     0.008  O        |        |        |        |      0.00
83.667    0.00    0.01     0.008  O        |        |        |        |      0.00
83.750    0.00    0.01     0.008  O        |        |        |        |      0.00
83.833    0.00    0.01     0.008  O        |        |        |        |      0.00
83.917    0.00    0.01     0.008  O        |        |        |        |      0.00
84.000    0.00    0.01     0.008  O        |        |        |        |      0.00
84.083    0.00    0.01     0.008  O        |        |        |        |      0.00
84.167    0.00    0.01     0.008  O        |        |        |        |      0.00
84.250    0.00    0.01     0.008  O        |        |        |        |      0.00
84.333    0.00    0.01     0.007  O        |        |        |        |      0.00
84.417    0.00    0.01     0.007  O        |        |        |        |      0.00
84.500    0.00    0.01     0.007  O        |        |        |        |      0.00
84.583    0.00    0.01     0.007  O        |        |        |        |      0.00
84.667    0.00    0.01     0.007  O        |        |        |        |      0.00
84.750    0.00    0.01     0.007  O        |        |        |        |      0.00
84.833    0.00    0.01     0.007  O        |        |        |        |      0.00
84.917    0.00    0.01     0.007  O        |        |        |        |      0.00
85.000    0.00    0.01     0.007  O        |        |        |        |      0.00
85.083    0.00    0.01     0.007  O        |        |        |        |      0.00
85.167    0.00    0.01     0.007  O        |        |        |        |      0.00
85.250    0.00    0.01     0.007  O        |        |        |        |      0.00
85.333    0.00    0.01     0.007  O        |        |        |        |      0.00
85.417    0.00    0.01     0.007  O        |        |        |        |      0.00
85.500    0.00    0.01     0.007  O        |        |        |        |      0.00
85.583    0.00    0.01     0.007  O        |        |        |        |      0.00
85.667    0.00    0.01     0.007  O        |        |        |        |      0.00
85.750    0.00    0.01     0.007  O        |        |        |        |      0.00
85.833    0.00    0.01     0.007  O        |        |        |        |      0.00
85.917    0.00    0.01     0.006  O        |        |        |        |      0.00
86.000    0.00    0.01     0.006  O        |        |        |        |      0.00
86.083    0.00    0.01     0.006  O        |        |        |        |      0.00
86.167    0.00    0.01     0.006  O        |        |        |        |      0.00
86.250    0.00    0.01     0.006  O        |        |        |        |      0.00
86.333    0.00    0.01     0.006  O        |        |        |        |      0.00
86.417    0.00    0.01     0.006  O        |        |        |        |      0.00
86.500    0.00    0.01     0.006  O        |        |        |        |      0.00
86.583    0.00    0.01     0.006  O        |        |        |        |      0.00
86.667    0.00    0.01     0.006  O        |        |        |        |      0.00
86.750    0.00    0.01     0.006  O        |        |        |        |      0.00
86.833    0.00    0.01     0.006  O        |        |        |        |      0.00
86.917    0.00    0.01     0.006  O        |        |        |        |      0.00
87.000    0.00    0.01     0.006  O        |        |        |        |      0.00
87.083    0.00    0.01     0.006  O        |        |        |        |      0.00
87.167    0.00    0.01     0.006  O        |        |        |        |      0.00
87.250    0.00    0.01     0.006  O        |        |        |        |      0.00
87.333    0.00    0.01     0.006  O        |        |        |        |      0.00
87.417    0.00    0.01     0.006  O        |        |        |        |      0.00
87.500    0.00    0.01     0.006  O        |        |        |        |      0.00
87.583    0.00    0.01     0.006  O        |        |        |        |      0.00
87.667    0.00    0.01     0.005  O        |        |        |        |      0.00
```

87.750	0.00	0.01	0.005	O	|	|	|	|	0.00
87.833	0.00	0.01	0.005	O	|	|	|	|	0.00
87.917	0.00	0.01	0.005	O	|	|	|	|	0.00
88.000	0.00	0.01	0.005	O	|	|	|	|	0.00
88.083	0.00	0.01	0.005	O	|	|	|	|	0.00
88.167	0.00	0.01	0.005	O	|	|	|	|	0.00
88.250	0.00	0.01	0.005	O	|	|	|	|	0.00
88.333	0.00	0.01	0.005	O	|	|	|	|	0.00
88.417	0.00	0.01	0.005	O	|	|	|	|	0.00
88.500	0.00	0.01	0.005	O	|	|	|	|	0.00
88.583	0.00	0.01	0.005	O	|	|	|	|	0.00
88.667	0.00	0.01	0.005	O	|	|	|	|	0.00
88.750	0.00	0.01	0.005	O	|	|	|	|	0.00
88.833	0.00	0.01	0.005	O	|	|	|	|	0.00
88.917	0.00	0.01	0.005	O	|	|	|	|	0.00
89.000	0.00	0.01	0.005	O	|	|	|	|	0.00
89.083	0.00	0.01	0.005	O	|	|	|	|	0.00
89.167	0.00	0.01	0.005	O	|	|	|	|	0.00
89.250	0.00	0.01	0.005	O	|	|	|	|	0.00
89.333	0.00	0.01	0.005	O	|	|	|	|	0.00
89.417	0.00	0.01	0.005	O	|	|	|	|	0.00
89.500	0.00	0.01	0.005	O	|	|	|	|	0.00
89.583	0.00	0.01	0.005	O	|	|	|	|	0.00
89.667	0.00	0.01	0.005	O	|	|	|	|	0.00
89.750	0.00	0.01	0.005	O	|	|	|	|	0.00
89.833	0.00	0.01	0.004	O	|	|	|	|	0.00
89.917	0.00	0.01	0.004	O	|	|	|	|	0.00
90.000	0.00	0.00	0.004	O	|	|	|	|	0.00
90.083	0.00	0.00	0.004	O	|	|	|	|	0.00
90.167	0.00	0.00	0.004	O	|	|	|	|	0.00
90.250	0.00	0.00	0.004	O	|	|	|	|	0.00
90.333	0.00	0.00	0.004	O	|	|	|	|	0.00
90.417	0.00	0.00	0.004	O	|	|	|	|	0.00
90.500	0.00	0.00	0.004	O	|	|	|	|	0.00
90.583	0.00	0.00	0.004	O	|	|	|	|	0.00
90.667	0.00	0.00	0.004	O	|	|	|	|	0.00
90.750	0.00	0.00	0.004	O	|	|	|	|	0.00
90.833	0.00	0.00	0.004	O	|	|	|	|	0.00
90.917	0.00	0.00	0.004	O	|	|	|	|	0.00
91.000	0.00	0.00	0.004	O	|	|	|	|	0.00
91.083	0.00	0.00	0.004	O	|	|	|	|	0.00
91.167	0.00	0.00	0.004	O	|	|	|	|	0.00
91.250	0.00	0.00	0.004	O	|	|	|	|	0.00
91.333	0.00	0.00	0.004	O	|	|	|	|	0.00
91.417	0.00	0.00	0.004	O	|	|	|	|	0.00
91.500	0.00	0.00	0.004	O	|	|	|	|	0.00
91.583	0.00	0.00	0.004	O	|	|	|	|	0.00
91.667	0.00	0.00	0.004	O	|	|	|	|	0.00
91.750	0.00	0.00	0.004	O	|	|	|	|	0.00
91.833	0.00	0.00	0.004	O	|	|	|	|	0.00
91.917	0.00	0.00	0.004	O	|	|	|	|	0.00
92.000	0.00	0.00	0.004	O	|	|	|	|	0.00
92.083	0.00	0.00	0.004	O	|	|	|	|	0.00
92.167	0.00	0.00	0.004	O	|	|	|	|	0.00
92.250	0.00	0.00	0.004	O	|	|	|	|	0.00
92.333	0.00	0.00	0.004	O	|	|	|	|	0.00
92.417	0.00	0.00	0.004	O	|	|	|	|	0.00
92.500	0.00	0.00	0.004	O	|	|	|	|	0.00
92.583	0.00	0.00	0.003	O	|	|	|	|	0.00
92.667	0.00	0.00	0.003	O	|	|	|	|	0.00
92.750	0.00	0.00	0.003	O	|	|	|	|	0.00
92.833	0.00	0.00	0.003	O	|	|	|	|	0.00
92.917	0.00	0.00	0.003	O	|	|	|	|	0.00
93.000	0.00	0.00	0.003	O	|	|	|	|	0.00
93.083	0.00	0.00	0.003	O	|	|	|	|	0.00
93.167	0.00	0.00	0.003	O	|	|	|	|	0.00

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93.250    0.00    0.00      0.003  O       |        |        |        |       0.00
93.333    0.00    0.00      0.003  O       |        |        |        |       0.00
93.417    0.00    0.00      0.003  O       |        |        |        |       0.00
93.500    0.00    0.00      0.003  O       |        |        |        |       0.00
93.583    0.00    0.00      0.003  O       |        |        |        |       0.00
93.667    0.00    0.00      0.003  O       |        |        |        |       0.00
93.750    0.00    0.00      0.003  O       |        |        |        |       0.00
93.833    0.00    0.00      0.003  O       |        |        |        |       0.00
93.917    0.00    0.00      0.003  O       |        |        |        |       0.00
94.000    0.00    0.00      0.003  O       |        |        |        |       0.00
94.083    0.00    0.00      0.003  O       |        |        |        |       0.00
94.167    0.00    0.00      0.003  O       |        |        |        |       0.00
94.250    0.00    0.00      0.003  O       |        |        |        |       0.00
94.333    0.00    0.00      0.003  O       |        |        |        |       0.00
94.417    0.00    0.00      0.003  O       |        |        |        |       0.00
94.500    0.00    0.00      0.003  O       |        |        |        |       0.00
94.583    0.00    0.00      0.003  O       |        |        |        |       0.00
94.667    0.00    0.00      0.003  O       |        |        |        |       0.00
94.750    0.00    0.00      0.003  O       |        |        |        |       0.00
94.833    0.00    0.00      0.003  O       |        |        |        |       0.00
94.917    0.00    0.00      0.003  O       |        |        |        |       0.00
95.000    0.00    0.00      0.003  O       |        |        |        |       0.00
95.083    0.00    0.00      0.003  O       |        |        |        |       0.00
95.167    0.00    0.00      0.003  O       |        |        |        |       0.00
95.250    0.00    0.00      0.003  O       |        |        |        |       0.00
95.333    0.00    0.00      0.003  O       |        |        |        |       0.00
95.417    0.00    0.00      0.003  O       |        |        |        |       0.00
95.500    0.00    0.00      0.003  O       |        |        |        |       0.00
95.583    0.00    0.00      0.003  O       |        |        |        |       0.00
95.667    0.00    0.00      0.003  O       |        |        |        |       0.00
95.750    0.00    0.00      0.003  O       |        |        |        |       0.00
95.833    0.00    0.00      0.003  O       |        |        |        |       0.00
95.917    0.00    0.00      0.003  O       |        |        |        |       0.00
96.000    0.00    0.00      0.003  O       |        |        |        |       0.00
96.083    0.00    0.00      0.003  O       |        |        |        |       0.00
96.167    0.00    0.00      0.002  O       |        |        |        |       0.00
96.250    0.00    0.00      0.002  O       |        |        |        |       0.00
96.333    0.00    0.00      0.002  O       |        |        |        |       0.00
96.417    0.00    0.00      0.002  O       |        |        |        |       0.00
96.500    0.00    0.00      0.002  O       |        |        |        |       0.00
96.583    0.00    0.00      0.002  O       |        |        |        |       0.00
96.667    0.00    0.00      0.002  O       |        |        |        |       0.00
96.750    0.00    0.00      0.002  O       |        |        |        |       0.00
96.833    0.00    0.00      0.002  O       |        |        |        |       0.00
96.917    0.00    0.00      0.002  O       |        |        |        |       0.00
97.000    0.00    0.00      0.002  O       |        |        |        |       0.00
97.083    0.00    0.00      0.002  O       |        |        |        |       0.00
97.167    0.00    0.00      0.002  O       |        |        |        |       0.00
97.250    0.00    0.00      0.002  O       |        |        |        |       0.00
97.333    0.00    0.00      0.002  O       |        |        |        |       0.00
97.417    0.00    0.00      0.002  O       |        |        |        |       0.00
97.500    0.00    0.00      0.002  O       |        |        |        |       0.00
97.583    0.00    0.00      0.002  O       |        |        |        |       0.00
97.667    0.00    0.00      0.002  O       |        |        |        |       0.00
97.750    0.00    0.00      0.002  O       |        |        |        |       0.00
97.833    0.00    0.00      0.002  O       |        |        |        |       0.00
97.917    0.00    0.00      0.002  O       |        |        |        |       0.00
98.000    0.00    0.00      0.002  O       |        |        |        |       0.00
98.083    0.00    0.00      0.002  O       |        |        |        |       0.00
98.167    0.00    0.00      0.002  O       |        |        |        |       0.00
98.250    0.00    0.00      0.002  O       |        |        |        |       0.00
98.333    0.00    0.00      0.002  O       |        |        |        |       0.00
98.417    0.00    0.00      0.002  O       |        |        |        |       0.00
98.500    0.00    0.00      0.002  O       |        |        |        |       0.00
98.583    0.00    0.00      0.002  O       |        |        |        |       0.00
98.667    0.00    0.00      0.002  O       |        |        |        |       0.00
```

98.750	0.00	0.00	0.002	O	|	|	|	|	0.00
98.833	0.00	0.00	0.002	O	|	|	|	|	0.00
98.917	0.00	0.00	0.002	O	|	|	|	|	0.00
99.000	0.00	0.00	0.002	O	|	|	|	|	0.00
99.083	0.00	0.00	0.002	O	|	|	|	|	0.00
99.167	0.00	0.00	0.002	O	|	|	|	|	0.00
99.250	0.00	0.00	0.002	O	|	|	|	|	0.00
99.333	0.00	0.00	0.002	O	|	|	|	|	0.00
99.417	0.00	0.00	0.002	O	|	|	|	|	0.00
99.500	0.00	0.00	0.002	O	|	|	|	|	0.00
99.583	0.00	0.00	0.002	O	|	|	|	|	0.00
99.667	0.00	0.00	0.002	O	|	|	|	|	0.00
99.750	0.00	0.00	0.002	O	|	|	|	|	0.00
99.833	0.00	0.00	0.002	O	|	|	|	|	0.00
99.917	0.00	0.00	0.002	O	|	|	|	|	0.00
100.000	0.00	0.00	0.002	O	|	|	|	|	0.00
100.083	0.00	0.00	0.002	O	|	|	|	|	0.00
100.167	0.00	0.00	0.002	O	|	|	|	|	0.00
100.250	0.00	0.00	0.002	O	|	|	|	|	0.00
100.333	0.00	0.00	0.002	O	|	|	|	|	0.00

Remaining water in basin = 0.00 (Ac.Ft)

```
***************************HYDROGRAPH DATA***************************
             Number of intervals =  1204
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =        2.559 (CFS)
             Total volume =       6.170 (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: 05/07/21

Keller Crossing – Basin C
Detention Basin Routing
Inflow Hydrograph 2-year 24-hour storm

Program License Serial Number 4029

```
******************** HYDROGRAPH INFORMATION *********************

             From study/file name: kx2prh242.rte
****************************HYDROGRAPH DATA***************************
             Number of intervals =   294
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =       17.460 (CFS)
             Total volume =      10.635 (Ac.Ft)
      Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************
```

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

User entry of depth-outflow-storage data
----------------------------------------------------------------------
Total number of inflow hydrograph intervals = 294
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
----------------------------------------------------------------------
----------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
----------------------------------------------------------------------
----------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
```

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
1.000	1.693	1.910	1.686	1.700
2.000	3.806	2.340	3.798	3.814
3.000	6.534	2.710	6.525	6.543
4.000	9.741	3.030	9.731	9.751
5.000	13.275	33.320	13.160	13.390
6.000	16.265	88.430	15.960	16.570

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      4.4     8.73   13.09   17.46 (Ft.)
  0.083    0.25    0.00      0.001  O       |       |       |       |     0.00
  0.167    0.75    0.00      0.004  OI      |       |       |       |     0.00
  0.250    0.89    0.01      0.010  OI      |       |       |       |     0.01
  0.333    1.08    0.02      0.017  OI      |       |       |       |     0.01
  0.417    1.37    0.03      0.025  O I     |       |       |       |     0.01
  0.500    1.46    0.04      0.034  O I     |       |       |       |     0.02
  0.583    1.51    0.05      0.044  O I     |       |       |       |     0.03
  0.667    1.53    0.06      0.054  O I     |       |       |       |     0.03
  0.750    1.54    0.07      0.064  O I     |       |       |       |     0.04
  0.833    1.67    0.08      0.075  O  I    |       |       |       |     0.04
  0.917    1.92    0.10      0.087  O  I    |       |       |       |     0.05
  1.000    1.99    0.11      0.099  O  I    |       |       |       |     0.06
  1.083    1.90    0.13      0.112  O  I    |       |       |       |     0.07
  1.167    1.66    0.14      0.123  O  I    |       |       |       |     0.07
  1.250    1.60    0.15      0.134  O I     |       |       |       |     0.08
  1.333    1.58    0.16      0.144  O I     |       |       |       |     0.08
  1.417    1.56    0.17      0.153  O I     |       |       |       |     0.09
  1.500    1.55    0.18      0.163  O I     |       |       |       |     0.10
  1.583    1.54    0.19      0.172  O I     |       |       |       |     0.10
  1.667    1.54    0.20      0.181  O I     |       |       |       |     0.11
  1.750    1.54    0.21      0.190  O I     |       |       |       |     0.11
  1.833    1.67    0.23      0.200  O  I    |       |       |       |     0.12
  1.917    1.92    0.24      0.211  O  I    |       |       |       |     0.12
  2.000    1.99    0.25      0.223  O  I    |       |       |       |     0.13
  2.083    2.02    0.26      0.235  O  I    |       |       |       |     0.14
  2.167    2.04    0.28      0.247  O  I    |       |       |       |     0.15
  2.250    2.05    0.29      0.259  O  I    |       |       |       |     0.15
  2.333    2.06    0.31      0.271  O  I    |       |       |       |     0.16
  2.417    2.06    0.32      0.283  O  I    |       |       |       |     0.17
  2.500    2.06    0.33      0.295  O  I    |       |       |       |     0.17
  2.583    2.18    0.35      0.307  O   I   |       |       |       |     0.18
  2.667    2.44    0.36      0.321  O   I   |       |       |       |     0.19
  2.750    2.51    0.38      0.335  O   I   |       |       |       |     0.20
  2.833    2.54    0.39      0.350  O   I   |       |       |       |     0.21
  2.917    2.56    0.41      0.365  O   I   |       |       |       |     0.22
  3.000    2.57    0.43      0.379  O   I   |       |       |       |     0.22
  3.083    2.57    0.44      0.394  O   I   |       |       |       |     0.23
  3.167    2.57    0.46      0.409  O   I   |       |       |       |     0.24
  3.250    2.57    0.48      0.423  O   I   |       |       |       |     0.25
  3.333    2.57    0.49      0.438  O   I   |       |       |       |     0.26
  3.417    2.57    0.51      0.452  O   I   |       |       |       |     0.27
  3.500    2.57    0.53      0.466  O   I   |       |       |       |     0.28
  3.583    2.57    0.54      0.480  O   I   |       |       |       |     0.28
  3.667    2.57    0.56      0.494  |O  I   |       |       |       |     0.29
  3.750    2.57    0.57      0.508  |O  I   |       |       |       |     0.30
  3.833    2.70    0.59      0.522  |O  I   |       |       |       |     0.31
  3.917    2.95    0.61      0.537  |O   I  |       |       |       |     0.32
  4.000    3.02    0.62      0.554  |O   I  |       |       |       |     0.33
  4.083    3.05    0.64      0.570  |O   I  |       |       |       |     0.34
  4.167    3.07    0.66      0.587  |O   I  |       |       |       |     0.35
  4.250    3.08    0.68      0.603  |O   I  |       |       |       |     0.36
  4.333    3.21    0.70      0.620  |O   I  |       |       |       |     0.37
  4.417    3.47    0.72      0.638  |O    I |       |       |       |     0.38
  4.500    3.54    0.74      0.657  |O    I |       |       |       |     0.39
  4.583    3.57    0.76      0.677  |O    I |       |       |       |     0.40
  4.667    3.58    0.79      0.696  |O    I |       |       |       |     0.41
  4.750    3.59    0.81      0.715  |O    I |       |       |       |     0.42
  4.833    3.73    0.83      0.735  |O    I |       |       |       |     0.43
  4.917    3.98    0.85      0.756  |O     I|       |       |       |     0.45
  5.000    4.05    0.88      0.777  |O     I|       |       |       |     0.46
  5.083    3.83    0.90      0.798  |O     I|       |       |       |     0.47
  5.167    3.35    0.92      0.817  |O    I |       |       |       |     0.48
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 5.250    3.22    0.94      0.833  |O   I  |       |       |       |    0.49
 5.333    3.29    0.96      0.849  |O    I |       |       |       |    0.50
 5.417    3.50    0.98      0.865  |O    I |       |       |       |    0.51
 5.500    3.55    1.00      0.883  |O    I |       |       |       |    0.52
 5.583    3.69    1.02      0.901  |O    I |       |       |       |    0.53
 5.667    3.96    1.04      0.920  |O     I|       |       |       |    0.54
 5.750    4.04    1.06      0.941  |O     I|       |       |       |    0.56
 5.833    4.08    1.08      0.961  |O     I|       |       |       |    0.57
 5.917    4.10    1.11      0.982  | O    I|       |       |       |    0.58
 6.000    4.11    1.13      1.002  | O    I|       |       |       |    0.59
 6.083    4.24    1.15      1.023  | O    I|       |       |       |    0.60
 6.167    4.49    1.18      1.045  | O     I       |       |       |    0.62
 6.250    4.56    1.21      1.068  | O     I       |       |       |    0.63
 6.333    4.60    1.23      1.091  | O     I       |       |       |    0.64
 6.417    4.61    1.26      1.115  | O     I       |       |       |    0.66
 6.500    4.62    1.28      1.138  | O     I       |       |       |    0.67
 6.583    4.76    1.31      1.161  | O     I       |       |       |    0.69
 6.667    5.01    1.34      1.186  | O     |I      |       |       |    0.70
 6.750    5.08    1.37      1.211  | O     |I      |       |       |    0.72
 6.833    5.11    1.40      1.237  | O     |I      |       |       |    0.73
 6.917    5.13    1.42      1.262  | O     |I      |       |       |    0.75
 7.000    5.14    1.45      1.288  | O     |I      |       |       |    0.76
 7.083    5.15    1.48      1.313  | O     |I      |       |       |    0.78
 7.167    5.15    1.51      1.338  | O     |I      |       |       |    0.79
 7.250    5.15    1.54      1.363  | O     |I      |       |       |    0.81
 7.333    5.27    1.57      1.388  | O     |I      |       |       |    0.82
 7.417    5.52    1.60      1.414  | O     | I     |       |       |    0.84
 7.500    5.59    1.63      1.442  | O     | I     |       |       |    0.85
 7.583    5.75    1.66      1.469  |  O    | I     |       |       |    0.87
 7.667    6.02    1.69      1.498  |  O    |  I    |       |       |    0.89
 7.750    6.10    1.72      1.528  |  O    |  I    |       |       |    0.90
 7.833    6.27    1.76      1.559  |  O    |  I    |       |       |    0.92
 7.917    6.54    1.79      1.591  |  O    |  I    |       |       |    0.94
 8.000    6.62    1.83      1.624  |  O    |   I   |       |       |    0.96
 8.083    6.91    1.87      1.657  |  O    |   I   |       |       |    0.98
 8.167    7.43    1.91      1.694  |  O    |    I  |       |       |    1.00
 8.250    7.58    1.92      1.732  |  O    |    I  |       |       |    1.02
 8.333    7.65    1.93      1.771  |  O    |     I |       |       |    1.04
 8.417    7.68    1.93      1.811  |  O    |     I |       |       |    1.06
 8.500    7.70    1.94      1.851  |  O    |     I |       |       |    1.07
 8.583    7.85    1.95      1.891  |  O    |     I |       |       |    1.09
 8.667    8.10    1.96      1.932  |  O    |     I |       |       |    1.11
 8.750    8.17    1.97      1.975  |  O    |     I |       |       |    1.13
 8.833    8.33    1.98      2.018  |  O    |      I|       |       |    1.15
 8.917    8.59    1.99      2.063  |  O    |      I|       |       |    1.17
 9.000    8.67    1.99      2.108  |  O    |      I|       |       |    1.20
 9.083    8.97    2.00      2.155  |  O    |       I       |       |    1.22
 9.167    9.49    2.01      2.205  |  O    |       |I      |       |    1.24
 9.250    9.64    2.02      2.257  |  O    |       |I      |       |    1.27
 9.333    9.83    2.04      2.310  |  O    |       | I     |       |    1.29
 9.417   10.12    2.05      2.365  |  O    |       | I     |       |    1.32
 9.500   10.21    2.06      2.421  |  O    |       | I     |       |    1.34
 9.583   10.38    2.07      2.477  |  O    |       |  I    |       |    1.37
 9.667   10.65    2.08      2.535  |  O    |       |  I    |       |    1.40
 9.750   10.73    2.09      2.595  |  O    |       |  I    |       |    1.43
 9.833   10.90    2.11      2.655  |  O    |       |  I    |       |    1.46
 9.917   11.17    2.12      2.716  |  O    |       |   I   |       |    1.48
10.000   11.25    2.13      2.779  |  O    |       |   I   |       |    1.51
10.083   10.41    2.14      2.839  |  O    |       |  I    |       |    1.54
10.167    8.67    2.15      2.889  |  O    |      I|       |       |    1.57
10.250    8.19    2.16      2.933  |  O    |      I|       |       |    1.59
10.333    7.98    2.17      2.973  |  O    |     I |       |       |    1.61
10.417    7.85    2.18      3.013  |  O    |     I |       |       |    1.62
10.500    7.78    2.19      3.052  |   O   |     I |       |       |    1.64
10.583    8.35    2.19      3.092  |   O   |      I|       |       |    1.66
10.667    9.61    2.20      3.139  |   O   |       |I      |       |    1.68
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10.750    9.95    2.21      3.191   |   O   |       | I     |       |     1.71
10.833   10.11    2.23      3.245   |   O   |       | I     |       |     1.73
10.917   10.20    2.24      3.299   |   O   |       | I     |       |     1.76
11.000   10.25    2.25      3.354   |   O   |       | I     |       |     1.79
11.083   10.17    2.26      3.409   |   O   |       | I     |       |     1.81
11.167    9.92    2.27      3.463   |   O   |       | I     |       |     1.84
11.250    9.85    2.28      3.515   |   O   |       | I     |       |     1.86
11.333    9.82    2.29      3.567   |   O   |       |I      |       |     1.89
11.417    9.80    2.30      3.619   |   O   |       |I      |       |     1.91
11.500    9.79    2.31      3.670   |   O   |       |I      |       |     1.94
11.583    9.53    2.32      3.721   |   O   |       |I      |       |     1.96
11.667    9.03    2.33      3.769   |   O   |       I       |       |     1.98
11.750    8.89    2.34      3.814   |   O   |       I       |       |     2.00
11.833    8.95    2.35      3.860   |   O   |       I       |       |     2.02
11.917    9.16    2.35      3.906   |   O   |       I       |       |     2.04
12.000    9.21    2.36      3.953   |   O   |       I       |       |     2.05
12.083   10.11    2.37      4.003   |   O   |       | I     |       |     2.07
12.167   11.89    2.37      4.063   |   O   |       |    I  |       |     2.09
12.250   12.38    2.38      4.130   |   O   |       |     I |       |     2.12
12.333   12.74    2.39      4.200   |   O   |       |      I|       |     2.14
12.417   13.11    2.40      4.272   |   O   |       |       I       |     2.17
12.500   13.26    2.41      4.347   |   O   |       |       I       |     2.20
12.583   13.60    2.42      4.422   |   O   |       |       I       |     2.23
12.667   14.12    2.43      4.501   |   O   |       |       |I      |     2.25
12.750   14.27    2.45      4.582   |   O   |       |       | I     |     2.28
12.833   14.47    2.46      4.664   |   O   |       |       | I     |     2.31
12.917   14.75    2.47      4.748   |   O   |       |       |  I    |     2.35
13.000   14.84    2.48      4.833   |   O   |       |       |  I    |     2.38
13.083   15.52    2.49      4.920   |   O   |       |       |   I   |     2.41
13.167   16.79    2.50      5.014   |   O   |       |       |     I |     2.44
13.250   17.15    2.52      5.114   |   O   |       |       |      I|     2.48
13.333   17.32    2.53      5.215   |   O   |       |       |      I|     2.52
13.417   17.41    2.54      5.317   |   O   |       |       |      I|     2.55
13.500   17.46    2.56      5.420   |   O   |       |       |       I     2.59
13.583   16.12    2.57      5.518   |   O   |       |       |    I  |     2.63
13.667   13.35    2.58      5.601   |   O   |       |       I       |     2.66
13.750   12.59    2.59      5.673   |   O   |       |      I|       |     2.68
13.833   12.24    2.60      5.740   |   O   |       |     I |       |     2.71
13.917   12.04    2.61      5.806   |   O   |       |     I |       |     2.73
14.000   11.93    2.62      5.871   |   O   |       |    I  |       |     2.76
14.083   12.34    2.63      5.936   |   O   |       |     I |       |     2.78
14.167   13.35    2.64      6.006   |   O   |       |       I       |     2.81
14.250   13.63    2.65      6.081   |   O   |       |       I       |     2.83
14.333   13.63    2.66      6.157   |   O   |       |       I       |     2.86
14.417   13.45    2.67      6.232   |   O   |       |       I       |     2.89
14.500   13.42    2.68      6.306   |   O   |       |       I       |     2.92
14.583   13.42    2.69      6.380   |   O   |       |       I       |     2.94
14.667   13.40    2.70      6.453   |   O   |       |       I       |     2.97
14.750   13.39    2.71      6.527   |   O   |       |       I       |     3.00
14.833   13.26    2.72      6.600   |   O   |       |       I       |     3.02
14.917   13.01    2.72      6.672   |   O   |       |      I|       |     3.04
15.000   12.94    2.73      6.742   |    O  |       |      I|       |     3.06
15.083   12.78    2.74      6.812   |    O  |       |      I|       |     3.09
15.167   12.51    2.74      6.880   |    O  |       |     I |       |     3.11
15.250   12.43    2.75      6.947   |    O  |       |     I |       |     3.13
15.333   12.26    2.76      7.013   |    O  |       |     I |       |     3.15
15.417   12.00    2.76      7.078   |    O  |       |    I  |       |     3.17
15.500   11.92    2.77      7.141   |    O  |       |    I  |       |     3.19
15.583   11.37    2.78      7.202   |    O  |       |   I   |       |     3.21
15.667   10.35    2.78      7.258   |    O  |       | I     |       |     3.23
15.750   10.06    2.79      7.309   |    O  |       | I     |       |     3.24
15.833    9.93    2.79      7.359   |    O  |       | I     |       |     3.26
15.917    9.85    2.80      7.407   |    O  |       | I     |       |     3.27
16.000    9.81    2.80      7.456   |    O  |       |I      |       |     3.29
16.083    7.89    2.81      7.498   |    O  |     I |       |       |     3.30
16.167    4.12    2.81      7.520   |    O I|       |       |       |     3.31
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16.250	3.08	2.81	7.525	O	3.31
16.333	2.60	2.81	7.525	IO	3.31
16.417	2.34	2.81	7.523	IO	3.31
16.500	2.18	2.81	7.519	IO	3.31
16.583	1.93	2.81	7.514	I O	3.31
16.667	1.68	2.81	7.507	I O	3.30
16.750	1.61	2.81	7.499	I O	3.30
16.833	1.58	2.81	7.491	I O	3.30
16.917	1.56	2.80	7.482	I O	3.30
17.000	1.55	2.80	7.474	I O	3.29
17.083	1.80	2.80	7.466	I O	3.29
17.167	2.30	2.80	7.461	IO	3.29
17.250	2.44	2.80	7.458	IO	3.29
17.333	2.50	2.80	7.455	IO	3.29
17.417	2.54	2.80	7.454	IO	3.29
17.500	2.56	2.80	7.452	IO	3.29
17.583	2.57	2.80	7.450	IO	3.29
17.667	2.57	2.80	7.449	IO	3.29
17.750	2.57	2.80	7.447	IO	3.28
17.833	2.45	2.80	7.445	IO	3.28
17.917	2.20	2.80	7.442	IO	3.28
18.000	2.13	2.80	7.437	I O	3.28
18.083	2.10	2.80	7.433	I O	3.28
18.167	2.08	2.80	7.428	I O	3.28
18.250	2.07	2.80	7.423	I O	3.28
18.333	2.06	2.80	7.418	I O	3.28
18.417	2.06	2.80	7.412	I O	3.27
18.500	2.06	2.80	7.407	I O	3.27
18.583	1.93	2.80	7.402	I O	3.27
18.667	1.68	2.80	7.395	I O	3.27
18.750	1.61	2.80	7.387	I O	3.27
18.833	1.45	2.79	7.378	I O	3.26
18.917	1.19	2.79	7.368	I O	3.26
19.000	1.11	2.79	7.357	I O	3.26
19.083	1.19	2.79	7.346	I O	3.25
19.167	1.43	2.79	7.335	I O	3.25
19.250	1.48	2.79	7.326	I O	3.25
19.333	1.63	2.79	7.318	I O	3.24
19.417	1.90	2.79	7.311	I O	3.24
19.500	1.98	2.79	7.305	I O	3.24
19.583	1.90	2.79	7.299	I O	3.24
19.667	1.66	2.79	7.292	I O	3.24
19.750	1.60	2.78	7.284	I O	3.23
19.833	1.45	2.78	7.276	I O	3.23
19.917	1.19	2.78	7.266	I O	3.23
20.000	1.11	2.78	7.254	I O	3.22
20.083	1.19	2.78	7.243	I O	3.22
20.167	1.43	2.78	7.233	I O	3.22
20.250	1.48	2.78	7.224	I O	3.22
20.333	1.51	2.78	7.215	I O	3.21
20.417	1.53	2.78	7.206	I O	3.21
20.500	1.54	2.78	7.198	I O	3.21
20.583	1.54	2.78	7.189	I O	3.20
20.667	1.54	2.77	7.181	I O	3.20
20.750	1.54	2.77	7.172	I O	3.20
20.833	1.42	2.77	7.163	I O	3.20
20.917	1.17	2.77	7.153	I O	3.19
21.000	1.10	2.77	7.142	I O	3.19
21.083	1.19	2.77	7.131	I O	3.19
21.167	1.43	2.77	7.121	I O	3.18
21.250	1.48	2.77	7.112	I O	3.18
21.333	1.38	2.77	7.102	I O	3.18
21.417	1.15	2.77	7.092	I O	3.17
21.500	1.09	2.76	7.081	I O	3.17
21.583	1.19	2.76	7.070	I O	3.17
21.667	1.43	2.76	7.059	I O	3.16

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21.750    1.48    2.76      7.050  | I  O  |       |       |       |      3.16
21.833    1.38    2.76      7.041  | I  O  |       |       |       |      3.16
21.917    1.15    2.76      7.031  | I  O  |       |       |       |      3.15
22.000    1.09    2.76      7.020  |I    O  |       |       |       |      3.15
22.083    1.19    2.76      7.009  | I  O  |       |       |       |      3.15
22.167    1.43    2.76      6.999  | I  O  |       |       |       |      3.14
22.250    1.48    2.76      6.990  | I  O  |       |       |       |      3.14
22.333    1.38    2.75      6.981  | I  O  |       |       |       |      3.14
22.417    1.15    2.75      6.970  | I  O  |       |       |       |      3.14
22.500    1.09    2.75      6.959  |I    O  |       |       |       |      3.13
22.583    1.07    2.75      6.948  |I    O  |       |       |       |      3.13
22.667    1.05    2.75      6.936  |I    O  |       |       |       |      3.13
22.750    1.04    2.75      6.924  |I    O  |       |       |       |      3.12
22.833    1.03    2.75      6.912  |I    O  |       |       |       |      3.12
22.917    1.03    2.75      6.900  |I    O  |       |       |       |      3.11
23.000    1.03    2.75      6.889  |I    O  |       |       |       |      3.11
23.083    1.03    2.74      6.877  |I    O  |       |       |       |      3.11
23.167    1.03    2.74      6.865  |I    O  |       |       |       |      3.10
23.250    1.03    2.74      6.853  |I    O  |       |       |       |      3.10
23.333    1.03    2.74      6.841  |I    O  |       |       |       |      3.10
23.417    1.03    2.74      6.830  |I    O  |       |       |       |      3.09
23.500    1.03    2.74      6.818  |I    O  |       |       |       |      3.09
23.583    1.03    2.74      6.806  |I    O  |       |       |       |      3.08
23.667    1.03    2.74      6.794  |I    O  |       |       |       |      3.08
23.750    1.03    2.73      6.783  |I    O  |       |       |       |      3.08
23.833    1.03    2.73      6.771  |I    O  |       |       |       |      3.07
23.917    1.03    2.73      6.759  |I    O  |       |       |       |      3.07
24.000    1.03    2.73      6.747  |I    O  |       |       |       |      3.07
24.083    0.78    2.73      6.735  |I    O  |       |       |       |      3.06
24.167    0.28    2.73      6.720  I     O  |       |       |       |      3.06
24.250    0.14    2.73      6.702  I    O   |       |       |       |      3.05
24.333    0.07    2.72      6.684  I    O   |       |       |       |      3.05
24.417    0.04    2.72      6.666  I    O   |       |       |       |      3.04
24.500    0.02    2.72      6.647  I    O   |       |       |       |      3.04
24.583    0.00    2.72      6.629  I    O   |       |       |       |      3.03
24.667    0.00    2.72      6.610  I    O   |       |       |       |      3.02
24.750    0.00    2.72      6.591  I    O   |       |       |       |      3.02
24.833    0.00    2.71      6.572  I    O   |       |       |       |      3.01
24.917    0.00    2.71      6.554  I    O   |       |       |       |      3.01
25.000    0.00    2.71      6.535  I    O   |       |       |       |      3.00
25.083    0.00    2.71      6.516  I    O   |       |       |       |      2.99
25.167    0.00    2.71      6.498  I    O   |       |       |       |      2.99
25.250    0.00    2.70      6.479  I    O   |       |       |       |      2.98
25.333    0.00    2.70      6.461  I    O   |       |       |       |      2.97
25.417    0.00    2.70      6.442  I    O   |       |       |       |      2.97
25.500    0.00    2.70      6.423  I    O   |       |       |       |      2.96
25.583    0.00    2.69      6.405  I    O   |       |       |       |      2.95
25.667    0.00    2.69      6.386  I    O   |       |       |       |      2.95
25.750    0.00    2.69      6.368  I    O   |       |       |       |      2.94
25.833    0.00    2.68      6.349  I    O   |       |       |       |      2.93
25.917    0.00    2.68      6.331  I    O   |       |       |       |      2.93
26.000    0.00    2.68      6.312  I    O   |       |       |       |      2.92
26.083    0.00    2.68      6.294  I    O   |       |       |       |      2.91
26.167    0.00    2.67      6.276  I    O   |       |       |       |      2.91
26.250    0.00    2.67      6.257  I    O   |       |       |       |      2.90
26.333    0.00    2.67      6.239  I    O   |       |       |       |      2.89
26.417    0.00    2.67      6.220  I    O   |       |       |       |      2.89
26.500    0.00    2.66      6.202  I    O   |       |       |       |      2.88
26.583    0.00    2.66      6.184  I    O   |       |       |       |      2.87
26.667    0.00    2.66      6.165  I    O   |       |       |       |      2.86
26.750    0.00    2.66      6.147  I    O   |       |       |       |      2.86
26.833    0.00    2.66      6.129  I    O   |       |       |       |      2.85
26.917    0.00    2.65      6.110  I    O   |       |       |       |      2.84
27.000    0.00    2.65      6.092  I    O   |       |       |       |      2.84
27.083    0.00    2.65      6.074  I    O   |       |       |       |      2.83
27.167    0.00    2.65      6.056  I    O   |       |       |       |      2.82
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27.250    0.00    2.64    6.037  I   O   |       |       |       |     2.82
27.333    0.00    2.64    6.019  I   O   |       |       |       |     2.81
27.417    0.00    2.64    6.001  I   O   |       |       |       |     2.80
27.500    0.00    2.64    5.983  I   O   |       |       |       |     2.80
27.583    0.00    2.63    5.965  I   O   |       |       |       |     2.79
27.667    0.00    2.63    5.947  I   O   |       |       |       |     2.78
27.750    0.00    2.63    5.929  I   O   |       |       |       |     2.78
27.833    0.00    2.63    5.911  I   O   |       |       |       |     2.77
27.917    0.00    2.62    5.892  I   O   |       |       |       |     2.76
28.000    0.00    2.62    5.874  I   O   |       |       |       |     2.76
28.083    0.00    2.62    5.856  I   O   |       |       |       |     2.75
28.167    0.00    2.62    5.838  I   O   |       |       |       |     2.74
28.250    0.00    2.61    5.820  I   O   |       |       |       |     2.74
28.333    0.00    2.61    5.802  I   O   |       |       |       |     2.73
28.417    0.00    2.61    5.784  I   O   |       |       |       |     2.73
28.500    0.00    2.61    5.766  I   O   |       |       |       |     2.72
28.583    0.00    2.60    5.748  I   O   |       |       |       |     2.71
28.667    0.00    2.60    5.731  I   O   |       |       |       |     2.71
28.750    0.00    2.60    5.713  I   O   |       |       |       |     2.70
28.833    0.00    2.60    5.695  I   O   |       |       |       |     2.69
28.917    0.00    2.59    5.677  I   O   |       |       |       |     2.69
29.000    0.00    2.59    5.659  I   O   |       |       |       |     2.68
29.083    0.00    2.59    5.641  I   O   |       |       |       |     2.67
29.167    0.00    2.59    5.623  I   O   |       |       |       |     2.67
29.250    0.00    2.58    5.606  I   O   |       |       |       |     2.66
29.333    0.00    2.58    5.588  I   O   |       |       |       |     2.65
29.417    0.00    2.58    5.570  I   O   |       |       |       |     2.65
29.500    0.00    2.58    5.552  I   O   |       |       |       |     2.64
29.583    0.00    2.57    5.534  I   O   |       |       |       |     2.63
29.667    0.00    2.57    5.517  I   O   |       |       |       |     2.63
29.750    0.00    2.57    5.499  I   O   |       |       |       |     2.62
29.833    0.00    2.57    5.481  I   O   |       |       |       |     2.61
29.917    0.00    2.56    5.464  I   O   |       |       |       |     2.61
30.000    0.00    2.56    5.446  I   O   |       |       |       |     2.60
30.083    0.00    2.56    5.428  I   O   |       |       |       |     2.59
30.167    0.00    2.56    5.411  I   O   |       |       |       |     2.59
30.250    0.00    2.56    5.393  I   O   |       |       |       |     2.58
30.333    0.00    2.55    5.376  I   O   |       |       |       |     2.58
30.417    0.00    2.55    5.358  I   O   |       |       |       |     2.57
30.500    0.00    2.55    5.340  I   O   |       |       |       |     2.56
30.583    0.00    2.55    5.323  I   O   |       |       |       |     2.56
30.667    0.00    2.54    5.305  I   O   |       |       |       |     2.55
30.750    0.00    2.54    5.288  I   O   |       |       |       |     2.54
30.833    0.00    2.54    5.270  I   O   |       |       |       |     2.54
30.917    0.00    2.54    5.253  I   O   |       |       |       |     2.53
31.000    0.00    2.53    5.235  I   O   |       |       |       |     2.52
31.083    0.00    2.53    5.218  I   O   |       |       |       |     2.52
31.167    0.00    2.53    5.201  I   O   |       |       |       |     2.51
31.250    0.00    2.53    5.183  I   O   |       |       |       |     2.50
31.333    0.00    2.52    5.166  I   O   |       |       |       |     2.50
31.417    0.00    2.52    5.148  I   O   |       |       |       |     2.49
31.500    0.00    2.52    5.131  I   O   |       |       |       |     2.49
31.583    0.00    2.52    5.114  I   O   |       |       |       |     2.48
31.667    0.00    2.52    5.096  I   O   |       |       |       |     2.47
31.750    0.00    2.51    5.079  I   O   |       |       |       |     2.47
31.833    0.00    2.51    5.062  I   O   |       |       |       |     2.46
31.917    0.00    2.51    5.044  I   O   |       |       |       |     2.45
32.000    0.00    2.51    5.027  I   O   |       |       |       |     2.45
32.083    0.00    2.50    5.010  I   O   |       |       |       |     2.44
32.167    0.00    2.50    4.993  I   O   |       |       |       |     2.44
32.250    0.00    2.50    4.976  I   O   |       |       |       |     2.43
32.333    0.00    2.50    4.958  I   O   |       |       |       |     2.42
32.417    0.00    2.49    4.941  I   O   |       |       |       |     2.42
32.500    0.00    2.49    4.924  I   O   |       |       |       |     2.41
32.583    0.00    2.49    4.907  I   O   |       |       |       |     2.40
32.667    0.00    2.49    4.890  I   O   |       |       |       |     2.40
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32.750    0.00    2.48     4.873  I   O   |       |       |       |      2.39
32.833    0.00    2.48     4.855  I   O   |       |       |       |      2.38
32.917    0.00    2.48     4.838  I   O   |       |       |       |      2.38
33.000    0.00    2.48     4.821  I   O   |       |       |       |      2.37
33.083    0.00    2.48     4.804  I   O   |       |       |       |      2.37
33.167    0.00    2.47     4.787  I   O   |       |       |       |      2.36
33.250    0.00    2.47     4.770  I   O   |       |       |       |      2.35
33.333    0.00    2.47     4.753  I   O   |       |       |       |      2.35
33.417    0.00    2.47     4.736  I   O   |       |       |       |      2.34
33.500    0.00    2.46     4.719  I   O   |       |       |       |      2.33
33.583    0.00    2.46     4.702  I   O   |       |       |       |      2.33
33.667    0.00    2.46     4.685  I   O   |       |       |       |      2.32
33.750    0.00    2.46     4.668  I   O   |       |       |       |      2.32
33.833    0.00    2.45     4.651  I   O   |       |       |       |      2.31
33.917    0.00    2.45     4.635  I   O   |       |       |       |      2.30
34.000    0.00    2.45     4.618  I   O   |       |       |       |      2.30
34.083    0.00    2.45     4.601  I   O   |       |       |       |      2.29
34.167    0.00    2.45     4.584  I   O   |       |       |       |      2.29
34.250    0.00    2.44     4.567  I   O   |       |       |       |      2.28
34.333    0.00    2.44     4.550  I   O   |       |       |       |      2.27
34.417    0.00    2.44     4.533  I   O   |       |       |       |      2.27
34.500    0.00    2.44     4.517  I   O   |       |       |       |      2.26
34.583    0.00    2.43     4.500  I   O   |       |       |       |      2.25
34.667    0.00    2.43     4.483  I   O   |       |       |       |      2.25
34.750    0.00    2.43     4.466  I   O   |       |       |       |      2.24
34.833    0.00    2.43     4.450  I   O   |       |       |       |      2.24
34.917    0.00    2.43     4.433  I   O   |       |       |       |      2.23
35.000    0.00    2.42     4.416  I   O   |       |       |       |      2.22
35.083    0.00    2.42     4.400  I   O   |       |       |       |      2.22
35.167    0.00    2.42     4.383  I   O   |       |       |       |      2.21
35.250    0.00    2.42     4.366  I   O   |       |       |       |      2.21
35.333    0.00    2.41     4.350  I   O   |       |       |       |      2.20
35.417    0.00    2.41     4.333  I   O   |       |       |       |      2.19
35.500    0.00    2.41     4.316  I   O   |       |       |       |      2.19
35.583    0.00    2.41     4.300  I   O   |       |       |       |      2.18
35.667    0.00    2.40     4.283  I   O   |       |       |       |      2.17
35.750    0.00    2.40     4.267  I   O   |       |       |       |      2.17
35.833    0.00    2.40     4.250  I   O   |       |       |       |      2.16
35.917    0.00    2.40     4.234  I   O   |       |       |       |      2.16
36.000    0.00    2.40     4.217  I   O   |       |       |       |      2.15
36.083    0.00    2.39     4.201  I   O   |       |       |       |      2.14
36.167    0.00    2.39     4.184  I   O   |       |       |       |      2.14
36.250    0.00    2.39     4.168  I   O   |       |       |       |      2.13
36.333    0.00    2.39     4.151  I   O   |       |       |       |      2.13
36.417    0.00    2.38     4.135  I   O   |       |       |       |      2.12
36.500    0.00    2.38     4.118  I   O   |       |       |       |      2.11
36.583    0.00    2.38     4.102  I   O   |       |       |       |      2.11
36.667    0.00    2.38     4.086  I   O   |       |       |       |      2.10
36.750    0.00    2.38     4.069  I   O   |       |       |       |      2.10
36.833    0.00    2.37     4.053  I   O   |       |       |       |      2.09
36.917    0.00    2.37     4.037  I   O   |       |       |       |      2.08
37.000    0.00    2.37     4.020  I   O   |       |       |       |      2.08
37.083    0.00    2.37     4.004  I   O   |       |       |       |      2.07
37.167    0.00    2.36     3.988  I   O   |       |       |       |      2.07
37.250    0.00    2.36     3.971  I   O   |       |       |       |      2.06
37.333    0.00    2.36     3.955  I   O   |       |       |       |      2.05
37.417    0.00    2.36     3.939  I   O   |       |       |       |      2.05
37.500    0.00    2.36     3.923  I   O   |       |       |       |      2.04
37.583    0.00    2.35     3.906  I   O   |       |       |       |      2.04
37.667    0.00    2.35     3.890  I   O   |       |       |       |      2.03
37.750    0.00    2.35     3.874  I   O   |       |       |       |      2.02
37.833    0.00    2.35     3.858  I   O   |       |       |       |      2.02
37.917    0.00    2.34     3.842  I   O   |       |       |       |      2.01
38.000    0.00    2.34     3.826  I   O   |       |       |       |      2.01
38.083    0.00    2.34     3.809  I   O   |       |       |       |      2.00
38.167    0.00    2.34     3.793  I   O   |       |       |       |      1.99
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38.250	0.00	2.33	3.777	I	O	|	|	|	|	1.99
38.333	0.00	2.33	3.761	I	O	|	|	|	|	1.98
38.417	0.00	2.33	3.745	I	O	|	|	|	|	1.97
38.500	0.00	2.32	3.729	I	O	|	|	|	|	1.96
38.583	0.00	2.32	3.713	I	O	|	|	|	|	1.96
38.667	0.00	2.32	3.697	I	O	|	|	|	|	1.95
38.750	0.00	2.31	3.681	I	O	|	|	|	|	1.94
38.833	0.00	2.31	3.665	I	O	|	|	|	|	1.93
38.917	0.00	2.31	3.649	I	O	|	|	|	|	1.93
39.000	0.00	2.30	3.634	I	O	|	|	|	|	1.92
39.083	0.00	2.30	3.618	I	O	|	|	|	|	1.91
39.167	0.00	2.30	3.602	I	O	|	|	|	|	1.90
39.250	0.00	2.30	3.586	I	O	|	|	|	|	1.90
39.333	0.00	2.29	3.570	I	O	|	|	|	|	1.89
39.417	0.00	2.29	3.554	I	O	|	|	|	|	1.88
39.500	0.00	2.29	3.539	I	O	|	|	|	|	1.87
39.583	0.00	2.28	3.523	I	O	|	|	|	|	1.87
39.667	0.00	2.28	3.507	I	O	|	|	|	|	1.86
39.750	0.00	2.28	3.492	I	O	|	|	|	|	1.85
39.833	0.00	2.27	3.476	I	O	|	|	|	|	1.84
39.917	0.00	2.27	3.460	I	O	|	|	|	|	1.84
40.000	0.00	2.27	3.445	I	O	|	|	|	|	1.83
40.083	0.00	2.26	3.429	I	O	|	|	|	|	1.82
40.167	0.00	2.26	3.413	I	O	|	|	|	|	1.81
40.250	0.00	2.26	3.398	I	O	|	|	|	|	1.81
40.333	0.00	2.25	3.382	I	O	|	|	|	|	1.80
40.417	0.00	2.25	3.367	I	O	|	|	|	|	1.79
40.500	0.00	2.25	3.351	I	O	|	|	|	|	1.78
40.583	0.00	2.24	3.336	I	O	|	|	|	|	1.78
40.667	0.00	2.24	3.320	I	O	|	|	|	|	1.77
40.750	0.00	2.24	3.305	I	O	|	|	|	|	1.76
40.833	0.00	2.23	3.290	I	O	|	|	|	|	1.76
40.917	0.00	2.23	3.274	I	O	|	|	|	|	1.75
41.000	0.00	2.23	3.259	I	O	|	|	|	|	1.74
41.083	0.00	2.23	3.244	I	O	|	|	|	|	1.73
41.167	0.00	2.22	3.228	I	O	|	|	|	|	1.73
41.250	0.00	2.22	3.213	I	O	|	|	|	|	1.72
41.333	0.00	2.22	3.198	I	O	|	|	|	|	1.71
41.417	0.00	2.21	3.182	I	O	|	|	|	|	1.70
41.500	0.00	2.21	3.167	I	O	|	|	|	|	1.70
41.583	0.00	2.21	3.152	I	O	|	|	|	|	1.69
41.667	0.00	2.20	3.137	I	O	|	|	|	|	1.68
41.750	0.00	2.20	3.122	I	O	|	|	|	|	1.68
41.833	0.00	2.20	3.106	I	O	|	|	|	|	1.67
41.917	0.00	2.19	3.091	I	O	|	|	|	|	1.66
42.000	0.00	2.19	3.076	I	O	|	|	|	|	1.65
42.083	0.00	2.19	3.061	I	O	|	|	|	|	1.65
42.167	0.00	2.19	3.046	I	O	|	|	|	|	1.64
42.250	0.00	2.18	3.031	I	O	|	|	|	|	1.63
42.333	0.00	2.18	3.016	I	O	|	|	|	|	1.63
42.417	0.00	2.18	3.001	I	O	|	|	|	|	1.62
42.500	0.00	2.17	2.986	I	O	|	|	|	|	1.61
42.583	0.00	2.17	2.971	I	O	|	|	|	|	1.60
42.667	0.00	2.17	2.956	I	O	|	|	|	|	1.60
42.750	0.00	2.16	2.941	I	O	|	|	|	|	1.59
42.833	0.00	2.16	2.926	I	O	|	|	|	|	1.58
42.917	0.00	2.16	2.911	I	O	|	|	|	|	1.58
43.000	0.00	2.15	2.897	I	O	|	|	|	|	1.57
43.083	0.00	2.15	2.882	I	O	|	|	|	|	1.56
43.167	0.00	2.15	2.867	I	O	|	|	|	|	1.56
43.250	0.00	2.15	2.852	I	O	|	|	|	|	1.55
43.333	0.00	2.14	2.837	I	O	|	|	|	|	1.54
43.417	0.00	2.14	2.823	I	O	|	|	|	|	1.53
43.500	0.00	2.14	2.808	I	O	|	|	|	|	1.53
43.583	0.00	2.13	2.793	I	O	|	|	|	|	1.52
43.667	0.00	2.13	2.779	I	O	|	|	|	|	1.51

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43.750    0.00    2.13     2.764  I  O    |       |       |       |      1.51
43.833    0.00    2.12     2.749  I  O    |       |       |       |      1.50
43.917    0.00    2.12     2.735  I  O    |       |       |       |      1.49
44.000    0.00    2.12     2.720  I  O    |       |       |       |      1.49
44.083    0.00    2.12     2.705  I  O    |       |       |       |      1.48
44.167    0.00    2.11     2.691  I  O    |       |       |       |      1.47
44.250    0.00    2.11     2.676  I  O    |       |       |       |      1.47
44.333    0.00    2.11     2.662  I  O    |       |       |       |      1.46
44.417    0.00    2.10     2.647  I  O    |       |       |       |      1.45
44.500    0.00    2.10     2.633  I  O    |       |       |       |      1.44
44.583    0.00    2.10     2.618  I  O    |       |       |       |      1.44
44.667    0.00    2.10     2.604  I  O    |       |       |       |      1.43
44.750    0.00    2.09     2.590  I  O    |       |       |       |      1.42
44.833    0.00    2.09     2.575  I  O    |       |       |       |      1.42
44.917    0.00    2.09     2.561  I  O    |       |       |       |      1.41
45.000    0.00    2.08     2.546  I  O    |       |       |       |      1.40
45.083    0.00    2.08     2.532  I  O    |       |       |       |      1.40
45.167    0.00    2.08     2.518  I  O    |       |       |       |      1.39
45.250    0.00    2.07     2.503  I  O    |       |       |       |      1.38
45.333    0.00    2.07     2.489  I  O    |       |       |       |      1.38
45.417    0.00    2.07     2.475  I  O    |       |       |       |      1.37
45.500    0.00    2.07     2.461  I  O    |       |       |       |      1.36
45.583    0.00    2.06     2.446  I  O    |       |       |       |      1.36
45.667    0.00    2.06     2.432  I  O    |       |       |       |      1.35
45.750    0.00    2.06     2.418  I  O    |       |       |       |      1.34
45.833    0.00    2.05     2.404  I  O    |       |       |       |      1.34
45.917    0.00    2.05     2.390  I  O    |       |       |       |      1.33
46.000    0.00    2.05     2.376  I  O    |       |       |       |      1.32
46.083    0.00    2.05     2.362  I  O    |       |       |       |      1.32
46.167    0.00    2.04     2.347  I  O    |       |       |       |      1.31
46.250    0.00    2.04     2.333  I  O    |       |       |       |      1.30
46.333    0.00    2.04     2.319  I  O    |       |       |       |      1.30
46.417    0.00    2.03     2.305  I  O    |       |       |       |      1.29
46.500    0.00    2.03     2.291  I  O    |       |       |       |      1.28
46.583    0.00    2.03     2.277  I  O    |       |       |       |      1.28
46.667    0.00    2.03     2.263  I  O    |       |       |       |      1.27
46.750    0.00    2.02     2.249  I  O    |       |       |       |      1.26
46.833    0.00    2.02     2.235  I  O    |       |       |       |      1.26
46.917    0.00    2.02     2.222  I  O    |       |       |       |      1.25
47.000    0.00    2.01     2.208  I  O    |       |       |       |      1.24
47.083    0.00    2.01     2.194  I  O    |       |       |       |      1.24
47.167    0.00    2.01     2.180  I  O    |       |       |       |      1.23
47.250    0.00    2.01     2.166  I  O    |       |       |       |      1.22
47.333    0.00    2.00     2.152  I  O    |       |       |       |      1.22
47.417    0.00    2.00     2.139  I  O    |       |       |       |      1.21
47.500    0.00    2.00     2.125  I  O    |       |       |       |      1.20
47.583    0.00    2.00     2.111  I  O    |       |       |       |      1.20
47.667    0.00    1.99     2.097  I  O    |       |       |       |      1.19
47.750    0.00    1.99     2.084  I  O    |       |       |       |      1.18
47.833    0.00    1.99     2.070  I  O    |       |       |       |      1.18
47.917    0.00    1.98     2.056  I  O    |       |       |       |      1.17
48.000    0.00    1.98     2.043  I  O    |       |       |       |      1.17
48.083    0.00    1.98     2.029  I  O    |       |       |       |      1.16
48.167    0.00    1.98     2.015  I  O    |       |       |       |      1.15
48.250    0.00    1.97     2.002  I  O    |       |       |       |      1.15
48.333    0.00    1.97     1.988  I  O    |       |       |       |      1.14
48.417    0.00    1.97     1.975  I  O    |       |       |       |      1.13
48.500    0.00    1.96     1.961  I  O    |       |       |       |      1.13
48.583    0.00    1.96     1.948  I  O    |       |       |       |      1.12
48.667    0.00    1.96     1.934  I  O    |       |       |       |      1.11
48.750    0.00    1.96     1.921  I  O    |       |       |       |      1.11
48.833    0.00    1.95     1.907  I  O    |       |       |       |      1.10
48.917    0.00    1.95     1.894  I  O    |       |       |       |      1.09
49.000    0.00    1.95     1.880  I  O    |       |       |       |      1.09
49.083    0.00    1.95     1.867  I  O    |       |       |       |      1.08
49.167    0.00    1.94     1.853  I  O    |       |       |       |      1.08
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49.250    0.00    1.94      1.840  I   O    |         |         |         |       1.07
49.333    0.00    1.94      1.827  I   O    |         |         |         |       1.06
49.417    0.00    1.93      1.813  I   O    |         |         |         |       1.06
49.500    0.00    1.93      1.800  I   O    |         |         |         |       1.05
49.583    0.00    1.93      1.787  I   O    |         |         |         |       1.04
49.667    0.00    1.93      1.773  I   O    |         |         |         |       1.04
49.750    0.00    1.92      1.760  I   O    |         |         |         |       1.03
49.833    0.00    1.92      1.747  I   O    |         |         |         |       1.03
49.917    0.00    1.92      1.734  I   O    |         |         |         |       1.02
50.000    0.00    1.92      1.721  I   O    |         |         |         |       1.01
50.083    0.00    1.91      1.707  I   O    |         |         |         |       1.01
50.167    0.00    1.91      1.694  I   O    |         |         |         |       1.00
50.250    0.00    1.90      1.681  I   O    |         |         |         |       0.99
50.333    0.00    1.88      1.668  I   O    |         |         |         |       0.99
50.417    0.00    1.87      1.655  I   O    |         |         |         |       0.98
50.500    0.00    1.85      1.642  I   O    |         |         |         |       0.97
50.583    0.00    1.84      1.630  I   O    |         |         |         |       0.96
50.667    0.00    1.82      1.617  I   O    |         |         |         |       0.96
50.750    0.00    1.81      1.605  I   O    |         |         |         |       0.95
50.833    0.00    1.80      1.592  I   O    |         |         |         |       0.94
50.917    0.00    1.78      1.580  I   O    |         |         |         |       0.93
51.000    0.00    1.77      1.568  I   O    |         |         |         |       0.93
51.083    0.00    1.75      1.555  I   O    |         |         |         |       0.92
51.167    0.00    1.74      1.543  I   O    |         |         |         |       0.91
51.250    0.00    1.73      1.531  I   O    |         |         |         |       0.90
51.333    0.00    1.71      1.520  I   O    |         |         |         |       0.90
51.417    0.00    1.70      1.508  I   O    |         |         |         |       0.89
51.500    0.00    1.69      1.496  I   O    |         |         |         |       0.88
51.583    0.00    1.67      1.485  I   O    |         |         |         |       0.88
51.667    0.00    1.66      1.473  I   O    |         |         |         |       0.87
51.750    0.00    1.65      1.462  I   O    |         |         |         |       0.86
51.833    0.00    1.64      1.450  I O      |         |         |         |       0.86
51.917    0.00    1.62      1.439  I O      |         |         |         |       0.85
52.000    0.00    1.61      1.428  I O      |         |         |         |       0.84
52.083    0.00    1.60      1.417  I O      |         |         |         |       0.84
52.167    0.00    1.59      1.406  I O      |         |         |         |       0.83
52.250    0.00    1.57      1.395  I O      |         |         |         |       0.82
52.333    0.00    1.56      1.384  I O      |         |         |         |       0.82
52.417    0.00    1.55      1.374  I O      |         |         |         |       0.81
52.500    0.00    1.54      1.363  I O      |         |         |         |       0.81
52.583    0.00    1.53      1.352  I O      |         |         |         |       0.80
52.667    0.00    1.51      1.342  I O      |         |         |         |       0.79
52.750    0.00    1.50      1.332  I O      |         |         |         |       0.79
52.833    0.00    1.49      1.321  I O      |         |         |         |       0.78
52.917    0.00    1.48      1.311  I O      |         |         |         |       0.77
53.000    0.00    1.47      1.301  I O      |         |         |         |       0.77
53.083    0.00    1.46      1.291  I O      |         |         |         |       0.76
53.167    0.00    1.44      1.281  I O      |         |         |         |       0.76
53.250    0.00    1.43      1.271  I O      |         |         |         |       0.75
53.333    0.00    1.42      1.261  I O      |         |         |         |       0.74
53.417    0.00    1.41      1.251  I O      |         |         |         |       0.74
53.500    0.00    1.40      1.242  I O      |         |         |         |       0.73
53.583    0.00    1.39      1.232  I O      |         |         |         |       0.73
53.667    0.00    1.38      1.222  I O      |         |         |         |       0.72
53.750    0.00    1.37      1.213  I O      |         |         |         |       0.72
53.833    0.00    1.36      1.204  I O      |         |         |         |       0.71
53.917    0.00    1.35      1.194  I O      |         |         |         |       0.71
54.000    0.00    1.34      1.185  I O      |         |         |         |       0.70
54.083    0.00    1.33      1.176  I O      |         |         |         |       0.69
54.167    0.00    1.32      1.167  I O      |         |         |         |       0.69
54.250    0.00    1.31      1.158  I O      |         |         |         |       0.68
54.333    0.00    1.30      1.149  I O      |         |         |         |       0.68
54.417    0.00    1.29      1.140  I O      |         |         |         |       0.67
54.500    0.00    1.28      1.131  I O      |         |         |         |       0.67
54.583    0.00    1.27      1.122  I O      |         |         |         |       0.66
54.667    0.00    1.26      1.114  I O      |         |         |         |       0.66
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54.750	0.00	1.25	1.105	I O	0.65
54.833	0.00	1.24	1.096	I O	0.65
54.917	0.00	1.23	1.088	I O	0.64
55.000	0.00	1.22	1.080	I O	0.64
55.083	0.00	1.21	1.071	I O	0.63
55.167	0.00	1.20	1.063	I O	0.63
55.250	0.00	1.19	1.055	I O	0.62
55.333	0.00	1.18	1.047	I O	0.62
55.417	0.00	1.17	1.038	I O	0.61
55.500	0.00	1.16	1.030	I O	0.61
55.583	0.00	1.15	1.022	I O	0.60
55.667	0.00	1.14	1.015	I O	0.60
55.750	0.00	1.14	1.007	I O	0.59
55.833	0.00	1.13	0.999	I O	0.59
55.917	0.00	1.12	0.991	I O	0.59
56.000	0.00	1.11	0.983	I O	0.58
56.083	0.00	1.10	0.976	I O	0.58
56.167	0.00	1.09	0.968	I O	0.57
56.250	0.00	1.08	0.961	IO	0.57
56.333	0.00	1.08	0.953	IO	0.56
56.417	0.00	1.07	0.946	IO	0.56
56.500	0.00	1.06	0.939	IO	0.55
56.583	0.00	1.05	0.931	IO	0.55
56.667	0.00	1.04	0.924	IO	0.55
56.750	0.00	1.03	0.917	IO	0.54
56.833	0.00	1.03	0.910	IO	0.54
56.917	0.00	1.02	0.903	IO	0.53
57.000	0.00	1.01	0.896	IO	0.53
57.083	0.00	1.00	0.889	IO	0.53
57.167	0.00	1.00	0.882	IO	0.52
57.250	0.00	0.99	0.875	IO	0.52
57.333	0.00	0.98	0.869	IO	0.51
57.417	0.00	0.97	0.862	IO	0.51
57.500	0.00	0.96	0.855	IO	0.51
57.583	0.00	0.96	0.848	IO	0.50
57.667	0.00	0.95	0.842	IO	0.50
57.750	0.00	0.94	0.835	IO	0.49
57.833	0.00	0.94	0.829	IO	0.49
57.917	0.00	0.93	0.823	IO	0.49
58.000	0.00	0.92	0.816	IO	0.48
58.083	0.00	0.91	0.810	IO	0.48
58.167	0.00	0.91	0.804	IO	0.47
58.250	0.00	0.90	0.797	IO	0.47
58.333	0.00	0.89	0.791	IO	0.47
58.417	0.00	0.89	0.785	IO	0.46
58.500	0.00	0.88	0.779	IO	0.46
58.583	0.00	0.87	0.773	IO	0.46
58.667	0.00	0.87	0.767	IO	0.45
58.750	0.00	0.86	0.761	IO	0.45
58.833	0.00	0.85	0.755	IO	0.45
58.917	0.00	0.85	0.749	IO	0.44
59.000	0.00	0.84	0.744	IO	0.44
59.083	0.00	0.83	0.738	IO	0.44
59.167	0.00	0.83	0.732	IO	0.43
59.250	0.00	0.82	0.726	IO	0.43
59.333	0.00	0.81	0.721	IO	0.43
59.417	0.00	0.81	0.715	IO	0.42
59.500	0.00	0.80	0.710	IO	0.42
59.583	0.00	0.79	0.704	IO	0.42
59.667	0.00	0.79	0.699	IO	0.41
59.750	0.00	0.78	0.693	IO	0.41
59.833	0.00	0.78	0.688	IO	0.41
59.917	0.00	0.77	0.683	IO	0.40
60.000	0.00	0.76	0.677	IO	0.40
60.083	0.00	0.76	0.672	IO	0.40
60.167	0.00	0.75	0.667	IO	0.39

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60.250    0.00    0.75     0.662  IO      |         |         |         |       0.39
60.333    0.00    0.74     0.657  IO      |         |         |         |       0.39
60.417    0.00    0.74     0.652  IO      |         |         |         |       0.38
60.500    0.00    0.73     0.646  IO      |         |         |         |       0.38
60.583    0.00    0.72     0.641  IO      |         |         |         |       0.38
60.667    0.00    0.72     0.636  IO      |         |         |         |       0.38
60.750    0.00    0.71     0.632  IO      |         |         |         |       0.37
60.833    0.00    0.71     0.627  IO      |         |         |         |       0.37
60.917    0.00    0.70     0.622  IO      |         |         |         |       0.37
61.000    0.00    0.70     0.617  IO      |         |         |         |       0.36
61.083    0.00    0.69     0.612  IO      |         |         |         |       0.36
61.167    0.00    0.69     0.608  IO      |         |         |         |       0.36
61.250    0.00    0.68     0.603  IO      |         |         |         |       0.36
61.333    0.00    0.67     0.598  IO      |         |         |         |       0.35
61.417    0.00    0.67     0.594  IO      |         |         |         |       0.35
61.500    0.00    0.66     0.589  IO      |         |         |         |       0.35
61.583    0.00    0.66     0.584  IO      |         |         |         |       0.35
61.667    0.00    0.65     0.580  IO      |         |         |         |       0.34
61.750    0.00    0.65     0.575  IO      |         |         |         |       0.34
61.833    0.00    0.64     0.571  IO      |         |         |         |       0.34
61.917    0.00    0.64     0.566  IO      |         |         |         |       0.33
62.000    0.00    0.63     0.562  IO      |         |         |         |       0.33
62.083    0.00    0.63     0.558  IO      |         |         |         |       0.33
62.167    0.00    0.62     0.553  IO      |         |         |         |       0.33
62.250    0.00    0.62     0.549  IO      |         |         |         |       0.32
62.333    0.00    0.61     0.545  IO      |         |         |         |       0.32
62.417    0.00    0.61     0.541  IO      |         |         |         |       0.32
62.500    0.00    0.61     0.536  IO      |         |         |         |       0.32
62.583    0.00    0.60     0.532  IO      |         |         |         |       0.31
62.667    0.00    0.60     0.528  IO      |         |         |         |       0.31
62.750    0.00    0.59     0.524  IO      |         |         |         |       0.31
62.833    0.00    0.59     0.520  IO      |         |         |         |       0.31
62.917    0.00    0.58     0.516  IO      |         |         |         |       0.30
63.000    0.00    0.58     0.512  IO      |         |         |         |       0.30
63.083    0.00    0.57     0.508  IO      |         |         |         |       0.30
63.167    0.00    0.57     0.504  IO      |         |         |         |       0.30
63.250    0.00    0.56     0.500  IO      |         |         |         |       0.30
63.333    0.00    0.56     0.496  IO      |         |         |         |       0.29
63.417    0.00    0.56     0.493  IO      |         |         |         |       0.29
63.500    0.00    0.55     0.489  IO      |         |         |         |       0.29
63.583    0.00    0.55     0.485  IO      |         |         |         |       0.29
63.667    0.00    0.54     0.481  O       |         |         |         |       0.28
63.750    0.00    0.54     0.477  O       |         |         |         |       0.28
63.833    0.00    0.53     0.474  O       |         |         |         |       0.28
63.917    0.00    0.53     0.470  O       |         |         |         |       0.28
64.000    0.00    0.53     0.466  O       |         |         |         |       0.28
64.083    0.00    0.52     0.463  O       |         |         |         |       0.27
64.167    0.00    0.52     0.459  O       |         |         |         |       0.27
64.250    0.00    0.51     0.456  O       |         |         |         |       0.27
64.333    0.00    0.51     0.452  O       |         |         |         |       0.27
64.417    0.00    0.51     0.449  O       |         |         |         |       0.27
64.500    0.00    0.50     0.445  O       |         |         |         |       0.26
64.583    0.00    0.50     0.442  O       |         |         |         |       0.26
64.667    0.00    0.49     0.438  O       |         |         |         |       0.26
64.750    0.00    0.49     0.435  O       |         |         |         |       0.26
64.833    0.00    0.49     0.432  O       |         |         |         |       0.25
64.917    0.00    0.48     0.428  O       |         |         |         |       0.25
65.000    0.00    0.48     0.425  O       |         |         |         |       0.25
65.083    0.00    0.48     0.422  O       |         |         |         |       0.25
65.167    0.00    0.47     0.418  O       |         |         |         |       0.25
65.250    0.00    0.47     0.415  O       |         |         |         |       0.25
65.333    0.00    0.46     0.412  O       |         |         |         |       0.24
65.417    0.00    0.46     0.409  O       |         |         |         |       0.24
65.500    0.00    0.46     0.406  O       |         |         |         |       0.24
65.583    0.00    0.45     0.402  O       |         |         |         |       0.24
65.667    0.00    0.45     0.399  O       |         |         |         |       0.24
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65.750	0.00	0.45	0.396	O	|	|	|	|	0.23
65.833	0.00	0.44	0.393	O	|	|	|	|	0.23
65.917	0.00	0.44	0.390	O	|	|	|	|	0.23
66.000	0.00	0.44	0.387	O	|	|	|	|	0.23
66.083	0.00	0.43	0.384	O	|	|	|	|	0.23
66.167	0.00	0.43	0.381	O	|	|	|	|	0.23
66.250	0.00	0.43	0.378	O	|	|	|	|	0.22
66.333	0.00	0.42	0.375	O	|	|	|	|	0.22
66.417	0.00	0.42	0.372	O	|	|	|	|	0.22
66.500	0.00	0.42	0.369	O	|	|	|	|	0.22
66.583	0.00	0.41	0.367	O	|	|	|	|	0.22
66.667	0.00	0.41	0.364	O	|	|	|	|	0.21
66.750	0.00	0.41	0.361	O	|	|	|	|	0.21
66.833	0.00	0.40	0.358	O	|	|	|	|	0.21
66.917	0.00	0.40	0.355	O	|	|	|	|	0.21
67.000	0.00	0.40	0.353	O	|	|	|	|	0.21
67.083	0.00	0.39	0.350	O	|	|	|	|	0.21
67.167	0.00	0.39	0.347	O	|	|	|	|	0.21
67.250	0.00	0.39	0.345	O	|	|	|	|	0.20
67.333	0.00	0.39	0.342	O	|	|	|	|	0.20
67.417	0.00	0.38	0.339	O	|	|	|	|	0.20
67.500	0.00	0.38	0.337	O	|	|	|	|	0.20
67.583	0.00	0.38	0.334	O	|	|	|	|	0.20
67.667	0.00	0.37	0.331	O	|	|	|	|	0.20
67.750	0.00	0.37	0.329	O	|	|	|	|	0.19
67.833	0.00	0.37	0.326	O	|	|	|	|	0.19
67.917	0.00	0.37	0.324	O	|	|	|	|	0.19
68.000	0.00	0.36	0.321	O	|	|	|	|	0.19
68.083	0.00	0.36	0.319	O	|	|	|	|	0.19
68.167	0.00	0.36	0.316	O	|	|	|	|	0.19
68.250	0.00	0.35	0.314	O	|	|	|	|	0.19
68.333	0.00	0.35	0.311	O	|	|	|	|	0.18
68.417	0.00	0.35	0.309	O	|	|	|	|	0.18
68.500	0.00	0.35	0.307	O	|	|	|	|	0.18
68.583	0.00	0.34	0.304	O	|	|	|	|	0.18
68.667	0.00	0.34	0.302	O	|	|	|	|	0.18
68.750	0.00	0.34	0.300	O	|	|	|	|	0.18
68.833	0.00	0.34	0.297	O	|	|	|	|	0.18
68.917	0.00	0.33	0.295	O	|	|	|	|	0.17
69.000	0.00	0.33	0.293	O	|	|	|	|	0.17
69.083	0.00	0.33	0.290	O	|	|	|	|	0.17
69.167	0.00	0.33	0.288	O	|	|	|	|	0.17
69.250	0.00	0.32	0.286	O	|	|	|	|	0.17
69.333	0.00	0.32	0.284	O	|	|	|	|	0.17
69.417	0.00	0.32	0.282	O	|	|	|	|	0.17
69.500	0.00	0.32	0.279	O	|	|	|	|	0.16
69.583	0.00	0.31	0.277	O	|	|	|	|	0.16
69.667	0.00	0.31	0.275	O	|	|	|	|	0.16
69.750	0.00	0.31	0.273	O	|	|	|	|	0.16
69.833	0.00	0.31	0.271	O	|	|	|	|	0.16
69.917	0.00	0.30	0.269	O	|	|	|	|	0.16
70.000	0.00	0.30	0.267	O	|	|	|	|	0.16
70.083	0.00	0.30	0.265	O	|	|	|	|	0.16
70.167	0.00	0.30	0.262	O	|	|	|	|	0.16
70.250	0.00	0.29	0.260	O	|	|	|	|	0.15
70.333	0.00	0.29	0.258	O	|	|	|	|	0.15
70.417	0.00	0.29	0.256	O	|	|	|	|	0.15
70.500	0.00	0.29	0.254	O	|	|	|	|	0.15
70.583	0.00	0.28	0.252	O	|	|	|	|	0.15
70.667	0.00	0.28	0.251	O	|	|	|	|	0.15
70.750	0.00	0.28	0.249	O	|	|	|	|	0.15
70.833	0.00	0.28	0.247	O	|	|	|	|	0.15
70.917	0.00	0.28	0.245	O	|	|	|	|	0.14
71.000	0.00	0.27	0.243	O	|	|	|	|	0.14
71.083	0.00	0.27	0.241	O	|	|	|	|	0.14
71.167	0.00	0.27	0.239	O	|	|	|	|	0.14

71.250	0.00	0.27	0.237	O	|	|	|	|	0.14
71.333	0.00	0.27	0.235	O	|	|	|	|	0.14
71.417	0.00	0.26	0.234	O	|	|	|	|	0.14
71.500	0.00	0.26	0.232	O	|	|	|	|	0.14
71.583	0.00	0.26	0.230	O	|	|	|	|	0.14
71.667	0.00	0.26	0.228	O	|	|	|	|	0.13
71.750	0.00	0.26	0.226	O	|	|	|	|	0.13
71.833	0.00	0.25	0.225	O	|	|	|	|	0.13
71.917	0.00	0.25	0.223	O	|	|	|	|	0.13
72.000	0.00	0.25	0.221	O	|	|	|	|	0.13
72.083	0.00	0.25	0.220	O	|	|	|	|	0.13
72.167	0.00	0.25	0.218	O	|	|	|	|	0.13
72.250	0.00	0.24	0.216	O	|	|	|	|	0.13
72.333	0.00	0.24	0.214	O	|	|	|	|	0.13
72.417	0.00	0.24	0.213	O	|	|	|	|	0.13
72.500	0.00	0.24	0.211	O	|	|	|	|	0.12
72.583	0.00	0.24	0.210	O	|	|	|	|	0.12
72.667	0.00	0.23	0.208	O	|	|	|	|	0.12
72.750	0.00	0.23	0.206	O	|	|	|	|	0.12
72.833	0.00	0.23	0.205	O	|	|	|	|	0.12
72.917	0.00	0.23	0.203	O	|	|	|	|	0.12
73.000	0.00	0.23	0.202	O	|	|	|	|	0.12
73.083	0.00	0.23	0.200	O	|	|	|	|	0.12
73.167	0.00	0.22	0.198	O	|	|	|	|	0.12
73.250	0.00	0.22	0.197	O	|	|	|	|	0.12
73.333	0.00	0.22	0.195	O	|	|	|	|	0.12
73.417	0.00	0.22	0.194	O	|	|	|	|	0.11
73.500	0.00	0.22	0.192	O	|	|	|	|	0.11
73.583	0.00	0.22	0.191	O	|	|	|	|	0.11
73.667	0.00	0.21	0.189	O	|	|	|	|	0.11
73.750	0.00	0.21	0.188	O	|	|	|	|	0.11
73.833	0.00	0.21	0.186	O	|	|	|	|	0.11
73.917	0.00	0.21	0.185	O	|	|	|	|	0.11
74.000	0.00	0.21	0.184	O	|	|	|	|	0.11
74.083	0.00	0.21	0.182	O	|	|	|	|	0.11
74.167	0.00	0.20	0.181	O	|	|	|	|	0.11
74.250	0.00	0.20	0.179	O	|	|	|	|	0.11
74.333	0.00	0.20	0.178	O	|	|	|	|	0.11
74.417	0.00	0.20	0.177	O	|	|	|	|	0.10
74.500	0.00	0.20	0.175	O	|	|	|	|	0.10
74.583	0.00	0.20	0.174	O	|	|	|	|	0.10
74.667	0.00	0.19	0.173	O	|	|	|	|	0.10
74.750	0.00	0.19	0.171	O	|	|	|	|	0.10
74.833	0.00	0.19	0.170	O	|	|	|	|	0.10
74.917	0.00	0.19	0.169	O	|	|	|	|	0.10
75.000	0.00	0.19	0.167	O	|	|	|	|	0.10
75.083	0.00	0.19	0.166	O	|	|	|	|	0.10
75.167	0.00	0.19	0.165	O	|	|	|	|	0.10
75.250	0.00	0.18	0.163	O	|	|	|	|	0.10
75.333	0.00	0.18	0.162	O	|	|	|	|	0.10
75.417	0.00	0.18	0.161	O	|	|	|	|	0.10
75.500	0.00	0.18	0.160	O	|	|	|	|	0.09
75.583	0.00	0.18	0.158	O	|	|	|	|	0.09
75.667	0.00	0.18	0.157	O	|	|	|	|	0.09
75.750	0.00	0.18	0.156	O	|	|	|	|	0.09
75.833	0.00	0.17	0.155	O	|	|	|	|	0.09
75.917	0.00	0.17	0.154	O	|	|	|	|	0.09
76.000	0.00	0.17	0.152	O	|	|	|	|	0.09
76.083	0.00	0.17	0.151	O	|	|	|	|	0.09
76.167	0.00	0.17	0.150	O	|	|	|	|	0.09
76.250	0.00	0.17	0.149	O	|	|	|	|	0.09
76.333	0.00	0.17	0.148	O	|	|	|	|	0.09
76.417	0.00	0.17	0.147	O	|	|	|	|	0.09
76.500	0.00	0.16	0.145	O	|	|	|	|	0.09
76.583	0.00	0.16	0.144	O	|	|	|	|	0.09
76.667	0.00	0.16	0.143	O	|	|	|	|	0.08

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76.750    0.00    0.16      0.142  O       |       |       |       |      0.08
76.833    0.00    0.16      0.141  O       |       |       |       |      0.08
76.917    0.00    0.16      0.140  O       |       |       |       |      0.08
77.000    0.00    0.16      0.139  O       |       |       |       |      0.08
77.083    0.00    0.16      0.138  O       |       |       |       |      0.08
77.167    0.00    0.15      0.137  O       |       |       |       |      0.08
77.250    0.00    0.15      0.136  O       |       |       |       |      0.08
77.333    0.00    0.15      0.135  O       |       |       |       |      0.08
77.417    0.00    0.15      0.134  O       |       |       |       |      0.08
77.500    0.00    0.15      0.132  O       |       |       |       |      0.08
77.583    0.00    0.15      0.131  O       |       |       |       |      0.08
77.667    0.00    0.15      0.130  O       |       |       |       |      0.08
77.750    0.00    0.15      0.129  O       |       |       |       |      0.08
77.833    0.00    0.14      0.128  O       |       |       |       |      0.08
77.917    0.00    0.14      0.127  O       |       |       |       |      0.08
78.000    0.00    0.14      0.126  O       |       |       |       |      0.07
78.083    0.00    0.14      0.125  O       |       |       |       |      0.07
78.167    0.00    0.14      0.125  O       |       |       |       |      0.07
78.250    0.00    0.14      0.124  O       |       |       |       |      0.07
78.333    0.00    0.14      0.123  O       |       |       |       |      0.07
78.417    0.00    0.14      0.122  O       |       |       |       |      0.07
78.500    0.00    0.14      0.121  O       |       |       |       |      0.07
78.583    0.00    0.14      0.120  O       |       |       |       |      0.07
78.667    0.00    0.13      0.119  O       |       |       |       |      0.07
78.750    0.00    0.13      0.118  O       |       |       |       |      0.07
78.833    0.00    0.13      0.117  O       |       |       |       |      0.07
78.917    0.00    0.13      0.116  O       |       |       |       |      0.07
79.000    0.00    0.13      0.115  O       |       |       |       |      0.07
79.083    0.00    0.13      0.114  O       |       |       |       |      0.07
79.167    0.00    0.13      0.113  O       |       |       |       |      0.07
79.250    0.00    0.13      0.113  O       |       |       |       |      0.07
79.333    0.00    0.13      0.112  O       |       |       |       |      0.07
79.417    0.00    0.13      0.111  O       |       |       |       |      0.07
79.500    0.00    0.12      0.110  O       |       |       |       |      0.06
79.583    0.00    0.12      0.109  O       |       |       |       |      0.06
79.667    0.00    0.12      0.108  O       |       |       |       |      0.06
79.750    0.00    0.12      0.107  O       |       |       |       |      0.06
79.833    0.00    0.12      0.107  O       |       |       |       |      0.06
79.917    0.00    0.12      0.106  O       |       |       |       |      0.06
80.000    0.00    0.12      0.105  O       |       |       |       |      0.06
80.083    0.00    0.12      0.104  O       |       |       |       |      0.06
80.167    0.00    0.12      0.103  O       |       |       |       |      0.06
80.250    0.00    0.12      0.103  O       |       |       |       |      0.06
80.333    0.00    0.11      0.102  O       |       |       |       |      0.06
80.417    0.00    0.11      0.101  O       |       |       |       |      0.06
80.500    0.00    0.11      0.100  O       |       |       |       |      0.06
80.583    0.00    0.11      0.099  O       |       |       |       |      0.06
80.667    0.00    0.11      0.099  O       |       |       |       |      0.06
80.750    0.00    0.11      0.098  O       |       |       |       |      0.06
80.833    0.00    0.11      0.097  O       |       |       |       |      0.06
80.917    0.00    0.11      0.096  O       |       |       |       |      0.06
81.000    0.00    0.11      0.096  O       |       |       |       |      0.06
81.083    0.00    0.11      0.095  O       |       |       |       |      0.06
81.167    0.00    0.11      0.094  O       |       |       |       |      0.06
81.250    0.00    0.11      0.093  O       |       |       |       |      0.06
81.333    0.00    0.10      0.093  O       |       |       |       |      0.05
81.417    0.00    0.10      0.092  O       |       |       |       |      0.05
81.500    0.00    0.10      0.091  O       |       |       |       |      0.05
81.583    0.00    0.10      0.091  O       |       |       |       |      0.05
81.667    0.00    0.10      0.090  O       |       |       |       |      0.05
81.750    0.00    0.10      0.089  O       |       |       |       |      0.05
81.833    0.00    0.10      0.088  O       |       |       |       |      0.05
81.917    0.00    0.10      0.088  O       |       |       |       |      0.05
82.000    0.00    0.10      0.087  O       |       |       |       |      0.05
82.083    0.00    0.10      0.086  O       |       |       |       |      0.05
82.167    0.00    0.10      0.086  O       |       |       |       |      0.05
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82.250    0.00    0.10      0.085  O       |       |       |       |      0.05
82.333    0.00    0.10      0.084  O       |       |       |       |      0.05
82.417    0.00    0.09      0.084  O       |       |       |       |      0.05
82.500    0.00    0.09      0.083  O       |       |       |       |      0.05
82.583    0.00    0.09      0.082  O       |       |       |       |      0.05
82.667    0.00    0.09      0.082  O       |       |       |       |      0.05
82.750    0.00    0.09      0.081  O       |       |       |       |      0.05
82.833    0.00    0.09      0.081  O       |       |       |       |      0.05
82.917    0.00    0.09      0.080  O       |       |       |       |      0.05
83.000    0.00    0.09      0.079  O       |       |       |       |      0.05
83.083    0.00    0.09      0.079  O       |       |       |       |      0.05
83.167    0.00    0.09      0.078  O       |       |       |       |      0.05
83.250    0.00    0.09      0.078  O       |       |       |       |      0.05
83.333    0.00    0.09      0.077  O       |       |       |       |      0.05
83.417    0.00    0.09      0.076  O       |       |       |       |      0.05
83.500    0.00    0.09      0.076  O       |       |       |       |      0.04
83.583    0.00    0.08      0.075  O       |       |       |       |      0.04
83.667    0.00    0.08      0.075  O       |       |       |       |      0.04
83.750    0.00    0.08      0.074  O       |       |       |       |      0.04
83.833    0.00    0.08      0.073  O       |       |       |       |      0.04
83.917    0.00    0.08      0.073  O       |       |       |       |      0.04
84.000    0.00    0.08      0.072  O       |       |       |       |      0.04
84.083    0.00    0.08      0.072  O       |       |       |       |      0.04
84.167    0.00    0.08      0.071  O       |       |       |       |      0.04
84.250    0.00    0.08      0.071  O       |       |       |       |      0.04
84.333    0.00    0.08      0.070  O       |       |       |       |      0.04
84.417    0.00    0.08      0.070  O       |       |       |       |      0.04
84.500    0.00    0.08      0.069  O       |       |       |       |      0.04
84.583    0.00    0.08      0.068  O       |       |       |       |      0.04
84.667    0.00    0.08      0.068  O       |       |       |       |      0.04
84.750    0.00    0.08      0.067  O       |       |       |       |      0.04
84.833    0.00    0.08      0.067  O       |       |       |       |      0.04
84.917    0.00    0.07      0.066  O       |       |       |       |      0.04
85.000    0.00    0.07      0.066  O       |       |       |       |      0.04
85.083    0.00    0.07      0.065  O       |       |       |       |      0.04
85.167    0.00    0.07      0.065  O       |       |       |       |      0.04
85.250    0.00    0.07      0.064  O       |       |       |       |      0.04
85.333    0.00    0.07      0.064  O       |       |       |       |      0.04
85.417    0.00    0.07      0.063  O       |       |       |       |      0.04
85.500    0.00    0.07      0.063  O       |       |       |       |      0.04
85.583    0.00    0.07      0.062  O       |       |       |       |      0.04
85.667    0.00    0.07      0.062  O       |       |       |       |      0.04
85.750    0.00    0.07      0.061  O       |       |       |       |      0.04
85.833    0.00    0.07      0.061  O       |       |       |       |      0.04
85.917    0.00    0.07      0.060  O       |       |       |       |      0.04
86.000    0.00    0.07      0.060  O       |       |       |       |      0.04
86.083    0.00    0.07      0.060  O       |       |       |       |      0.04
86.167    0.00    0.07      0.059  O       |       |       |       |      0.03
86.250    0.00    0.07      0.059  O       |       |       |       |      0.03
86.333    0.00    0.07      0.058  O       |       |       |       |      0.03
86.417    0.00    0.07      0.058  O       |       |       |       |      0.03
86.500    0.00    0.06      0.057  O       |       |       |       |      0.03
86.583    0.00    0.06      0.057  O       |       |       |       |      0.03
86.667    0.00    0.06      0.056  O       |       |       |       |      0.03
86.750    0.00    0.06      0.056  O       |       |       |       |      0.03
86.833    0.00    0.06      0.055  O       |       |       |       |      0.03
86.917    0.00    0.06      0.055  O       |       |       |       |      0.03
87.000    0.00    0.06      0.055  O       |       |       |       |      0.03
87.083    0.00    0.06      0.054  O       |       |       |       |      0.03
87.167    0.00    0.06      0.054  O       |       |       |       |      0.03
87.250    0.00    0.06      0.053  O       |       |       |       |      0.03
87.333    0.00    0.06      0.053  O       |       |       |       |      0.03
87.417    0.00    0.06      0.053  O       |       |       |       |      0.03
87.500    0.00    0.06      0.052  O       |       |       |       |      0.03
87.583    0.00    0.06      0.052  O       |       |       |       |      0.03
87.667    0.00    0.06      0.051  O       |       |       |       |      0.03
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87.750    0.00    0.06     0.051  O       |       |       |       |      0.03
87.833    0.00    0.06     0.051  O       |       |       |       |      0.03
87.917    0.00    0.06     0.050  O       |       |       |       |      0.03
88.000    0.00    0.06     0.050  O       |       |       |       |      0.03
88.083    0.00    0.06     0.049  O       |       |       |       |      0.03
88.167    0.00    0.06     0.049  O       |       |       |       |      0.03
88.250    0.00    0.05     0.049  O       |       |       |       |      0.03
88.333    0.00    0.05     0.048  O       |       |       |       |      0.03
88.417    0.00    0.05     0.048  O       |       |       |       |      0.03
88.500    0.00    0.05     0.048  O       |       |       |       |      0.03
88.583    0.00    0.05     0.047  O       |       |       |       |      0.03
88.667    0.00    0.05     0.047  O       |       |       |       |      0.03
88.750    0.00    0.05     0.046  O       |       |       |       |      0.03
88.833    0.00    0.05     0.046  O       |       |       |       |      0.03
88.917    0.00    0.05     0.046  O       |       |       |       |      0.03
89.000    0.00    0.05     0.045  O       |       |       |       |      0.03
89.083    0.00    0.05     0.045  O       |       |       |       |      0.03
89.167    0.00    0.05     0.045  O       |       |       |       |      0.03
89.250    0.00    0.05     0.044  O       |       |       |       |      0.03
89.333    0.00    0.05     0.044  O       |       |       |       |      0.03
89.417    0.00    0.05     0.044  O       |       |       |       |      0.03
89.500    0.00    0.05     0.043  O       |       |       |       |      0.03
89.583    0.00    0.05     0.043  O       |       |       |       |      0.03
89.667    0.00    0.05     0.043  O       |       |       |       |      0.03
89.750    0.00    0.05     0.042  O       |       |       |       |      0.02
89.833    0.00    0.05     0.042  O       |       |       |       |      0.02
89.917    0.00    0.05     0.042  O       |       |       |       |      0.02
90.000    0.00    0.05     0.041  O       |       |       |       |      0.02
90.083    0.00    0.05     0.041  O       |       |       |       |      0.02
90.167    0.00    0.05     0.041  O       |       |       |       |      0.02
90.250    0.00    0.05     0.040  O       |       |       |       |      0.02
90.333    0.00    0.05     0.040  O       |       |       |       |      0.02
90.417    0.00    0.04     0.040  O       |       |       |       |      0.02
90.500    0.00    0.04     0.039  O       |       |       |       |      0.02
90.583    0.00    0.04     0.039  O       |       |       |       |      0.02
90.667    0.00    0.04     0.039  O       |       |       |       |      0.02
90.750    0.00    0.04     0.039  O       |       |       |       |      0.02
90.833    0.00    0.04     0.038  O       |       |       |       |      0.02
90.917    0.00    0.04     0.038  O       |       |       |       |      0.02
91.000    0.00    0.04     0.038  O       |       |       |       |      0.02
91.083    0.00    0.04     0.037  O       |       |       |       |      0.02
91.167    0.00    0.04     0.037  O       |       |       |       |      0.02
91.250    0.00    0.04     0.037  O       |       |       |       |      0.02
91.333    0.00    0.04     0.036  O       |       |       |       |      0.02
91.417    0.00    0.04     0.036  O       |       |       |       |      0.02
91.500    0.00    0.04     0.036  O       |       |       |       |      0.02
91.583    0.00    0.04     0.036  O       |       |       |       |      0.02
91.667    0.00    0.04     0.035  O       |       |       |       |      0.02
91.750    0.00    0.04     0.035  O       |       |       |       |      0.02
91.833    0.00    0.04     0.035  O       |       |       |       |      0.02
91.917    0.00    0.04     0.035  O       |       |       |       |      0.02
92.000    0.00    0.04     0.034  O       |       |       |       |      0.02
92.083    0.00    0.04     0.034  O       |       |       |       |      0.02
92.167    0.00    0.04     0.034  O       |       |       |       |      0.02
92.250    0.00    0.04     0.033  O       |       |       |       |      0.02
92.333    0.00    0.04     0.033  O       |       |       |       |      0.02
92.417    0.00    0.04     0.033  O       |       |       |       |      0.02
92.500    0.00    0.04     0.033  O       |       |       |       |      0.02
92.583    0.00    0.04     0.032  O       |       |       |       |      0.02
92.667    0.00    0.04     0.032  O       |       |       |       |      0.02
92.750    0.00    0.04     0.032  O       |       |       |       |      0.02
92.833    0.00    0.04     0.032  O       |       |       |       |      0.02
92.917    0.00    0.04     0.031  O       |       |       |       |      0.02
93.000    0.00    0.04     0.031  O       |       |       |       |      0.02
93.083    0.00    0.03     0.031  O       |       |       |       |      0.02
93.167    0.00    0.03     0.031  O       |       |       |       |      0.02
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93.250    0.00    0.03     0.031  O       |        |        |        |       0.02
93.333    0.00    0.03     0.030  O       |        |        |        |       0.02
93.417    0.00    0.03     0.030  O       |        |        |        |       0.02
93.500    0.00    0.03     0.030  O       |        |        |        |       0.02
93.583    0.00    0.03     0.030  O       |        |        |        |       0.02
93.667    0.00    0.03     0.029  O       |        |        |        |       0.02
93.750    0.00    0.03     0.029  O       |        |        |        |       0.02
93.833    0.00    0.03     0.029  O       |        |        |        |       0.02
93.917    0.00    0.03     0.029  O       |        |        |        |       0.02
94.000    0.00    0.03     0.028  O       |        |        |        |       0.02
94.083    0.00    0.03     0.028  O       |        |        |        |       0.02
94.167    0.00    0.03     0.028  O       |        |        |        |       0.02
94.250    0.00    0.03     0.028  O       |        |        |        |       0.02
94.333    0.00    0.03     0.028  O       |        |        |        |       0.02
94.417    0.00    0.03     0.027  O       |        |        |        |       0.02
94.500    0.00    0.03     0.027  O       |        |        |        |       0.02
94.583    0.00    0.03     0.027  O       |        |        |        |       0.02
94.667    0.00    0.03     0.027  O       |        |        |        |       0.02
94.750    0.00    0.03     0.027  O       |        |        |        |       0.02
94.833    0.00    0.03     0.026  O       |        |        |        |       0.02
94.917    0.00    0.03     0.026  O       |        |        |        |       0.02
95.000    0.00    0.03     0.026  O       |        |        |        |       0.02
95.083    0.00    0.03     0.026  O       |        |        |        |       0.02
95.167    0.00    0.03     0.026  O       |        |        |        |       0.02
95.250    0.00    0.03     0.025  O       |        |        |        |       0.01
95.333    0.00    0.03     0.025  O       |        |        |        |       0.01
95.417    0.00    0.03     0.025  O       |        |        |        |       0.01
95.500    0.00    0.03     0.025  O       |        |        |        |       0.01
95.583    0.00    0.03     0.025  O       |        |        |        |       0.01
95.667    0.00    0.03     0.024  O       |        |        |        |       0.01
95.750    0.00    0.03     0.024  O       |        |        |        |       0.01
95.833    0.00    0.03     0.024  O       |        |        |        |       0.01
95.917    0.00    0.03     0.024  O       |        |        |        |       0.01
96.000    0.00    0.03     0.024  O       |        |        |        |       0.01
96.083    0.00    0.03     0.023  O       |        |        |        |       0.01
96.167    0.00    0.03     0.023  O       |        |        |        |       0.01
96.250    0.00    0.03     0.023  O       |        |        |        |       0.01
96.333    0.00    0.03     0.023  O       |        |        |        |       0.01
96.417    0.00    0.03     0.023  O       |        |        |        |       0.01
96.500    0.00    0.03     0.023  O       |        |        |        |       0.01
96.583    0.00    0.03     0.022  O       |        |        |        |       0.01
96.667    0.00    0.03     0.022  O       |        |        |        |       0.01
96.750    0.00    0.02     0.022  O       |        |        |        |       0.01
96.833    0.00    0.02     0.022  O       |        |        |        |       0.01
96.917    0.00    0.02     0.022  O       |        |        |        |       0.01
97.000    0.00    0.02     0.022  O       |        |        |        |       0.01
97.083    0.00    0.02     0.021  O       |        |        |        |       0.01
97.167    0.00    0.02     0.021  O       |        |        |        |       0.01
97.250    0.00    0.02     0.021  O       |        |        |        |       0.01
97.333    0.00    0.02     0.021  O       |        |        |        |       0.01
97.417    0.00    0.02     0.021  O       |        |        |        |       0.01
97.500    0.00    0.02     0.021  O       |        |        |        |       0.01
97.583    0.00    0.02     0.020  O       |        |        |        |       0.01
97.667    0.00    0.02     0.020  O       |        |        |        |       0.01
97.750    0.00    0.02     0.020  O       |        |        |        |       0.01
97.833    0.00    0.02     0.020  O       |        |        |        |       0.01
97.917    0.00    0.02     0.020  O       |        |        |        |       0.01
98.000    0.00    0.02     0.020  O       |        |        |        |       0.01
98.083    0.00    0.02     0.019  O       |        |        |        |       0.01
98.167    0.00    0.02     0.019  O       |        |        |        |       0.01
98.250    0.00    0.02     0.019  O       |        |        |        |       0.01
98.333    0.00    0.02     0.019  O       |        |        |        |       0.01
98.417    0.00    0.02     0.019  O       |        |        |        |       0.01
98.500    0.00    0.02     0.019  O       |        |        |        |       0.01
98.583    0.00    0.02     0.019  O       |        |        |        |       0.01
98.667    0.00    0.02     0.018  O       |        |        |        |       0.01
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98.750	0.00	0.02	0.018	O	|	|	|	|	0.01
98.833	0.00	0.02	0.018	O	|	|	|	|	0.01
98.917	0.00	0.02	0.018	O	|	|	|	|	0.01
99.000	0.00	0.02	0.018	O	|	|	|	|	0.01
99.083	0.00	0.02	0.018	O	|	|	|	|	0.01
99.167	0.00	0.02	0.018	O	|	|	|	|	0.01
99.250	0.00	0.02	0.017	O	|	|	|	|	0.01
99.333	0.00	0.02	0.017	O	|	|	|	|	0.01
99.417	0.00	0.02	0.017	O	|	|	|	|	0.01
99.500	0.00	0.02	0.017	O	|	|	|	|	0.01
99.583	0.00	0.02	0.017	O	|	|	|	|	0.01
99.667	0.00	0.02	0.017	O	|	|	|	|	0.01
99.750	0.00	0.02	0.017	O	|	|	|	|	0.01
99.833	0.00	0.02	0.017	O	|	|	|	|	0.01
99.917	0.00	0.02	0.016	O	|	|	|	|	0.01
100.000	0.00	0.02	0.016	O	|	|	|	|	0.01
100.083	0.00	0.02	0.016	O	|	|	|	|	0.01
100.167	0.00	0.02	0.016	O	|	|	|	|	0.01
100.250	0.00	0.02	0.016	O	|	|	|	|	0.01
100.333	0.00	0.02	0.016	O	|	|	|	|	0.01
100.417	0.00	0.02	0.016	O	|	|	|	|	0.01
100.500	0.00	0.02	0.016	O	|	|	|	|	0.01
100.583	0.00	0.02	0.015	O	|	|	|	|	0.01
100.667	0.00	0.02	0.015	O	|	|	|	|	0.01
100.750	0.00	0.02	0.015	O	|	|	|	|	0.01
100.833	0.00	0.02	0.015	O	|	|	|	|	0.01
100.917	0.00	0.02	0.015	O	|	|	|	|	0.01
101.000	0.00	0.02	0.015	O	|	|	|	|	0.01
101.083	0.00	0.02	0.015	O	|	|	|	|	0.01
101.167	0.00	0.02	0.015	O	|	|	|	|	0.01
101.250	0.00	0.02	0.014	O	|	|	|	|	0.01
101.333	0.00	0.02	0.014	O	|	|	|	|	0.01
101.417	0.00	0.02	0.014	O	|	|	|	|	0.01
101.500	0.00	0.02	0.014	O	|	|	|	|	0.01
101.583	0.00	0.02	0.014	O	|	|	|	|	0.01
101.667	0.00	0.02	0.014	O	|	|	|	|	0.01
101.750	0.00	0.02	0.014	O	|	|	|	|	0.01
101.833	0.00	0.02	0.014	O	|	|	|	|	0.01
101.917	0.00	0.02	0.014	O	|	|	|	|	0.01
102.000	0.00	0.02	0.013	O	|	|	|	|	0.01
102.083	0.00	0.02	0.013	O	|	|	|	|	0.01
102.167	0.00	0.01	0.013	O	|	|	|	|	0.01
102.250	0.00	0.01	0.013	O	|	|	|	|	0.01
102.333	0.00	0.01	0.013	O	|	|	|	|	0.01
102.417	0.00	0.01	0.013	O	|	|	|	|	0.01
102.500	0.00	0.01	0.013	O	|	|	|	|	0.01
102.583	0.00	0.01	0.013	O	|	|	|	|	0.01
102.667	0.00	0.01	0.013	O	|	|	|	|	0.01
102.750	0.00	0.01	0.013	O	|	|	|	|	0.01
102.833	0.00	0.01	0.012	O	|	|	|	|	0.01
102.917	0.00	0.01	0.012	O	|	|	|	|	0.01
103.000	0.00	0.01	0.012	O	|	|	|	|	0.01
103.083	0.00	0.01	0.012	O	|	|	|	|	0.01
103.167	0.00	0.01	0.012	O	|	|	|	|	0.01
103.250	0.00	0.01	0.012	O	|	|	|	|	0.01
103.333	0.00	0.01	0.012	O	|	|	|	|	0.01
103.417	0.00	0.01	0.012	O	|	|	|	|	0.01
103.500	0.00	0.01	0.012	O	|	|	|	|	0.01
103.583	0.00	0.01	0.012	O	|	|	|	|	0.01
103.667	0.00	0.01	0.012	O	|	|	|	|	0.01
103.750	0.00	0.01	0.011	O	|	|	|	|	0.01
103.833	0.00	0.01	0.011	O	|	|	|	|	0.01
103.917	0.00	0.01	0.011	O	|	|	|	|	0.01
104.000	0.00	0.01	0.011	O	|	|	|	|	0.01
104.083	0.00	0.01	0.011	O	|	|	|	|	0.01
104.167	0.00	0.01	0.011	O	|	|	|	|	0.01

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104.250    0.00    0.01     0.011  O       |       |       |       |     0.01
104.333    0.00    0.01     0.011  O       |       |       |       |     0.01
104.417    0.00    0.01     0.011  O       |       |       |       |     0.01
104.500    0.00    0.01     0.011  O       |       |       |       |     0.01
104.583    0.00    0.01     0.011  O       |       |       |       |     0.01
104.667    0.00    0.01     0.011  O       |       |       |       |     0.01
104.750    0.00    0.01     0.010  O       |       |       |       |     0.01
104.833    0.00    0.01     0.010  O       |       |       |       |     0.01
104.917    0.00    0.01     0.010  O       |       |       |       |     0.01
105.000    0.00    0.01     0.010  O       |       |       |       |     0.01
105.083    0.00    0.01     0.010  O       |       |       |       |     0.01
105.167    0.00    0.01     0.010  O       |       |       |       |     0.01
105.250    0.00    0.01     0.010  O       |       |       |       |     0.01
105.333    0.00    0.01     0.010  O       |       |       |       |     0.01
105.417    0.00    0.01     0.010  O       |       |       |       |     0.01
105.500    0.00    0.01     0.010  O       |       |       |       |     0.01
105.583    0.00    0.01     0.010  O       |       |       |       |     0.01
105.667    0.00    0.01     0.010  O       |       |       |       |     0.01
105.750    0.00    0.01     0.010  O       |       |       |       |     0.01
105.833    0.00    0.01     0.009  O       |       |       |       |     0.01
105.917    0.00    0.01     0.009  O       |       |       |       |     0.01
106.000    0.00    0.01     0.009  O       |       |       |       |     0.01
106.083    0.00    0.01     0.009  O       |       |       |       |     0.01
106.167    0.00    0.01     0.009  O       |       |       |       |     0.01
106.250    0.00    0.01     0.009  O       |       |       |       |     0.01
106.333    0.00    0.01     0.009  O       |       |       |       |     0.01
106.417    0.00    0.01     0.009  O       |       |       |       |     0.01
106.500    0.00    0.01     0.009  O       |       |       |       |     0.01
106.583    0.00    0.01     0.009  O       |       |       |       |     0.01
106.667    0.00    0.01     0.009  O       |       |       |       |     0.01
106.750    0.00    0.01     0.009  O       |       |       |       |     0.01
106.833    0.00    0.01     0.009  O       |       |       |       |     0.01
106.917    0.00    0.01     0.009  O       |       |       |       |     0.01
107.000    0.00    0.01     0.008  O       |       |       |       |     0.01
107.083    0.00    0.01     0.008  O       |       |       |       |     0.00
107.167    0.00    0.01     0.008  O       |       |       |       |     0.00
107.250    0.00    0.01     0.008  O       |       |       |       |     0.00
107.333    0.00    0.01     0.008  O       |       |       |       |     0.00
107.417    0.00    0.01     0.008  O       |       |       |       |     0.00
107.500    0.00    0.01     0.008  O       |       |       |       |     0.00
107.583    0.00    0.01     0.008  O       |       |       |       |     0.00
107.667    0.00    0.01     0.008  O       |       |       |       |     0.00
107.750    0.00    0.01     0.008  O       |       |       |       |     0.00
107.833    0.00    0.01     0.008  O       |       |       |       |     0.00
107.917    0.00    0.01     0.008  O       |       |       |       |     0.00
108.000    0.00    0.01     0.008  O       |       |       |       |     0.00
108.083    0.00    0.01     0.008  O       |       |       |       |     0.00
108.167    0.00    0.01     0.008  O       |       |       |       |     0.00
108.250    0.00    0.01     0.008  O       |       |       |       |     0.00
108.333    0.00    0.01     0.007  O       |       |       |       |     0.00
108.417    0.00    0.01     0.007  O       |       |       |       |     0.00
108.500    0.00    0.01     0.007  O       |       |       |       |     0.00
108.583    0.00    0.01     0.007  O       |       |       |       |     0.00
108.667    0.00    0.01     0.007  O       |       |       |       |     0.00
108.750    0.00    0.01     0.007  O       |       |       |       |     0.00
108.833    0.00    0.01     0.007  O       |       |       |       |     0.00
108.917    0.00    0.01     0.007  O       |       |       |       |     0.00
109.000    0.00    0.01     0.007  O       |       |       |       |     0.00
109.083    0.00    0.01     0.007  O       |       |       |       |     0.00
109.167    0.00    0.01     0.007  O       |       |       |       |     0.00
109.250    0.00    0.01     0.007  O       |       |       |       |     0.00
109.333    0.00    0.01     0.007  O       |       |       |       |     0.00
109.417    0.00    0.01     0.007  O       |       |       |       |     0.00
109.500    0.00    0.01     0.007  O       |       |       |       |     0.00
109.583    0.00    0.01     0.007  O       |       |       |       |     0.00
109.667    0.00    0.01     0.007  O       |       |       |       |     0.00
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109.750    0.00    0.01     0.007  O      |         |         |         |      0.00
109.833    0.00    0.01     0.006  O      |         |         |         |      0.00
109.917    0.00    0.01     0.006  O      |         |         |         |      0.00
110.000    0.00    0.01     0.006  O      |         |         |         |      0.00
110.083    0.00    0.01     0.006  O      |         |         |         |      0.00
110.167    0.00    0.01     0.006  O      |         |         |         |      0.00
110.250    0.00    0.01     0.006  O      |         |         |         |      0.00
110.333    0.00    0.01     0.006  O      |         |         |         |      0.00
110.417    0.00    0.01     0.006  O      |         |         |         |      0.00
110.500    0.00    0.01     0.006  O      |         |         |         |      0.00
110.583    0.00    0.01     0.006  O      |         |         |         |      0.00
110.667    0.00    0.01     0.006  O      |         |         |         |      0.00
110.750    0.00    0.01     0.006  O      |         |         |         |      0.00
110.833    0.00    0.01     0.006  O      |         |         |         |      0.00
110.917    0.00    0.01     0.006  O      |         |         |         |      0.00
111.000    0.00    0.01     0.006  O      |         |         |         |      0.00
111.083    0.00    0.01     0.006  O      |         |         |         |      0.00
111.167    0.00    0.01     0.006  O      |         |         |         |      0.00
111.250    0.00    0.01     0.006  O      |         |         |         |      0.00
111.333    0.00    0.01     0.006  O      |         |         |         |      0.00
111.417    0.00    0.01     0.006  O      |         |         |         |      0.00
111.500    0.00    0.01     0.006  O      |         |         |         |      0.00
111.583    0.00    0.01     0.006  O      |         |         |         |      0.00
111.667    0.00    0.01     0.005  O      |         |         |         |      0.00
111.750    0.00    0.01     0.005  O      |         |         |         |      0.00
111.833    0.00    0.01     0.005  O      |         |         |         |      0.00
111.917    0.00    0.01     0.005  O      |         |         |         |      0.00
112.000    0.00    0.01     0.005  O      |         |         |         |      0.00
112.083    0.00    0.01     0.005  O      |         |         |         |      0.00
112.167    0.00    0.01     0.005  O      |         |         |         |      0.00
112.250    0.00    0.01     0.005  O      |         |         |         |      0.00
112.333    0.00    0.01     0.005  O      |         |         |         |      0.00
112.417    0.00    0.01     0.005  O      |         |         |         |      0.00
112.500    0.00    0.01     0.005  O      |         |         |         |      0.00
112.583    0.00    0.01     0.005  O      |         |         |         |      0.00
112.667    0.00    0.01     0.005  O      |         |         |         |      0.00
112.750    0.00    0.01     0.005  O      |         |         |         |      0.00
112.833    0.00    0.01     0.005  O      |         |         |         |      0.00
112.917    0.00    0.01     0.005  O      |         |         |         |      0.00
113.000    0.00    0.01     0.005  O      |         |         |         |      0.00
113.083    0.00    0.01     0.005  O      |         |         |         |      0.00
113.167    0.00    0.01     0.005  O      |         |         |         |      0.00
113.250    0.00    0.01     0.005  O      |         |         |         |      0.00
113.333    0.00    0.01     0.005  O      |         |         |         |      0.00
113.417    0.00    0.01     0.005  O      |         |         |         |      0.00
113.500    0.00    0.01     0.005  O      |         |         |         |      0.00
113.583    0.00    0.01     0.005  O      |         |         |         |      0.00
113.667    0.00    0.01     0.005  O      |         |         |         |      0.00
113.750    0.00    0.01     0.005  O      |         |         |         |      0.00
113.833    0.00    0.01     0.004  O      |         |         |         |      0.00
113.917    0.00    0.01     0.004  O      |         |         |         |      0.00
114.000    0.00    0.00     0.004  O      |         |         |         |      0.00
114.083    0.00    0.00     0.004  O      |         |         |         |      0.00
114.167    0.00    0.00     0.004  O      |         |         |         |      0.00
114.250    0.00    0.00     0.004  O      |         |         |         |      0.00
114.333    0.00    0.00     0.004  O      |         |         |         |      0.00
114.417    0.00    0.00     0.004  O      |         |         |         |      0.00
114.500    0.00    0.00     0.004  O      |         |         |         |      0.00
114.583    0.00    0.00     0.004  O      |         |         |         |      0.00
114.667    0.00    0.00     0.004  O      |         |         |         |      0.00
114.750    0.00    0.00     0.004  O      |         |         |         |      0.00
114.833    0.00    0.00     0.004  O      |         |         |         |      0.00
114.917    0.00    0.00     0.004  O      |         |         |         |      0.00
115.000    0.00    0.00     0.004  O      |         |         |         |      0.00
115.083    0.00    0.00     0.004  O      |         |         |         |      0.00
115.167    0.00    0.00     0.004  O      |         |         |         |      0.00
```

115.250	0.00	0.00	0.004	O	0.00
115.333	0.00	0.00	0.004	O	0.00
115.417	0.00	0.00	0.004	O	0.00
115.500	0.00	0.00	0.004	O	0.00
115.583	0.00	0.00	0.004	O	0.00
115.667	0.00	0.00	0.004	O	0.00
115.750	0.00	0.00	0.004	O	0.00
115.833	0.00	0.00	0.004	O	0.00
115.917	0.00	0.00	0.004	O	0.00
116.000	0.00	0.00	0.004	O	0.00
116.083	0.00	0.00	0.004	O	0.00
116.167	0.00	0.00	0.004	O	0.00
116.250	0.00	0.00	0.004	O	0.00
116.333	0.00	0.00	0.004	O	0.00
116.417	0.00	0.00	0.004	O	0.00
116.500	0.00	0.00	0.003	O	0.00
116.583	0.00	0.00	0.003	O	0.00
116.667	0.00	0.00	0.003	O	0.00
116.750	0.00	0.00	0.003	O	0.00
116.833	0.00	0.00	0.003	O	0.00
116.917	0.00	0.00	0.003	O	0.00
117.000	0.00	0.00	0.003	O	0.00
117.083	0.00	0.00	0.003	O	0.00
117.167	0.00	0.00	0.003	O	0.00
117.250	0.00	0.00	0.003	O	0.00
117.333	0.00	0.00	0.003	O	0.00
117.417	0.00	0.00	0.003	O	0.00
117.500	0.00	0.00	0.003	O	0.00
117.583	0.00	0.00	0.003	O	0.00
117.667	0.00	0.00	0.003	O	0.00
117.750	0.00	0.00	0.003	O	0.00
117.833	0.00	0.00	0.003	O	0.00
117.917	0.00	0.00	0.003	O	0.00
118.000	0.00	0.00	0.003	O	0.00
118.083	0.00	0.00	0.003	O	0.00
118.167	0.00	0.00	0.003	O	0.00
118.250	0.00	0.00	0.003	O	0.00
118.333	0.00	0.00	0.003	O	0.00
118.417	0.00	0.00	0.003	O	0.00
118.500	0.00	0.00	0.003	O	0.00
118.583	0.00	0.00	0.003	O	0.00
118.667	0.00	0.00	0.003	O	0.00
118.750	0.00	0.00	0.003	O	0.00
118.833	0.00	0.00	0.003	O	0.00
118.917	0.00	0.00	0.003	O	0.00
119.000	0.00	0.00	0.003	O	0.00
119.083	0.00	0.00	0.003	O	0.00
119.167	0.00	0.00	0.003	O	0.00
119.250	0.00	0.00	0.003	O	0.00
119.333	0.00	0.00	0.003	O	0.00
119.417	0.00	0.00	0.003	O	0.00
119.500	0.00	0.00	0.003	O	0.00
119.583	0.00	0.00	0.003	O	0.00
119.667	0.00	0.00	0.003	O	0.00
119.750	0.00	0.00	0.003	O	0.00
119.833	0.00	0.00	0.003	O	0.00
119.917	0.00	0.00	0.003	O	0.00
120.000	0.00	0.00	0.003	O	0.00
120.083	0.00	0.00	0.002	O	0.00
120.167	0.00	0.00	0.002	O	0.00
120.250	0.00	0.00	0.002	O	0.00
120.333	0.00	0.00	0.002	O	0.00
120.417	0.00	0.00	0.002	O	0.00
120.500	0.00	0.00	0.002	O	0.00
120.583	0.00	0.00	0.002	O	0.00
120.667	0.00	0.00	0.002	O	0.00

120.750	0.00	0.00	0.002	O	|	|	|	|	0.00
120.833	0.00	0.00	0.002	O	|	|	|	|	0.00
120.917	0.00	0.00	0.002	O	|	|	|	|	0.00
121.000	0.00	0.00	0.002	O	|	|	|	|	0.00
121.083	0.00	0.00	0.002	O	|	|	|	|	0.00
121.167	0.00	0.00	0.002	O	|	|	|	|	0.00
121.250	0.00	0.00	0.002	O	|	|	|	|	0.00
121.333	0.00	0.00	0.002	O	|	|	|	|	0.00
121.417	0.00	0.00	0.002	O	|	|	|	|	0.00
121.500	0.00	0.00	0.002	O	|	|	|	|	0.00
121.583	0.00	0.00	0.002	O	|	|	|	|	0.00
121.667	0.00	0.00	0.002	O	|	|	|	|	0.00
121.750	0.00	0.00	0.002	O	|	|	|	|	0.00
121.833	0.00	0.00	0.002	O	|	|	|	|	0.00
121.917	0.00	0.00	0.002	O	|	|	|	|	0.00
122.000	0.00	0.00	0.002	O	|	|	|	|	0.00
122.083	0.00	0.00	0.002	O	|	|	|	|	0.00
122.167	0.00	0.00	0.002	O	|	|	|	|	0.00
122.250	0.00	0.00	0.002	O	|	|	|	|	0.00
122.333	0.00	0.00	0.002	O	|	|	|	|	0.00
122.417	0.00	0.00	0.002	O	|	|	|	|	0.00
122.500	0.00	0.00	0.002	O	|	|	|	|	0.00
122.583	0.00	0.00	0.002	O	|	|	|	|	0.00
122.667	0.00	0.00	0.002	O	|	|	|	|	0.00
122.750	0.00	0.00	0.002	O	|	|	|	|	0.00
122.833	0.00	0.00	0.002	O	|	|	|	|	0.00
122.917	0.00	0.00	0.002	O	|	|	|	|	0.00
123.000	0.00	0.00	0.002	O	|	|	|	|	0.00
123.083	0.00	0.00	0.002	O	|	|	|	|	0.00
123.167	0.00	0.00	0.002	O	|	|	|	|	0.00
123.250	0.00	0.00	0.002	O	|	|	|	|	0.00
123.333	0.00	0.00	0.002	O	|	|	|	|	0.00
123.417	0.00	0.00	0.002	O	|	|	|	|	0.00
123.500	0.00	0.00	0.002	O	|	|	|	|	0.00
123.583	0.00	0.00	0.002	O	|	|	|	|	0.00
123.667	0.00	0.00	0.002	O	|	|	|	|	0.00
123.750	0.00	0.00	0.002	O	|	|	|	|	0.00
123.833	0.00	0.00	0.002	O	|	|	|	|	0.00
123.917	0.00	0.00	0.002	O	|	|	|	|	0.00
124.000	0.00	0.00	0.002	O	|	|	|	|	0.00
124.083	0.00	0.00	0.002	O	|	|	|	|	0.00
124.167	0.00	0.00	0.002	O	|	|	|	|	0.00
124.250	0.00	0.00	0.002	O	|	|	|	|	0.00
124.333	0.00	0.00	0.002	O	|	|	|	|	0.00

Remaining water in basin = 0.00 (Ac.Ft)

```
***************************HYDROGRAPH DATA***************************
             Number of intervals =  1492
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =        2.809 (CFS)
             Total volume =      10.633 (Ac.Ft)
      Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
*********************************************************************
```

```
                     FLOOD HYDROGRAPH ROUTING PROGRAM
             Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                         Study date: 05/07/21

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 Keller Crossing – Basin C
 Detention Basin Routing
 Inflow Hydrograph 100-year 1-hour storm

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 Program License Serial Number 4029

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

               From study/file name: kxprh1100.rte
 ***************************HYDROGRAPH DATA***************************
               Number of intervals =    18
               Time interval =    5.0 (Min.)
               Maximum/Peak flow rate =      294.950 (CFS)
               Total volume =      11.478 (Ac.Ft)
        Status of hydrographs being held in storage
                    Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)      0.000     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
 ********************************************************************



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

 User entry of depth-outflow-storage data
 --------------------------------------------------------------------
 Total number of inflow hydrograph intervals = 18
 Hydrograph time unit =  5.000 (Min.)
 Initial depth in storage basin =   0.00(Ft.)
 --------------------------------------------------------------------
 --------------------------------------------------------------------
 Initial basin depth =   0.00 (Ft.)
 Initial basin storage =      0.00 (Ac.Ft)
 Initial basin outflow =   0.00 (CFS)
 ---------------------------------------------------------------------
 --------------------------------------------------------------------
 Depth vs. Storage and Depth vs. Discharge data:
  Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
      (Ft.)    (Ac.Ft)    (CFS)      (Ac.Ft)    (Ac.Ft)
 ---------------------------------------------------------------------
    0.000      0.000      0.000      0.000        0.000
    1.000      1.693      1.910      1.686        1.700
    2.000      3.806      2.340      3.798        3.814
    3.000      6.534      2.710      6.525        6.543
    4.000      9.741      3.030      9.731        9.751
    5.000     13.275     33.320     13.160       13.390
    6.000     16.265     88.430     15.960       16.570
 --------------------------------------------------------------------
               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      73.7  147.47  221.21  294.95 (Ft.)
 0.083   17.05     0.07      0.058  OI      |       |       |       |     0.03
 0.167   51.48     0.33      0.293  O    I  |       |       |       |     0.17
 0.250   65.65     0.78      0.693  O      I|       |       |       |     0.41
 0.333   77.90     1.33      1.180  O       I       |       |       |     0.70
 0.417   83.83     1.92      1.725  O       |I      |       |       |     1.02
 0.500   91.86     2.04      2.317  O       |I      |       |       |     1.30
 0.583  106.74     2.17      2.986  O       |  I    |       |       |     1.61
 0.667  127.11     2.33      3.776  O       |    I  |       |       |     1.99
 0.750  158.09     2.47      4.741  O       |       |I      |       |     2.34
 0.833  249.93     2.66      6.129  O       |       |       |  I    |     2.85
 0.917  294.95     2.85      7.986  O       |       |       |       I     3.45
 1.000  166.09     3.01      9.554  O       |       | I     |       |     3.94
 1.083   95.95     8.81     10.415  O       | I     |       |       |     4.19
 1.167   40.75    12.22     10.814  |O  I   |       |       |       |     4.30
 1.250   21.76    13.31     10.941  |OI     |       |       |       |     4.34
 1.333   12.46    13.53     10.966  |O      |       |       |       |     4.35
 1.417    3.69    13.22     10.930  IO      |       |       |       |     4.34
 1.500    1.26    12.60     10.858  IO      |       |       |       |     4.32
 1.583    0.00    11.92     10.778  IO      |       |       |       |     4.29
 1.667    0.00    11.23     10.698  IO      |       |       |       |     4.27
 1.750    0.00    10.59     10.623  IO      |       |       |       |     4.25
 1.833    0.00     9.98     10.552  IO      |       |       |       |     4.23
 1.917    0.00     9.41     10.485  IO      |       |       |       |     4.21
 2.000    0.00     8.87     10.422  O       |       |       |       |     4.19
 2.083    0.00     8.36     10.363  O       |       |       |       |     4.18
 2.167    0.00     7.88     10.307  O       |       |       |       |     4.16
 2.250    0.00     7.43     10.254  O       |       |       |       |     4.15
 2.333    0.00     7.00     10.205  O       |       |       |       |     4.13
 2.417    0.00     6.60     10.158  O       |       |       |       |     4.12
 2.500    0.00     6.22     10.114  O       |       |       |       |     4.11
 2.583    0.00     5.87     10.072  O       |       |       |       |     4.09
 2.667    0.00     5.53     10.033  O       |       |       |       |     4.08
 2.750    0.00     5.21      9.996  O       |       |       |       |     4.07
 2.833    0.00     4.91      9.961  O       |       |       |       |     4.06
 2.917    0.00     4.63      9.928  O       |       |       |       |     4.05
 3.000    0.00     4.37      9.897  O       |       |       |       |     4.04
 3.083    0.00     4.12      9.868  O       |       |       |       |     4.04
 3.167    0.00     3.88      9.840  O       |       |       |       |     4.03
 3.250    0.00     3.66      9.814  O       |       |       |       |     4.02
 3.333    0.00     3.45      9.790  O       |       |       |       |     4.01
 3.417    0.00     3.25      9.767  O       |       |       |       |     4.01
 3.500    0.00     3.06      9.745  O       |       |       |       |     4.00
 3.583    0.00     3.03      9.724  O       |       |       |       |     3.99
 3.667    0.00     3.03      9.703  O       |       |       |       |     3.99
 3.750    0.00     3.02      9.682  O       |       |       |       |     3.98
 3.833    0.00     3.02      9.662  O       |       |       |       |     3.98
 3.917    0.00     3.02      9.641  O       |       |       |       |     3.97
 4.000    0.00     3.02      9.620  O       |       |       |       |     3.96
 4.083    0.00     3.02      9.599  O       |       |       |       |     3.96
 4.167    0.00     3.01      9.578  O       |       |       |       |     3.95
 4.250    0.00     3.01      9.558  O       |       |       |       |     3.94
 4.333    0.00     3.01      9.537  O       |       |       |       |     3.94
 4.417    0.00     3.01      9.516  O       |       |       |       |     3.93
 4.500    0.00     3.01      9.495  O       |       |       |       |     3.92
 4.583    0.00     3.00      9.475  O       |       |       |       |     3.92
 4.667    0.00     3.00      9.454  O       |       |       |       |     3.91
 4.750    0.00     3.00      9.433  O       |       |       |       |     3.90
 4.833    0.00     3.00      9.413  O       |       |       |       |     3.90
 4.917    0.00     3.00      9.392  O       |       |       |       |     3.89
 5.000    0.00     2.99      9.372  O       |       |       |       |     3.88
 5.083    0.00     2.99      9.351  O       |       |       |       |     3.88
 5.167    0.00     2.99      9.330  O       |       |       |       |     3.87
 5.250    0.00     2.99      9.310  O       |       |       |       |     3.87
```

5.333	0.00	2.98	9.289	O	|	|	|	|	3.86
5.417	0.00	2.98	9.269	O	|	|	|	|	3.85
5.500	0.00	2.98	9.248	O	|	|	|	|	3.85
5.583	0.00	2.98	9.228	O	|	|	|	|	3.84
5.667	0.00	2.98	9.207	O	|	|	|	|	3.83
5.750	0.00	2.97	9.187	O	|	|	|	|	3.83
5.833	0.00	2.97	9.166	O	|	|	|	|	3.82
5.917	0.00	2.97	9.146	O	|	|	|	|	3.81
6.000	0.00	2.97	9.125	O	|	|	|	|	3.81
6.083	0.00	2.97	9.105	O	|	|	|	|	3.80
6.167	0.00	2.96	9.084	O	|	|	|	|	3.80
6.250	0.00	2.96	9.064	O	|	|	|	|	3.79
6.333	0.00	2.96	9.044	O	|	|	|	|	3.78
6.417	0.00	2.96	9.023	O	|	|	|	|	3.78
6.500	0.00	2.96	9.003	O	|	|	|	|	3.77
6.583	0.00	2.95	8.982	O	|	|	|	|	3.76
6.667	0.00	2.95	8.962	O	|	|	|	|	3.76
6.750	0.00	2.95	8.942	O	|	|	|	|	3.75
6.833	0.00	2.95	8.921	O	|	|	|	|	3.74
6.917	0.00	2.95	8.901	O	|	|	|	|	3.74
7.000	0.00	2.94	8.881	O	|	|	|	|	3.73
7.083	0.00	2.94	8.861	O	|	|	|	|	3.73
7.167	0.00	2.94	8.840	O	|	|	|	|	3.72
7.250	0.00	2.94	8.820	O	|	|	|	|	3.71
7.333	0.00	2.94	8.800	O	|	|	|	|	3.71
7.417	0.00	2.93	8.780	O	|	|	|	|	3.70
7.500	0.00	2.93	8.759	O	|	|	|	|	3.69
7.583	0.00	2.93	8.739	O	|	|	|	|	3.69
7.667	0.00	2.93	8.719	O	|	|	|	|	3.68
7.750	0.00	2.93	8.699	O	|	|	|	|	3.68
7.833	0.00	2.92	8.679	O	|	|	|	|	3.67
7.917	0.00	2.92	8.659	O	|	|	|	|	3.66
8.000	0.00	2.92	8.639	O	|	|	|	|	3.66
8.083	0.00	2.92	8.618	O	|	|	|	|	3.65
8.167	0.00	2.92	8.598	O	|	|	|	|	3.64
8.250	0.00	2.91	8.578	O	|	|	|	|	3.64
8.333	0.00	2.91	8.558	O	|	|	|	|	3.63
8.417	0.00	2.91	8.538	O	|	|	|	|	3.62
8.500	0.00	2.91	8.518	O	|	|	|	|	3.62
8.583	0.00	2.91	8.498	O	|	|	|	|	3.61
8.667	0.00	2.90	8.478	O	|	|	|	|	3.61
8.750	0.00	2.90	8.458	O	|	|	|	|	3.60
8.833	0.00	2.90	8.438	O	|	|	|	|	3.59
8.917	0.00	2.90	8.418	O	|	|	|	|	3.59
9.000	0.00	2.90	8.398	O	|	|	|	|	3.58
9.083	0.00	2.89	8.378	O	|	|	|	|	3.58
9.167	0.00	2.89	8.358	O	|	|	|	|	3.57
9.250	0.00	2.89	8.338	O	|	|	|	|	3.56
9.333	0.00	2.89	8.319	O	|	|	|	|	3.56
9.417	0.00	2.89	8.299	O	|	|	|	|	3.55
9.500	0.00	2.88	8.279	O	|	|	|	|	3.54
9.583	0.00	2.88	8.259	O	|	|	|	|	3.54
9.667	0.00	2.88	8.239	O	|	|	|	|	3.53
9.750	0.00	2.88	8.219	O	|	|	|	|	3.53
9.833	0.00	2.88	8.199	O	|	|	|	|	3.52
9.917	0.00	2.87	8.180	O	|	|	|	|	3.51
10.000	0.00	2.87	8.160	O	|	|	|	|	3.51
10.083	0.00	2.87	8.140	O	|	|	|	|	3.50
10.167	0.00	2.87	8.120	O	|	|	|	|	3.49
10.250	0.00	2.87	8.101	O	|	|	|	|	3.49
10.333	0.00	2.86	8.081	O	|	|	|	|	3.48
10.417	0.00	2.86	8.061	O	|	|	|	|	3.48
10.500	0.00	2.86	8.041	O	|	|	|	|	3.47
10.583	0.00	2.86	8.022	O	|	|	|	|	3.46
10.667	0.00	2.86	8.002	O	|	|	|	|	3.46
10.750	0.00	2.85	7.982	O	|	|	|	|	3.45

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10.833    0.00    2.85     7.963  O       |       |       |       |      3.45
10.917    0.00    2.85     7.943  O       |       |       |       |      3.44
11.000    0.00    2.85     7.923  O       |       |       |       |      3.43
11.083    0.00    2.85     7.904  O       |       |       |       |      3.43
11.167    0.00    2.84     7.884  O       |       |       |       |      3.42
11.250    0.00    2.84     7.865  O       |       |       |       |      3.41
11.333    0.00    2.84     7.845  O       |       |       |       |      3.41
11.417    0.00    2.84     7.826  O       |       |       |       |      3.40
11.500    0.00    2.84     7.806  O       |       |       |       |      3.40
11.583    0.00    2.83     7.786  O       |       |       |       |      3.39
11.667    0.00    2.83     7.767  O       |       |       |       |      3.38
11.750    0.00    2.83     7.747  O       |       |       |       |      3.38
11.833    0.00    2.83     7.728  O       |       |       |       |      3.37
11.917    0.00    2.83     7.708  O       |       |       |       |      3.37
12.000    0.00    2.83     7.689  O       |       |       |       |      3.36
12.083    0.00    2.82     7.670  O       |       |       |       |      3.35
12.167    0.00    2.82     7.650  O       |       |       |       |      3.35
12.250    0.00    2.82     7.631  O       |       |       |       |      3.34
12.333    0.00    2.82     7.611  O       |       |       |       |      3.34
12.417    0.00    2.82     7.592  O       |       |       |       |      3.33
12.500    0.00    2.81     7.573  O       |       |       |       |      3.32
12.583    0.00    2.81     7.553  O       |       |       |       |      3.32
12.667    0.00    2.81     7.534  O       |       |       |       |      3.31
12.750    0.00    2.81     7.514  O       |       |       |       |      3.31
12.833    0.00    2.81     7.495  O       |       |       |       |      3.30
12.917    0.00    2.80     7.476  O       |       |       |       |      3.29
13.000    0.00    2.80     7.456  O       |       |       |       |      3.29
13.083    0.00    2.80     7.437  O       |       |       |       |      3.28
13.167    0.00    2.80     7.418  O       |       |       |       |      3.28
13.250    0.00    2.80     7.399  O       |       |       |       |      3.27
13.333    0.00    2.79     7.379  O       |       |       |       |      3.26
13.417    0.00    2.79     7.360  O       |       |       |       |      3.26
13.500    0.00    2.79     7.341  O       |       |       |       |      3.25
13.583    0.00    2.79     7.322  O       |       |       |       |      3.25
13.667    0.00    2.79     7.303  O       |       |       |       |      3.24
13.750    0.00    2.78     7.283  O       |       |       |       |      3.23
13.833    0.00    2.78     7.264  O       |       |       |       |      3.23
13.917    0.00    2.78     7.245  O       |       |       |       |      3.22
14.000    0.00    2.78     7.226  O       |       |       |       |      3.22
14.083    0.00    2.78     7.207  O       |       |       |       |      3.21
14.167    0.00    2.78     7.188  O       |       |       |       |      3.20
14.250    0.00    2.77     7.169  O       |       |       |       |      3.20
14.333    0.00    2.77     7.149  O       |       |       |       |      3.19
14.417    0.00    2.77     7.130  O       |       |       |       |      3.19
14.500    0.00    2.77     7.111  O       |       |       |       |      3.18
14.583    0.00    2.77     7.092  O       |       |       |       |      3.17
14.667    0.00    2.76     7.073  O       |       |       |       |      3.17
14.750    0.00    2.76     7.054  O       |       |       |       |      3.16
14.833    0.00    2.76     7.035  O       |       |       |       |      3.16
14.917    0.00    2.76     7.016  O       |       |       |       |      3.15
15.000    0.00    2.76     6.997  O       |       |       |       |      3.14
15.083    0.00    2.75     6.978  O       |       |       |       |      3.14
15.167    0.00    2.75     6.959  O       |       |       |       |      3.13
15.250    0.00    2.75     6.940  O       |       |       |       |      3.13
15.333    0.00    2.75     6.921  O       |       |       |       |      3.12
15.417    0.00    2.75     6.902  O       |       |       |       |      3.11
15.500    0.00    2.74     6.883  O       |       |       |       |      3.11
15.583    0.00    2.74     6.865  O       |       |       |       |      3.10
15.667    0.00    2.74     6.846  O       |       |       |       |      3.10
15.750    0.00    2.74     6.827  O       |       |       |       |      3.09
15.833    0.00    2.74     6.808  O       |       |       |       |      3.09
15.917    0.00    2.74     6.789  O       |       |       |       |      3.08
16.000    0.00    2.73     6.770  O       |       |       |       |      3.07
16.083    0.00    2.73     6.751  O       |       |       |       |      3.07
16.167    0.00    2.73     6.733  O       |       |       |       |      3.06
16.250    0.00    2.73     6.714  O       |       |       |       |      3.06
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16.333	0.00	2.73	6.695	O	3.05
16.417	0.00	2.72	6.676	O	3.04
16.500	0.00	2.72	6.658	O	3.04
16.583	0.00	2.72	6.639	O	3.03
16.667	0.00	2.72	6.620	O	3.03
16.750	0.00	2.72	6.601	O	3.02
16.833	0.00	2.71	6.583	O	3.02
16.917	0.00	2.71	6.564	O	3.01
17.000	0.00	2.71	6.545	O	3.00
17.083	0.00	2.71	6.527	O	3.00
17.167	0.00	2.71	6.508	O	2.99
17.250	0.00	2.70	6.489	O	2.98
17.333	0.00	2.70	6.471	O	2.98
17.417	0.00	2.70	6.452	O	2.97
17.500	0.00	2.70	6.434	O	2.96
17.583	0.00	2.69	6.415	O	2.96
17.667	0.00	2.69	6.396	O	2.95
17.750	0.00	2.69	6.378	O	2.94
17.833	0.00	2.69	6.359	O	2.94
17.917	0.00	2.68	6.341	O	2.93
18.000	0.00	2.68	6.322	O	2.92
18.083	0.00	2.68	6.304	O	2.92
18.167	0.00	2.68	6.286	O	2.91
18.250	0.00	2.67	6.267	O	2.90
18.333	0.00	2.67	6.249	O	2.90
18.417	0.00	2.67	6.230	O	2.89
18.500	0.00	2.67	6.212	O	2.88
18.583	0.00	2.66	6.194	O	2.88
18.667	0.00	2.66	6.175	O	2.87
18.750	0.00	2.66	6.157	O	2.86
18.833	0.00	2.66	6.139	O	2.86
18.917	0.00	2.65	6.120	O	2.85
19.000	0.00	2.65	6.102	O	2.84
19.083	0.00	2.65	6.084	O	2.83
19.167	0.00	2.65	6.066	O	2.83
19.250	0.00	2.64	6.047	O	2.82
19.333	0.00	2.64	6.029	O	2.81
19.417	0.00	2.64	6.011	O	2.81
19.500	0.00	2.64	5.993	O	2.80
19.583	0.00	2.63	5.975	O	2.79
19.667	0.00	2.63	5.957	O	2.79
19.750	0.00	2.63	5.938	O	2.78
19.833	0.00	2.63	5.920	O	2.78
19.917	0.00	2.62	5.902	O	2.77
20.000	0.00	2.62	5.884	O	2.76
20.083	0.00	2.62	5.866	O	2.76
20.167	0.00	2.62	5.848	O	2.75
20.250	0.00	2.61	5.830	O	2.74
20.333	0.00	2.61	5.812	O	2.74
20.417	0.00	2.61	5.794	O	2.73
20.500	0.00	2.61	5.776	O	2.72
20.583	0.00	2.60	5.758	O	2.72
20.667	0.00	2.60	5.740	O	2.71
20.750	0.00	2.60	5.722	O	2.70
20.833	0.00	2.60	5.704	O	2.70
20.917	0.00	2.60	5.687	O	2.69
21.000	0.00	2.59	5.669	O	2.68
21.083	0.00	2.59	5.651	O	2.68
21.167	0.00	2.59	5.633	O	2.67
21.250	0.00	2.59	5.615	O	2.66
21.333	0.00	2.58	5.597	O	2.66
21.417	0.00	2.58	5.580	O	2.65
21.500	0.00	2.58	5.562	O	2.64
21.583	0.00	2.58	5.544	O	2.64
21.667	0.00	2.57	5.526	O	2.63
21.750	0.00	2.57	5.509	O	2.62

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21.833    0.00    2.57     5.491  O      |        |        |        |      2.62
21.917    0.00    2.57     5.473  O      |        |        |        |      2.61
22.000    0.00    2.56     5.456  O      |        |        |        |      2.60
22.083    0.00    2.56     5.438  O      |        |        |        |      2.60
22.167    0.00    2.56     5.420  O      |        |        |        |      2.59
22.250    0.00    2.56     5.403  O      |        |        |        |      2.59
22.333    0.00    2.55     5.385  O      |        |        |        |      2.58
22.417    0.00    2.55     5.368  O      |        |        |        |      2.57
22.500    0.00    2.55     5.350  O      |        |        |        |      2.57
22.583    0.00    2.55     5.332  O      |        |        |        |      2.56
22.667    0.00    2.54     5.315  O      |        |        |        |      2.55
22.750    0.00    2.54     5.297  O      |        |        |        |      2.55
22.833    0.00    2.54     5.280  O      |        |        |        |      2.54
22.917    0.00    2.54     5.262  O      |        |        |        |      2.53
23.000    0.00    2.54     5.245  O      |        |        |        |      2.53
23.083    0.00    2.53     5.228  O      |        |        |        |      2.52
23.167    0.00    2.53     5.210  O      |        |        |        |      2.51
23.250    0.00    2.53     5.193  O      |        |        |        |      2.51
23.333    0.00    2.53     5.175  O      |        |        |        |      2.50
23.417    0.00    2.52     5.158  O      |        |        |        |      2.50
23.500    0.00    2.52     5.140  O      |        |        |        |      2.49
23.583    0.00    2.52     5.123  O      |        |        |        |      2.48
23.667    0.00    2.52     5.106  O      |        |        |        |      2.48
23.750    0.00    2.51     5.088  O      |        |        |        |      2.47
23.833    0.00    2.51     5.071  O      |        |        |        |      2.46
23.917    0.00    2.51     5.054  O      |        |        |        |      2.46
24.000    0.00    2.51     5.037  O      |        |        |        |      2.45
24.083    0.00    2.50     5.019  O      |        |        |        |      2.44
24.167    0.00    2.50     5.002  O      |        |        |        |      2.44
24.250    0.00    2.50     4.985  O      |        |        |        |      2.43
24.333    0.00    2.50     4.968  O      |        |        |        |      2.43
24.417    0.00    2.50     4.950  O      |        |        |        |      2.42
24.500    0.00    2.49     4.933  O      |        |        |        |      2.41
24.583    0.00    2.49     4.916  O      |        |        |        |      2.41
24.667    0.00    2.49     4.899  O      |        |        |        |      2.40
24.750    0.00    2.49     4.882  O      |        |        |        |      2.39
24.833    0.00    2.48     4.865  O      |        |        |        |      2.39
24.917    0.00    2.48     4.848  O      |        |        |        |      2.38
25.000    0.00    2.48     4.831  O      |        |        |        |      2.38
25.083    0.00    2.48     4.814  O      |        |        |        |      2.37
25.167    0.00    2.47     4.796  O      |        |        |        |      2.36
25.250    0.00    2.47     4.779  O      |        |        |        |      2.36
25.333    0.00    2.47     4.762  O      |        |        |        |      2.35
25.417    0.00    2.47     4.745  O      |        |        |        |      2.34
25.500    0.00    2.47     4.728  O      |        |        |        |      2.34
25.583    0.00    2.46     4.711  O      |        |        |        |      2.33
25.667    0.00    2.46     4.695  O      |        |        |        |      2.33
25.750    0.00    2.46     4.678  O      |        |        |        |      2.32
25.833    0.00    2.46     4.661  O      |        |        |        |      2.31
25.917    0.00    2.45     4.644  O      |        |        |        |      2.31
26.000    0.00    2.45     4.627  O      |        |        |        |      2.30
26.083    0.00    2.45     4.610  O      |        |        |        |      2.29
26.167    0.00    2.45     4.593  O      |        |        |        |      2.29
26.250    0.00    2.44     4.576  O      |        |        |        |      2.28
26.333    0.00    2.44     4.559  O      |        |        |        |      2.28
26.417    0.00    2.44     4.543  O      |        |        |        |      2.27
26.500    0.00    2.44     4.526  O      |        |        |        |      2.26
26.583    0.00    2.44     4.509  O      |        |        |        |      2.26
26.667    0.00    2.43     4.492  O      |        |        |        |      2.25
26.750    0.00    2.43     4.476  O      |        |        |        |      2.25
26.833    0.00    2.43     4.459  O      |        |        |        |      2.24
26.917    0.00    2.43     4.442  O      |        |        |        |      2.23
27.000    0.00    2.42     4.425  O      |        |        |        |      2.23
27.083    0.00    2.42     4.409  O      |        |        |        |      2.22
27.167    0.00    2.42     4.392  O      |        |        |        |      2.21
27.250    0.00    2.42     4.375  O      |        |        |        |      2.21
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27.333    0.00    2.41    4.359  O      |      |      |      |      2.20
27.417    0.00    2.41    4.342  O      |      |      |      |      2.20
27.500    0.00    2.41    4.326  O      |      |      |      |      2.19
27.583    0.00    2.41    4.309  O      |      |      |      |      2.18
27.667    0.00    2.41    4.292  O      |      |      |      |      2.18
27.750    0.00    2.40    4.276  O      |      |      |      |      2.17
27.833    0.00    2.40    4.259  O      |      |      |      |      2.17
27.917    0.00    2.40    4.243  O      |      |      |      |      2.16
28.000    0.00    2.40    4.226  O      |      |      |      |      2.15
28.083    0.00    2.39    4.210  O      |      |      |      |      2.15
28.167    0.00    2.39    4.193  O      |      |      |      |      2.14
28.250    0.00    2.39    4.177  O      |      |      |      |      2.14
28.333    0.00    2.39    4.160  O      |      |      |      |      2.13
28.417    0.00    2.39    4.144  O      |      |      |      |      2.12
28.500    0.00    2.38    4.127  O      |      |      |      |      2.12
28.583    0.00    2.38    4.111  O      |      |      |      |      2.11
28.667    0.00    2.38    4.095  O      |      |      |      |      2.11
28.750    0.00    2.38    4.078  O      |      |      |      |      2.10
28.833    0.00    2.37    4.062  O      |      |      |      |      2.09
28.917    0.00    2.37    4.046  O      |      |      |      |      2.09
29.000    0.00    2.37    4.029  O      |      |      |      |      2.08
29.083    0.00    2.37    4.013  O      |      |      |      |      2.08
29.167    0.00    2.37    3.997  O      |      |      |      |      2.07
29.250    0.00    2.36    3.980  O      |      |      |      |      2.06
29.333    0.00    2.36    3.964  O      |      |      |      |      2.06
29.417    0.00    2.36    3.948  O      |      |      |      |      2.05
29.500    0.00    2.36    3.932  O      |      |      |      |      2.05
29.583    0.00    2.35    3.915  O      |      |      |      |      2.04
29.667    0.00    2.35    3.899  O      |      |      |      |      2.03
29.750    0.00    2.35    3.883  O      |      |      |      |      2.03
29.833    0.00    2.35    3.867  O      |      |      |      |      2.02
29.917    0.00    2.35    3.851  O      |      |      |      |      2.02
30.000    0.00    2.34    3.834  O      |      |      |      |      2.01
30.083    0.00    2.34    3.818  O      |      |      |      |      2.00
30.167    0.00    2.34    3.802  O      |      |      |      |      2.00
30.250    0.00    2.34    3.786  O      |      |      |      |      1.99
30.333    0.00    2.33    3.770  O      |      |      |      |      1.98
30.417    0.00    2.33    3.754  O      |      |      |      |      1.98
30.500    0.00    2.33    3.738  O      |      |      |      |      1.97
30.583    0.00    2.32    3.722  O      |      |      |      |      1.96
30.667    0.00    2.32    3.706  O      |      |      |      |      1.95
30.750    0.00    2.32    3.690  O      |      |      |      |      1.95
30.833    0.00    2.31    3.674  O      |      |      |      |      1.94
30.917    0.00    2.31    3.658  O      |      |      |      |      1.93
31.000    0.00    2.31    3.642  O      |      |      |      |      1.92
31.083    0.00    2.30    3.626  O      |      |      |      |      1.91
31.167    0.00    2.30    3.610  O      |      |      |      |      1.91
31.250    0.00    2.30    3.595  O      |      |      |      |      1.90
31.333    0.00    2.29    3.579  O      |      |      |      |      1.89
31.417    0.00    2.29    3.563  O      |      |      |      |      1.89
31.500    0.00    2.29    3.547  O      |      |      |      |      1.88
31.583    0.00    2.28    3.532  O      |      |      |      |      1.87
31.667    0.00    2.28    3.516  O      |      |      |      |      1.86
31.750    0.00    2.28    3.500  O      |      |      |      |      1.86
31.833    0.00    2.27    3.484  O      |      |      |      |      1.85
31.917    0.00    2.27    3.469  O      |      |      |      |      1.84
32.000    0.00    2.27    3.453  O      |      |      |      |      1.83
32.083    0.00    2.27    3.438  O      |      |      |      |      1.83
32.167    0.00    2.26    3.422  O      |      |      |      |      1.82
32.250    0.00    2.26    3.406  O      |      |      |      |      1.81
32.333    0.00    2.26    3.391  O      |      |      |      |      1.80
32.417    0.00    2.25    3.375  O      |      |      |      |      1.80
32.500    0.00    2.25    3.360  O      |      |      |      |      1.79
32.583    0.00    2.25    3.344  O      |      |      |      |      1.78
32.667    0.00    2.24    3.329  O      |      |      |      |      1.77
32.750    0.00    2.24    3.313  O      |      |      |      |      1.77
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32.833    0.00    2.24     3.298  O       |       |       |       |     1.76
32.917    0.00    2.23     3.283  O       |       |       |       |     1.75
33.000    0.00    2.23     3.267  O       |       |       |       |     1.75
33.083    0.00    2.23     3.252  O       |       |       |       |     1.74
33.167    0.00    2.22     3.237  O       |       |       |       |     1.73
33.250    0.00    2.22     3.221  O       |       |       |       |     1.72
33.333    0.00    2.22     3.206  O       |       |       |       |     1.72
33.417    0.00    2.21     3.191  O       |       |       |       |     1.71
33.500    0.00    2.21     3.175  O       |       |       |       |     1.70
33.583    0.00    2.21     3.160  O       |       |       |       |     1.69
33.667    0.00    2.21     3.145  O       |       |       |       |     1.69
33.750    0.00    2.20     3.130  O       |       |       |       |     1.68
33.833    0.00    2.20     3.115  O       |       |       |       |     1.67
33.917    0.00    2.20     3.100  O       |       |       |       |     1.67
34.000    0.00    2.19     3.084  O       |       |       |       |     1.66
34.083    0.00    2.19     3.069  O       |       |       |       |     1.65
34.167    0.00    2.19     3.054  O       |       |       |       |     1.64
34.250    0.00    2.18     3.039  O       |       |       |       |     1.64
34.333    0.00    2.18     3.024  O       |       |       |       |     1.63
34.417    0.00    2.18     3.009  O       |       |       |       |     1.62
34.500    0.00    2.17     2.994  O       |       |       |       |     1.62
34.583    0.00    2.17     2.979  O       |       |       |       |     1.61
34.667    0.00    2.17     2.964  O       |       |       |       |     1.60
34.750    0.00    2.17     2.949  O       |       |       |       |     1.59
34.833    0.00    2.16     2.934  O       |       |       |       |     1.59
34.917    0.00    2.16     2.920  O       |       |       |       |     1.58
35.000    0.00    2.16     2.905  O       |       |       |       |     1.57
35.083    0.00    2.15     2.890  O       |       |       |       |     1.57
35.167    0.00    2.15     2.875  O       |       |       |       |     1.56
35.250    0.00    2.15     2.860  O       |       |       |       |     1.55
35.333    0.00    2.14     2.845  O       |       |       |       |     1.55
35.417    0.00    2.14     2.831  O       |       |       |       |     1.54
35.500    0.00    2.14     2.816  O       |       |       |       |     1.53
35.583    0.00    2.14     2.801  O       |       |       |       |     1.52
35.667    0.00    2.13     2.787  O       |       |       |       |     1.52
35.750    0.00    2.13     2.772  O       |       |       |       |     1.51
35.833    0.00    2.13     2.757  O       |       |       |       |     1.50
35.917    0.00    2.12     2.743  O       |       |       |       |     1.50
36.000    0.00    2.12     2.728  O       |       |       |       |     1.49
36.083    0.00    2.12     2.713  O       |       |       |       |     1.48
36.167    0.00    2.11     2.699  O       |       |       |       |     1.48
36.250    0.00    2.11     2.684  O       |       |       |       |     1.47
36.333    0.00    2.11     2.670  O       |       |       |       |     1.46
36.417    0.00    2.11     2.655  O       |       |       |       |     1.46
36.500    0.00    2.10     2.641  O       |       |       |       |     1.45
36.583    0.00    2.10     2.626  O       |       |       |       |     1.44
36.667    0.00    2.10     2.612  O       |       |       |       |     1.43
36.750    0.00    2.09     2.597  O       |       |       |       |     1.43
36.833    0.00    2.09     2.583  O       |       |       |       |     1.42
36.917    0.00    2.09     2.569  O       |       |       |       |     1.41
37.000    0.00    2.09     2.554  O       |       |       |       |     1.41
37.083    0.00    2.08     2.540  O       |       |       |       |     1.40
37.167    0.00    2.08     2.525  O       |       |       |       |     1.39
37.250    0.00    2.08     2.511  O       |       |       |       |     1.39
37.333    0.00    2.07     2.497  O       |       |       |       |     1.38
37.417    0.00    2.07     2.483  O       |       |       |       |     1.37
37.500    0.00    2.07     2.468  O       |       |       |       |     1.37
37.583    0.00    2.06     2.454  O       |       |       |       |     1.36
37.667    0.00    2.06     2.440  O       |       |       |       |     1.35
37.750    0.00    2.06     2.426  O       |       |       |       |     1.35
37.833    0.00    2.06     2.412  O       |       |       |       |     1.34
37.917    0.00    2.05     2.397  O       |       |       |       |     1.33
38.000    0.00    2.05     2.383  O       |       |       |       |     1.33
38.083    0.00    2.05     2.369  O       |       |       |       |     1.32
38.167    0.00    2.04     2.355  O       |       |       |       |     1.31
38.250    0.00    2.04     2.341  O       |       |       |       |     1.31
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38.333    0.00    2.04     2.327  O        |        |        |        |       1.30
38.417    0.00    2.04     2.313  O        |        |        |        |       1.29
38.500    0.00    2.03     2.299  O        |        |        |        |       1.29
38.583    0.00    2.03     2.285  O        |        |        |        |       1.28
38.667    0.00    2.03     2.271  O        |        |        |        |       1.27
38.750    0.00    2.02     2.257  O        |        |        |        |       1.27
38.833    0.00    2.02     2.243  O        |        |        |        |       1.26
38.917    0.00    2.02     2.229  O        |        |        |        |       1.25
39.000    0.00    2.02     2.215  O        |        |        |        |       1.25
39.083    0.00    2.01     2.201  O        |        |        |        |       1.24
39.167    0.00    2.01     2.188  O        |        |        |        |       1.23
39.250    0.00    2.01     2.174  O        |        |        |        |       1.23
39.333    0.00    2.01     2.160  O        |        |        |        |       1.22
39.417    0.00    2.00     2.146  O        |        |        |        |       1.21
39.500    0.00    2.00     2.132  O        |        |        |        |       1.21
39.583    0.00    2.00     2.119  O        |        |        |        |       1.20
39.667    0.00    1.99     2.105  O        |        |        |        |       1.19
39.750    0.00    1.99     2.091  O        |        |        |        |       1.19
39.833    0.00    1.99     2.077  O        |        |        |        |       1.18
39.917    0.00    1.99     2.064  O        |        |        |        |       1.18
40.000    0.00    1.98     2.050  O        |        |        |        |       1.17
40.083    0.00    1.98     2.036  O        |        |        |        |       1.16
40.167    0.00    1.98     2.023  O        |        |        |        |       1.16
40.250    0.00    1.97     2.009  O        |        |        |        |       1.15
40.333    0.00    1.97     1.996  O        |        |        |        |       1.14
40.417    0.00    1.97     1.982  O        |        |        |        |       1.14
40.500    0.00    1.97     1.968  O        |        |        |        |       1.13
40.583    0.00    1.96     1.955  O        |        |        |        |       1.12
40.667    0.00    1.96     1.941  O        |        |        |        |       1.12
40.750    0.00    1.96     1.928  O        |        |        |        |       1.11
40.833    0.00    1.96     1.914  O        |        |        |        |       1.10
40.917    0.00    1.95     1.901  O        |        |        |        |       1.10
41.000    0.00    1.95     1.888  O        |        |        |        |       1.09
41.083    0.00    1.95     1.874  O        |        |        |        |       1.09
41.167    0.00    1.94     1.861  O        |        |        |        |       1.08
41.250    0.00    1.94     1.847  O        |        |        |        |       1.07
41.333    0.00    1.94     1.834  O        |        |        |        |       1.07
41.417    0.00    1.94     1.821  O        |        |        |        |       1.06
41.500    0.00    1.93     1.807  O        |        |        |        |       1.05
41.583    0.00    1.93     1.794  O        |        |        |        |       1.05
41.667    0.00    1.93     1.781  O        |        |        |        |       1.04
41.750    0.00    1.93     1.767  O        |        |        |        |       1.04
41.833    0.00    1.92     1.754  O        |        |        |        |       1.03
41.917    0.00    1.92     1.741  O        |        |        |        |       1.02
42.000    0.00    1.92     1.728  O        |        |        |        |       1.02
42.083    0.00    1.91     1.715  O        |        |        |        |       1.01
42.167    0.00    1.91     1.701  O        |        |        |        |       1.00
42.250    0.00    1.90     1.688  O        |        |        |        |       1.00
42.333    0.00    1.89     1.675  O        |        |        |        |       0.99
42.417    0.00    1.88     1.662  O        |        |        |        |       0.98
42.500    0.00    1.86     1.649  O        |        |        |        |       0.97
42.583    0.00    1.85     1.637  O        |        |        |        |       0.97
42.667    0.00    1.83     1.624  O        |        |        |        |       0.96
42.750    0.00    1.82     1.611  O        |        |        |        |       0.95
42.833    0.00    1.80     1.599  O        |        |        |        |       0.94
42.917    0.00    1.79     1.586  O        |        |        |        |       0.94
43.000    0.00    1.78     1.574  O        |        |        |        |       0.93
43.083    0.00    1.76     1.562  O        |        |        |        |       0.92
43.167    0.00    1.75     1.550  O        |        |        |        |       0.92
43.250    0.00    1.74     1.538  O        |        |        |        |       0.91
43.333    0.00    1.72     1.526  O        |        |        |        |       0.90
43.417    0.00    1.71     1.514  O        |        |        |        |       0.89
43.500    0.00    1.70     1.503  O        |        |        |        |       0.89
43.583    0.00    1.68     1.491  O        |        |        |        |       0.88
43.667    0.00    1.67     1.479  O        |        |        |        |       0.87
43.750    0.00    1.66     1.468  O        |        |        |        |       0.87
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43.833	0.00	1.64	1.457	O	|	|	|	|	0.86
43.917	0.00	1.63	1.445	O	|	|	|	|	0.85
44.000	0.00	1.62	1.434	O	|	|	|	|	0.85
44.083	0.00	1.61	1.423	O	|	|	|	|	0.84
44.167	0.00	1.59	1.412	O	|	|	|	|	0.83
44.250	0.00	1.58	1.401	O	|	|	|	|	0.83
44.333	0.00	1.57	1.390	O	|	|	|	|	0.82
44.417	0.00	1.56	1.379	O	|	|	|	|	0.81
44.500	0.00	1.54	1.369	O	|	|	|	|	0.81
44.583	0.00	1.53	1.358	O	|	|	|	|	0.80
44.667	0.00	1.52	1.348	O	|	|	|	|	0.80
44.750	0.00	1.51	1.337	O	|	|	|	|	0.79
44.833	0.00	1.50	1.327	O	|	|	|	|	0.78
44.917	0.00	1.49	1.317	O	|	|	|	|	0.78
45.000	0.00	1.47	1.306	O	|	|	|	|	0.77
45.083	0.00	1.46	1.296	O	|	|	|	|	0.77
45.167	0.00	1.45	1.286	O	|	|	|	|	0.76
45.250	0.00	1.44	1.276	O	|	|	|	|	0.75
45.333	0.00	1.43	1.266	O	|	|	|	|	0.75
45.417	0.00	1.42	1.257	O	|	|	|	|	0.74
45.500	0.00	1.41	1.247	O	|	|	|	|	0.74
45.583	0.00	1.40	1.237	O	|	|	|	|	0.73
45.667	0.00	1.39	1.228	O	|	|	|	|	0.73
45.750	0.00	1.37	1.218	O	|	|	|	|	0.72
45.833	0.00	1.36	1.209	O	|	|	|	|	0.71
45.917	0.00	1.35	1.199	O	|	|	|	|	0.71
46.000	0.00	1.34	1.190	O	|	|	|	|	0.70
46.083	0.00	1.33	1.181	O	|	|	|	|	0.70
46.167	0.00	1.32	1.172	O	|	|	|	|	0.69
46.250	0.00	1.31	1.163	O	|	|	|	|	0.69
46.333	0.00	1.30	1.154	O	|	|	|	|	0.68
46.417	0.00	1.29	1.145	O	|	|	|	|	0.68
46.500	0.00	1.28	1.136	O	|	|	|	|	0.67
46.583	0.00	1.27	1.127	O	|	|	|	|	0.67
46.667	0.00	1.26	1.118	O	|	|	|	|	0.66
46.750	0.00	1.25	1.110	O	|	|	|	|	0.66
46.833	0.00	1.24	1.101	O	|	|	|	|	0.65
46.917	0.00	1.23	1.093	O	|	|	|	|	0.65
47.000	0.00	1.22	1.084	O	|	|	|	|	0.64
47.083	0.00	1.21	1.076	O	|	|	|	|	0.64
47.167	0.00	1.20	1.067	O	|	|	|	|	0.63
47.250	0.00	1.19	1.059	O	|	|	|	|	0.63
47.333	0.00	1.19	1.051	O	|	|	|	|	0.62
47.417	0.00	1.18	1.043	O	|	|	|	|	0.62
47.500	0.00	1.17	1.035	O	|	|	|	|	0.61
47.583	0.00	1.16	1.027	O	|	|	|	|	0.61
47.667	0.00	1.15	1.019	O	|	|	|	|	0.60
47.750	0.00	1.14	1.011	O	|	|	|	|	0.60
47.833	0.00	1.13	1.003	O	|	|	|	|	0.59
47.917	0.00	1.12	0.995	O	|	|	|	|	0.59
48.000	0.00	1.11	0.988	O	|	|	|	|	0.58
48.083	0.00	1.11	0.980	O	|	|	|	|	0.58
48.167	0.00	1.10	0.972	O	|	|	|	|	0.57
48.250	0.00	1.09	0.965	O	|	|	|	|	0.57
48.333	0.00	1.08	0.957	O	|	|	|	|	0.57
48.417	0.00	1.07	0.950	O	|	|	|	|	0.56
48.500	0.00	1.06	0.943	O	|	|	|	|	0.56
48.583	0.00	1.06	0.935	O	|	|	|	|	0.55
48.667	0.00	1.05	0.928	O	|	|	|	|	0.55
48.750	0.00	1.04	0.921	O	|	|	|	|	0.54
48.833	0.00	1.03	0.914	O	|	|	|	|	0.54
48.917	0.00	1.02	0.907	O	|	|	|	|	0.54
49.000	0.00	1.02	0.900	O	|	|	|	|	0.53
49.083	0.00	1.01	0.893	O	|	|	|	|	0.53
49.167	0.00	1.00	0.886	O	|	|	|	|	0.52
49.250	0.00	0.99	0.879	O	|	|	|	|	0.52

49.333	0.00	0.98	0.872	O	|	|	|	|	0.52
49.417	0.00	0.98	0.865	O	|	|	|	|	0.51
49.500	0.00	0.97	0.859	O	|	|	|	|	0.51
49.583	0.00	0.96	0.852	O	|	|	|	|	0.50
49.667	0.00	0.95	0.845	O	|	|	|	|	0.50
49.750	0.00	0.95	0.839	O	|	|	|	|	0.50
49.833	0.00	0.94	0.832	O	|	|	|	|	0.49
49.917	0.00	0.93	0.826	O	|	|	|	|	0.49
50.000	0.00	0.92	0.820	O	|	|	|	|	0.48
50.083	0.00	0.92	0.813	O	|	|	|	|	0.48
50.167	0.00	0.91	0.807	O	|	|	|	|	0.48
50.250	0.00	0.90	0.801	O	|	|	|	|	0.47
50.333	0.00	0.90	0.795	O	|	|	|	|	0.47
50.417	0.00	0.89	0.788	O	|	|	|	|	0.47
50.500	0.00	0.88	0.782	O	|	|	|	|	0.46
50.583	0.00	0.88	0.776	O	|	|	|	|	0.46
50.667	0.00	0.87	0.770	O	|	|	|	|	0.45
50.750	0.00	0.86	0.764	O	|	|	|	|	0.45
50.833	0.00	0.86	0.758	O	|	|	|	|	0.45
50.917	0.00	0.85	0.752	O	|	|	|	|	0.44
51.000	0.00	0.84	0.747	O	|	|	|	|	0.44
51.083	0.00	0.84	0.741	O	|	|	|	|	0.44
51.167	0.00	0.83	0.735	O	|	|	|	|	0.43
51.250	0.00	0.82	0.729	O	|	|	|	|	0.43
51.333	0.00	0.82	0.724	O	|	|	|	|	0.43
51.417	0.00	0.81	0.718	O	|	|	|	|	0.42
51.500	0.00	0.80	0.713	O	|	|	|	|	0.42
51.583	0.00	0.80	0.707	O	|	|	|	|	0.42
51.667	0.00	0.79	0.702	O	|	|	|	|	0.41
51.750	0.00	0.79	0.696	O	|	|	|	|	0.41
51.833	0.00	0.78	0.691	O	|	|	|	|	0.41
51.917	0.00	0.77	0.685	O	|	|	|	|	0.40
52.000	0.00	0.77	0.680	O	|	|	|	|	0.40
52.083	0.00	0.76	0.675	O	|	|	|	|	0.40
52.167	0.00	0.76	0.670	O	|	|	|	|	0.40
52.250	0.00	0.75	0.665	O	|	|	|	|	0.39
52.333	0.00	0.74	0.659	O	|	|	|	|	0.39
52.417	0.00	0.74	0.654	O	|	|	|	|	0.39
52.500	0.00	0.73	0.649	O	|	|	|	|	0.38
52.583	0.00	0.73	0.644	O	|	|	|	|	0.38
52.667	0.00	0.72	0.639	O	|	|	|	|	0.38
52.750	0.00	0.72	0.634	O	|	|	|	|	0.37
52.833	0.00	0.71	0.629	O	|	|	|	|	0.37
52.917	0.00	0.70	0.624	O	|	|	|	|	0.37
53.000	0.00	0.70	0.620	O	|	|	|	|	0.37
53.083	0.00	0.69	0.615	O	|	|	|	|	0.36
53.167	0.00	0.69	0.610	O	|	|	|	|	0.36
53.250	0.00	0.68	0.605	O	|	|	|	|	0.36
53.333	0.00	0.68	0.601	O	|	|	|	|	0.35
53.417	0.00	0.67	0.596	O	|	|	|	|	0.35
53.500	0.00	0.67	0.591	O	|	|	|	|	0.35
53.583	0.00	0.66	0.587	O	|	|	|	|	0.35
53.667	0.00	0.66	0.582	O	|	|	|	|	0.34
53.750	0.00	0.65	0.578	O	|	|	|	|	0.34
53.833	0.00	0.65	0.573	O	|	|	|	|	0.34
53.917	0.00	0.64	0.569	O	|	|	|	|	0.34
54.000	0.00	0.64	0.564	O	|	|	|	|	0.33
54.083	0.00	0.63	0.560	O	|	|	|	|	0.33
54.167	0.00	0.63	0.556	O	|	|	|	|	0.33
54.250	0.00	0.62	0.551	O	|	|	|	|	0.33
54.333	0.00	0.62	0.547	O	|	|	|	|	0.32
54.417	0.00	0.61	0.543	O	|	|	|	|	0.32
54.500	0.00	0.61	0.539	O	|	|	|	|	0.32
54.583	0.00	0.60	0.535	O	|	|	|	|	0.32
54.667	0.00	0.60	0.530	O	|	|	|	|	0.31
54.750	0.00	0.59	0.526	O	|	|	|	|	0.31

54.833	0.00	0.59	0.522	O	0.31
54.917	0.00	0.58	0.518	O	0.31
55.000	0.00	0.58	0.514	O	0.30
55.083	0.00	0.58	0.510	O	0.30
55.167	0.00	0.57	0.506	O	0.30
55.250	0.00	0.57	0.502	O	0.30
55.333	0.00	0.56	0.498	O	0.29
55.417	0.00	0.56	0.495	O	0.29
55.500	0.00	0.55	0.491	O	0.29
55.583	0.00	0.55	0.487	O	0.29
55.667	0.00	0.55	0.483	O	0.29
55.750	0.00	0.54	0.479	O	0.28
55.833	0.00	0.54	0.476	O	0.28
55.917	0.00	0.53	0.472	O	0.28
56.000	0.00	0.53	0.468	O	0.28
56.083	0.00	0.52	0.465	O	0.27
56.167	0.00	0.52	0.461	O	0.27
56.250	0.00	0.52	0.458	O	0.27
56.333	0.00	0.51	0.454	O	0.27
56.417	0.00	0.51	0.451	O	0.27
56.500	0.00	0.50	0.447	O	0.26
56.583	0.00	0.50	0.444	O	0.26
56.667	0.00	0.50	0.440	O	0.26
56.750	0.00	0.49	0.437	O	0.26
56.833	0.00	0.49	0.433	O	0.26
56.917	0.00	0.49	0.430	O	0.25
57.000	0.00	0.48	0.427	O	0.25
57.083	0.00	0.48	0.423	O	0.25
57.167	0.00	0.47	0.420	O	0.25
57.250	0.00	0.47	0.417	O	0.25
57.333	0.00	0.47	0.414	O	0.24
57.417	0.00	0.46	0.410	O	0.24
57.500	0.00	0.46	0.407	O	0.24
57.583	0.00	0.46	0.404	O	0.24
57.667	0.00	0.45	0.401	O	0.24
57.750	0.00	0.45	0.398	O	0.24
57.833	0.00	0.45	0.395	O	0.23
57.917	0.00	0.44	0.392	O	0.23
58.000	0.00	0.44	0.389	O	0.23
58.083	0.00	0.44	0.386	O	0.23
58.167	0.00	0.43	0.383	O	0.23
58.250	0.00	0.43	0.380	O	0.22
58.333	0.00	0.43	0.377	O	0.22
58.417	0.00	0.42	0.374	O	0.22
58.500	0.00	0.42	0.371	O	0.22
58.583	0.00	0.42	0.368	O	0.22
58.667	0.00	0.41	0.365	O	0.22
58.750	0.00	0.41	0.362	O	0.21
58.833	0.00	0.41	0.360	O	0.21
58.917	0.00	0.40	0.357	O	0.21
59.000	0.00	0.40	0.354	O	0.21
59.083	0.00	0.40	0.351	O	0.21
59.167	0.00	0.39	0.349	O	0.21
59.250	0.00	0.39	0.346	O	0.20
59.333	0.00	0.39	0.343	O	0.20
59.417	0.00	0.38	0.341	O	0.20
59.500	0.00	0.38	0.338	O	0.20
59.583	0.00	0.38	0.335	O	0.20
59.667	0.00	0.38	0.333	O	0.20
59.750	0.00	0.37	0.330	O	0.20
59.833	0.00	0.37	0.328	O	0.19
59.917	0.00	0.37	0.325	O	0.19
60.000	0.00	0.36	0.323	O	0.19
60.083	0.00	0.36	0.320	O	0.19
60.167	0.00	0.36	0.318	O	0.19
60.250	0.00	0.36	0.315	O	0.19

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60.333    0.00    0.35    0.313  O       |       |       |       |      0.18
60.417    0.00    0.35    0.310  O       |       |       |       |      0.18
60.500    0.00    0.35    0.308  O       |       |       |       |      0.18
60.583    0.00    0.34    0.306  O       |       |       |       |      0.18
60.667    0.00    0.34    0.303  O       |       |       |       |      0.18
60.750    0.00    0.34    0.301  O       |       |       |       |      0.18
60.833    0.00    0.34    0.298  O       |       |       |       |      0.18
60.917    0.00    0.33    0.296  O       |       |       |       |      0.17
61.000    0.00    0.33    0.294  O       |       |       |       |      0.17
61.083    0.00    0.33    0.292  O       |       |       |       |      0.17
61.167    0.00    0.33    0.289  O       |       |       |       |      0.17
61.250    0.00    0.32    0.287  O       |       |       |       |      0.17
61.333    0.00    0.32    0.285  O       |       |       |       |      0.17
61.417    0.00    0.32    0.283  O       |       |       |       |      0.17
61.500    0.00    0.32    0.281  O       |       |       |       |      0.17
61.583    0.00    0.31    0.278  O       |       |       |       |      0.16
61.667    0.00    0.31    0.276  O       |       |       |       |      0.16
61.750    0.00    0.31    0.274  O       |       |       |       |      0.16
61.833    0.00    0.31    0.272  O       |       |       |       |      0.16
61.917    0.00    0.30    0.270  O       |       |       |       |      0.16
62.000    0.00    0.30    0.268  O       |       |       |       |      0.16
62.083    0.00    0.30    0.266  O       |       |       |       |      0.16
62.167    0.00    0.30    0.264  O       |       |       |       |      0.16
62.250    0.00    0.30    0.262  O       |       |       |       |      0.15
62.333    0.00    0.29    0.260  O       |       |       |       |      0.15
62.417    0.00    0.29    0.258  O       |       |       |       |      0.15
62.500    0.00    0.29    0.256  O       |       |       |       |      0.15
62.583    0.00    0.29    0.254  O       |       |       |       |      0.15
62.667    0.00    0.28    0.252  O       |       |       |       |      0.15
62.750    0.00    0.28    0.250  O       |       |       |       |      0.15
62.833    0.00    0.28    0.248  O       |       |       |       |      0.15
62.917    0.00    0.28    0.246  O       |       |       |       |      0.15
63.000    0.00    0.28    0.244  O       |       |       |       |      0.14
63.083    0.00    0.27    0.242  O       |       |       |       |      0.14
63.167    0.00    0.27    0.240  O       |       |       |       |      0.14
63.250    0.00    0.27    0.238  O       |       |       |       |      0.14
63.333    0.00    0.27    0.236  O       |       |       |       |      0.14
63.417    0.00    0.26    0.235  O       |       |       |       |      0.14
63.500    0.00    0.26    0.233  O       |       |       |       |      0.14
63.583    0.00    0.26    0.231  O       |       |       |       |      0.14
63.667    0.00    0.26    0.229  O       |       |       |       |      0.14
63.750    0.00    0.26    0.227  O       |       |       |       |      0.13
63.833    0.00    0.25    0.226  O       |       |       |       |      0.13
63.917    0.00    0.25    0.224  O       |       |       |       |      0.13
64.000    0.00    0.25    0.222  O       |       |       |       |      0.13
64.083    0.00    0.25    0.220  O       |       |       |       |      0.13
64.167    0.00    0.25    0.219  O       |       |       |       |      0.13
64.250    0.00    0.24    0.217  O       |       |       |       |      0.13
64.333    0.00    0.24    0.215  O       |       |       |       |      0.13
64.417    0.00    0.24    0.214  O       |       |       |       |      0.13
64.500    0.00    0.24    0.212  O       |       |       |       |      0.13
64.583    0.00    0.24    0.210  O       |       |       |       |      0.12
64.667    0.00    0.24    0.209  O       |       |       |       |      0.12
64.750    0.00    0.23    0.207  O       |       |       |       |      0.12
64.833    0.00    0.23    0.206  O       |       |       |       |      0.12
64.917    0.00    0.23    0.204  O       |       |       |       |      0.12
65.000    0.00    0.23    0.202  O       |       |       |       |      0.12
65.083    0.00    0.23    0.201  O       |       |       |       |      0.12
65.167    0.00    0.22    0.199  O       |       |       |       |      0.12
65.250    0.00    0.22    0.198  O       |       |       |       |      0.12
65.333    0.00    0.22    0.196  O       |       |       |       |      0.12
65.417    0.00    0.22    0.195  O       |       |       |       |      0.11
65.500    0.00    0.22    0.193  O       |       |       |       |      0.11
65.583    0.00    0.22    0.192  O       |       |       |       |      0.11
65.667    0.00    0.21    0.190  O       |       |       |       |      0.11
65.750    0.00    0.21    0.189  O       |       |       |       |      0.11
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65.833	0.00	0.21	0.187	O	|	|	|	|	0.11
65.917	0.00	0.21	0.186	O	|	|	|	|	0.11
66.000	0.00	0.21	0.184	O	|	|	|	|	0.11
66.083	0.00	0.21	0.183	O	|	|	|	|	0.11
66.167	0.00	0.20	0.182	O	|	|	|	|	0.11
66.250	0.00	0.20	0.180	O	|	|	|	|	0.11
66.333	0.00	0.20	0.179	O	|	|	|	|	0.11
66.417	0.00	0.20	0.177	O	|	|	|	|	0.10
66.500	0.00	0.20	0.176	O	|	|	|	|	0.10
66.583	0.00	0.20	0.175	O	|	|	|	|	0.10
66.667	0.00	0.20	0.173	O	|	|	|	|	0.10
66.750	0.00	0.19	0.172	O	|	|	|	|	0.10
66.833	0.00	0.19	0.171	O	|	|	|	|	0.10
66.917	0.00	0.19	0.169	O	|	|	|	|	0.10
67.000	0.00	0.19	0.168	O	|	|	|	|	0.10
67.083	0.00	0.19	0.167	O	|	|	|	|	0.10
67.167	0.00	0.19	0.165	O	|	|	|	|	0.10
67.250	0.00	0.19	0.164	O	|	|	|	|	0.10
67.333	0.00	0.18	0.163	O	|	|	|	|	0.10
67.417	0.00	0.18	0.162	O	|	|	|	|	0.10
67.500	0.00	0.18	0.160	O	|	|	|	|	0.09
67.583	0.00	0.18	0.159	O	|	|	|	|	0.09
67.667	0.00	0.18	0.158	O	|	|	|	|	0.09
67.750	0.00	0.18	0.157	O	|	|	|	|	0.09
67.833	0.00	0.18	0.155	O	|	|	|	|	0.09
67.917	0.00	0.17	0.154	O	|	|	|	|	0.09
68.000	0.00	0.17	0.153	O	|	|	|	|	0.09
68.083	0.00	0.17	0.152	O	|	|	|	|	0.09
68.167	0.00	0.17	0.151	O	|	|	|	|	0.09
68.250	0.00	0.17	0.149	O	|	|	|	|	0.09
68.333	0.00	0.17	0.148	O	|	|	|	|	0.09
68.417	0.00	0.17	0.147	O	|	|	|	|	0.09
68.500	0.00	0.16	0.146	O	|	|	|	|	0.09
68.583	0.00	0.16	0.145	O	|	|	|	|	0.09
68.667	0.00	0.16	0.144	O	|	|	|	|	0.08
68.750	0.00	0.16	0.143	O	|	|	|	|	0.08
68.833	0.00	0.16	0.142	O	|	|	|	|	0.08
68.917	0.00	0.16	0.140	O	|	|	|	|	0.08
69.000	0.00	0.16	0.139	O	|	|	|	|	0.08
69.083	0.00	0.16	0.138	O	|	|	|	|	0.08
69.167	0.00	0.15	0.137	O	|	|	|	|	0.08
69.250	0.00	0.15	0.136	O	|	|	|	|	0.08
69.333	0.00	0.15	0.135	O	|	|	|	|	0.08
69.417	0.00	0.15	0.134	O	|	|	|	|	0.08
69.500	0.00	0.15	0.133	O	|	|	|	|	0.08
69.583	0.00	0.15	0.132	O	|	|	|	|	0.08
69.667	0.00	0.15	0.131	O	|	|	|	|	0.08
69.750	0.00	0.15	0.130	O	|	|	|	|	0.08
69.833	0.00	0.15	0.129	O	|	|	|	|	0.08
69.917	0.00	0.14	0.128	O	|	|	|	|	0.08
70.000	0.00	0.14	0.127	O	|	|	|	|	0.08
70.083	0.00	0.14	0.126	O	|	|	|	|	0.07
70.167	0.00	0.14	0.125	O	|	|	|	|	0.07
70.250	0.00	0.14	0.124	O	|	|	|	|	0.07
70.333	0.00	0.14	0.123	O	|	|	|	|	0.07
70.417	0.00	0.14	0.122	O	|	|	|	|	0.07
70.500	0.00	0.14	0.121	O	|	|	|	|	0.07
70.583	0.00	0.14	0.120	O	|	|	|	|	0.07
70.667	0.00	0.13	0.119	O	|	|	|	|	0.07
70.750	0.00	0.13	0.118	O	|	|	|	|	0.07
70.833	0.00	0.13	0.117	O	|	|	|	|	0.07
70.917	0.00	0.13	0.117	O	|	|	|	|	0.07
71.000	0.00	0.13	0.116	O	|	|	|	|	0.07
71.083	0.00	0.13	0.115	O	|	|	|	|	0.07
71.167	0.00	0.13	0.114	O	|	|	|	|	0.07
71.250	0.00	0.13	0.113	O	|	|	|	|	0.07

71.333	0.00	0.13	0.112	O	|	|	|	|	0.07
71.417	0.00	0.13	0.111	O	|	|	|	|	0.07
71.500	0.00	0.12	0.110	O	|	|	|	|	0.07
71.583	0.00	0.12	0.110	O	|	|	|	|	0.06
71.667	0.00	0.12	0.109	O	|	|	|	|	0.06
71.750	0.00	0.12	0.108	O	|	|	|	|	0.06
71.833	0.00	0.12	0.107	O	|	|	|	|	0.06
71.917	0.00	0.12	0.106	O	|	|	|	|	0.06
72.000	0.00	0.12	0.105	O	|	|	|	|	0.06
72.083	0.00	0.12	0.105	O	|	|	|	|	0.06
72.167	0.00	0.12	0.104	O	|	|	|	|	0.06
72.250	0.00	0.12	0.103	O	|	|	|	|	0.06
72.333	0.00	0.12	0.102	O	|	|	|	|	0.06
72.417	0.00	0.11	0.101	O	|	|	|	|	0.06
72.500	0.00	0.11	0.101	O	|	|	|	|	0.06
72.583	0.00	0.11	0.100	O	|	|	|	|	0.06
72.667	0.00	0.11	0.099	O	|	|	|	|	0.06
72.750	0.00	0.11	0.098	O	|	|	|	|	0.06
72.833	0.00	0.11	0.098	O	|	|	|	|	0.06
72.917	0.00	0.11	0.097	O	|	|	|	|	0.06
73.000	0.00	0.11	0.096	O	|	|	|	|	0.06
73.083	0.00	0.11	0.095	O	|	|	|	|	0.06
73.167	0.00	0.11	0.095	O	|	|	|	|	0.06
73.250	0.00	0.11	0.094	O	|	|	|	|	0.06
73.333	0.00	0.10	0.093	O	|	|	|	|	0.05
73.417	0.00	0.10	0.092	O	|	|	|	|	0.05
73.500	0.00	0.10	0.092	O	|	|	|	|	0.05
73.583	0.00	0.10	0.091	O	|	|	|	|	0.05
73.667	0.00	0.10	0.090	O	|	|	|	|	0.05
73.750	0.00	0.10	0.090	O	|	|	|	|	0.05
73.833	0.00	0.10	0.089	O	|	|	|	|	0.05
73.917	0.00	0.10	0.088	O	|	|	|	|	0.05
74.000	0.00	0.10	0.087	O	|	|	|	|	0.05
74.083	0.00	0.10	0.087	O	|	|	|	|	0.05
74.167	0.00	0.10	0.086	O	|	|	|	|	0.05
74.250	0.00	0.10	0.085	O	|	|	|	|	0.05
74.333	0.00	0.10	0.085	O	|	|	|	|	0.05
74.417	0.00	0.09	0.084	O	|	|	|	|	0.05
74.500	0.00	0.09	0.083	O	|	|	|	|	0.05
74.583	0.00	0.09	0.083	O	|	|	|	|	0.05
74.667	0.00	0.09	0.082	O	|	|	|	|	0.05
74.750	0.00	0.09	0.082	O	|	|	|	|	0.05
74.833	0.00	0.09	0.081	O	|	|	|	|	0.05
74.917	0.00	0.09	0.080	O	|	|	|	|	0.05
75.000	0.00	0.09	0.080	O	|	|	|	|	0.05
75.083	0.00	0.09	0.079	O	|	|	|	|	0.05
75.167	0.00	0.09	0.078	O	|	|	|	|	0.05
75.250	0.00	0.09	0.078	O	|	|	|	|	0.05
75.333	0.00	0.09	0.077	O	|	|	|	|	0.05
75.417	0.00	0.09	0.077	O	|	|	|	|	0.05
75.500	0.00	0.09	0.076	O	|	|	|	|	0.04
75.583	0.00	0.09	0.075	O	|	|	|	|	0.04
75.667	0.00	0.08	0.075	O	|	|	|	|	0.04
75.750	0.00	0.08	0.074	O	|	|	|	|	0.04
75.833	0.00	0.08	0.074	O	|	|	|	|	0.04
75.917	0.00	0.08	0.073	O	|	|	|	|	0.04
76.000	0.00	0.08	0.073	O	|	|	|	|	0.04
76.083	0.00	0.08	0.072	O	|	|	|	|	0.04
76.167	0.00	0.08	0.071	O	|	|	|	|	0.04
76.250	0.00	0.08	0.071	O	|	|	|	|	0.04
76.333	0.00	0.08	0.070	O	|	|	|	|	0.04
76.417	0.00	0.08	0.070	O	|	|	|	|	0.04
76.500	0.00	0.08	0.069	O	|	|	|	|	0.04
76.583	0.00	0.08	0.069	O	|	|	|	|	0.04
76.667	0.00	0.08	0.068	O	|	|	|	|	0.04
76.750	0.00	0.08	0.068	O	|	|	|	|	0.04

76.833	0.00	0.08	0.067	O	0.04
76.917	0.00	0.08	0.067	O	0.04
77.000	0.00	0.07	0.066	O	0.04
77.083	0.00	0.07	0.066	O	0.04
77.167	0.00	0.07	0.065	O	0.04
77.250	0.00	0.07	0.065	O	0.04
77.333	0.00	0.07	0.064	O	0.04
77.417	0.00	0.07	0.064	O	0.04
77.500	0.00	0.07	0.063	O	0.04
77.583	0.00	0.07	0.063	O	0.04
77.667	0.00	0.07	0.062	O	0.04
77.750	0.00	0.07	0.062	O	0.04
77.833	0.00	0.07	0.061	O	0.04
77.917	0.00	0.07	0.061	O	0.04
78.000	0.00	0.07	0.060	O	0.04
78.083	0.00	0.07	0.060	O	0.04
78.167	0.00	0.07	0.059	O	0.04
78.250	0.00	0.07	0.059	O	0.03
78.333	0.00	0.07	0.058	O	0.03
78.417	0.00	0.07	0.058	O	0.03
78.500	0.00	0.06	0.057	O	0.03
78.583	0.00	0.06	0.057	O	0.03
78.667	0.00	0.06	0.057	O	0.03
78.750	0.00	0.06	0.056	O	0.03
78.833	0.00	0.06	0.056	O	0.03
78.917	0.00	0.06	0.055	O	0.03
79.000	0.00	0.06	0.055	O	0.03
79.083	0.00	0.06	0.054	O	0.03
79.167	0.00	0.06	0.054	O	0.03
79.250	0.00	0.06	0.054	O	0.03
79.333	0.00	0.06	0.053	O	0.03
79.417	0.00	0.06	0.053	O	0.03
79.500	0.00	0.06	0.052	O	0.03
79.583	0.00	0.06	0.052	O	0.03
79.667	0.00	0.06	0.052	O	0.03
79.750	0.00	0.06	0.051	O	0.03
79.833	0.00	0.06	0.051	O	0.03
79.917	0.00	0.06	0.050	O	0.03
80.000	0.00	0.06	0.050	O	0.03
80.083	0.00	0.06	0.050	O	0.03
80.167	0.00	0.06	0.049	O	0.03
80.250	0.00	0.06	0.049	O	0.03
80.333	0.00	0.05	0.048	O	0.03
80.417	0.00	0.05	0.048	O	0.03
80.500	0.00	0.05	0.048	O	0.03
80.583	0.00	0.05	0.047	O	0.03
80.667	0.00	0.05	0.047	O	0.03
80.750	0.00	0.05	0.047	O	0.03
80.833	0.00	0.05	0.046	O	0.03
80.917	0.00	0.05	0.046	O	0.03
81.000	0.00	0.05	0.046	O	0.03
81.083	0.00	0.05	0.045	O	0.03
81.167	0.00	0.05	0.045	O	0.03
81.250	0.00	0.05	0.044	O	0.03
81.333	0.00	0.05	0.044	O	0.03
81.417	0.00	0.05	0.044	O	0.03
81.500	0.00	0.05	0.043	O	0.03
81.583	0.00	0.05	0.043	O	0.03
81.667	0.00	0.05	0.043	O	0.03
81.750	0.00	0.05	0.042	O	0.03
81.833	0.00	0.05	0.042	O	0.02
81.917	0.00	0.05	0.042	O	0.02
82.000	0.00	0.05	0.041	O	0.02
82.083	0.00	0.05	0.041	O	0.02
82.167	0.00	0.05	0.041	O	0.02
82.250	0.00	0.05	0.041	O	0.02

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82.333    0.00    0.05     0.040  O      |       |       |       |      0.02
82.417    0.00    0.05     0.040  O      |       |       |       |      0.02
82.500    0.00    0.04     0.040  O      |       |       |       |      0.02
82.583    0.00    0.04     0.039  O      |       |       |       |      0.02
82.667    0.00    0.04     0.039  O      |       |       |       |      0.02
82.750    0.00    0.04     0.039  O      |       |       |       |      0.02
82.833    0.00    0.04     0.038  O      |       |       |       |      0.02
82.917    0.00    0.04     0.038  O      |       |       |       |      0.02
83.000    0.00    0.04     0.038  O      |       |       |       |      0.02
83.083    0.00    0.04     0.037  O      |       |       |       |      0.02
83.167    0.00    0.04     0.037  O      |       |       |       |      0.02
83.250    0.00    0.04     0.037  O      |       |       |       |      0.02
83.333    0.00    0.04     0.037  O      |       |       |       |      0.02
83.417    0.00    0.04     0.036  O      |       |       |       |      0.02
83.500    0.00    0.04     0.036  O      |       |       |       |      0.02
83.583    0.00    0.04     0.036  O      |       |       |       |      0.02
83.667    0.00    0.04     0.036  O      |       |       |       |      0.02
83.750    0.00    0.04     0.035  O      |       |       |       |      0.02
83.833    0.00    0.04     0.035  O      |       |       |       |      0.02
83.917    0.00    0.04     0.035  O      |       |       |       |      0.02
84.000    0.00    0.04     0.034  O      |       |       |       |      0.02
84.083    0.00    0.04     0.034  O      |       |       |       |      0.02
84.167    0.00    0.04     0.034  O      |       |       |       |      0.02
84.250    0.00    0.04     0.034  O      |       |       |       |      0.02
84.333    0.00    0.04     0.033  O      |       |       |       |      0.02
84.417    0.00    0.04     0.033  O      |       |       |       |      0.02
84.500    0.00    0.04     0.033  O      |       |       |       |      0.02
84.583    0.00    0.04     0.033  O      |       |       |       |      0.02
84.667    0.00    0.04     0.032  O      |       |       |       |      0.02
84.750    0.00    0.04     0.032  O      |       |       |       |      0.02
84.833    0.00    0.04     0.032  O      |       |       |       |      0.02
84.917    0.00    0.04     0.032  O      |       |       |       |      0.02
85.000    0.00    0.04     0.031  O      |       |       |       |      0.02
85.083    0.00    0.04     0.031  O      |       |       |       |      0.02
85.167    0.00    0.03     0.031  O      |       |       |       |      0.02
85.250    0.00    0.03     0.031  O      |       |       |       |      0.02
85.333    0.00    0.03     0.030  O      |       |       |       |      0.02
85.417    0.00    0.03     0.030  O      |       |       |       |      0.02
85.500    0.00    0.03     0.030  O      |       |       |       |      0.02
85.583    0.00    0.03     0.030  O      |       |       |       |      0.02
85.667    0.00    0.03     0.029  O      |       |       |       |      0.02
85.750    0.00    0.03     0.029  O      |       |       |       |      0.02
85.833    0.00    0.03     0.029  O      |       |       |       |      0.02
85.917    0.00    0.03     0.029  O      |       |       |       |      0.02
86.000    0.00    0.03     0.029  O      |       |       |       |      0.02
86.083    0.00    0.03     0.028  O      |       |       |       |      0.02
86.167    0.00    0.03     0.028  O      |       |       |       |      0.02
86.250    0.00    0.03     0.028  O      |       |       |       |      0.02
86.333    0.00    0.03     0.028  O      |       |       |       |      0.02
86.417    0.00    0.03     0.027  O      |       |       |       |      0.02
86.500    0.00    0.03     0.027  O      |       |       |       |      0.02
86.583    0.00    0.03     0.027  O      |       |       |       |      0.02
86.667    0.00    0.03     0.027  O      |       |       |       |      0.02
86.750    0.00    0.03     0.027  O      |       |       |       |      0.02
86.833    0.00    0.03     0.026  O      |       |       |       |      0.02
86.917    0.00    0.03     0.026  O      |       |       |       |      0.02
87.000    0.00    0.03     0.026  O      |       |       |       |      0.02
87.083    0.00    0.03     0.026  O      |       |       |       |      0.02
87.167    0.00    0.03     0.026  O      |       |       |       |      0.02
87.250    0.00    0.03     0.025  O      |       |       |       |      0.02
87.333    0.00    0.03     0.025  O      |       |       |       |      0.01
87.417    0.00    0.03     0.025  O      |       |       |       |      0.01
87.500    0.00    0.03     0.025  O      |       |       |       |      0.01
87.583    0.00    0.03     0.025  O      |       |       |       |      0.01
87.667    0.00    0.03     0.024  O      |       |       |       |      0.01
87.750    0.00    0.03     0.024  O      |       |       |       |      0.01
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87.833	0.00	0.03	0.024	O	|	|	|	|	0.01
87.917	0.00	0.03	0.024	O	|	|	|	|	0.01
88.000	0.00	0.03	0.024	O	|	|	|	|	0.01
88.083	0.00	0.03	0.024	O	|	|	|	|	0.01
88.167	0.00	0.03	0.023	O	|	|	|	|	0.01
88.250	0.00	0.03	0.023	O	|	|	|	|	0.01
88.333	0.00	0.03	0.023	O	|	|	|	|	0.01
88.417	0.00	0.03	0.023	O	|	|	|	|	0.01
88.500	0.00	0.03	0.023	O	|	|	|	|	0.01
88.583	0.00	0.03	0.022	O	|	|	|	|	0.01
88.667	0.00	0.03	0.022	O	|	|	|	|	0.01
88.750	0.00	0.02	0.022	O	|	|	|	|	0.01
88.833	0.00	0.02	0.022	O	|	|	|	|	0.01
88.917	0.00	0.02	0.022	O	|	|	|	|	0.01
89.000	0.00	0.02	0.022	O	|	|	|	|	0.01
89.083	0.00	0.02	0.021	O	|	|	|	|	0.01
89.167	0.00	0.02	0.021	O	|	|	|	|	0.01
89.250	0.00	0.02	0.021	O	|	|	|	|	0.01
89.333	0.00	0.02	0.021	O	|	|	|	|	0.01
89.417	0.00	0.02	0.021	O	|	|	|	|	0.01
89.500	0.00	0.02	0.021	O	|	|	|	|	0.01
89.583	0.00	0.02	0.020	O	|	|	|	|	0.01
89.667	0.00	0.02	0.020	O	|	|	|	|	0.01
89.750	0.00	0.02	0.020	O	|	|	|	|	0.01
89.833	0.00	0.02	0.020	O	|	|	|	|	0.01
89.917	0.00	0.02	0.020	O	|	|	|	|	0.01
90.000	0.00	0.02	0.020	O	|	|	|	|	0.01
90.083	0.00	0.02	0.020	O	|	|	|	|	0.01
90.167	0.00	0.02	0.019	O	|	|	|	|	0.01
90.250	0.00	0.02	0.019	O	|	|	|	|	0.01
90.333	0.00	0.02	0.019	O	|	|	|	|	0.01
90.417	0.00	0.02	0.019	O	|	|	|	|	0.01
90.500	0.00	0.02	0.019	O	|	|	|	|	0.01
90.583	0.00	0.02	0.019	O	|	|	|	|	0.01
90.667	0.00	0.02	0.018	O	|	|	|	|	0.01
90.750	0.00	0.02	0.018	O	|	|	|	|	0.01
90.833	0.00	0.02	0.018	O	|	|	|	|	0.01
90.917	0.00	0.02	0.018	O	|	|	|	|	0.01
91.000	0.00	0.02	0.018	O	|	|	|	|	0.01
91.083	0.00	0.02	0.018	O	|	|	|	|	0.01
91.167	0.00	0.02	0.018	O	|	|	|	|	0.01
91.250	0.00	0.02	0.018	O	|	|	|	|	0.01
91.333	0.00	0.02	0.017	O	|	|	|	|	0.01
91.417	0.00	0.02	0.017	O	|	|	|	|	0.01
91.500	0.00	0.02	0.017	O	|	|	|	|	0.01
91.583	0.00	0.02	0.017	O	|	|	|	|	0.01
91.667	0.00	0.02	0.017	O	|	|	|	|	0.01
91.750	0.00	0.02	0.017	O	|	|	|	|	0.01
91.833	0.00	0.02	0.017	O	|	|	|	|	0.01
91.917	0.00	0.02	0.016	O	|	|	|	|	0.01
92.000	0.00	0.02	0.016	O	|	|	|	|	0.01
92.083	0.00	0.02	0.016	O	|	|	|	|	0.01
92.167	0.00	0.02	0.016	O	|	|	|	|	0.01
92.250	0.00	0.02	0.016	O	|	|	|	|	0.01
92.333	0.00	0.02	0.016	O	|	|	|	|	0.01
92.417	0.00	0.02	0.016	O	|	|	|	|	0.01
92.500	0.00	0.02	0.016	O	|	|	|	|	0.01
92.583	0.00	0.02	0.015	O	|	|	|	|	0.01
92.667	0.00	0.02	0.015	O	|	|	|	|	0.01
92.750	0.00	0.02	0.015	O	|	|	|	|	0.01
92.833	0.00	0.02	0.015	O	|	|	|	|	0.01
92.917	0.00	0.02	0.015	O	|	|	|	|	0.01
93.000	0.00	0.02	0.015	O	|	|	|	|	0.01
93.083	0.00	0.02	0.015	O	|	|	|	|	0.01
93.167	0.00	0.02	0.015	O	|	|	|	|	0.01
93.250	0.00	0.02	0.015	O	|	|	|	|	0.01

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93.333    0.00    0.02      0.014  O       |       |       |       |      0.01
93.417    0.00    0.02      0.014  O       |       |       |       |      0.01
93.500    0.00    0.02      0.014  O       |       |       |       |      0.01
93.583    0.00    0.02      0.014  O       |       |       |       |      0.01
93.667    0.00    0.02      0.014  O       |       |       |       |      0.01
93.750    0.00    0.02      0.014  O       |       |       |       |      0.01
93.833    0.00    0.02      0.014  O       |       |       |       |      0.01
93.917    0.00    0.02      0.014  O       |       |       |       |      0.01
94.000    0.00    0.02      0.014  O       |       |       |       |      0.01
94.083    0.00    0.02      0.013  O       |       |       |       |      0.01
94.167    0.00    0.02      0.013  O       |       |       |       |      0.01
94.250    0.00    0.01      0.013  O       |       |       |       |      0.01
94.333    0.00    0.01      0.013  O       |       |       |       |      0.01
94.417    0.00    0.01      0.013  O       |       |       |       |      0.01
94.500    0.00    0.01      0.013  O       |       |       |       |      0.01
94.583    0.00    0.01      0.013  O       |       |       |       |      0.01
94.667    0.00    0.01      0.013  O       |       |       |       |      0.01
94.750    0.00    0.01      0.013  O       |       |       |       |      0.01
94.833    0.00    0.01      0.013  O       |       |       |       |      0.01
94.917    0.00    0.01      0.012  O       |       |       |       |      0.01
95.000    0.00    0.01      0.012  O       |       |       |       |      0.01
95.083    0.00    0.01      0.012  O       |       |       |       |      0.01
95.167    0.00    0.01      0.012  O       |       |       |       |      0.01
95.250    0.00    0.01      0.012  O       |       |       |       |      0.01
95.333    0.00    0.01      0.012  O       |       |       |       |      0.01
95.417    0.00    0.01      0.012  O       |       |       |       |      0.01
95.500    0.00    0.01      0.012  O       |       |       |       |      0.01
95.583    0.00    0.01      0.012  O       |       |       |       |      0.01
95.667    0.00    0.01      0.012  O       |       |       |       |      0.01
95.750    0.00    0.01      0.012  O       |       |       |       |      0.01
95.833    0.00    0.01      0.011  O       |       |       |       |      0.01
95.917    0.00    0.01      0.011  O       |       |       |       |      0.01
96.000    0.00    0.01      0.011  O       |       |       |       |      0.01
96.083    0.00    0.01      0.011  O       |       |       |       |      0.01
96.167    0.00    0.01      0.011  O       |       |       |       |      0.01
96.250    0.00    0.01      0.011  O       |       |       |       |      0.01
96.333    0.00    0.01      0.011  O       |       |       |       |      0.01
96.417    0.00    0.01      0.011  O       |       |       |       |      0.01
96.500    0.00    0.01      0.011  O       |       |       |       |      0.01
96.583    0.00    0.01      0.011  O       |       |       |       |      0.01
96.667    0.00    0.01      0.011  O       |       |       |       |      0.01
96.750    0.00    0.01      0.010  O       |       |       |       |      0.01
96.833    0.00    0.01      0.010  O       |       |       |       |      0.01
96.917    0.00    0.01      0.010  O       |       |       |       |      0.01
97.000    0.00    0.01      0.010  O       |       |       |       |      0.01
97.083    0.00    0.01      0.010  O       |       |       |       |      0.01
97.167    0.00    0.01      0.010  O       |       |       |       |      0.01
97.250    0.00    0.01      0.010  O       |       |       |       |      0.01
97.333    0.00    0.01      0.010  O       |       |       |       |      0.01
97.417    0.00    0.01      0.010  O       |       |       |       |      0.01
97.500    0.00    0.01      0.010  O       |       |       |       |      0.01
97.583    0.00    0.01      0.010  O       |       |       |       |      0.01
97.667    0.00    0.01      0.010  O       |       |       |       |      0.01
97.750    0.00    0.01      0.010  O       |       |       |       |      0.01
97.833    0.00    0.01      0.009  O       |       |       |       |      0.01
97.917    0.00    0.01      0.009  O       |       |       |       |      0.01
98.000    0.00    0.01      0.009  O       |       |       |       |      0.01
98.083    0.00    0.01      0.009  O       |       |       |       |      0.01
98.167    0.00    0.01      0.009  O       |       |       |       |      0.01
98.250    0.00    0.01      0.009  O       |       |       |       |      0.01
98.333    0.00    0.01      0.009  O       |       |       |       |      0.01
98.417    0.00    0.01      0.009  O       |       |       |       |      0.01
98.500    0.00    0.01      0.009  O       |       |       |       |      0.01
98.583    0.00    0.01      0.009  O       |       |       |       |      0.01
98.667    0.00    0.01      0.009  O       |       |       |       |      0.01
98.750    0.00    0.01      0.009  O       |       |       |       |      0.01
```

```
 98.833    0.00    0.01      0.009  O       |       |       |       |      0.01
 98.917    0.00    0.01      0.009  O       |       |       |       |      0.01
 99.000    0.00    0.01      0.009  O       |       |       |       |      0.01
 99.083    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.167    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.250    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.333    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.417    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.500    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.583    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.667    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.750    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.833    0.00    0.01      0.008  O       |       |       |       |      0.00
 99.917    0.00    0.01      0.008  O       |       |       |       |      0.00
100.000    0.00    0.01      0.008  O       |       |       |       |      0.00
100.083    0.00    0.01      0.008  O       |       |       |       |      0.00
100.167    0.00    0.01      0.008  O       |       |       |       |      0.00
100.250    0.00    0.01      0.008  O       |       |       |       |      0.00
100.333    0.00    0.01      0.008  O       |       |       |       |      0.00
100.417    0.00    0.01      0.007  O       |       |       |       |      0.00
100.500    0.00    0.01      0.007  O       |       |       |       |      0.00
100.583    0.00    0.01      0.007  O       |       |       |       |      0.00
100.667    0.00    0.01      0.007  O       |       |       |       |      0.00
100.750    0.00    0.01      0.007  O       |       |       |       |      0.00
100.833    0.00    0.01      0.007  O       |       |       |       |      0.00
100.917    0.00    0.01      0.007  O       |       |       |       |      0.00
101.000    0.00    0.01      0.007  O       |       |       |       |      0.00
101.083    0.00    0.01      0.007  O       |       |       |       |      0.00
101.167    0.00    0.01      0.007  O       |       |       |       |      0.00
101.250    0.00    0.01      0.007  O       |       |       |       |      0.00
101.333    0.00    0.01      0.007  O       |       |       |       |      0.00
101.417    0.00    0.01      0.007  O       |       |       |       |      0.00
101.500    0.00    0.01      0.007  O       |       |       |       |      0.00
101.583    0.00    0.01      0.007  O       |       |       |       |      0.00
101.667    0.00    0.01      0.007  O       |       |       |       |      0.00
101.750    0.00    0.01      0.007  O       |       |       |       |      0.00
101.833    0.00    0.01      0.007  O       |       |       |       |      0.00
101.917    0.00    0.01      0.006  O       |       |       |       |      0.00
102.000    0.00    0.01      0.006  O       |       |       |       |      0.00
102.083    0.00    0.01      0.006  O       |       |       |       |      0.00
102.167    0.00    0.01      0.006  O       |       |       |       |      0.00
102.250    0.00    0.01      0.006  O       |       |       |       |      0.00
102.333    0.00    0.01      0.006  O       |       |       |       |      0.00
102.417    0.00    0.01      0.006  O       |       |       |       |      0.00
102.500    0.00    0.01      0.006  O       |       |       |       |      0.00
102.583    0.00    0.01      0.006  O       |       |       |       |      0.00
102.667    0.00    0.01      0.006  O       |       |       |       |      0.00
102.750    0.00    0.01      0.006  O       |       |       |       |      0.00
102.833    0.00    0.01      0.006  O       |       |       |       |      0.00
102.917    0.00    0.01      0.006  O       |       |       |       |      0.00
103.000    0.00    0.01      0.006  O       |       |       |       |      0.00
103.083    0.00    0.01      0.006  O       |       |       |       |      0.00
103.167    0.00    0.01      0.006  O       |       |       |       |      0.00
103.250    0.00    0.01      0.006  O       |       |       |       |      0.00
103.333    0.00    0.01      0.006  O       |       |       |       |      0.00
103.417    0.00    0.01      0.006  O       |       |       |       |      0.00
103.500    0.00    0.01      0.006  O       |       |       |       |      0.00
103.583    0.00    0.01      0.006  O       |       |       |       |      0.00
103.667    0.00    0.01      0.006  O       |       |       |       |      0.00
103.750    0.00    0.01      0.005  O       |       |       |       |      0.00
103.833    0.00    0.01      0.005  O       |       |       |       |      0.00
103.917    0.00    0.01      0.005  O       |       |       |       |      0.00
104.000    0.00    0.01      0.005  O       |       |       |       |      0.00
104.083    0.00    0.01      0.005  O       |       |       |       |      0.00
104.167    0.00    0.01      0.005  O       |       |       |       |      0.00
104.250    0.00    0.01      0.005  O       |       |       |       |      0.00
```

104.333	0.00	0.01	0.005	O	|	|	|	|	0.00
104.417	0.00	0.01	0.005	O	|	|	|	|	0.00
104.500	0.00	0.01	0.005	O	|	|	|	|	0.00
104.583	0.00	0.01	0.005	O	|	|	|	|	0.00
104.667	0.00	0.01	0.005	O	|	|	|	|	0.00
104.750	0.00	0.01	0.005	O	|	|	|	|	0.00
104.833	0.00	0.01	0.005	O	|	|	|	|	0.00
104.917	0.00	0.01	0.005	O	|	|	|	|	0.00
105.000	0.00	0.01	0.005	O	|	|	|	|	0.00
105.083	0.00	0.01	0.005	O	|	|	|	|	0.00
105.167	0.00	0.01	0.005	O	|	|	|	|	0.00
105.250	0.00	0.01	0.005	O	|	|	|	|	0.00
105.333	0.00	0.01	0.005	O	|	|	|	|	0.00
105.417	0.00	0.01	0.005	O	|	|	|	|	0.00
105.500	0.00	0.01	0.005	O	|	|	|	|	0.00
105.583	0.00	0.01	0.005	O	|	|	|	|	0.00
105.667	0.00	0.01	0.005	O	|	|	|	|	0.00
105.750	0.00	0.01	0.005	O	|	|	|	|	0.00
105.833	0.00	0.01	0.004	O	|	|	|	|	0.00
105.917	0.00	0.01	0.004	O	|	|	|	|	0.00
106.000	0.00	0.00	0.004	O	|	|	|	|	0.00
106.083	0.00	0.00	0.004	O	|	|	|	|	0.00
106.167	0.00	0.00	0.004	O	|	|	|	|	0.00
106.250	0.00	0.00	0.004	O	|	|	|	|	0.00
106.333	0.00	0.00	0.004	O	|	|	|	|	0.00
106.417	0.00	0.00	0.004	O	|	|	|	|	0.00
106.500	0.00	0.00	0.004	O	|	|	|	|	0.00
106.583	0.00	0.00	0.004	O	|	|	|	|	0.00
106.667	0.00	0.00	0.004	O	|	|	|	|	0.00
106.750	0.00	0.00	0.004	O	|	|	|	|	0.00
106.833	0.00	0.00	0.004	O	|	|	|	|	0.00
106.917	0.00	0.00	0.004	O	|	|	|	|	0.00
107.000	0.00	0.00	0.004	O	|	|	|	|	0.00
107.083	0.00	0.00	0.004	O	|	|	|	|	0.00
107.167	0.00	0.00	0.004	O	|	|	|	|	0.00
107.250	0.00	0.00	0.004	O	|	|	|	|	0.00
107.333	0.00	0.00	0.004	O	|	|	|	|	0.00
107.417	0.00	0.00	0.004	O	|	|	|	|	0.00
107.500	0.00	0.00	0.004	O	|	|	|	|	0.00
107.583	0.00	0.00	0.004	O	|	|	|	|	0.00
107.667	0.00	0.00	0.004	O	|	|	|	|	0.00
107.750	0.00	0.00	0.004	O	|	|	|	|	0.00
107.833	0.00	0.00	0.004	O	|	|	|	|	0.00
107.917	0.00	0.00	0.004	O	|	|	|	|	0.00
108.000	0.00	0.00	0.004	O	|	|	|	|	0.00
108.083	0.00	0.00	0.004	O	|	|	|	|	0.00
108.167	0.00	0.00	0.004	O	|	|	|	|	0.00
108.250	0.00	0.00	0.004	O	|	|	|	|	0.00
108.333	0.00	0.00	0.004	O	|	|	|	|	0.00
108.417	0.00	0.00	0.004	O	|	|	|	|	0.00
108.500	0.00	0.00	0.004	O	|	|	|	|	0.00
108.583	0.00	0.00	0.003	O	|	|	|	|	0.00
108.667	0.00	0.00	0.003	O	|	|	|	|	0.00
108.750	0.00	0.00	0.003	O	|	|	|	|	0.00
108.833	0.00	0.00	0.003	O	|	|	|	|	0.00
108.917	0.00	0.00	0.003	O	|	|	|	|	0.00
109.000	0.00	0.00	0.003	O	|	|	|	|	0.00
109.083	0.00	0.00	0.003	O	|	|	|	|	0.00
109.167	0.00	0.00	0.003	O	|	|	|	|	0.00
109.250	0.00	0.00	0.003	O	|	|	|	|	0.00
109.333	0.00	0.00	0.003	O	|	|	|	|	0.00
109.417	0.00	0.00	0.003	O	|	|	|	|	0.00
109.500	0.00	0.00	0.003	O	|	|	|	|	0.00
109.583	0.00	0.00	0.003	O	|	|	|	|	0.00
109.667	0.00	0.00	0.003	O	|	|	|	|	0.00
109.750	0.00	0.00	0.003	O	|	|	|	|	0.00

```
109.833    0.00    0.00     0.003  O       |       |       |       |      0.00
109.917    0.00    0.00     0.003  O       |       |       |       |      0.00
110.000    0.00    0.00     0.003  O       |       |       |       |      0.00
110.083    0.00    0.00     0.003  O       |       |       |       |      0.00
110.167    0.00    0.00     0.003  O       |       |       |       |      0.00
110.250    0.00    0.00     0.003  O       |       |       |       |      0.00
110.333    0.00    0.00     0.003  O       |       |       |       |      0.00
110.417    0.00    0.00     0.003  O       |       |       |       |      0.00
110.500    0.00    0.00     0.003  O       |       |       |       |      0.00
110.583    0.00    0.00     0.003  O       |       |       |       |      0.00
110.667    0.00    0.00     0.003  O       |       |       |       |      0.00
110.750    0.00    0.00     0.003  O       |       |       |       |      0.00
110.833    0.00    0.00     0.003  O       |       |       |       |      0.00
110.917    0.00    0.00     0.003  O       |       |       |       |      0.00
111.000    0.00    0.00     0.003  O       |       |       |       |      0.00
111.083    0.00    0.00     0.003  O       |       |       |       |      0.00
111.167    0.00    0.00     0.003  O       |       |       |       |      0.00
111.250    0.00    0.00     0.003  O       |       |       |       |      0.00
111.333    0.00    0.00     0.003  O       |       |       |       |      0.00
111.417    0.00    0.00     0.003  O       |       |       |       |      0.00
111.500    0.00    0.00     0.003  O       |       |       |       |      0.00
111.583    0.00    0.00     0.003  O       |       |       |       |      0.00
111.667    0.00    0.00     0.003  O       |       |       |       |      0.00
111.750    0.00    0.00     0.003  O       |       |       |       |      0.00
111.833    0.00    0.00     0.003  O       |       |       |       |      0.00
111.917    0.00    0.00     0.003  O       |       |       |       |      0.00
112.000    0.00    0.00     0.003  O       |       |       |       |      0.00
112.083    0.00    0.00     0.003  O       |       |       |       |      0.00
112.167    0.00    0.00     0.002  O       |       |       |       |      0.00
112.250    0.00    0.00     0.002  O       |       |       |       |      0.00
112.333    0.00    0.00     0.002  O       |       |       |       |      0.00
112.417    0.00    0.00     0.002  O       |       |       |       |      0.00
112.500    0.00    0.00     0.002  O       |       |       |       |      0.00
112.583    0.00    0.00     0.002  O       |       |       |       |      0.00
112.667    0.00    0.00     0.002  O       |       |       |       |      0.00
112.750    0.00    0.00     0.002  O       |       |       |       |      0.00
112.833    0.00    0.00     0.002  O       |       |       |       |      0.00
112.917    0.00    0.00     0.002  O       |       |       |       |      0.00
113.000    0.00    0.00     0.002  O       |       |       |       |      0.00
113.083    0.00    0.00     0.002  O       |       |       |       |      0.00
113.167    0.00    0.00     0.002  O       |       |       |       |      0.00
113.250    0.00    0.00     0.002  O       |       |       |       |      0.00
113.333    0.00    0.00     0.002  O       |       |       |       |      0.00
113.417    0.00    0.00     0.002  O       |       |       |       |      0.00
113.500    0.00    0.00     0.002  O       |       |       |       |      0.00
113.583    0.00    0.00     0.002  O       |       |       |       |      0.00
113.667    0.00    0.00     0.002  O       |       |       |       |      0.00
113.750    0.00    0.00     0.002  O       |       |       |       |      0.00
113.833    0.00    0.00     0.002  O       |       |       |       |      0.00
113.917    0.00    0.00     0.002  O       |       |       |       |      0.00
114.000    0.00    0.00     0.002  O       |       |       |       |      0.00
114.083    0.00    0.00     0.002  O       |       |       |       |      0.00
114.167    0.00    0.00     0.002  O       |       |       |       |      0.00
114.250    0.00    0.00     0.002  O       |       |       |       |      0.00
114.333    0.00    0.00     0.002  O       |       |       |       |      0.00
114.417    0.00    0.00     0.002  O       |       |       |       |      0.00
114.500    0.00    0.00     0.002  O       |       |       |       |      0.00
114.583    0.00    0.00     0.002  O       |       |       |       |      0.00
114.667    0.00    0.00     0.002  O       |       |       |       |      0.00
114.750    0.00    0.00     0.002  O       |       |       |       |      0.00
114.833    0.00    0.00     0.002  O       |       |       |       |      0.00
114.917    0.00    0.00     0.002  O       |       |       |       |      0.00
115.000    0.00    0.00     0.002  O       |       |       |       |      0.00
115.083    0.00    0.00     0.002  O       |       |       |       |      0.00
115.167    0.00    0.00     0.002  O       |       |       |       |      0.00
115.250    0.00    0.00     0.002  O       |       |       |       |      0.00
```

```
115.333    0.00    0.00      0.002  O       |       |       |       |      0.00
115.417    0.00    0.00      0.002  O       |       |       |       |      0.00
115.500    0.00    0.00      0.002  O       |       |       |       |      0.00
115.583    0.00    0.00      0.002  O       |       |       |       |      0.00
115.667    0.00    0.00      0.002  O       |       |       |       |      0.00
115.750    0.00    0.00      0.002  O       |       |       |       |      0.00
115.833    0.00    0.00      0.002  O       |       |       |       |      0.00
115.917    0.00    0.00      0.002  O       |       |       |       |      0.00
116.000    0.00    0.00      0.002  O       |       |       |       |      0.00
116.083    0.00    0.00      0.002  O       |       |       |       |      0.00
116.167    0.00    0.00      0.002  O       |       |       |       |      0.00
116.250    0.00    0.00      0.002  O       |       |       |       |      0.00
116.333    0.00    0.00      0.002  O       |       |       |       |      0.00

      Remaining water in basin =    0.00 (Ac.Ft)

      ****************************HYDROGRAPH DATA****************************
                   Number of intervals =  1396
                   Time interval =    5.0 (Min.)
                   Maximum/Peak flow rate =       13.532 (CFS)
                   Total volume =      11.476 (Ac.Ft)
             Status of hydrographs being held in storage
                       Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
      ***********************************************************************

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```

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                   FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                      Study date: 05/07/21

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

Keller Crossing – Basin C
Detention Basin Routing
Inflow Hydrograph 100-year 3-hour storm

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


Program License Serial Number 4029

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

             From study/file name: kxprh3100.rte
***************************HYDROGRAPH DATA***************************
             Number of intervals =    42
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =      176.391 (CFS)
             Total volume =      15.864 (Ac.Ft)
      Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
**********************************************************************



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

User entry of depth-outflow-storage data
---------------------------------------------------------------------
Total number of inflow hydrograph intervals = 42
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
---------------------------------------------------------------------
---------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
----------------------------------------------------------------------
---------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)      (Ac.Ft)    (Ac.Ft)
----------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      1.693      1.910      1.686        1.700
   2.000      3.806      2.340      3.798        3.814
   3.000      6.534      2.710      6.525        6.543
   4.000      9.741      3.030      9.731        9.751
   5.000     13.275     33.320     13.160       13.390
   6.000     16.265     88.430     15.960       16.570
---------------------------------------------------------------------
             Hydrograph Detention Basin Routing
----------------------------------------------------------------------
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```
     Graph values: 'I'= unit inflow; 'O'=outflow at time shown
     ----------------------------------------------------------------------
 Time   Inflow  Outflow    Storage                                  Depth
(Hours)  (CFS)   (CFS)     (Ac.Ft) .0       44.1   88.20  132.29  176.39 (Ft.)
 0.083    6.32    0.02      0.022  OI      |       |       |       |      0.01
 0.167   18.92    0.12      0.108  O  I    |       |       |       |      0.06
 0.250   21.15    0.28      0.245  O  I    |       |       |       |      0.14
 0.333   22.75    0.44      0.393  O   I   |       |       |       |      0.23
 0.417   27.97    0.64      0.564  O    I  |       |       |       |      0.33
 0.500   31.46    0.86      0.764  O    I  |       |       |       |      0.45
 0.583   34.22    1.11      0.983  O     I |       |       |       |      0.58
 0.667   33.63    1.36      1.208  O     I |       |       |       |      0.71
 0.750   36.96    1.63      1.441  O     I |       |       |       |      0.85
 0.833   36.07    1.90      1.680  O     I |       |       |       |      0.99
 0.917   33.29    1.95      1.906  O     I |       |       |       |      1.10
 1.000   35.00    2.00      2.128  O     I |       |       |       |      1.21
 1.083   39.94    2.05      2.372  O      I|       |       |       |      1.32
 1.167   45.69    2.11      2.652  O       I       |       |       |      1.45
 1.250   47.34    2.17      2.958  O       I       |       |       |      1.60
 1.333   46.82    2.23      3.267  O       I       |       |       |      1.74
 1.417   48.58    2.29      3.580  O       I       |       |       |      1.89
 1.500   56.36    2.36      3.925  O       | I     |       |       |      2.04
 1.583   57.66    2.41      4.302  O       | I     |       |       |      2.18
 1.667   56.91    2.46      4.679  O       | I     |       |       |      2.32
 1.750   64.00    2.51      5.079  O       |  I    |       |       |      2.47
 1.833   71.18    2.57      5.527  O       |   I   |       |       |      2.63
 1.917   70.01    2.64      5.995  O       |   I   |       |       |      2.80
 2.000   68.53    2.70      6.453  O       |   I   |       |       |      2.97
 2.083   69.96    2.75      6.912  O       |   I   |       |       |      3.12
 2.167   78.45    2.80      7.404  O       |     I |       |       |      3.27
 2.250   97.81    2.86      7.991  O       |       |I      |       |      3.45
 2.333  102.31    2.92      8.660  O       |       | I     |       |      3.66
 2.417  108.86    2.99      9.367  O       |       |  I    |       |      3.88
 2.500  150.63    7.18     10.226  |O      |       |       |  I    |      4.14
 2.583  173.05   16.05     11.260  | O     |       |       |      I|      4.43
 2.667  176.39   25.15     12.322  |   O   |       |       |      I|      4.73
 2.750  129.27   32.47     13.176  |    O  |       |      I|       |      4.97
 2.833   73.88   39.80     13.626  |      O|    I  |       |       |      5.12
 2.917   56.53   42.83     13.791  |      O| I     |       |       |      5.17
 3.000   41.15   43.55     13.830  |      O|       |       |       |      5.19
 3.083   20.00   42.00     13.746  |  I   O|       |       |       |      5.16
 3.167    8.22   38.67     13.565  |I     O|       |       |       |      5.10
 3.250    3.41   34.75     13.353  I     O |       |       |       |      5.03
 3.333    1.73   32.16     13.140  I    O  |       |       |       |      4.96
 3.417    0.82   30.39     12.933  I    O  |       |       |       |      4.90
 3.500    0.15   28.68     12.733  I    O  |       |       |       |      4.85
 3.583    0.00   27.04     12.542  I   O   |       |       |       |      4.79
 3.667    0.00   25.49     12.361  I   O   |       |       |       |      4.74
 3.750    0.00   24.02     12.190  I   O   |       |       |       |      4.69
 3.833    0.00   22.65     12.030  I   O   |       |       |       |      4.65
 3.917    0.00   21.35     11.878  I  O    |       |       |       |      4.60
 4.000    0.00   20.12     11.735  I  O    |       |       |       |      4.56
 4.083    0.00   18.97     11.601  I  O    |       |       |       |      4.53
 4.167    0.00   17.88     11.474  I  O    |       |       |       |      4.49
 4.250    0.00   16.86     11.354  I  O    |       |       |       |      4.46
 4.333    0.00   15.89     11.242  I O     |       |       |       |      4.42
 4.417    0.00   14.98     11.135  I O     |       |       |       |      4.39
 4.500    0.00   14.12     11.035  I O     |       |       |       |      4.37
 4.583    0.00   13.31     10.941  I O     |       |       |       |      4.34
 4.667    0.00   12.55     10.852  I O     |       |       |       |      4.31
 4.750    0.00   11.83     10.768  I O     |       |       |       |      4.29
 4.833    0.00   11.15     10.688  I O     |       |       |       |      4.27
 4.917    0.00   10.51     10.614  IO      |       |       |       |      4.25
 5.000    0.00    9.91     10.544  IO      |       |       |       |      4.23
 5.083    0.00    9.34     10.477  IO      |       |       |       |      4.21
 5.167    0.00    8.80     10.415  IO      |       |       |       |      4.19
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  5.250    0.00    8.30    10.356  IO       |         |         |         |        4.17
  5.333    0.00    7.82    10.300  IO       |         |         |         |        4.16
  5.417    0.00    7.38    10.248  IO       |         |         |         |        4.14
  5.500    0.00    6.95    10.199  IO       |         |         |         |        4.13
  5.583    0.00    6.55    10.152  IO       |         |         |         |        4.12
  5.667    0.00    6.18    10.108  IO       |         |         |         |        4.10
  5.750    0.00    5.82    10.067  IO       |         |         |         |        4.09
  5.833    0.00    5.49    10.028  O        |         |         |         |        4.08
  5.917    0.00    5.18     9.991  O        |         |         |         |        4.07
  6.000    0.00    4.88     9.957  O        |         |         |         |        4.06
  6.083    0.00    4.60     9.924  O        |         |         |         |        4.05
  6.167    0.00    4.34     9.893  O        |         |         |         |        4.04
  6.250    0.00    4.09     9.864  O        |         |         |         |        4.03
  6.333    0.00    3.85     9.837  O        |         |         |         |        4.03
  6.417    0.00    3.63     9.811  O        |         |         |         |        4.02
  6.500    0.00    3.42     9.787  O        |         |         |         |        4.01
  6.583    0.00    3.23     9.764  O        |         |         |         |        4.01
  6.667    0.00    3.04     9.742  O        |         |         |         |        4.00
  6.750    0.00    3.03     9.721  O        |         |         |         |        3.99
  6.833    0.00    3.03     9.701  O        |         |         |         |        3.99
  6.917    0.00    3.02     9.680  O        |         |         |         |        3.98
  7.000    0.00    3.02     9.659  O        |         |         |         |        3.97
  7.083    0.00    3.02     9.638  O        |         |         |         |        3.97
  7.167    0.00    3.02     9.617  O        |         |         |         |        3.96
  7.250    0.00    3.02     9.597  O        |         |         |         |        3.95
  7.333    0.00    3.01     9.576  O        |         |         |         |        3.95
  7.417    0.00    3.01     9.555  O        |         |         |         |        3.94
  7.500    0.00    3.01     9.534  O        |         |         |         |        3.94
  7.583    0.00    3.01     9.514  O        |         |         |         |        3.93
  7.667    0.00    3.01     9.493  O        |         |         |         |        3.92
  7.750    0.00    3.00     9.472  O        |         |         |         |        3.92
  7.833    0.00    3.00     9.452  O        |         |         |         |        3.91
  7.917    0.00    3.00     9.431  O        |         |         |         |        3.90
  8.000    0.00    3.00     9.410  O        |         |         |         |        3.90
  8.083    0.00    2.99     9.390  O        |         |         |         |        3.89
  8.167    0.00    2.99     9.369  O        |         |         |         |        3.88
  8.250    0.00    2.99     9.348  O        |         |         |         |        3.88
  8.333    0.00    2.99     9.328  O        |         |         |         |        3.87
  8.417    0.00    2.99     9.307  O        |         |         |         |        3.86
  8.500    0.00    2.98     9.287  O        |         |         |         |        3.86
  8.583    0.00    2.98     9.266  O        |         |         |         |        3.85
  8.667    0.00    2.98     9.246  O        |         |         |         |        3.85
  8.750    0.00    2.98     9.225  O        |         |         |         |        3.84
  8.833    0.00    2.98     9.205  O        |         |         |         |        3.83
  8.917    0.00    2.97     9.184  O        |         |         |         |        3.83
  9.000    0.00    2.97     9.164  O        |         |         |         |        3.82
  9.083    0.00    2.97     9.143  O        |         |         |         |        3.81
  9.167    0.00    2.97     9.123  O        |         |         |         |        3.81
  9.250    0.00    2.97     9.102  O        |         |         |         |        3.80
  9.333    0.00    2.96     9.082  O        |         |         |         |        3.79
  9.417    0.00    2.96     9.061  O        |         |         |         |        3.79
  9.500    0.00    2.96     9.041  O        |         |         |         |        3.78
  9.583    0.00    2.96     9.021  O        |         |         |         |        3.78
  9.667    0.00    2.96     9.000  O        |         |         |         |        3.77
  9.750    0.00    2.95     8.980  O        |         |         |         |        3.76
  9.833    0.00    2.95     8.960  O        |         |         |         |        3.76
  9.917    0.00    2.95     8.939  O        |         |         |         |        3.75
 10.000    0.00    2.95     8.919  O        |         |         |         |        3.74
 10.083    0.00    2.95     8.899  O        |         |         |         |        3.74
 10.167    0.00    2.94     8.878  O        |         |         |         |        3.73
 10.250    0.00    2.94     8.858  O        |         |         |         |        3.72
 10.333    0.00    2.94     8.838  O        |         |         |         |        3.72
 10.417    0.00    2.94     8.818  O        |         |         |         |        3.71
 10.500    0.00    2.94     8.797  O        |         |         |         |        3.71
 10.583    0.00    2.93     8.777  O        |         |         |         |        3.70
 10.667    0.00    2.93     8.757  O        |         |         |         |        3.69
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10.750   0.00   2.93   8.737  O      |      |      |      |      3.69
10.833   0.00   2.93   8.717  O      |      |      |      |      3.68
10.917   0.00   2.93   8.696  O      |      |      |      |      3.67
11.000   0.00   2.92   8.676  O      |      |      |      |      3.67
11.083   0.00   2.92   8.656  O      |      |      |      |      3.66
11.167   0.00   2.92   8.636  O      |      |      |      |      3.66
11.250   0.00   2.92   8.616  O      |      |      |      |      3.65
11.333   0.00   2.92   8.596  O      |      |      |      |      3.64
11.417   0.00   2.91   8.576  O      |      |      |      |      3.64
11.500   0.00   2.91   8.556  O      |      |      |      |      3.63
11.583   0.00   2.91   8.536  O      |      |      |      |      3.62
11.667   0.00   2.91   8.516  O      |      |      |      |      3.62
11.750   0.00   2.91   8.496  O      |      |      |      |      3.61
11.833   0.00   2.90   8.476  O      |      |      |      |      3.61
11.917   0.00   2.90   8.456  O      |      |      |      |      3.60
12.000   0.00   2.90   8.436  O      |      |      |      |      3.59
12.083   0.00   2.90   8.416  O      |      |      |      |      3.59
12.167   0.00   2.90   8.396  O      |      |      |      |      3.58
12.250   0.00   2.89   8.376  O      |      |      |      |      3.57
12.333   0.00   2.89   8.356  O      |      |      |      |      3.57
12.417   0.00   2.89   8.336  O      |      |      |      |      3.56
12.500   0.00   2.89   8.316  O      |      |      |      |      3.56
12.583   0.00   2.89   8.296  O      |      |      |      |      3.55
12.667   0.00   2.88   8.276  O      |      |      |      |      3.54
12.750   0.00   2.88   8.257  O      |      |      |      |      3.54
12.833   0.00   2.88   8.237  O      |      |      |      |      3.53
12.917   0.00   2.88   8.217  O      |      |      |      |      3.52
13.000   0.00   2.88   8.197  O      |      |      |      |      3.52
13.083   0.00   2.87   8.177  O      |      |      |      |      3.51
13.167   0.00   2.87   8.157  O      |      |      |      |      3.51
13.250   0.00   2.87   8.138  O      |      |      |      |      3.50
13.333   0.00   2.87   8.118  O      |      |      |      |      3.49
13.417   0.00   2.87   8.098  O      |      |      |      |      3.49
13.500   0.00   2.86   8.078  O      |      |      |      |      3.48
13.583   0.00   2.86   8.059  O      |      |      |      |      3.48
13.667   0.00   2.86   8.039  O      |      |      |      |      3.47
13.750   0.00   2.86   8.019  O      |      |      |      |      3.46
13.833   0.00   2.86   8.000  O      |      |      |      |      3.46
13.917   0.00   2.85   7.980  O      |      |      |      |      3.45
14.000   0.00   2.85   7.960  O      |      |      |      |      3.44
14.083   0.00   2.85   7.941  O      |      |      |      |      3.44
14.167   0.00   2.85   7.921  O      |      |      |      |      3.43
14.250   0.00   2.85   7.901  O      |      |      |      |      3.43
14.333   0.00   2.84   7.882  O      |      |      |      |      3.42
14.417   0.00   2.84   7.862  O      |      |      |      |      3.41
14.500   0.00   2.84   7.843  O      |      |      |      |      3.41
14.583   0.00   2.84   7.823  O      |      |      |      |      3.40
14.667   0.00   2.84   7.804  O      |      |      |      |      3.40
14.750   0.00   2.83   7.784  O      |      |      |      |      3.39
14.833   0.00   2.83   7.765  O      |      |      |      |      3.38
14.917   0.00   2.83   7.745  O      |      |      |      |      3.38
15.000   0.00   2.83   7.726  O      |      |      |      |      3.37
15.083   0.00   2.83   7.706  O      |      |      |      |      3.37
15.167   0.00   2.83   7.687  O      |      |      |      |      3.36
15.250   0.00   2.82   7.667  O      |      |      |      |      3.35
15.333   0.00   2.82   7.648  O      |      |      |      |      3.35
15.417   0.00   2.82   7.628  O      |      |      |      |      3.34
15.500   0.00   2.82   7.609  O      |      |      |      |      3.34
15.583   0.00   2.82   7.590  O      |      |      |      |      3.33
15.667   0.00   2.81   7.570  O      |      |      |      |      3.32
15.750   0.00   2.81   7.551  O      |      |      |      |      3.32
15.833   0.00   2.81   7.531  O      |      |      |      |      3.31
15.917   0.00   2.81   7.512  O      |      |      |      |      3.30
16.000   0.00   2.81   7.493  O      |      |      |      |      3.30
16.083   0.00   2.80   7.473  O      |      |      |      |      3.29
16.167   0.00   2.80   7.454  O      |      |      |      |      3.29
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 16.250    0.00    2.80      7.435  O       |       |       |       |      3.28
 16.333    0.00    2.80      7.416  O       |       |       |       |      3.27
 16.417    0.00    2.80      7.396  O       |       |       |       |      3.27
 16.500    0.00    2.79      7.377  O       |       |       |       |      3.26
 16.583    0.00    2.79      7.358  O       |       |       |       |      3.26
 16.667    0.00    2.79      7.339  O       |       |       |       |      3.25
 16.750    0.00    2.79      7.319  O       |       |       |       |      3.24
 16.833    0.00    2.79      7.300  O       |       |       |       |      3.24
 16.917    0.00    2.78      7.281  O       |       |       |       |      3.23
 17.000    0.00    2.78      7.262  O       |       |       |       |      3.23
 17.083    0.00    2.78      7.243  O       |       |       |       |      3.22
 17.167    0.00    2.78      7.224  O       |       |       |       |      3.22
 17.250    0.00    2.78      7.204  O       |       |       |       |      3.21
 17.333    0.00    2.77      7.185  O       |       |       |       |      3.20
 17.417    0.00    2.77      7.166  O       |       |       |       |      3.20
 17.500    0.00    2.77      7.147  O       |       |       |       |      3.19
 17.583    0.00    2.77      7.128  O       |       |       |       |      3.19
 17.667    0.00    2.77      7.109  O       |       |       |       |      3.18
 17.750    0.00    2.77      7.090  O       |       |       |       |      3.17
 17.833    0.00    2.76      7.071  O       |       |       |       |      3.17
 17.917    0.00    2.76      7.052  O       |       |       |       |      3.16
 18.000    0.00    2.76      7.033  O       |       |       |       |      3.16
 18.083    0.00    2.76      7.014  O       |       |       |       |      3.15
 18.167    0.00    2.76      6.995  O       |       |       |       |      3.14
 18.250    0.00    2.75      6.976  O       |       |       |       |      3.14
 18.333    0.00    2.75      6.957  O       |       |       |       |      3.13
 18.417    0.00    2.75      6.938  O       |       |       |       |      3.13
 18.500    0.00    2.75      6.919  O       |       |       |       |      3.12
 18.583    0.00    2.75      6.900  O       |       |       |       |      3.11
 18.667    0.00    2.74      6.881  O       |       |       |       |      3.11
 18.750    0.00    2.74      6.862  O       |       |       |       |      3.10
 18.833    0.00    2.74      6.843  O       |       |       |       |      3.10
 18.917    0.00    2.74      6.825  O       |       |       |       |      3.09
 19.000    0.00    2.74      6.806  O       |       |       |       |      3.08
 19.083    0.00    2.74      6.787  O       |       |       |       |      3.08
 19.167    0.00    2.73      6.768  O       |       |       |       |      3.07
 19.250    0.00    2.73      6.749  O       |       |       |       |      3.07
 19.333    0.00    2.73      6.730  O       |       |       |       |      3.06
 19.417    0.00    2.73      6.712  O       |       |       |       |      3.06
 19.500    0.00    2.73      6.693  O       |       |       |       |      3.05
 19.583    0.00    2.72      6.674  O       |       |       |       |      3.04
 19.667    0.00    2.72      6.655  O       |       |       |       |      3.04
 19.750    0.00    2.72      6.637  O       |       |       |       |      3.03
 19.833    0.00    2.72      6.618  O       |       |       |       |      3.03
 19.917    0.00    2.72      6.599  O       |       |       |       |      3.02
 20.000    0.00    2.71      6.580  O       |       |       |       |      3.01
 20.083    0.00    2.71      6.562  O       |       |       |       |      3.01
 20.167    0.00    2.71      6.543  O       |       |       |       |      3.00
 20.250    0.00    2.71      6.524  O       |       |       |       |      3.00
 20.333    0.00    2.71      6.506  O       |       |       |       |      2.99
 20.417    0.00    2.70      6.487  O       |       |       |       |      2.98
 20.500    0.00    2.70      6.468  O       |       |       |       |      2.98
 20.583    0.00    2.70      6.450  O       |       |       |       |      2.97
 20.667    0.00    2.70      6.431  O       |       |       |       |      2.96
 20.750    0.00    2.69      6.413  O       |       |       |       |      2.96
 20.833    0.00    2.69      6.394  O       |       |       |       |      2.95
 20.917    0.00    2.69      6.376  O       |       |       |       |      2.94
 21.000    0.00    2.69      6.357  O       |       |       |       |      2.94
 21.083    0.00    2.68      6.339  O       |       |       |       |      2.93
 21.167    0.00    2.68      6.320  O       |       |       |       |      2.92
 21.250    0.00    2.68      6.302  O       |       |       |       |      2.91
 21.333    0.00    2.68      6.283  O       |       |       |       |      2.91
 21.417    0.00    2.67      6.265  O       |       |       |       |      2.90
 21.500    0.00    2.67      6.246  O       |       |       |       |      2.89
 21.583    0.00    2.67      6.228  O       |       |       |       |      2.89
 21.667    0.00    2.67      6.210  O       |       |       |       |      2.88
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21.750    0.00    2.66     6.191  O       |       |       |       |      2.87
21.833    0.00    2.66     6.173  O       |       |       |       |      2.87
21.917    0.00    2.66     6.155  O       |       |       |       |      2.86
22.000    0.00    2.66     6.136  O       |       |       |       |      2.85
22.083    0.00    2.65     6.118  O       |       |       |       |      2.85
22.167    0.00    2.65     6.100  O       |       |       |       |      2.84
22.250    0.00    2.65     6.082  O       |       |       |       |      2.83
22.333    0.00    2.65     6.063  O       |       |       |       |      2.83
22.417    0.00    2.64     6.045  O       |       |       |       |      2.82
22.500    0.00    2.64     6.027  O       |       |       |       |      2.81
22.583    0.00    2.64     6.009  O       |       |       |       |      2.81
22.667    0.00    2.64     5.991  O       |       |       |       |      2.80
22.750    0.00    2.63     5.972  O       |       |       |       |      2.79
22.833    0.00    2.63     5.954  O       |       |       |       |      2.79
22.917    0.00    2.63     5.936  O       |       |       |       |      2.78
23.000    0.00    2.63     5.918  O       |       |       |       |      2.77
23.083    0.00    2.62     5.900  O       |       |       |       |      2.77
23.167    0.00    2.62     5.882  O       |       |       |       |      2.76
23.250    0.00    2.62     5.864  O       |       |       |       |      2.75
23.333    0.00    2.62     5.846  O       |       |       |       |      2.75
23.417    0.00    2.61     5.828  O       |       |       |       |      2.74
23.500    0.00    2.61     5.810  O       |       |       |       |      2.73
23.583    0.00    2.61     5.792  O       |       |       |       |      2.73
23.667    0.00    2.61     5.774  O       |       |       |       |      2.72
23.750    0.00    2.60     5.756  O       |       |       |       |      2.71
23.833    0.00    2.60     5.738  O       |       |       |       |      2.71
23.917    0.00    2.60     5.720  O       |       |       |       |      2.70
24.000    0.00    2.60     5.702  O       |       |       |       |      2.70
24.083    0.00    2.59     5.684  O       |       |       |       |      2.69
24.167    0.00    2.59     5.667  O       |       |       |       |      2.68
24.250    0.00    2.59     5.649  O       |       |       |       |      2.68
24.333    0.00    2.59     5.631  O       |       |       |       |      2.67
24.417    0.00    2.59     5.613  O       |       |       |       |      2.66
24.500    0.00    2.58     5.595  O       |       |       |       |      2.66
24.583    0.00    2.58     5.577  O       |       |       |       |      2.65
24.667    0.00    2.58     5.560  O       |       |       |       |      2.64
24.750    0.00    2.58     5.542  O       |       |       |       |      2.64
24.833    0.00    2.57     5.524  O       |       |       |       |      2.63
24.917    0.00    2.57     5.507  O       |       |       |       |      2.62
25.000    0.00    2.57     5.489  O       |       |       |       |      2.62
25.083    0.00    2.57     5.471  O       |       |       |       |      2.61
25.167    0.00    2.56     5.453  O       |       |       |       |      2.60
25.250    0.00    2.56     5.436  O       |       |       |       |      2.60
25.333    0.00    2.56     5.418  O       |       |       |       |      2.59
25.417    0.00    2.56     5.401  O       |       |       |       |      2.58
25.500    0.00    2.55     5.383  O       |       |       |       |      2.58
25.583    0.00    2.55     5.365  O       |       |       |       |      2.57
25.667    0.00    2.55     5.348  O       |       |       |       |      2.57
25.750    0.00    2.55     5.330  O       |       |       |       |      2.56
25.833    0.00    2.54     5.313  O       |       |       |       |      2.55
25.917    0.00    2.54     5.295  O       |       |       |       |      2.55
26.000    0.00    2.54     5.278  O       |       |       |       |      2.54
26.083    0.00    2.54     5.260  O       |       |       |       |      2.53
26.167    0.00    2.53     5.243  O       |       |       |       |      2.53
26.250    0.00    2.53     5.225  O       |       |       |       |      2.52
26.333    0.00    2.53     5.208  O       |       |       |       |      2.51
26.417    0.00    2.53     5.191  O       |       |       |       |      2.51
26.500    0.00    2.53     5.173  O       |       |       |       |      2.50
26.583    0.00    2.52     5.156  O       |       |       |       |      2.49
26.667    0.00    2.52     5.138  O       |       |       |       |      2.49
26.750    0.00    2.52     5.121  O       |       |       |       |      2.48
26.833    0.00    2.52     5.104  O       |       |       |       |      2.48
26.917    0.00    2.51     5.086  O       |       |       |       |      2.47
27.000    0.00    2.51     5.069  O       |       |       |       |      2.46
27.083    0.00    2.51     5.052  O       |       |       |       |      2.46
27.167    0.00    2.51     5.034  O       |       |       |       |      2.45
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27.250    0.00    2.50     5.017  O       |       |       |       |     2.44
27.333    0.00    2.50     5.000  O       |       |       |       |     2.44
27.417    0.00    2.50     4.983  O       |       |       |       |     2.43
27.500    0.00    2.50     4.966  O       |       |       |       |     2.43
27.583    0.00    2.49     4.948  O       |       |       |       |     2.42
27.667    0.00    2.49     4.931  O       |       |       |       |     2.41
27.750    0.00    2.49     4.914  O       |       |       |       |     2.41
27.833    0.00    2.49     4.897  O       |       |       |       |     2.40
27.917    0.00    2.49     4.880  O       |       |       |       |     2.39
28.000    0.00    2.48     4.863  O       |       |       |       |     2.39
28.083    0.00    2.48     4.846  O       |       |       |       |     2.38
28.167    0.00    2.48     4.828  O       |       |       |       |     2.37
28.250    0.00    2.48     4.811  O       |       |       |       |     2.37
28.333    0.00    2.47     4.794  O       |       |       |       |     2.36
28.417    0.00    2.47     4.777  O       |       |       |       |     2.36
28.500    0.00    2.47     4.760  O       |       |       |       |     2.35
28.583    0.00    2.47     4.743  O       |       |       |       |     2.34
28.667    0.00    2.46     4.726  O       |       |       |       |     2.34
28.750    0.00    2.46     4.709  O       |       |       |       |     2.33
28.833    0.00    2.46     4.692  O       |       |       |       |     2.32
28.917    0.00    2.46     4.675  O       |       |       |       |     2.32
29.000    0.00    2.46     4.659  O       |       |       |       |     2.31
29.083    0.00    2.45     4.642  O       |       |       |       |     2.31
29.167    0.00    2.45     4.625  O       |       |       |       |     2.30
29.250    0.00    2.45     4.608  O       |       |       |       |     2.29
29.333    0.00    2.45     4.591  O       |       |       |       |     2.29
29.417    0.00    2.44     4.574  O       |       |       |       |     2.28
29.500    0.00    2.44     4.557  O       |       |       |       |     2.28
29.583    0.00    2.44     4.541  O       |       |       |       |     2.27
29.667    0.00    2.44     4.524  O       |       |       |       |     2.26
29.750    0.00    2.44     4.507  O       |       |       |       |     2.26
29.833    0.00    2.43     4.490  O       |       |       |       |     2.25
29.917    0.00    2.43     4.473  O       |       |       |       |     2.24
30.000    0.00    2.43     4.457  O       |       |       |       |     2.24
30.083    0.00    2.43     4.440  O       |       |       |       |     2.23
30.167    0.00    2.42     4.423  O       |       |       |       |     2.23
30.250    0.00    2.42     4.407  O       |       |       |       |     2.22
30.333    0.00    2.42     4.390  O       |       |       |       |     2.21
30.417    0.00    2.42     4.373  O       |       |       |       |     2.21
30.500    0.00    2.41     4.357  O       |       |       |       |     2.20
30.583    0.00    2.41     4.340  O       |       |       |       |     2.20
30.667    0.00    2.41     4.323  O       |       |       |       |     2.19
30.750    0.00    2.41     4.307  O       |       |       |       |     2.18
30.833    0.00    2.41     4.290  O       |       |       |       |     2.18
30.917    0.00    2.40     4.274  O       |       |       |       |     2.17
31.000    0.00    2.40     4.257  O       |       |       |       |     2.17
31.083    0.00    2.40     4.241  O       |       |       |       |     2.16
31.167    0.00    2.40     4.224  O       |       |       |       |     2.15
31.250    0.00    2.39     4.208  O       |       |       |       |     2.15
31.333    0.00    2.39     4.191  O       |       |       |       |     2.14
31.417    0.00    2.39     4.175  O       |       |       |       |     2.14
31.500    0.00    2.39     4.158  O       |       |       |       |     2.13
31.583    0.00    2.39     4.142  O       |       |       |       |     2.12
31.667    0.00    2.38     4.125  O       |       |       |       |     2.12
31.750    0.00    2.38     4.109  O       |       |       |       |     2.11
31.833    0.00    2.38     4.093  O       |       |       |       |     2.11
31.917    0.00    2.38     4.076  O       |       |       |       |     2.10
32.000    0.00    2.37     4.060  O       |       |       |       |     2.09
32.083    0.00    2.37     4.044  O       |       |       |       |     2.09
32.167    0.00    2.37     4.027  O       |       |       |       |     2.08
32.250    0.00    2.37     4.011  O       |       |       |       |     2.08
32.333    0.00    2.37     3.995  O       |       |       |       |     2.07
32.417    0.00    2.36     3.978  O       |       |       |       |     2.06
32.500    0.00    2.36     3.962  O       |       |       |       |     2.06
32.583    0.00    2.36     3.946  O       |       |       |       |     2.05
32.667    0.00    2.36     3.930  O       |       |       |       |     2.05
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32.750	0.00	2.35	3.913	O	|	|	|	|	2.04
32.833	0.00	2.35	3.897	O	|	|	|	|	2.03
32.917	0.00	2.35	3.881	O	|	|	|	|	2.03
33.000	0.00	2.35	3.865	O	|	|	|	|	2.02
33.083	0.00	2.35	3.849	O	|	|	|	|	2.02
33.167	0.00	2.34	3.832	O	|	|	|	|	2.01
33.250	0.00	2.34	3.816	O	|	|	|	|	2.00
33.333	0.00	2.34	3.800	O	|	|	|	|	2.00
33.417	0.00	2.34	3.784	O	|	|	|	|	1.99
33.500	0.00	2.33	3.768	O	|	|	|	|	1.98
33.583	0.00	2.33	3.752	O	|	|	|	|	1.97
33.667	0.00	2.33	3.736	O	|	|	|	|	1.97
33.750	0.00	2.32	3.720	O	|	|	|	|	1.96
33.833	0.00	2.32	3.704	O	|	|	|	|	1.95
33.917	0.00	2.32	3.688	O	|	|	|	|	1.94
34.000	0.00	2.31	3.672	O	|	|	|	|	1.94
34.083	0.00	2.31	3.656	O	|	|	|	|	1.93
34.167	0.00	2.31	3.640	O	|	|	|	|	1.92
34.250	0.00	2.30	3.624	O	|	|	|	|	1.91
34.333	0.00	2.30	3.608	O	|	|	|	|	1.91
34.417	0.00	2.30	3.593	O	|	|	|	|	1.90
34.500	0.00	2.29	3.577	O	|	|	|	|	1.89
34.583	0.00	2.29	3.561	O	|	|	|	|	1.88
34.667	0.00	2.29	3.545	O	|	|	|	|	1.88
34.750	0.00	2.28	3.530	O	|	|	|	|	1.87
34.833	0.00	2.28	3.514	O	|	|	|	|	1.86
34.917	0.00	2.28	3.498	O	|	|	|	|	1.85
35.000	0.00	2.27	3.482	O	|	|	|	|	1.85
35.083	0.00	2.27	3.467	O	|	|	|	|	1.84
35.167	0.00	2.27	3.451	O	|	|	|	|	1.83
35.250	0.00	2.26	3.436	O	|	|	|	|	1.82
35.333	0.00	2.26	3.420	O	|	|	|	|	1.82
35.417	0.00	2.26	3.404	O	|	|	|	|	1.81
35.500	0.00	2.26	3.389	O	|	|	|	|	1.80
35.583	0.00	2.25	3.373	O	|	|	|	|	1.80
35.667	0.00	2.25	3.358	O	|	|	|	|	1.79
35.750	0.00	2.25	3.342	O	|	|	|	|	1.78
35.833	0.00	2.24	3.327	O	|	|	|	|	1.77
35.917	0.00	2.24	3.312	O	|	|	|	|	1.77
36.000	0.00	2.24	3.296	O	|	|	|	|	1.76
36.083	0.00	2.23	3.281	O	|	|	|	|	1.75
36.167	0.00	2.23	3.265	O	|	|	|	|	1.74
36.250	0.00	2.23	3.250	O	|	|	|	|	1.74
36.333	0.00	2.22	3.235	O	|	|	|	|	1.73
36.417	0.00	2.22	3.219	O	|	|	|	|	1.72
36.500	0.00	2.22	3.204	O	|	|	|	|	1.72
36.583	0.00	2.21	3.189	O	|	|	|	|	1.71
36.667	0.00	2.21	3.174	O	|	|	|	|	1.70
36.750	0.00	2.21	3.158	O	|	|	|	|	1.69
36.833	0.00	2.21	3.143	O	|	|	|	|	1.69
36.917	0.00	2.20	3.128	O	|	|	|	|	1.68
37.000	0.00	2.20	3.113	O	|	|	|	|	1.67
37.083	0.00	2.20	3.098	O	|	|	|	|	1.66
37.167	0.00	2.19	3.083	O	|	|	|	|	1.66
37.250	0.00	2.19	3.068	O	|	|	|	|	1.65
37.333	0.00	2.19	3.052	O	|	|	|	|	1.64
37.417	0.00	2.18	3.037	O	|	|	|	|	1.64
37.500	0.00	2.18	3.022	O	|	|	|	|	1.63
37.583	0.00	2.18	3.007	O	|	|	|	|	1.62
37.667	0.00	2.17	2.992	O	|	|	|	|	1.61
37.750	0.00	2.17	2.977	O	|	|	|	|	1.61
37.833	0.00	2.17	2.962	O	|	|	|	|	1.60
37.917	0.00	2.17	2.948	O	|	|	|	|	1.59
38.000	0.00	2.16	2.933	O	|	|	|	|	1.59
38.083	0.00	2.16	2.918	O	|	|	|	|	1.58
38.167	0.00	2.16	2.903	O	|	|	|	|	1.57

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38.250    0.00    2.15     2.888  O       |        |        |        |      1.57
38.333    0.00    2.15     2.873  O       |        |        |        |      1.56
38.417    0.00    2.15     2.858  O       |        |        |        |      1.55
38.500    0.00    2.14     2.844  O       |        |        |        |      1.54
38.583    0.00    2.14     2.829  O       |        |        |        |      1.54
38.667    0.00    2.14     2.814  O       |        |        |        |      1.53
38.750    0.00    2.14     2.799  O       |        |        |        |      1.52
38.833    0.00    2.13     2.785  O       |        |        |        |      1.52
38.917    0.00    2.13     2.770  O       |        |        |        |      1.51
39.000    0.00    2.13     2.755  O       |        |        |        |      1.50
39.083    0.00    2.12     2.741  O       |        |        |        |      1.50
39.167    0.00    2.12     2.726  O       |        |        |        |      1.49
39.250    0.00    2.12     2.712  O       |        |        |        |      1.48
39.333    0.00    2.11     2.697  O       |        |        |        |      1.48
39.417    0.00    2.11     2.682  O       |        |        |        |      1.47
39.500    0.00    2.11     2.668  O       |        |        |        |      1.46
39.583    0.00    2.11     2.653  O       |        |        |        |      1.45
39.667    0.00    2.10     2.639  O       |        |        |        |      1.45
39.750    0.00    2.10     2.624  O       |        |        |        |      1.44
39.833    0.00    2.10     2.610  O       |        |        |        |      1.43
39.917    0.00    2.09     2.596  O       |        |        |        |      1.43
40.000    0.00    2.09     2.581  O       |        |        |        |      1.42
40.083    0.00    2.09     2.567  O       |        |        |        |      1.41
40.167    0.00    2.08     2.552  O       |        |        |        |      1.41
40.250    0.00    2.08     2.538  O       |        |        |        |      1.40
40.333    0.00    2.08     2.524  O       |        |        |        |      1.39
40.417    0.00    2.08     2.509  O       |        |        |        |      1.39
40.500    0.00    2.07     2.495  O       |        |        |        |      1.38
40.583    0.00    2.07     2.481  O       |        |        |        |      1.37
40.667    0.00    2.07     2.467  O       |        |        |        |      1.37
40.750    0.00    2.06     2.452  O       |        |        |        |      1.36
40.833    0.00    2.06     2.438  O       |        |        |        |      1.35
40.917    0.00    2.06     2.424  O       |        |        |        |      1.35
41.000    0.00    2.06     2.410  O       |        |        |        |      1.34
41.083    0.00    2.05     2.396  O       |        |        |        |      1.33
41.167    0.00    2.05     2.382  O       |        |        |        |      1.33
41.250    0.00    2.05     2.367  O       |        |        |        |      1.32
41.333    0.00    2.04     2.353  O       |        |        |        |      1.31
41.417    0.00    2.04     2.339  O       |        |        |        |      1.31
41.500    0.00    2.04     2.325  O       |        |        |        |      1.30
41.583    0.00    2.04     2.311  O       |        |        |        |      1.29
41.667    0.00    2.03     2.297  O       |        |        |        |      1.29
41.750    0.00    2.03     2.283  O       |        |        |        |      1.28
41.833    0.00    2.03     2.269  O       |        |        |        |      1.27
41.917    0.00    2.02     2.255  O       |        |        |        |      1.27
42.000    0.00    2.02     2.241  O       |        |        |        |      1.26
42.083    0.00    2.02     2.227  O       |        |        |        |      1.25
42.167    0.00    2.02     2.214  O       |        |        |        |      1.25
42.250    0.00    2.01     2.200  O       |        |        |        |      1.24
42.333    0.00    2.01     2.186  O       |        |        |        |      1.23
42.417    0.00    2.01     2.172  O       |        |        |        |      1.23
42.500    0.00    2.00     2.158  O       |        |        |        |      1.22
42.583    0.00    2.00     2.144  O       |        |        |        |      1.21
42.667    0.00    2.00     2.131  O       |        |        |        |      1.21
42.750    0.00    2.00     2.117  O       |        |        |        |      1.20
42.833    0.00    1.99     2.103  O       |        |        |        |      1.19
42.917    0.00    1.99     2.089  O       |        |        |        |      1.19
43.000    0.00    1.99     2.076  O       |        |        |        |      1.18
43.083    0.00    1.99     2.062  O       |        |        |        |      1.17
43.167    0.00    1.98     2.048  O       |        |        |        |      1.17
43.250    0.00    1.98     2.035  O       |        |        |        |      1.16
43.333    0.00    1.98     2.021  O       |        |        |        |      1.16
43.417    0.00    1.97     2.007  O       |        |        |        |      1.15
43.500    0.00    1.97     1.994  O       |        |        |        |      1.14
43.583    0.00    1.97     1.980  O       |        |        |        |      1.14
43.667    0.00    1.97     1.967  O       |        |        |        |      1.13
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43.750    0.00    1.96    1.953  O       |       |       |       |       1.12
43.833    0.00    1.96    1.940  O       |       |       |       |       1.12
43.917    0.00    1.96    1.926  O       |       |       |       |       1.11
44.000    0.00    1.95    1.913  O       |       |       |       |       1.10
44.083    0.00    1.95    1.899  O       |       |       |       |       1.10
44.167    0.00    1.95    1.886  O       |       |       |       |       1.09
44.250    0.00    1.95    1.872  O       |       |       |       |       1.08
44.333    0.00    1.94    1.859  O       |       |       |       |       1.08
44.417    0.00    1.94    1.846  O       |       |       |       |       1.07
44.500    0.00    1.94    1.832  O       |       |       |       |       1.07
44.583    0.00    1.94    1.819  O       |       |       |       |       1.06
44.667    0.00    1.93    1.806  O       |       |       |       |       1.05
44.750    0.00    1.93    1.792  O       |       |       |       |       1.05
44.833    0.00    1.93    1.779  O       |       |       |       |       1.04
44.917    0.00    1.92    1.766  O       |       |       |       |       1.03
45.000    0.00    1.92    1.753  O       |       |       |       |       1.03
45.083    0.00    1.92    1.739  O       |       |       |       |       1.02
45.167    0.00    1.92    1.726  O       |       |       |       |       1.02
45.250    0.00    1.91    1.713  O       |       |       |       |       1.01
45.333    0.00    1.91    1.700  O       |       |       |       |       1.00
45.417    0.00    1.90    1.687  O       |       |       |       |       1.00
45.500    0.00    1.89    1.674  O       |       |       |       |       0.99
45.583    0.00    1.87    1.661  O       |       |       |       |       0.98
45.667    0.00    1.86    1.648  O       |       |       |       |       0.97
45.750    0.00    1.84    1.635  O       |       |       |       |       0.97
45.833    0.00    1.83    1.622  O       |       |       |       |       0.96
45.917    0.00    1.82    1.610  O       |       |       |       |       0.95
46.000    0.00    1.80    1.597  O       |       |       |       |       0.94
46.083    0.00    1.79    1.585  O       |       |       |       |       0.94
46.167    0.00    1.77    1.573  O       |       |       |       |       0.93
46.250    0.00    1.76    1.561  O       |       |       |       |       0.92
46.333    0.00    1.75    1.548  O       |       |       |       |       0.91
46.417    0.00    1.73    1.536  O       |       |       |       |       0.91
46.500    0.00    1.72    1.525  O       |       |       |       |       0.90
46.583    0.00    1.71    1.513  O       |       |       |       |       0.89
46.667    0.00    1.69    1.501  O       |       |       |       |       0.89
46.750    0.00    1.68    1.489  O       |       |       |       |       0.88
46.833    0.00    1.67    1.478  O       |       |       |       |       0.87
46.917    0.00    1.65    1.466  O       |       |       |       |       0.87
47.000    0.00    1.64    1.455  O       |       |       |       |       0.86
47.083    0.00    1.63    1.444  O       |       |       |       |       0.85
47.167    0.00    1.62    1.433  O       |       |       |       |       0.85
47.250    0.00    1.60    1.422  O       |       |       |       |       0.84
47.333    0.00    1.59    1.411  O       |       |       |       |       0.83
47.417    0.00    1.58    1.400  O       |       |       |       |       0.83
47.500    0.00    1.57    1.389  O       |       |       |       |       0.82
47.583    0.00    1.55    1.378  O       |       |       |       |       0.81
47.667    0.00    1.54    1.367  O       |       |       |       |       0.81
47.750    0.00    1.53    1.357  O       |       |       |       |       0.80
47.833    0.00    1.52    1.346  O       |       |       |       |       0.80
47.917    0.00    1.51    1.336  O       |       |       |       |       0.79
48.000    0.00    1.50    1.326  O       |       |       |       |       0.78
48.083    0.00    1.48    1.315  O       |       |       |       |       0.78
48.167    0.00    1.47    1.305  O       |       |       |       |       0.77
48.250    0.00    1.46    1.295  O       |       |       |       |       0.76
48.333    0.00    1.45    1.285  O       |       |       |       |       0.76
48.417    0.00    1.44    1.275  O       |       |       |       |       0.75
48.500    0.00    1.43    1.265  O       |       |       |       |       0.75
48.583    0.00    1.42    1.255  O       |       |       |       |       0.74
48.667    0.00    1.41    1.246  O       |       |       |       |       0.74
48.750    0.00    1.39    1.236  O       |       |       |       |       0.73
48.833    0.00    1.38    1.226  O       |       |       |       |       0.72
48.917    0.00    1.37    1.217  O       |       |       |       |       0.72
49.000    0.00    1.36    1.208  O       |       |       |       |       0.71
49.083    0.00    1.35    1.198  O       |       |       |       |       0.71
49.167    0.00    1.34    1.189  O       |       |       |       |       0.70
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49.250	0.00	1.33	1.180	O	|	|	|	|	0.70
49.333	0.00	1.32	1.171	O	|	|	|	|	0.69
49.417	0.00	1.31	1.162	O	|	|	|	|	0.69
49.500	0.00	1.30	1.153	O	|	|	|	|	0.68
49.583	0.00	1.29	1.144	O	|	|	|	|	0.68
49.667	0.00	1.28	1.135	O	|	|	|	|	0.67
49.750	0.00	1.27	1.126	O	|	|	|	|	0.67
49.833	0.00	1.26	1.117	O	|	|	|	|	0.66
49.917	0.00	1.25	1.109	O	|	|	|	|	0.65
50.000	0.00	1.24	1.100	O	|	|	|	|	0.65
50.083	0.00	1.23	1.092	O	|	|	|	|	0.64
50.167	0.00	1.22	1.083	O	|	|	|	|	0.64
50.250	0.00	1.21	1.075	O	|	|	|	|	0.63
50.333	0.00	1.20	1.066	O	|	|	|	|	0.63
50.417	0.00	1.19	1.058	O	|	|	|	|	0.63
50.500	0.00	1.18	1.050	O	|	|	|	|	0.62
50.583	0.00	1.18	1.042	O	|	|	|	|	0.62
50.667	0.00	1.17	1.034	O	|	|	|	|	0.61
50.750	0.00	1.16	1.026	O	|	|	|	|	0.61
50.833	0.00	1.15	1.018	O	|	|	|	|	0.60
50.917	0.00	1.14	1.010	O	|	|	|	|	0.60
51.000	0.00	1.13	1.002	O	|	|	|	|	0.59
51.083	0.00	1.12	0.994	O	|	|	|	|	0.59
51.167	0.00	1.11	0.987	O	|	|	|	|	0.58
51.250	0.00	1.10	0.979	O	|	|	|	|	0.58
51.333	0.00	1.10	0.971	O	|	|	|	|	0.57
51.417	0.00	1.09	0.964	O	|	|	|	|	0.57
51.500	0.00	1.08	0.957	O	|	|	|	|	0.56
51.583	0.00	1.07	0.949	O	|	|	|	|	0.56
51.667	0.00	1.06	0.942	O	|	|	|	|	0.56
51.750	0.00	1.05	0.934	O	|	|	|	|	0.55
51.833	0.00	1.05	0.927	O	|	|	|	|	0.55
51.917	0.00	1.04	0.920	O	|	|	|	|	0.54
52.000	0.00	1.03	0.913	O	|	|	|	|	0.54
52.083	0.00	1.02	0.906	O	|	|	|	|	0.54
52.167	0.00	1.01	0.899	O	|	|	|	|	0.53
52.250	0.00	1.01	0.892	O	|	|	|	|	0.53
52.333	0.00	1.00	0.885	O	|	|	|	|	0.52
52.417	0.00	0.99	0.878	O	|	|	|	|	0.52
52.500	0.00	0.98	0.871	O	|	|	|	|	0.51
52.583	0.00	0.98	0.865	O	|	|	|	|	0.51
52.667	0.00	0.97	0.858	O	|	|	|	|	0.51
52.750	0.00	0.96	0.851	O	|	|	|	|	0.50
52.833	0.00	0.95	0.845	O	|	|	|	|	0.50
52.917	0.00	0.95	0.838	O	|	|	|	|	0.50
53.000	0.00	0.94	0.832	O	|	|	|	|	0.49
53.083	0.00	0.93	0.825	O	|	|	|	|	0.49
53.167	0.00	0.92	0.819	O	|	|	|	|	0.48
53.250	0.00	0.92	0.813	O	|	|	|	|	0.48
53.333	0.00	0.91	0.806	O	|	|	|	|	0.48
53.417	0.00	0.90	0.800	O	|	|	|	|	0.47
53.500	0.00	0.90	0.794	O	|	|	|	|	0.47
53.583	0.00	0.89	0.788	O	|	|	|	|	0.47
53.667	0.00	0.88	0.782	O	|	|	|	|	0.46
53.750	0.00	0.87	0.775	O	|	|	|	|	0.46
53.833	0.00	0.87	0.769	O	|	|	|	|	0.45
53.917	0.00	0.86	0.764	O	|	|	|	|	0.45
54.000	0.00	0.85	0.758	O	|	|	|	|	0.45
54.083	0.00	0.85	0.752	O	|	|	|	|	0.44
54.167	0.00	0.84	0.746	O	|	|	|	|	0.44
54.250	0.00	0.84	0.740	O	|	|	|	|	0.44
54.333	0.00	0.83	0.734	O	|	|	|	|	0.43
54.417	0.00	0.82	0.729	O	|	|	|	|	0.43
54.500	0.00	0.82	0.723	O	|	|	|	|	0.43
54.583	0.00	0.81	0.718	O	|	|	|	|	0.42
54.667	0.00	0.80	0.712	O	|	|	|	|	0.42

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54.750    0.00    0.80      0.706  O       |        |        |        |      0.42
54.833    0.00    0.79      0.701  O       |        |        |        |      0.41
54.917    0.00    0.78      0.696  O       |        |        |        |      0.41
55.000    0.00    0.78      0.690  O       |        |        |        |      0.41
55.083    0.00    0.77      0.685  O       |        |        |        |      0.40
55.167    0.00    0.77      0.680  O       |        |        |        |      0.40
55.250    0.00    0.76      0.674  O       |        |        |        |      0.40
55.333    0.00    0.75      0.669  O       |        |        |        |      0.40
55.417    0.00    0.75      0.664  O       |        |        |        |      0.39
55.500    0.00    0.74      0.659  O       |        |        |        |      0.39
55.583    0.00    0.74      0.654  O       |        |        |        |      0.39
55.667    0.00    0.73      0.649  O       |        |        |        |      0.38
55.750    0.00    0.73      0.644  O       |        |        |        |      0.38
55.833    0.00    0.72      0.639  O       |        |        |        |      0.38
55.917    0.00    0.71      0.634  O       |        |        |        |      0.37
56.000    0.00    0.71      0.629  O       |        |        |        |      0.37
56.083    0.00    0.70      0.624  O       |        |        |        |      0.37
56.167    0.00    0.70      0.619  O       |        |        |        |      0.37
56.250    0.00    0.69      0.614  O       |        |        |        |      0.36
56.333    0.00    0.69      0.609  O       |        |        |        |      0.36
56.417    0.00    0.68      0.605  O       |        |        |        |      0.36
56.500    0.00    0.68      0.600  O       |        |        |        |      0.35
56.583    0.00    0.67      0.595  O       |        |        |        |      0.35
56.667    0.00    0.67      0.591  O       |        |        |        |      0.35
56.750    0.00    0.66      0.586  O       |        |        |        |      0.35
56.833    0.00    0.66      0.582  O       |        |        |        |      0.34
56.917    0.00    0.65      0.577  O       |        |        |        |      0.34
57.000    0.00    0.65      0.573  O       |        |        |        |      0.34
57.083    0.00    0.64      0.568  O       |        |        |        |      0.34
57.167    0.00    0.64      0.564  O       |        |        |        |      0.33
57.250    0.00    0.63      0.560  O       |        |        |        |      0.33
57.333    0.00    0.63      0.555  O       |        |        |        |      0.33
57.417    0.00    0.62      0.551  O       |        |        |        |      0.33
57.500    0.00    0.62      0.547  O       |        |        |        |      0.32
57.583    0.00    0.61      0.542  O       |        |        |        |      0.32
57.667    0.00    0.61      0.538  O       |        |        |        |      0.32
57.750    0.00    0.60      0.534  O       |        |        |        |      0.32
57.833    0.00    0.60      0.530  O       |        |        |        |      0.31
57.917    0.00    0.59      0.526  O       |        |        |        |      0.31
58.000    0.00    0.59      0.522  O       |        |        |        |      0.31
58.083    0.00    0.58      0.518  O       |        |        |        |      0.31
58.167    0.00    0.58      0.514  O       |        |        |        |      0.30
58.250    0.00    0.58      0.510  O       |        |        |        |      0.30
58.333    0.00    0.57      0.506  O       |        |        |        |      0.30
58.417    0.00    0.57      0.502  O       |        |        |        |      0.30
58.500    0.00    0.56      0.498  O       |        |        |        |      0.29
58.583    0.00    0.56      0.494  O       |        |        |        |      0.29
58.667    0.00    0.55      0.490  O       |        |        |        |      0.29
58.750    0.00    0.55      0.487  O       |        |        |        |      0.29
58.833    0.00    0.54      0.483  O       |        |        |        |      0.29
58.917    0.00    0.54      0.479  O       |        |        |        |      0.28
59.000    0.00    0.54      0.475  O       |        |        |        |      0.28
59.083    0.00    0.53      0.472  O       |        |        |        |      0.28
59.167    0.00    0.53      0.468  O       |        |        |        |      0.28
59.250    0.00    0.52      0.464  O       |        |        |        |      0.27
59.333    0.00    0.52      0.461  O       |        |        |        |      0.27
59.417    0.00    0.52      0.457  O       |        |        |        |      0.27
59.500    0.00    0.51      0.454  O       |        |        |        |      0.27
59.583    0.00    0.51      0.450  O       |        |        |        |      0.27
59.667    0.00    0.50      0.447  O       |        |        |        |      0.26
59.750    0.00    0.50      0.443  O       |        |        |        |      0.26
59.833    0.00    0.50      0.440  O       |        |        |        |      0.26
59.917    0.00    0.49      0.436  O       |        |        |        |      0.26
60.000    0.00    0.49      0.433  O       |        |        |        |      0.26
60.083    0.00    0.48      0.430  O       |        |        |        |      0.25
60.167    0.00    0.48      0.426  O       |        |        |        |      0.25
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60.250    0.00    0.48     0.423  O       |       |       |       |      0.25
60.333    0.00    0.47     0.420  O       |       |       |       |      0.25
60.417    0.00    0.47     0.417  O       |       |       |       |      0.25
60.500    0.00    0.47     0.413  O       |       |       |       |      0.24
60.583    0.00    0.46     0.410  O       |       |       |       |      0.24
60.667    0.00    0.46     0.407  O       |       |       |       |      0.24
60.750    0.00    0.46     0.404  O       |       |       |       |      0.24
60.833    0.00    0.45     0.401  O       |       |       |       |      0.24
60.917    0.00    0.45     0.398  O       |       |       |       |      0.23
61.000    0.00    0.45     0.394  O       |       |       |       |      0.23
61.083    0.00    0.44     0.391  O       |       |       |       |      0.23
61.167    0.00    0.44     0.388  O       |       |       |       |      0.23
61.250    0.00    0.43     0.385  O       |       |       |       |      0.23
61.333    0.00    0.43     0.382  O       |       |       |       |      0.23
61.417    0.00    0.43     0.379  O       |       |       |       |      0.22
61.500    0.00    0.42     0.376  O       |       |       |       |      0.22
61.583    0.00    0.42     0.374  O       |       |       |       |      0.22
61.667    0.00    0.42     0.371  O       |       |       |       |      0.22
61.750    0.00    0.41     0.368  O       |       |       |       |      0.22
61.833    0.00    0.41     0.365  O       |       |       |       |      0.22
61.917    0.00    0.41     0.362  O       |       |       |       |      0.21
62.000    0.00    0.41     0.359  O       |       |       |       |      0.21
62.083    0.00    0.40     0.357  O       |       |       |       |      0.21
62.167    0.00    0.40     0.354  O       |       |       |       |      0.21
62.250    0.00    0.40     0.351  O       |       |       |       |      0.21
62.333    0.00    0.39     0.348  O       |       |       |       |      0.21
62.417    0.00    0.39     0.346  O       |       |       |       |      0.20
62.500    0.00    0.39     0.343  O       |       |       |       |      0.20
62.583    0.00    0.38     0.340  O       |       |       |       |      0.20
62.667    0.00    0.38     0.338  O       |       |       |       |      0.20
62.750    0.00    0.38     0.335  O       |       |       |       |      0.20
62.833    0.00    0.38     0.332  O       |       |       |       |      0.20
62.917    0.00    0.37     0.330  O       |       |       |       |      0.19
63.000    0.00    0.37     0.327  O       |       |       |       |      0.19
63.083    0.00    0.37     0.325  O       |       |       |       |      0.19
63.167    0.00    0.36     0.322  O       |       |       |       |      0.19
63.250    0.00    0.36     0.320  O       |       |       |       |      0.19
63.333    0.00    0.36     0.317  O       |       |       |       |      0.19
63.417    0.00    0.36     0.315  O       |       |       |       |      0.19
63.500    0.00    0.35     0.312  O       |       |       |       |      0.18
63.583    0.00    0.35     0.310  O       |       |       |       |      0.18
63.667    0.00    0.35     0.308  O       |       |       |       |      0.18
63.750    0.00    0.34     0.305  O       |       |       |       |      0.18
63.833    0.00    0.34     0.303  O       |       |       |       |      0.18
63.917    0.00    0.34     0.301  O       |       |       |       |      0.18
64.000    0.00    0.34     0.298  O       |       |       |       |      0.18
64.083    0.00    0.33     0.296  O       |       |       |       |      0.17
64.167    0.00    0.33     0.294  O       |       |       |       |      0.17
64.250    0.00    0.33     0.291  O       |       |       |       |      0.17
64.333    0.00    0.33     0.289  O       |       |       |       |      0.17
64.417    0.00    0.32     0.287  O       |       |       |       |      0.17
64.500    0.00    0.32     0.285  O       |       |       |       |      0.17
64.583    0.00    0.32     0.282  O       |       |       |       |      0.17
64.667    0.00    0.32     0.280  O       |       |       |       |      0.17
64.750    0.00    0.31     0.278  O       |       |       |       |      0.16
64.833    0.00    0.31     0.276  O       |       |       |       |      0.16
64.917    0.00    0.31     0.274  O       |       |       |       |      0.16
65.000    0.00    0.31     0.272  O       |       |       |       |      0.16
65.083    0.00    0.30     0.270  O       |       |       |       |      0.16
65.167    0.00    0.30     0.267  O       |       |       |       |      0.16
65.250    0.00    0.30     0.265  O       |       |       |       |      0.16
65.333    0.00    0.30     0.263  O       |       |       |       |      0.16
65.417    0.00    0.29     0.261  O       |       |       |       |      0.15
65.500    0.00    0.29     0.259  O       |       |       |       |      0.15
65.583    0.00    0.29     0.257  O       |       |       |       |      0.15
65.667    0.00    0.29     0.255  O       |       |       |       |      0.15
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65.750	0.00	0.29	0.253	O	|	|	|	|	0.15
65.833	0.00	0.28	0.251	O	|	|	|	|	0.15
65.917	0.00	0.28	0.249	O	|	|	|	|	0.15
66.000	0.00	0.28	0.247	O	|	|	|	|	0.15
66.083	0.00	0.28	0.246	O	|	|	|	|	0.15
66.167	0.00	0.27	0.244	O	|	|	|	|	0.14
66.250	0.00	0.27	0.242	O	|	|	|	|	0.14
66.333	0.00	0.27	0.240	O	|	|	|	|	0.14
66.417	0.00	0.27	0.238	O	|	|	|	|	0.14
66.500	0.00	0.27	0.236	O	|	|	|	|	0.14
66.583	0.00	0.26	0.234	O	|	|	|	|	0.14
66.667	0.00	0.26	0.233	O	|	|	|	|	0.14
66.750	0.00	0.26	0.231	O	|	|	|	|	0.14
66.833	0.00	0.26	0.229	O	|	|	|	|	0.14
66.917	0.00	0.26	0.227	O	|	|	|	|	0.13
67.000	0.00	0.25	0.225	O	|	|	|	|	0.13
67.083	0.00	0.25	0.224	O	|	|	|	|	0.13
67.167	0.00	0.25	0.222	O	|	|	|	|	0.13
67.250	0.00	0.25	0.220	O	|	|	|	|	0.13
67.333	0.00	0.25	0.219	O	|	|	|	|	0.13
67.417	0.00	0.24	0.217	O	|	|	|	|	0.13
67.500	0.00	0.24	0.215	O	|	|	|	|	0.13
67.583	0.00	0.24	0.214	O	|	|	|	|	0.13
67.667	0.00	0.24	0.212	O	|	|	|	|	0.13
67.750	0.00	0.24	0.210	O	|	|	|	|	0.12
67.833	0.00	0.24	0.209	O	|	|	|	|	0.12
67.917	0.00	0.23	0.207	O	|	|	|	|	0.12
68.000	0.00	0.23	0.205	O	|	|	|	|	0.12
68.083	0.00	0.23	0.204	O	|	|	|	|	0.12
68.167	0.00	0.23	0.202	O	|	|	|	|	0.12
68.250	0.00	0.23	0.201	O	|	|	|	|	0.12
68.333	0.00	0.22	0.199	O	|	|	|	|	0.12
68.417	0.00	0.22	0.198	O	|	|	|	|	0.12
68.500	0.00	0.22	0.196	O	|	|	|	|	0.12
68.583	0.00	0.22	0.195	O	|	|	|	|	0.11
68.667	0.00	0.22	0.193	O	|	|	|	|	0.11
68.750	0.00	0.22	0.192	O	|	|	|	|	0.11
68.833	0.00	0.21	0.190	O	|	|	|	|	0.11
68.917	0.00	0.21	0.189	O	|	|	|	|	0.11
69.000	0.00	0.21	0.187	O	|	|	|	|	0.11
69.083	0.00	0.21	0.186	O	|	|	|	|	0.11
69.167	0.00	0.21	0.184	O	|	|	|	|	0.11
69.250	0.00	0.21	0.183	O	|	|	|	|	0.11
69.333	0.00	0.20	0.181	O	|	|	|	|	0.11
69.417	0.00	0.20	0.180	O	|	|	|	|	0.11
69.500	0.00	0.20	0.179	O	|	|	|	|	0.11
69.583	0.00	0.20	0.177	O	|	|	|	|	0.10
69.667	0.00	0.20	0.176	O	|	|	|	|	0.10
69.750	0.00	0.20	0.174	O	|	|	|	|	0.10
69.833	0.00	0.20	0.173	O	|	|	|	|	0.10
69.917	0.00	0.19	0.172	O	|	|	|	|	0.10
70.000	0.00	0.19	0.170	O	|	|	|	|	0.10
70.083	0.00	0.19	0.169	O	|	|	|	|	0.10
70.167	0.00	0.19	0.168	O	|	|	|	|	0.10
70.250	0.00	0.19	0.167	O	|	|	|	|	0.10
70.333	0.00	0.19	0.165	O	|	|	|	|	0.10
70.417	0.00	0.18	0.164	O	|	|	|	|	0.10
70.500	0.00	0.18	0.163	O	|	|	|	|	0.10
70.583	0.00	0.18	0.161	O	|	|	|	|	0.10
70.667	0.00	0.18	0.160	O	|	|	|	|	0.09
70.750	0.00	0.18	0.159	O	|	|	|	|	0.09
70.833	0.00	0.18	0.158	O	|	|	|	|	0.09
70.917	0.00	0.18	0.156	O	|	|	|	|	0.09
71.000	0.00	0.18	0.155	O	|	|	|	|	0.09
71.083	0.00	0.17	0.154	O	|	|	|	|	0.09
71.167	0.00	0.17	0.153	O	|	|	|	|	0.09

71.250	0.00	0.17	0.152	O	|	|	|	|	0.09
71.333	0.00	0.17	0.151	O	|	|	|	|	0.09
71.417	0.00	0.17	0.149	O	|	|	|	|	0.09
71.500	0.00	0.17	0.148	O	|	|	|	|	0.09
71.583	0.00	0.17	0.147	O	|	|	|	|	0.09
71.667	0.00	0.16	0.146	O	|	|	|	|	0.09
71.750	0.00	0.16	0.145	O	|	|	|	|	0.09
71.833	0.00	0.16	0.144	O	|	|	|	|	0.08
71.917	0.00	0.16	0.143	O	|	|	|	|	0.08
72.000	0.00	0.16	0.141	O	|	|	|	|	0.08
72.083	0.00	0.16	0.140	O	|	|	|	|	0.08
72.167	0.00	0.16	0.139	O	|	|	|	|	0.08
72.250	0.00	0.16	0.138	O	|	|	|	|	0.08
72.333	0.00	0.15	0.137	O	|	|	|	|	0.08
72.417	0.00	0.15	0.136	O	|	|	|	|	0.08
72.500	0.00	0.15	0.135	O	|	|	|	|	0.08
72.583	0.00	0.15	0.134	O	|	|	|	|	0.08
72.667	0.00	0.15	0.133	O	|	|	|	|	0.08
72.750	0.00	0.15	0.132	O	|	|	|	|	0.08
72.833	0.00	0.15	0.131	O	|	|	|	|	0.08
72.917	0.00	0.15	0.130	O	|	|	|	|	0.08
73.000	0.00	0.15	0.129	O	|	|	|	|	0.08
73.083	0.00	0.14	0.128	O	|	|	|	|	0.08
73.167	0.00	0.14	0.127	O	|	|	|	|	0.07
73.250	0.00	0.14	0.126	O	|	|	|	|	0.07
73.333	0.00	0.14	0.125	O	|	|	|	|	0.07
73.417	0.00	0.14	0.124	O	|	|	|	|	0.07
73.500	0.00	0.14	0.123	O	|	|	|	|	0.07
73.583	0.00	0.14	0.122	O	|	|	|	|	0.07
73.667	0.00	0.14	0.121	O	|	|	|	|	0.07
73.750	0.00	0.14	0.120	O	|	|	|	|	0.07
73.833	0.00	0.13	0.119	O	|	|	|	|	0.07
73.917	0.00	0.13	0.118	O	|	|	|	|	0.07
74.000	0.00	0.13	0.117	O	|	|	|	|	0.07
74.083	0.00	0.13	0.116	O	|	|	|	|	0.07
74.167	0.00	0.13	0.116	O	|	|	|	|	0.07
74.250	0.00	0.13	0.115	O	|	|	|	|	0.07
74.333	0.00	0.13	0.114	O	|	|	|	|	0.07
74.417	0.00	0.13	0.113	O	|	|	|	|	0.07
74.500	0.00	0.13	0.112	O	|	|	|	|	0.07
74.583	0.00	0.13	0.111	O	|	|	|	|	0.07
74.667	0.00	0.12	0.110	O	|	|	|	|	0.07
74.750	0.00	0.12	0.109	O	|	|	|	|	0.06
74.833	0.00	0.12	0.109	O	|	|	|	|	0.06
74.917	0.00	0.12	0.108	O	|	|	|	|	0.06
75.000	0.00	0.12	0.107	O	|	|	|	|	0.06
75.083	0.00	0.12	0.106	O	|	|	|	|	0.06
75.167	0.00	0.12	0.105	O	|	|	|	|	0.06
75.250	0.00	0.12	0.104	O	|	|	|	|	0.06
75.333	0.00	0.12	0.104	O	|	|	|	|	0.06
75.417	0.00	0.12	0.103	O	|	|	|	|	0.06
75.500	0.00	0.12	0.102	O	|	|	|	|	0.06
75.583	0.00	0.11	0.101	O	|	|	|	|	0.06
75.667	0.00	0.11	0.100	O	|	|	|	|	0.06
75.750	0.00	0.11	0.100	O	|	|	|	|	0.06
75.833	0.00	0.11	0.099	O	|	|	|	|	0.06
75.917	0.00	0.11	0.098	O	|	|	|	|	0.06
76.000	0.00	0.11	0.097	O	|	|	|	|	0.06
76.083	0.00	0.11	0.097	O	|	|	|	|	0.06
76.167	0.00	0.11	0.096	O	|	|	|	|	0.06
76.250	0.00	0.11	0.095	O	|	|	|	|	0.06
76.333	0.00	0.11	0.094	O	|	|	|	|	0.06
76.417	0.00	0.11	0.094	O	|	|	|	|	0.06
76.500	0.00	0.10	0.093	O	|	|	|	|	0.05
76.583	0.00	0.10	0.092	O	|	|	|	|	0.05
76.667	0.00	0.10	0.092	O	|	|	|	|	0.05

76.750	0.00	0.10	0.091	O	|	|	|	|	0.05
76.833	0.00	0.10	0.090	O	|	|	|	|	0.05
76.917	0.00	0.10	0.089	O	|	|	|	|	0.05
77.000	0.00	0.10	0.089	O	|	|	|	|	0.05
77.083	0.00	0.10	0.088	O	|	|	|	|	0.05
77.167	0.00	0.10	0.087	O	|	|	|	|	0.05
77.250	0.00	0.10	0.087	O	|	|	|	|	0.05
77.333	0.00	0.10	0.086	O	|	|	|	|	0.05
77.417	0.00	0.10	0.085	O	|	|	|	|	0.05
77.500	0.00	0.10	0.085	O	|	|	|	|	0.05
77.583	0.00	0.09	0.084	O	|	|	|	|	0.05
77.667	0.00	0.09	0.083	O	|	|	|	|	0.05
77.750	0.00	0.09	0.083	O	|	|	|	|	0.05
77.833	0.00	0.09	0.082	O	|	|	|	|	0.05
77.917	0.00	0.09	0.081	O	|	|	|	|	0.05
78.000	0.00	0.09	0.081	O	|	|	|	|	0.05
78.083	0.00	0.09	0.080	O	|	|	|	|	0.05
78.167	0.00	0.09	0.080	O	|	|	|	|	0.05
78.250	0.00	0.09	0.079	O	|	|	|	|	0.05
78.333	0.00	0.09	0.078	O	|	|	|	|	0.05
78.417	0.00	0.09	0.078	O	|	|	|	|	0.05
78.500	0.00	0.09	0.077	O	|	|	|	|	0.05
78.583	0.00	0.09	0.077	O	|	|	|	|	0.05
78.667	0.00	0.09	0.076	O	|	|	|	|	0.04
78.750	0.00	0.09	0.075	O	|	|	|	|	0.04
78.833	0.00	0.08	0.075	O	|	|	|	|	0.04
78.917	0.00	0.08	0.074	O	|	|	|	|	0.04
79.000	0.00	0.08	0.074	O	|	|	|	|	0.04
79.083	0.00	0.08	0.073	O	|	|	|	|	0.04
79.167	0.00	0.08	0.073	O	|	|	|	|	0.04
79.250	0.00	0.08	0.072	O	|	|	|	|	0.04
79.333	0.00	0.08	0.071	O	|	|	|	|	0.04
79.417	0.00	0.08	0.071	O	|	|	|	|	0.04
79.500	0.00	0.08	0.070	O	|	|	|	|	0.04
79.583	0.00	0.08	0.070	O	|	|	|	|	0.04
79.667	0.00	0.08	0.069	O	|	|	|	|	0.04
79.750	0.00	0.08	0.069	O	|	|	|	|	0.04
79.833	0.00	0.08	0.068	O	|	|	|	|	0.04
79.917	0.00	0.08	0.068	O	|	|	|	|	0.04
80.000	0.00	0.08	0.067	O	|	|	|	|	0.04
80.083	0.00	0.08	0.067	O	|	|	|	|	0.04
80.167	0.00	0.07	0.066	O	|	|	|	|	0.04
80.250	0.00	0.07	0.066	O	|	|	|	|	0.04
80.333	0.00	0.07	0.065	O	|	|	|	|	0.04
80.417	0.00	0.07	0.065	O	|	|	|	|	0.04
80.500	0.00	0.07	0.064	O	|	|	|	|	0.04
80.583	0.00	0.07	0.064	O	|	|	|	|	0.04
80.667	0.00	0.07	0.063	O	|	|	|	|	0.04
80.750	0.00	0.07	0.063	O	|	|	|	|	0.04
80.833	0.00	0.07	0.062	O	|	|	|	|	0.04
80.917	0.00	0.07	0.062	O	|	|	|	|	0.04
81.000	0.00	0.07	0.061	O	|	|	|	|	0.04
81.083	0.00	0.07	0.061	O	|	|	|	|	0.04
81.167	0.00	0.07	0.060	O	|	|	|	|	0.04
81.250	0.00	0.07	0.060	O	|	|	|	|	0.04
81.333	0.00	0.07	0.059	O	|	|	|	|	0.03
81.417	0.00	0.07	0.059	O	|	|	|	|	0.03
81.500	0.00	0.07	0.058	O	|	|	|	|	0.03
81.583	0.00	0.07	0.058	O	|	|	|	|	0.03
81.667	0.00	0.06	0.057	O	|	|	|	|	0.03
81.750	0.00	0.06	0.057	O	|	|	|	|	0.03
81.833	0.00	0.06	0.057	O	|	|	|	|	0.03
81.917	0.00	0.06	0.056	O	|	|	|	|	0.03
82.000	0.00	0.06	0.056	O	|	|	|	|	0.03
82.083	0.00	0.06	0.055	O	|	|	|	|	0.03
82.167	0.00	0.06	0.055	O	|	|	|	|	0.03

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82.250    0.00    0.06      0.054  O        |        |        |        |      0.03
82.333    0.00    0.06      0.054  O        |        |        |        |      0.03
82.417    0.00    0.06      0.054  O        |        |        |        |      0.03
82.500    0.00    0.06      0.053  O        |        |        |        |      0.03
82.583    0.00    0.06      0.053  O        |        |        |        |      0.03
82.667    0.00    0.06      0.052  O        |        |        |        |      0.03
82.750    0.00    0.06      0.052  O        |        |        |        |      0.03
82.833    0.00    0.06      0.052  O        |        |        |        |      0.03
82.917    0.00    0.06      0.051  O        |        |        |        |      0.03
83.000    0.00    0.06      0.051  O        |        |        |        |      0.03
83.083    0.00    0.06      0.050  O        |        |        |        |      0.03
83.167    0.00    0.06      0.050  O        |        |        |        |      0.03
83.250    0.00    0.06      0.050  O        |        |        |        |      0.03
83.333    0.00    0.06      0.049  O        |        |        |        |      0.03
83.417    0.00    0.06      0.049  O        |        |        |        |      0.03
83.500    0.00    0.05      0.048  O        |        |        |        |      0.03
83.583    0.00    0.05      0.048  O        |        |        |        |      0.03
83.667    0.00    0.05      0.048  O        |        |        |        |      0.03
83.750    0.00    0.05      0.047  O        |        |        |        |      0.03
83.833    0.00    0.05      0.047  O        |        |        |        |      0.03
83.917    0.00    0.05      0.047  O        |        |        |        |      0.03
84.000    0.00    0.05      0.046  O        |        |        |        |      0.03
84.083    0.00    0.05      0.046  O        |        |        |        |      0.03
84.167    0.00    0.05      0.045  O        |        |        |        |      0.03
84.250    0.00    0.05      0.045  O        |        |        |        |      0.03
84.333    0.00    0.05      0.045  O        |        |        |        |      0.03
84.417    0.00    0.05      0.044  O        |        |        |        |      0.03
84.500    0.00    0.05      0.044  O        |        |        |        |      0.03
84.583    0.00    0.05      0.044  O        |        |        |        |      0.03
84.667    0.00    0.05      0.043  O        |        |        |        |      0.03
84.750    0.00    0.05      0.043  O        |        |        |        |      0.03
84.833    0.00    0.05      0.043  O        |        |        |        |      0.03
84.917    0.00    0.05      0.042  O        |        |        |        |      0.03
85.000    0.00    0.05      0.042  O        |        |        |        |      0.02
85.083    0.00    0.05      0.042  O        |        |        |        |      0.02
85.167    0.00    0.05      0.041  O        |        |        |        |      0.02
85.250    0.00    0.05      0.041  O        |        |        |        |      0.02
85.333    0.00    0.05      0.041  O        |        |        |        |      0.02
85.417    0.00    0.05      0.040  O        |        |        |        |      0.02
85.500    0.00    0.05      0.040  O        |        |        |        |      0.02
85.583    0.00    0.04      0.040  O        |        |        |        |      0.02
85.667    0.00    0.04      0.040  O        |        |        |        |      0.02
85.750    0.00    0.04      0.039  O        |        |        |        |      0.02
85.833    0.00    0.04      0.039  O        |        |        |        |      0.02
85.917    0.00    0.04      0.039  O        |        |        |        |      0.02
86.000    0.00    0.04      0.038  O        |        |        |        |      0.02
86.083    0.00    0.04      0.038  O        |        |        |        |      0.02
86.167    0.00    0.04      0.038  O        |        |        |        |      0.02
86.250    0.00    0.04      0.037  O        |        |        |        |      0.02
86.333    0.00    0.04      0.037  O        |        |        |        |      0.02
86.417    0.00    0.04      0.037  O        |        |        |        |      0.02
86.500    0.00    0.04      0.037  O        |        |        |        |      0.02
86.583    0.00    0.04      0.036  O        |        |        |        |      0.02
86.667    0.00    0.04      0.036  O        |        |        |        |      0.02
86.750    0.00    0.04      0.036  O        |        |        |        |      0.02
86.833    0.00    0.04      0.035  O        |        |        |        |      0.02
86.917    0.00    0.04      0.035  O        |        |        |        |      0.02
87.000    0.00    0.04      0.035  O        |        |        |        |      0.02
87.083    0.00    0.04      0.035  O        |        |        |        |      0.02
87.167    0.00    0.04      0.034  O        |        |        |        |      0.02
87.250    0.00    0.04      0.034  O        |        |        |        |      0.02
87.333    0.00    0.04      0.034  O        |        |        |        |      0.02
87.417    0.00    0.04      0.034  O        |        |        |        |      0.02
87.500    0.00    0.04      0.033  O        |        |        |        |      0.02
87.583    0.00    0.04      0.033  O        |        |        |        |      0.02
87.667    0.00    0.04      0.033  O        |        |        |        |      0.02
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87.750    0.00    0.04      0.033  O       |       |       |       |      0.02
87.833    0.00    0.04      0.032  O       |       |       |       |      0.02
87.917    0.00    0.04      0.032  O       |       |       |       |      0.02
88.000    0.00    0.04      0.032  O       |       |       |       |      0.02
88.083    0.00    0.04      0.032  O       |       |       |       |      0.02
88.167    0.00    0.04      0.031  O       |       |       |       |      0.02
88.250    0.00    0.04      0.031  O       |       |       |       |      0.02
88.333    0.00    0.03      0.031  O       |       |       |       |      0.02
88.417    0.00    0.03      0.031  O       |       |       |       |      0.02
88.500    0.00    0.03      0.030  O       |       |       |       |      0.02
88.583    0.00    0.03      0.030  O       |       |       |       |      0.02
88.667    0.00    0.03      0.030  O       |       |       |       |      0.02
88.750    0.00    0.03      0.030  O       |       |       |       |      0.02
88.833    0.00    0.03      0.029  O       |       |       |       |      0.02
88.917    0.00    0.03      0.029  O       |       |       |       |      0.02
89.000    0.00    0.03      0.029  O       |       |       |       |      0.02
89.083    0.00    0.03      0.029  O       |       |       |       |      0.02
89.167    0.00    0.03      0.029  O       |       |       |       |      0.02
89.250    0.00    0.03      0.028  O       |       |       |       |      0.02
89.333    0.00    0.03      0.028  O       |       |       |       |      0.02
89.417    0.00    0.03      0.028  O       |       |       |       |      0.02
89.500    0.00    0.03      0.028  O       |       |       |       |      0.02
89.583    0.00    0.03      0.027  O       |       |       |       |      0.02
89.667    0.00    0.03      0.027  O       |       |       |       |      0.02
89.750    0.00    0.03      0.027  O       |       |       |       |      0.02
89.833    0.00    0.03      0.027  O       |       |       |       |      0.02
89.917    0.00    0.03      0.027  O       |       |       |       |      0.02
90.000    0.00    0.03      0.026  O       |       |       |       |      0.02
90.083    0.00    0.03      0.026  O       |       |       |       |      0.02
90.167    0.00    0.03      0.026  O       |       |       |       |      0.02
90.250    0.00    0.03      0.026  O       |       |       |       |      0.02
90.333    0.00    0.03      0.026  O       |       |       |       |      0.02
90.417    0.00    0.03      0.025  O       |       |       |       |      0.02
90.500    0.00    0.03      0.025  O       |       |       |       |      0.01
90.583    0.00    0.03      0.025  O       |       |       |       |      0.01
90.667    0.00    0.03      0.025  O       |       |       |       |      0.01
90.750    0.00    0.03      0.025  O       |       |       |       |      0.01
90.833    0.00    0.03      0.024  O       |       |       |       |      0.01
90.917    0.00    0.03      0.024  O       |       |       |       |      0.01
91.000    0.00    0.03      0.024  O       |       |       |       |      0.01
91.083    0.00    0.03      0.024  O       |       |       |       |      0.01
91.167    0.00    0.03      0.024  O       |       |       |       |      0.01
91.250    0.00    0.03      0.024  O       |       |       |       |      0.01
91.333    0.00    0.03      0.023  O       |       |       |       |      0.01
91.417    0.00    0.03      0.023  O       |       |       |       |      0.01
91.500    0.00    0.03      0.023  O       |       |       |       |      0.01
91.583    0.00    0.03      0.023  O       |       |       |       |      0.01
91.667    0.00    0.03      0.023  O       |       |       |       |      0.01
91.750    0.00    0.03      0.022  O       |       |       |       |      0.01
91.833    0.00    0.03      0.022  O       |       |       |       |      0.01
91.917    0.00    0.02      0.022  O       |       |       |       |      0.01
92.000    0.00    0.02      0.022  O       |       |       |       |      0.01
92.083    0.00    0.02      0.022  O       |       |       |       |      0.01
92.167    0.00    0.02      0.022  O       |       |       |       |      0.01
92.250    0.00    0.02      0.021  O       |       |       |       |      0.01
92.333    0.00    0.02      0.021  O       |       |       |       |      0.01
92.417    0.00    0.02      0.021  O       |       |       |       |      0.01
92.500    0.00    0.02      0.021  O       |       |       |       |      0.01
92.583    0.00    0.02      0.021  O       |       |       |       |      0.01
92.667    0.00    0.02      0.021  O       |       |       |       |      0.01
92.750    0.00    0.02      0.020  O       |       |       |       |      0.01
92.833    0.00    0.02      0.020  O       |       |       |       |      0.01
92.917    0.00    0.02      0.020  O       |       |       |       |      0.01
93.000    0.00    0.02      0.020  O       |       |       |       |      0.01
93.083    0.00    0.02      0.020  O       |       |       |       |      0.01
93.167    0.00    0.02      0.020  O       |       |       |       |      0.01
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93.250	0.00	0.02	0.020	O	|	|	|	|	0.01
93.333	0.00	0.02	0.019	O	|	|	|	|	0.01
93.417	0.00	0.02	0.019	O	|	|	|	|	0.01
93.500	0.00	0.02	0.019	O	|	|	|	|	0.01
93.583	0.00	0.02	0.019	O	|	|	|	|	0.01
93.667	0.00	0.02	0.019	O	|	|	|	|	0.01
93.750	0.00	0.02	0.019	O	|	|	|	|	0.01
93.833	0.00	0.02	0.018	O	|	|	|	|	0.01
93.917	0.00	0.02	0.018	O	|	|	|	|	0.01
94.000	0.00	0.02	0.018	O	|	|	|	|	0.01
94.083	0.00	0.02	0.018	O	|	|	|	|	0.01
94.167	0.00	0.02	0.018	O	|	|	|	|	0.01
94.250	0.00	0.02	0.018	O	|	|	|	|	0.01
94.333	0.00	0.02	0.018	O	|	|	|	|	0.01
94.417	0.00	0.02	0.017	O	|	|	|	|	0.01
94.500	0.00	0.02	0.017	O	|	|	|	|	0.01
94.583	0.00	0.02	0.017	O	|	|	|	|	0.01
94.667	0.00	0.02	0.017	O	|	|	|	|	0.01
94.750	0.00	0.02	0.017	O	|	|	|	|	0.01
94.833	0.00	0.02	0.017	O	|	|	|	|	0.01
94.917	0.00	0.02	0.017	O	|	|	|	|	0.01
95.000	0.00	0.02	0.017	O	|	|	|	|	0.01
95.083	0.00	0.02	0.016	O	|	|	|	|	0.01
95.167	0.00	0.02	0.016	O	|	|	|	|	0.01
95.250	0.00	0.02	0.016	O	|	|	|	|	0.01
95.333	0.00	0.02	0.016	O	|	|	|	|	0.01
95.417	0.00	0.02	0.016	O	|	|	|	|	0.01
95.500	0.00	0.02	0.016	O	|	|	|	|	0.01
95.583	0.00	0.02	0.016	O	|	|	|	|	0.01
95.667	0.00	0.02	0.016	O	|	|	|	|	0.01
95.750	0.00	0.02	0.015	O	|	|	|	|	0.01
95.833	0.00	0.02	0.015	O	|	|	|	|	0.01
95.917	0.00	0.02	0.015	O	|	|	|	|	0.01
96.000	0.00	0.02	0.015	O	|	|	|	|	0.01
96.083	0.00	0.02	0.015	O	|	|	|	|	0.01
96.167	0.00	0.02	0.015	O	|	|	|	|	0.01
96.250	0.00	0.02	0.015	O	|	|	|	|	0.01
96.333	0.00	0.02	0.015	O	|	|	|	|	0.01
96.417	0.00	0.02	0.015	O	|	|	|	|	0.01
96.500	0.00	0.02	0.014	O	|	|	|	|	0.01
96.583	0.00	0.02	0.014	O	|	|	|	|	0.01
96.667	0.00	0.02	0.014	O	|	|	|	|	0.01
96.750	0.00	0.02	0.014	O	|	|	|	|	0.01
96.833	0.00	0.02	0.014	O	|	|	|	|	0.01
96.917	0.00	0.02	0.014	O	|	|	|	|	0.01
97.000	0.00	0.02	0.014	O	|	|	|	|	0.01
97.083	0.00	0.02	0.014	O	|	|	|	|	0.01
97.167	0.00	0.02	0.014	O	|	|	|	|	0.01
97.250	0.00	0.02	0.013	O	|	|	|	|	0.01
97.333	0.00	0.02	0.013	O	|	|	|	|	0.01
97.417	0.00	0.01	0.013	O	|	|	|	|	0.01
97.500	0.00	0.01	0.013	O	|	|	|	|	0.01
97.583	0.00	0.01	0.013	O	|	|	|	|	0.01
97.667	0.00	0.01	0.013	O	|	|	|	|	0.01
97.750	0.00	0.01	0.013	O	|	|	|	|	0.01
97.833	0.00	0.01	0.013	O	|	|	|	|	0.01
97.917	0.00	0.01	0.013	O	|	|	|	|	0.01
98.000	0.00	0.01	0.013	O	|	|	|	|	0.01
98.083	0.00	0.01	0.012	O	|	|	|	|	0.01
98.167	0.00	0.01	0.012	O	|	|	|	|	0.01
98.250	0.00	0.01	0.012	O	|	|	|	|	0.01
98.333	0.00	0.01	0.012	O	|	|	|	|	0.01
98.417	0.00	0.01	0.012	O	|	|	|	|	0.01
98.500	0.00	0.01	0.012	O	|	|	|	|	0.01
98.583	0.00	0.01	0.012	O	|	|	|	|	0.01
98.667	0.00	0.01	0.012	O	|	|	|	|	0.01

98.750	0.00	0.01	0.012	O	|	|	|	|	0.01
98.833	0.00	0.01	0.012	O	|	|	|	|	0.01
98.917	0.00	0.01	0.011	O	|	|	|	|	0.01
99.000	0.00	0.01	0.011	O	|	|	|	|	0.01
99.083	0.00	0.01	0.011	O	|	|	|	|	0.01
99.167	0.00	0.01	0.011	O	|	|	|	|	0.01
99.250	0.00	0.01	0.011	O	|	|	|	|	0.01
99.333	0.00	0.01	0.011	O	|	|	|	|	0.01
99.417	0.00	0.01	0.011	O	|	|	|	|	0.01
99.500	0.00	0.01	0.011	O	|	|	|	|	0.01
99.583	0.00	0.01	0.011	O	|	|	|	|	0.01
99.667	0.00	0.01	0.011	O	|	|	|	|	0.01
99.750	0.00	0.01	0.011	O	|	|	|	|	0.01
99.833	0.00	0.01	0.011	O	|	|	|	|	0.01
99.917	0.00	0.01	0.010	O	|	|	|	|	0.01
100.000	0.00	0.01	0.010	O	|	|	|	|	0.01
100.083	0.00	0.01	0.010	O	|	|	|	|	0.01
100.167	0.00	0.01	0.010	O	|	|	|	|	0.01
100.250	0.00	0.01	0.010	O	|	|	|	|	0.01
100.333	0.00	0.01	0.010	O	|	|	|	|	0.01
100.417	0.00	0.01	0.010	O	|	|	|	|	0.01
100.500	0.00	0.01	0.010	O	|	|	|	|	0.01
100.583	0.00	0.01	0.010	O	|	|	|	|	0.01
100.667	0.00	0.01	0.010	O	|	|	|	|	0.01
100.750	0.00	0.01	0.010	O	|	|	|	|	0.01
100.833	0.00	0.01	0.010	O	|	|	|	|	0.01
100.917	0.00	0.01	0.010	O	|	|	|	|	0.01
101.000	0.00	0.01	0.009	O	|	|	|	|	0.01
101.083	0.00	0.01	0.009	O	|	|	|	|	0.01
101.167	0.00	0.01	0.009	O	|	|	|	|	0.01
101.250	0.00	0.01	0.009	O	|	|	|	|	0.01
101.333	0.00	0.01	0.009	O	|	|	|	|	0.01
101.417	0.00	0.01	0.009	O	|	|	|	|	0.01
101.500	0.00	0.01	0.009	O	|	|	|	|	0.01
101.583	0.00	0.01	0.009	O	|	|	|	|	0.01
101.667	0.00	0.01	0.009	O	|	|	|	|	0.01
101.750	0.00	0.01	0.009	O	|	|	|	|	0.01
101.833	0.00	0.01	0.009	O	|	|	|	|	0.01
101.917	0.00	0.01	0.009	O	|	|	|	|	0.01
102.000	0.00	0.01	0.009	O	|	|	|	|	0.01
102.083	0.00	0.01	0.009	O	|	|	|	|	0.01
102.167	0.00	0.01	0.008	O	|	|	|	|	0.01
102.250	0.00	0.01	0.008	O	|	|	|	|	0.00
102.333	0.00	0.01	0.008	O	|	|	|	|	0.00
102.417	0.00	0.01	0.008	O	|	|	|	|	0.00
102.500	0.00	0.01	0.008	O	|	|	|	|	0.00
102.583	0.00	0.01	0.008	O	|	|	|	|	0.00
102.667	0.00	0.01	0.008	O	|	|	|	|	0.00
102.750	0.00	0.01	0.008	O	|	|	|	|	0.00
102.833	0.00	0.01	0.008	O	|	|	|	|	0.00
102.917	0.00	0.01	0.008	O	|	|	|	|	0.00
103.000	0.00	0.01	0.008	O	|	|	|	|	0.00
103.083	0.00	0.01	0.008	O	|	|	|	|	0.00
103.167	0.00	0.01	0.008	O	|	|	|	|	0.00
103.250	0.00	0.01	0.008	O	|	|	|	|	0.00
103.333	0.00	0.01	0.008	O	|	|	|	|	0.00
103.417	0.00	0.01	0.008	O	|	|	|	|	0.00
103.500	0.00	0.01	0.008	O	|	|	|	|	0.00
103.583	0.00	0.01	0.007	O	|	|	|	|	0.00
103.667	0.00	0.01	0.007	O	|	|	|	|	0.00
103.750	0.00	0.01	0.007	O	|	|	|	|	0.00
103.833	0.00	0.01	0.007	O	|	|	|	|	0.00
103.917	0.00	0.01	0.007	O	|	|	|	|	0.00
104.000	0.00	0.01	0.007	O	|	|	|	|	0.00
104.083	0.00	0.01	0.007	O	|	|	|	|	0.00
104.167	0.00	0.01	0.007	O	|	|	|	|	0.00

104.250	0.00	0.01	0.007	O	|	|	|	|	0.00
104.333	0.00	0.01	0.007	O	|	|	|	|	0.00
104.417	0.00	0.01	0.007	O	|	|	|	|	0.00
104.500	0.00	0.01	0.007	O	|	|	|	|	0.00
104.583	0.00	0.01	0.007	O	|	|	|	|	0.00
104.667	0.00	0.01	0.007	O	|	|	|	|	0.00
104.750	0.00	0.01	0.007	O	|	|	|	|	0.00
104.833	0.00	0.01	0.007	O	|	|	|	|	0.00
104.917	0.00	0.01	0.007	O	|	|	|	|	0.00
105.000	0.00	0.01	0.007	O	|	|	|	|	0.00
105.083	0.00	0.01	0.006	O	|	|	|	|	0.00
105.167	0.00	0.01	0.006	O	|	|	|	|	0.00
105.250	0.00	0.01	0.006	O	|	|	|	|	0.00
105.333	0.00	0.01	0.006	O	|	|	|	|	0.00
105.417	0.00	0.01	0.006	O	|	|	|	|	0.00
105.500	0.00	0.01	0.006	O	|	|	|	|	0.00
105.583	0.00	0.01	0.006	O	|	|	|	|	0.00
105.667	0.00	0.01	0.006	O	|	|	|	|	0.00
105.750	0.00	0.01	0.006	O	|	|	|	|	0.00
105.833	0.00	0.01	0.006	O	|	|	|	|	0.00
105.917	0.00	0.01	0.006	O	|	|	|	|	0.00
106.000	0.00	0.01	0.006	O	|	|	|	|	0.00
106.083	0.00	0.01	0.006	O	|	|	|	|	0.00
106.167	0.00	0.01	0.006	O	|	|	|	|	0.00
106.250	0.00	0.01	0.006	O	|	|	|	|	0.00
106.333	0.00	0.01	0.006	O	|	|	|	|	0.00
106.417	0.00	0.01	0.006	O	|	|	|	|	0.00
106.500	0.00	0.01	0.006	O	|	|	|	|	0.00
106.583	0.00	0.01	0.006	O	|	|	|	|	0.00
106.667	0.00	0.01	0.006	O	|	|	|	|	0.00
106.750	0.00	0.01	0.006	O	|	|	|	|	0.00
106.833	0.00	0.01	0.005	O	|	|	|	|	0.00
106.917	0.00	0.01	0.005	O	|	|	|	|	0.00
107.000	0.00	0.01	0.005	O	|	|	|	|	0.00
107.083	0.00	0.01	0.005	O	|	|	|	|	0.00
107.167	0.00	0.01	0.005	O	|	|	|	|	0.00
107.250	0.00	0.01	0.005	O	|	|	|	|	0.00
107.333	0.00	0.01	0.005	O	|	|	|	|	0.00
107.417	0.00	0.01	0.005	O	|	|	|	|	0.00
107.500	0.00	0.01	0.005	O	|	|	|	|	0.00
107.583	0.00	0.01	0.005	O	|	|	|	|	0.00
107.667	0.00	0.01	0.005	O	|	|	|	|	0.00
107.750	0.00	0.01	0.005	O	|	|	|	|	0.00
107.833	0.00	0.01	0.005	O	|	|	|	|	0.00
107.917	0.00	0.01	0.005	O	|	|	|	|	0.00
108.000	0.00	0.01	0.005	O	|	|	|	|	0.00
108.083	0.00	0.01	0.005	O	|	|	|	|	0.00
108.167	0.00	0.01	0.005	O	|	|	|	|	0.00
108.250	0.00	0.01	0.005	O	|	|	|	|	0.00
108.333	0.00	0.01	0.005	O	|	|	|	|	0.00
108.417	0.00	0.01	0.005	O	|	|	|	|	0.00
108.500	0.00	0.01	0.005	O	|	|	|	|	0.00
108.583	0.00	0.01	0.005	O	|	|	|	|	0.00
108.667	0.00	0.01	0.005	O	|	|	|	|	0.00
108.750	0.00	0.01	0.005	O	|	|	|	|	0.00
108.833	0.00	0.01	0.005	O	|	|	|	|	0.00
108.917	0.00	0.01	0.005	O	|	|	|	|	0.00
109.000	0.00	0.01	0.004	O	|	|	|	|	0.00
109.083	0.00	0.01	0.004	O	|	|	|	|	0.00
109.167	0.00	0.00	0.004	O	|	|	|	|	0.00
109.250	0.00	0.00	0.004	O	|	|	|	|	0.00
109.333	0.00	0.00	0.004	O	|	|	|	|	0.00
109.417	0.00	0.00	0.004	O	|	|	|	|	0.00
109.500	0.00	0.00	0.004	O	|	|	|	|	0.00
109.583	0.00	0.00	0.004	O	|	|	|	|	0.00
109.667	0.00	0.00	0.004	O	|	|	|	|	0.00

109.750	0.00	0.00	0.004	O	0.00
109.833	0.00	0.00	0.004	O	0.00
109.917	0.00	0.00	0.004	O	0.00
110.000	0.00	0.00	0.004	O	0.00
110.083	0.00	0.00	0.004	O	0.00
110.167	0.00	0.00	0.004	O	0.00
110.250	0.00	0.00	0.004	O	0.00
110.333	0.00	0.00	0.004	O	0.00
110.417	0.00	0.00	0.004	O	0.00
110.500	0.00	0.00	0.004	O	0.00
110.583	0.00	0.00	0.004	O	0.00
110.667	0.00	0.00	0.004	O	0.00
110.750	0.00	0.00	0.004	O	0.00
110.833	0.00	0.00	0.004	O	0.00
110.917	0.00	0.00	0.004	O	0.00
111.000	0.00	0.00	0.004	O	0.00
111.083	0.00	0.00	0.004	O	0.00
111.167	0.00	0.00	0.004	O	0.00
111.250	0.00	0.00	0.004	O	0.00
111.333	0.00	0.00	0.004	O	0.00
111.417	0.00	0.00	0.004	O	0.00
111.500	0.00	0.00	0.004	O	0.00
111.583	0.00	0.00	0.004	O	0.00
111.667	0.00	0.00	0.004	O	0.00
111.750	0.00	0.00	0.003	O	0.00
111.833	0.00	0.00	0.003	O	0.00
111.917	0.00	0.00	0.003	O	0.00
112.000	0.00	0.00	0.003	O	0.00
112.083	0.00	0.00	0.003	O	0.00
112.167	0.00	0.00	0.003	O	0.00
112.250	0.00	0.00	0.003	O	0.00
112.333	0.00	0.00	0.003	O	0.00
112.417	0.00	0.00	0.003	O	0.00
112.500	0.00	0.00	0.003	O	0.00
112.583	0.00	0.00	0.003	O	0.00
112.667	0.00	0.00	0.003	O	0.00
112.750	0.00	0.00	0.003	O	0.00
112.833	0.00	0.00	0.003	O	0.00
112.917	0.00	0.00	0.003	O	0.00
113.000	0.00	0.00	0.003	O	0.00
113.083	0.00	0.00	0.003	O	0.00
113.167	0.00	0.00	0.003	O	0.00
113.250	0.00	0.00	0.003	O	0.00
113.333	0.00	0.00	0.003	O	0.00
113.417	0.00	0.00	0.003	O	0.00
113.500	0.00	0.00	0.003	O	0.00
113.583	0.00	0.00	0.003	O	0.00
113.667	0.00	0.00	0.003	O	0.00
113.750	0.00	0.00	0.003	O	0.00
113.833	0.00	0.00	0.003	O	0.00
113.917	0.00	0.00	0.003	O	0.00
114.000	0.00	0.00	0.003	O	0.00
114.083	0.00	0.00	0.003	O	0.00
114.167	0.00	0.00	0.003	O	0.00
114.250	0.00	0.00	0.003	O	0.00
114.333	0.00	0.00	0.003	O	0.00
114.417	0.00	0.00	0.003	O	0.00
114.500	0.00	0.00	0.003	O	0.00
114.583	0.00	0.00	0.003	O	0.00
114.667	0.00	0.00	0.003	O	0.00
114.750	0.00	0.00	0.003	O	0.00
114.833	0.00	0.00	0.003	O	0.00
114.917	0.00	0.00	0.003	O	0.00
115.000	0.00	0.00	0.003	O	0.00
115.083	0.00	0.00	0.003	O	0.00
115.167	0.00	0.00	0.003	O	0.00

```
115.250    0.00    0.00       0.003  O       |       |       |       |      0.00
115.333    0.00    0.00       0.002  O       |       |       |       |      0.00
115.417    0.00    0.00       0.002  O       |       |       |       |      0.00
115.500    0.00    0.00       0.002  O       |       |       |       |      0.00
115.583    0.00    0.00       0.002  O       |       |       |       |      0.00
115.667    0.00    0.00       0.002  O       |       |       |       |      0.00
115.750    0.00    0.00       0.002  O       |       |       |       |      0.00
115.833    0.00    0.00       0.002  O       |       |       |       |      0.00
115.917    0.00    0.00       0.002  O       |       |       |       |      0.00
116.000    0.00    0.00       0.002  O       |       |       |       |      0.00
116.083    0.00    0.00       0.002  O       |       |       |       |      0.00
116.167    0.00    0.00       0.002  O       |       |       |       |      0.00
116.250    0.00    0.00       0.002  O       |       |       |       |      0.00
116.333    0.00    0.00       0.002  O       |       |       |       |      0.00
116.417    0.00    0.00       0.002  O       |       |       |       |      0.00
116.500    0.00    0.00       0.002  O       |       |       |       |      0.00
116.583    0.00    0.00       0.002  O       |       |       |       |      0.00
116.667    0.00    0.00       0.002  O       |       |       |       |      0.00
116.750    0.00    0.00       0.002  O       |       |       |       |      0.00
116.833    0.00    0.00       0.002  O       |       |       |       |      0.00
116.917    0.00    0.00       0.002  O       |       |       |       |      0.00
117.000    0.00    0.00       0.002  O       |       |       |       |      0.00
117.083    0.00    0.00       0.002  O       |       |       |       |      0.00
117.167    0.00    0.00       0.002  O       |       |       |       |      0.00
117.250    0.00    0.00       0.002  O       |       |       |       |      0.00
117.333    0.00    0.00       0.002  O       |       |       |       |      0.00
117.417    0.00    0.00       0.002  O       |       |       |       |      0.00
117.500    0.00    0.00       0.002  O       |       |       |       |      0.00
117.583    0.00    0.00       0.002  O       |       |       |       |      0.00
117.667    0.00    0.00       0.002  O       |       |       |       |      0.00
117.750    0.00    0.00       0.002  O       |       |       |       |      0.00
117.833    0.00    0.00       0.002  O       |       |       |       |      0.00
117.917    0.00    0.00       0.002  O       |       |       |       |      0.00
118.000    0.00    0.00       0.002  O       |       |       |       |      0.00
118.083    0.00    0.00       0.002  O       |       |       |       |      0.00
118.167    0.00    0.00       0.002  O       |       |       |       |      0.00
118.250    0.00    0.00       0.002  O       |       |       |       |      0.00
118.333    0.00    0.00       0.002  O       |       |       |       |      0.00
118.417    0.00    0.00       0.002  O       |       |       |       |      0.00
118.500    0.00    0.00       0.002  O       |       |       |       |      0.00
118.583    0.00    0.00       0.002  O       |       |       |       |      0.00
118.667    0.00    0.00       0.002  O       |       |       |       |      0.00
118.750    0.00    0.00       0.002  O       |       |       |       |      0.00
118.833    0.00    0.00       0.002  O       |       |       |       |      0.00
118.917    0.00    0.00       0.002  O       |       |       |       |      0.00
119.000    0.00    0.00       0.002  O       |       |       |       |      0.00
119.083    0.00    0.00       0.002  O       |       |       |       |      0.00
119.167    0.00    0.00       0.002  O       |       |       |       |      0.00
119.250    0.00    0.00       0.002  O       |       |       |       |      0.00
119.333    0.00    0.00       0.002  O       |       |       |       |      0.00
119.417    0.00    0.00       0.002  O       |       |       |       |      0.00
119.500    0.00    0.00       0.002  O       |       |       |       |      0.00


      Remaining water in basin =    0.00 (Ac.Ft)


      ***************************HYDROGRAPH DATA***************************
                   Number of intervals =  1434
                   Time interval =    5.0 (Min.)
                   Maximum/Peak flow rate =       43.548 (CFS)
                   Total volume =      15.862 (Ac.Ft)
             Status of hydrographs being held in storage
                        Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
             Peak (CFS)      0.000     0.000     0.000     0.000     0.000
             Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
```

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                    FLOOD HYDROGRAPH ROUTING PROGRAM
          Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
                        Study date: 05/07/21

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Keller Crossing – Basin C
Detention Basin Routing
Inflow Hydrograph 100-year 6-hour storm

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


Program License Serial Number 4029

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

             From study/file name: kxprh6100.rte
***************************HYDROGRAPH DATA***************************
             Number of intervals =    78
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =      157.186 (CFS)
             Total volume =      20.422 (Ac.Ft)
      Status of hydrographs being held in storage
                 Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
      Peak (CFS)      0.000     0.000     0.000     0.000     0.000
      Vol (Ac.Ft)      0.000     0.000     0.000     0.000     0.000
***********************************************************************



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

User entry of depth-outflow-storage data
---------------------------------------------------------------------
Total number of inflow hydrograph intervals = 78
Hydrograph time unit =  5.000 (Min.)
Initial depth in storage basin =   0.00(Ft.)
---------------------------------------------------------------------
---------------------------------------------------------------------
Initial basin depth =   0.00 (Ft.)
Initial basin storage =      0.00 (Ac.Ft)
Initial basin outflow =   0.00 (CFS)
----------------------------------------------------------------------
---------------------------------------------------------------------
Depth vs. Storage and Depth vs. Discharge data:
 Basin Depth  Storage    Outflow   (S-O*dt/2)   (S+O*dt/2)
     (Ft.)    (Ac.Ft)    (CFS)     (Ac.Ft)    (Ac.Ft)
----------------------------------------------------------------------
   0.000      0.000      0.000      0.000        0.000
   1.000      1.693      1.910      1.686        1.700
   2.000      3.806      2.340      3.798        3.814
   3.000      6.534      2.710      6.525        6.543
   4.000      9.741      3.030      9.731        9.751
   5.000     13.275     33.320     13.160       13.390
   6.000     16.265     88.430     15.960       16.570
---------------------------------------------------------------------
             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      39.3   78.59  117.89  157.19 (Ft.)
 0.083    2.66    0.01      0.009  O       |       |       |       |     0.01
 0.167    8.57    0.05      0.048  OI      |       |       |       |     0.03
 0.250   11.25    0.13      0.115  O I     |       |       |       |     0.07
 0.333   12.26    0.22      0.195  O I     |       |       |       |     0.12
 0.417   12.79    0.32      0.279  O I     |       |       |       |     0.17
 0.500   13.95    0.42      0.369  O I     |       |       |       |     0.22
 0.583   15.89    0.53      0.468  O  I    |       |       |       |     0.28
 0.667   16.40    0.65      0.576  O  I    |       |       |       |     0.34
 0.750   16.62    0.77      0.684  O  I    |       |       |       |     0.40
 0.833   16.74    0.90      0.793  O  I    |       |       |       |     0.47
 0.917   16.81    1.02      0.902  O  I    |       |       |       |     0.53
 1.000   17.72    1.14      1.014  O  I    |       |       |       |     0.60
 1.083   19.43    1.28      1.133  O  I    |       |       |       |     0.67
 1.167   19.91    1.42      1.260  O   I   |       |       |       |     0.74
 1.250   20.12    1.57      1.387  O   I   |       |       |       |     0.82
 1.333   20.25    1.71      1.515  O   I   |       |       |       |     0.89
 1.417   20.32    1.85      1.642  O   I   |       |       |       |     0.97
 1.500   20.37    1.93      1.769  O   I   |       |       |       |     1.04
 1.583   20.37    1.95      1.896  O   I   |       |       |       |     1.10
 1.667   20.37    1.98      2.023  O   I   |       |       |       |     1.16
 1.750   20.37    2.00      2.150  O   I   |       |       |       |     1.22
 1.833   20.37    2.03      2.276  O   I   |       |       |       |     1.28
 1.917   20.37    2.05      2.402  O   I   |       |       |       |     1.34
 2.000   21.23    2.08      2.531  O   I   |       |       |       |     1.40
 2.083   22.08    2.11      2.666  O   I   |       |       |       |     1.46
 2.167   21.71    2.14      2.802  O   I   |       |       |       |     1.53
 2.250   23.16    2.16      2.942  O   I   |       |       |       |     1.59
 2.333   23.54    2.19      3.088  O   I   |       |       |       |     1.66
 2.417   23.70    2.22      3.235  O   I   |       |       |       |     1.73
 2.500   23.81    2.25      3.384  O   I   |       |       |       |     1.80
 2.583   23.82    2.28      3.532  O   I   |       |       |       |     1.87
 2.667   23.88    2.31      3.680  O   I   |       |       |       |     1.94
 2.750   24.74    2.34      3.832  O    I  |       |       |       |     2.01
 2.833   26.45    2.37      3.992  O    I  |       |       |       |     2.07
 2.917   26.93    2.39      4.159  O    I  |       |       |       |     2.13
 3.000   27.14    2.41      4.329  O    I  |       |       |       |     2.19
 3.083   27.26    2.43      4.500  O    I  |       |       |       |     2.25
 3.167   28.19    2.46      4.674  O    I  |       |       |       |     2.32
 3.250   29.96    2.48      4.857  O     I |       |       |       |     2.39
 3.333   30.43    2.51      5.048  O     I |       |       |       |     2.46
 3.417   31.51    2.53      5.244  O     I |       |       |       |     2.53
 3.500   34.20    2.56      5.452  O     I |       |       |       |     2.60
 3.583   37.31    2.59      5.681  O      I|       |       |       |     2.69
 3.667   39.77    2.63      5.928  O       I       |       |       |     2.78
 3.750   41.44    2.66      6.190  O       I       |       |       |     2.87
 3.833   43.56    2.70      6.464  O       I       |       |       |     2.97
 3.917   45.14    2.73      6.751  O       |I      |       |       |     3.07
 4.000   47.20    2.76      7.050  O       |I      |       |       |     3.16
 4.083   48.71    2.79      7.361  O       |I      |       |       |     3.26
 4.167   51.57    2.83      7.687  O       | I     |       |       |     3.36
 4.250   54.79    2.86      8.034  O       |  I    |       |       |     3.47
 4.333   58.12    2.90      8.403  O       |  I    |       |       |     3.58
 4.417   61.56    2.94      8.795  O       |   I   |       |       |     3.70
 4.500   64.15    2.98      9.207  O       |    I  |       |       |     3.83
 4.583   65.95    3.02      9.634  O       |    I  |       |       |     3.97
 4.667   68.98    5.84     10.069  |O      |     I |       |       |     4.09
 4.750   72.27    9.55     10.502  |O      |     I |       |       |     4.22
 4.833   74.80   13.22     10.930  | O     |      I|       |       |     4.34
 4.917   76.53   16.80     11.348  |  O    |      I|       |       |     4.45
 5.000   79.51   20.31     11.757  |   O   |       I       |       |     4.57
 5.083   86.23   23.90     12.176  |   O   |       |I      |       |     4.69
 5.167   99.90   27.86     12.638  |    O  |       |   I   |       |     4.82
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 5.250  113.80   32.39     13.167  |     O |       |      I|       |     4.97
 5.333  125.16   41.78     13.734  |       O       |       |I      |     5.15
 5.417  137.82   52.49     14.315  |       | O     |       |   I   |     5.35
 5.500  157.19   63.83     14.930  |       |   O   |       |       I     5.55
 5.583  144.85   74.24     15.495  |       |      O|       |    I  |     5.74
 5.667   79.15   78.75     15.740  |       |       O       |       |     5.82
 5.750   44.81   76.75     15.631  |       |I     O|       |       |     5.79
 5.833   27.94   71.93     15.370  |    I  |     O |       |       |     5.70
 5.917   18.54   66.12     15.054  |  I    |    O  |       |       |     5.60
 6.000   11.59   60.02     14.724  | I     |   O   |       |       |     5.48
 6.083    5.56   53.88     14.391  |I      | O     |       |       |     5.37
 6.167    2.02   47.90     14.066  I       |O      |       |       |     5.26
 6.250    0.93   42.36     13.765  I       O       |       |       |     5.16
 6.333    0.46   37.39     13.496  I      O|       |       |       |     5.07
 6.417    0.19   33.15     13.255  I     O |       |       |       |     4.99
 6.500    0.07   31.26     13.034  I     O |       |       |       |     4.93
 6.583    0.00   29.47     12.825  I    O  |       |       |       |     4.87
 6.667    0.00   27.78     12.628  I    O  |       |       |       |     4.82
 6.750    0.00   26.18     12.442  I    O  |       |       |       |     4.76
 6.833    0.00   24.68     12.267  I    O  |       |       |       |     4.71
 6.917    0.00   23.27     12.102  I   O   |       |       |       |     4.67
 7.000    0.00   21.93     11.946  I   O   |       |       |       |     4.62
 7.083    0.00   20.68     11.800  I   O   |       |       |       |     4.58
 7.167    0.00   19.49     11.661  I  O    |       |       |       |     4.54
 7.250    0.00   18.37     11.531  I  O    |       |       |       |     4.51
 7.333    0.00   17.32     11.408  I  O    |       |       |       |     4.47
 7.417    0.00   16.33     11.292  I  O    |       |       |       |     4.44
 7.500    0.00   15.39     11.183  I  O    |       |       |       |     4.41
 7.583    0.00   14.51     11.080  I O     |       |       |       |     4.38
 7.667    0.00   13.68     10.983  I O     |       |       |       |     4.35
 7.750    0.00   12.89     10.892  I O     |       |       |       |     4.33
 7.833    0.00   12.15     10.805  I O     |       |       |       |     4.30
 7.917    0.00   11.46     10.724  I O     |       |       |       |     4.28
 8.000    0.00   10.80     10.647  I O     |       |       |       |     4.26
 8.083    0.00   10.18     10.575  I O     |       |       |       |     4.24
 8.167    0.00    9.60     10.507  IO      |       |       |       |     4.22
 8.250    0.00    9.05     10.443  IO      |       |       |       |     4.20
 8.333    0.00    8.53     10.382  IO      |       |       |       |     4.18
 8.417    0.00    8.04     10.325  IO      |       |       |       |     4.17
 8.500    0.00    7.58     10.272  IO      |       |       |       |     4.15
 8.583    0.00    7.14     10.221  IO      |       |       |       |     4.14
 8.667    0.00    6.73     10.173  IO      |       |       |       |     4.12
 8.750    0.00    6.35     10.128  IO      |       |       |       |     4.11
 8.833    0.00    5.98     10.086  IO      |       |       |       |     4.10
 8.917    0.00    5.64     10.046  IO      |       |       |       |     4.09
 9.000    0.00    5.32     10.008  IO      |       |       |       |     4.08
 9.083    0.00    5.01      9.972  IO      |       |       |       |     4.07
 9.167    0.00    4.72      9.939  O       |       |       |       |     4.06
 9.250    0.00    4.45      9.907  O       |       |       |       |     4.05
 9.333    0.00    4.20      9.877  O       |       |       |       |     4.04
 9.417    0.00    3.96      9.849  O       |       |       |       |     4.03
 9.500    0.00    3.73      9.823  O       |       |       |       |     4.02
 9.583    0.00    3.52      9.798  O       |       |       |       |     4.02
 9.667    0.00    3.32      9.774  O       |       |       |       |     4.01
 9.750    0.00    3.13      9.752  O       |       |       |       |     4.00
 9.833    0.00    3.03      9.731  O       |       |       |       |     4.00
 9.917    0.00    3.03      9.710  O       |       |       |       |     3.99
10.000    0.00    3.02      9.689  O       |       |       |       |     3.98
10.083    0.00    3.02      9.668  O       |       |       |       |     3.98
10.167    0.00    3.02      9.648  O       |       |       |       |     3.97
10.250    0.00    3.02      9.627  O       |       |       |       |     3.96
10.333    0.00    3.02      9.606  O       |       |       |       |     3.96
10.417    0.00    3.01      9.585  O       |       |       |       |     3.95
10.500    0.00    3.01      9.564  O       |       |       |       |     3.94
10.583    0.00    3.01      9.544  O       |       |       |       |     3.94
10.667    0.00    3.01      9.523  O       |       |       |       |     3.93
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10.750    0.00    3.01      9.502  O       |       |       |       |       3.93
10.833    0.00    3.00      9.482  O       |       |       |       |       3.92
10.917    0.00    3.00      9.461  O       |       |       |       |       3.91
11.000    0.00    3.00      9.440  O       |       |       |       |       3.91
11.083    0.00    3.00      9.420  O       |       |       |       |       3.90
11.167    0.00    3.00      9.399  O       |       |       |       |       3.89
11.250    0.00    2.99      9.378  O       |       |       |       |       3.89
11.333    0.00    2.99      9.358  O       |       |       |       |       3.88
11.417    0.00    2.99      9.337  O       |       |       |       |       3.87
11.500    0.00    2.99      9.317  O       |       |       |       |       3.87
11.583    0.00    2.99      9.296  O       |       |       |       |       3.86
11.667    0.00    2.98      9.275  O       |       |       |       |       3.85
11.750    0.00    2.98      9.255  O       |       |       |       |       3.85
11.833    0.00    2.98      9.234  O       |       |       |       |       3.84
11.917    0.00    2.98      9.214  O       |       |       |       |       3.84
12.000    0.00    2.98      9.193  O       |       |       |       |       3.83
12.083    0.00    2.97      9.173  O       |       |       |       |       3.82
12.167    0.00    2.97      9.152  O       |       |       |       |       3.82
12.250    0.00    2.97      9.132  O       |       |       |       |       3.81
12.333    0.00    2.97      9.111  O       |       |       |       |       3.80
12.417    0.00    2.97      9.091  O       |       |       |       |       3.80
12.500    0.00    2.96      9.071  O       |       |       |       |       3.79
12.583    0.00    2.96      9.050  O       |       |       |       |       3.78
12.667    0.00    2.96      9.030  O       |       |       |       |       3.78
12.750    0.00    2.96      9.009  O       |       |       |       |       3.77
12.833    0.00    2.95      8.989  O       |       |       |       |       3.77
12.917    0.00    2.95      8.969  O       |       |       |       |       3.76
13.000    0.00    2.95      8.948  O       |       |       |       |       3.75
13.083    0.00    2.95      8.928  O       |       |       |       |       3.75
13.167    0.00    2.95      8.908  O       |       |       |       |       3.74
13.250    0.00    2.94      8.888  O       |       |       |       |       3.73
13.333    0.00    2.94      8.867  O       |       |       |       |       3.73
13.417    0.00    2.94      8.847  O       |       |       |       |       3.72
13.500    0.00    2.94      8.827  O       |       |       |       |       3.71
13.583    0.00    2.94      8.807  O       |       |       |       |       3.71
13.667    0.00    2.93      8.786  O       |       |       |       |       3.70
13.750    0.00    2.93      8.766  O       |       |       |       |       3.70
13.833    0.00    2.93      8.746  O       |       |       |       |       3.69
13.917    0.00    2.93      8.726  O       |       |       |       |       3.68
14.000    0.00    2.93      8.706  O       |       |       |       |       3.68
14.083    0.00    2.92      8.685  O       |       |       |       |       3.67
14.167    0.00    2.92      8.665  O       |       |       |       |       3.66
14.250    0.00    2.92      8.645  O       |       |       |       |       3.66
14.333    0.00    2.92      8.625  O       |       |       |       |       3.65
14.417    0.00    2.92      8.605  O       |       |       |       |       3.65
14.500    0.00    2.91      8.585  O       |       |       |       |       3.64
14.583    0.00    2.91      8.565  O       |       |       |       |       3.63
14.667    0.00    2.91      8.545  O       |       |       |       |       3.63
14.750    0.00    2.91      8.525  O       |       |       |       |       3.62
14.833    0.00    2.91      8.505  O       |       |       |       |       3.61
14.917    0.00    2.90      8.485  O       |       |       |       |       3.61
15.000    0.00    2.90      8.465  O       |       |       |       |       3.60
15.083    0.00    2.90      8.445  O       |       |       |       |       3.60
15.167    0.00    2.90      8.425  O       |       |       |       |       3.59
15.250    0.00    2.90      8.405  O       |       |       |       |       3.58
15.333    0.00    2.89      8.385  O       |       |       |       |       3.58
15.417    0.00    2.89      8.365  O       |       |       |       |       3.57
15.500    0.00    2.89      8.345  O       |       |       |       |       3.56
15.583    0.00    2.89      8.325  O       |       |       |       |       3.56
15.667    0.00    2.89      8.305  O       |       |       |       |       3.55
15.750    0.00    2.88      8.285  O       |       |       |       |       3.55
15.833    0.00    2.88      8.265  O       |       |       |       |       3.54
15.917    0.00    2.88      8.246  O       |       |       |       |       3.53
16.000    0.00    2.88      8.226  O       |       |       |       |       3.53
16.083    0.00    2.88      8.206  O       |       |       |       |       3.52
16.167    0.00    2.87      8.186  O       |       |       |       |       3.52
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16.250	0.00	2.87	8.166	O	|	|	|	|	3.51
16.333	0.00	2.87	8.147	O	|	|	|	|	3.50
16.417	0.00	2.87	8.127	O	|	|	|	|	3.50
16.500	0.00	2.87	8.107	O	|	|	|	|	3.49
16.583	0.00	2.86	8.087	O	|	|	|	|	3.48
16.667	0.00	2.86	8.068	O	|	|	|	|	3.48
16.750	0.00	2.86	8.048	O	|	|	|	|	3.47
16.833	0.00	2.86	8.028	O	|	|	|	|	3.47
16.917	0.00	2.86	8.009	O	|	|	|	|	3.46
17.000	0.00	2.86	7.989	O	|	|	|	|	3.45
17.083	0.00	2.85	7.969	O	|	|	|	|	3.45
17.167	0.00	2.85	7.950	O	|	|	|	|	3.44
17.250	0.00	2.85	7.930	O	|	|	|	|	3.44
17.333	0.00	2.85	7.910	O	|	|	|	|	3.43
17.417	0.00	2.85	7.891	O	|	|	|	|	3.42
17.500	0.00	2.84	7.871	O	|	|	|	|	3.42
17.583	0.00	2.84	7.852	O	|	|	|	|	3.41
17.667	0.00	2.84	7.832	O	|	|	|	|	3.40
17.750	0.00	2.84	7.812	O	|	|	|	|	3.40
17.833	0.00	2.84	7.793	O	|	|	|	|	3.39
17.917	0.00	2.83	7.773	O	|	|	|	|	3.39
18.000	0.00	2.83	7.754	O	|	|	|	|	3.38
18.083	0.00	2.83	7.734	O	|	|	|	|	3.37
18.167	0.00	2.83	7.715	O	|	|	|	|	3.37
18.250	0.00	2.83	7.695	O	|	|	|	|	3.36
18.333	0.00	2.82	7.676	O	|	|	|	|	3.36
18.417	0.00	2.82	7.657	O	|	|	|	|	3.35
18.500	0.00	2.82	7.637	O	|	|	|	|	3.34
18.583	0.00	2.82	7.618	O	|	|	|	|	3.34
18.667	0.00	2.82	7.598	O	|	|	|	|	3.33
18.750	0.00	2.81	7.579	O	|	|	|	|	3.33
18.833	0.00	2.81	7.560	O	|	|	|	|	3.32
18.917	0.00	2.81	7.540	O	|	|	|	|	3.31
19.000	0.00	2.81	7.521	O	|	|	|	|	3.31
19.083	0.00	2.81	7.501	O	|	|	|	|	3.30
19.167	0.00	2.80	7.482	O	|	|	|	|	3.30
19.250	0.00	2.80	7.463	O	|	|	|	|	3.29
19.333	0.00	2.80	7.444	O	|	|	|	|	3.28
19.417	0.00	2.80	7.424	O	|	|	|	|	3.28
19.500	0.00	2.80	7.405	O	|	|	|	|	3.27
19.583	0.00	2.79	7.386	O	|	|	|	|	3.27
19.667	0.00	2.79	7.366	O	|	|	|	|	3.26
19.750	0.00	2.79	7.347	O	|	|	|	|	3.25
19.833	0.00	2.79	7.328	O	|	|	|	|	3.25
19.917	0.00	2.79	7.309	O	|	|	|	|	3.24
20.000	0.00	2.79	7.290	O	|	|	|	|	3.24
20.083	0.00	2.78	7.270	O	|	|	|	|	3.23
20.167	0.00	2.78	7.251	O	|	|	|	|	3.22
20.250	0.00	2.78	7.232	O	|	|	|	|	3.22
20.333	0.00	2.78	7.213	O	|	|	|	|	3.21
20.417	0.00	2.78	7.194	O	|	|	|	|	3.21
20.500	0.00	2.77	7.175	O	|	|	|	|	3.20
20.583	0.00	2.77	7.156	O	|	|	|	|	3.19
20.667	0.00	2.77	7.137	O	|	|	|	|	3.19
20.750	0.00	2.77	7.118	O	|	|	|	|	3.18
20.833	0.00	2.77	7.098	O	|	|	|	|	3.18
20.917	0.00	2.76	7.079	O	|	|	|	|	3.17
21.000	0.00	2.76	7.060	O	|	|	|	|	3.16
21.083	0.00	2.76	7.041	O	|	|	|	|	3.16
21.167	0.00	2.76	7.022	O	|	|	|	|	3.15
21.250	0.00	2.76	7.003	O	|	|	|	|	3.15
21.333	0.00	2.75	6.984	O	|	|	|	|	3.14
21.417	0.00	2.75	6.965	O	|	|	|	|	3.13
21.500	0.00	2.75	6.946	O	|	|	|	|	3.13
21.583	0.00	2.75	6.928	O	|	|	|	|	3.12
21.667	0.00	2.75	6.909	O	|	|	|	|	3.12

21.750	0.00	2.75	6.890	O	|	|	|	|	3.11
21.833	0.00	2.74	6.871	O	|	|	|	|	3.11
21.917	0.00	2.74	6.852	O	|	|	|	|	3.10
22.000	0.00	2.74	6.833	O	|	|	|	|	3.09
22.083	0.00	2.74	6.814	O	|	|	|	|	3.09
22.167	0.00	2.74	6.795	O	|	|	|	|	3.08
22.250	0.00	2.73	6.776	O	|	|	|	|	3.08
22.333	0.00	2.73	6.758	O	|	|	|	|	3.07
22.417	0.00	2.73	6.739	O	|	|	|	|	3.06
22.500	0.00	2.73	6.720	O	|	|	|	|	3.06
22.583	0.00	2.73	6.701	O	|	|	|	|	3.05
22.667	0.00	2.72	6.682	O	|	|	|	|	3.05
22.750	0.00	2.72	6.664	O	|	|	|	|	3.04
22.833	0.00	2.72	6.645	O	|	|	|	|	3.03
22.917	0.00	2.72	6.626	O	|	|	|	|	3.03
23.000	0.00	2.72	6.608	O	|	|	|	|	3.02
23.083	0.00	2.72	6.589	O	|	|	|	|	3.02
23.167	0.00	2.71	6.570	O	|	|	|	|	3.01
23.250	0.00	2.71	6.551	O	|	|	|	|	3.01
23.333	0.00	2.71	6.533	O	|	|	|	|	3.00
23.417	0.00	2.71	6.514	O	|	|	|	|	2.99
23.500	0.00	2.70	6.495	O	|	|	|	|	2.99
23.583	0.00	2.70	6.477	O	|	|	|	|	2.98
23.667	0.00	2.70	6.458	O	|	|	|	|	2.97
23.750	0.00	2.70	6.440	O	|	|	|	|	2.97
23.833	0.00	2.69	6.421	O	|	|	|	|	2.96
23.917	0.00	2.69	6.403	O	|	|	|	|	2.95
24.000	0.00	2.69	6.384	O	|	|	|	|	2.95
24.083	0.00	2.69	6.366	O	|	|	|	|	2.94
24.167	0.00	2.68	6.347	O	|	|	|	|	2.93
24.250	0.00	2.68	6.329	O	|	|	|	|	2.92
24.333	0.00	2.68	6.310	O	|	|	|	|	2.92
24.417	0.00	2.68	6.292	O	|	|	|	|	2.91
24.500	0.00	2.67	6.273	O	|	|	|	|	2.90
24.583	0.00	2.67	6.255	O	|	|	|	|	2.90
24.667	0.00	2.67	6.236	O	|	|	|	|	2.89
24.750	0.00	2.67	6.218	O	|	|	|	|	2.88
24.833	0.00	2.66	6.200	O	|	|	|	|	2.88
24.917	0.00	2.66	6.181	O	|	|	|	|	2.87
25.000	0.00	2.66	6.163	O	|	|	|	|	2.86
25.083	0.00	2.66	6.145	O	|	|	|	|	2.86
25.167	0.00	2.65	6.126	O	|	|	|	|	2.85
25.250	0.00	2.65	6.108	O	|	|	|	|	2.84
25.333	0.00	2.65	6.090	O	|	|	|	|	2.84
25.417	0.00	2.65	6.072	O	|	|	|	|	2.83
25.500	0.00	2.64	6.053	O	|	|	|	|	2.82
25.583	0.00	2.64	6.035	O	|	|	|	|	2.82
25.667	0.00	2.64	6.017	O	|	|	|	|	2.81
25.750	0.00	2.64	5.999	O	|	|	|	|	2.80
25.833	0.00	2.63	5.981	O	|	|	|	|	2.80
25.917	0.00	2.63	5.963	O	|	|	|	|	2.79
26.000	0.00	2.63	5.944	O	|	|	|	|	2.78
26.083	0.00	2.63	5.926	O	|	|	|	|	2.78
26.167	0.00	2.63	5.908	O	|	|	|	|	2.77
26.250	0.00	2.62	5.890	O	|	|	|	|	2.76
26.333	0.00	2.62	5.872	O	|	|	|	|	2.76
26.417	0.00	2.62	5.854	O	|	|	|	|	2.75
26.500	0.00	2.62	5.836	O	|	|	|	|	2.74
26.583	0.00	2.61	5.818	O	|	|	|	|	2.74
26.667	0.00	2.61	5.800	O	|	|	|	|	2.73
26.750	0.00	2.61	5.782	O	|	|	|	|	2.72
26.833	0.00	2.61	5.764	O	|	|	|	|	2.72
26.917	0.00	2.60	5.746	O	|	|	|	|	2.71
27.000	0.00	2.60	5.728	O	|	|	|	|	2.70
27.083	0.00	2.60	5.710	O	|	|	|	|	2.70
27.167	0.00	2.60	5.692	O	|	|	|	|	2.69

27.250	0.00	2.59	5.675	O	2.68
27.333	0.00	2.59	5.657	O	2.68
27.417	0.00	2.59	5.639	O	2.67
27.500	0.00	2.59	5.621	O	2.67
27.583	0.00	2.58	5.603	O	2.66
27.667	0.00	2.58	5.585	O	2.65
27.750	0.00	2.58	5.568	O	2.65
27.833	0.00	2.58	5.550	O	2.64
27.917	0.00	2.57	5.532	O	2.63
28.000	0.00	2.57	5.515	O	2.63
28.083	0.00	2.57	5.497	O	2.62
28.167	0.00	2.57	5.479	O	2.61
28.250	0.00	2.56	5.461	O	2.61
28.333	0.00	2.56	5.444	O	2.60
28.417	0.00	2.56	5.426	O	2.59
28.500	0.00	2.56	5.409	O	2.59
28.583	0.00	2.55	5.391	O	2.58
28.667	0.00	2.55	5.373	O	2.57
28.750	0.00	2.55	5.356	O	2.57
28.833	0.00	2.55	5.338	O	2.56
28.917	0.00	2.55	5.321	O	2.56
29.000	0.00	2.54	5.303	O	2.55
29.083	0.00	2.54	5.286	O	2.54
29.167	0.00	2.54	5.268	O	2.54
29.250	0.00	2.54	5.251	O	2.53
29.333	0.00	2.53	5.233	O	2.52
29.417	0.00	2.53	5.216	O	2.52
29.500	0.00	2.53	5.198	O	2.51
29.583	0.00	2.53	5.181	O	2.50
29.667	0.00	2.52	5.164	O	2.50
29.750	0.00	2.52	5.146	O	2.49
29.833	0.00	2.52	5.129	O	2.48
29.917	0.00	2.52	5.111	O	2.48
30.000	0.00	2.51	5.094	O	2.47
30.083	0.00	2.51	5.077	O	2.47
30.167	0.00	2.51	5.060	O	2.46
30.250	0.00	2.51	5.042	O	2.45
30.333	0.00	2.51	5.025	O	2.45
30.417	0.00	2.50	5.008	O	2.44
30.500	0.00	2.50	4.991	O	2.43
30.583	0.00	2.50	4.973	O	2.43
30.667	0.00	2.50	4.956	O	2.42
30.750	0.00	2.49	4.939	O	2.42
30.833	0.00	2.49	4.922	O	2.41
30.917	0.00	2.49	4.905	O	2.40
31.000	0.00	2.49	4.888	O	2.40
31.083	0.00	2.48	4.870	O	2.39
31.167	0.00	2.48	4.853	O	2.38
31.250	0.00	2.48	4.836	O	2.38
31.333	0.00	2.48	4.819	O	2.37
31.417	0.00	2.48	4.802	O	2.37
31.500	0.00	2.47	4.785	O	2.36
31.583	0.00	2.47	4.768	O	2.35
31.667	0.00	2.47	4.751	O	2.35
31.750	0.00	2.47	4.734	O	2.34
31.833	0.00	2.46	4.717	O	2.33
31.917	0.00	2.46	4.700	O	2.33
32.000	0.00	2.46	4.683	O	2.32
32.083	0.00	2.46	4.666	O	2.32
32.167	0.00	2.45	4.649	O	2.31
32.250	0.00	2.45	4.632	O	2.30
32.333	0.00	2.45	4.616	O	2.30
32.417	0.00	2.45	4.599	O	2.29
32.500	0.00	2.45	4.582	O	2.28
32.583	0.00	2.44	4.565	O	2.28
32.667	0.00	2.44	4.548	O	2.27

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32.750    0.00    2.44     4.531  O        |        |        |        |      2.27
32.833    0.00    2.44     4.515  O        |        |        |        |      2.26
32.917    0.00    2.43     4.498  O        |        |        |        |      2.25
33.000    0.00    2.43     4.481  O        |        |        |        |      2.25
33.083    0.00    2.43     4.464  O        |        |        |        |      2.24
33.167    0.00    2.43     4.448  O        |        |        |        |      2.24
33.250    0.00    2.42     4.431  O        |        |        |        |      2.23
33.333    0.00    2.42     4.414  O        |        |        |        |      2.22
33.417    0.00    2.42     4.398  O        |        |        |        |      2.22
33.500    0.00    2.42     4.381  O        |        |        |        |      2.21
33.583    0.00    2.42     4.364  O        |        |        |        |      2.20
33.667    0.00    2.41     4.348  O        |        |        |        |      2.20
33.750    0.00    2.41     4.331  O        |        |        |        |      2.19
33.833    0.00    2.41     4.314  O        |        |        |        |      2.19
33.917    0.00    2.41     4.298  O        |        |        |        |      2.18
34.000    0.00    2.40     4.281  O        |        |        |        |      2.17
34.083    0.00    2.40     4.265  O        |        |        |        |      2.17
34.167    0.00    2.40     4.248  O        |        |        |        |      2.16
34.250    0.00    2.40     4.232  O        |        |        |        |      2.16
34.333    0.00    2.40     4.215  O        |        |        |        |      2.15
34.417    0.00    2.39     4.199  O        |        |        |        |      2.14
34.500    0.00    2.39     4.182  O        |        |        |        |      2.14
34.583    0.00    2.39     4.166  O        |        |        |        |      2.13
34.667    0.00    2.39     4.149  O        |        |        |        |      2.13
34.750    0.00    2.38     4.133  O        |        |        |        |      2.12
34.833    0.00    2.38     4.116  O        |        |        |        |      2.11
34.917    0.00    2.38     4.100  O        |        |        |        |      2.11
35.000    0.00    2.38     4.084  O        |        |        |        |      2.10
35.083    0.00    2.38     4.067  O        |        |        |        |      2.10
35.167    0.00    2.37     4.051  O        |        |        |        |      2.09
35.250    0.00    2.37     4.035  O        |        |        |        |      2.08
35.333    0.00    2.37     4.018  O        |        |        |        |      2.08
35.417    0.00    2.37     4.002  O        |        |        |        |      2.07
35.500    0.00    2.36     3.986  O        |        |        |        |      2.07
35.583    0.00    2.36     3.969  O        |        |        |        |      2.06
35.667    0.00    2.36     3.953  O        |        |        |        |      2.05
35.750    0.00    2.36     3.937  O        |        |        |        |      2.05
35.833    0.00    2.36     3.921  O        |        |        |        |      2.04
35.917    0.00    2.35     3.904  O        |        |        |        |      2.04
36.000    0.00    2.35     3.888  O        |        |        |        |      2.03
36.083    0.00    2.35     3.872  O        |        |        |        |      2.02
36.167    0.00    2.35     3.856  O        |        |        |        |      2.02
36.250    0.00    2.34     3.840  O        |        |        |        |      2.01
36.333    0.00    2.34     3.824  O        |        |        |        |      2.01
36.417    0.00    2.34     3.807  O        |        |        |        |      2.00
36.500    0.00    2.34     3.791  O        |        |        |        |      1.99
36.583    0.00    2.33     3.775  O        |        |        |        |      1.99
36.667    0.00    2.33     3.759  O        |        |        |        |      1.98
36.750    0.00    2.33     3.743  O        |        |        |        |      1.97
36.833    0.00    2.32     3.727  O        |        |        |        |      1.96
36.917    0.00    2.32     3.711  O        |        |        |        |      1.96
37.000    0.00    2.32     3.695  O        |        |        |        |      1.95
37.083    0.00    2.31     3.679  O        |        |        |        |      1.94
37.167    0.00    2.31     3.663  O        |        |        |        |      1.93
37.250    0.00    2.31     3.647  O        |        |        |        |      1.92
37.333    0.00    2.30     3.632  O        |        |        |        |      1.92
37.417    0.00    2.30     3.616  O        |        |        |        |      1.91
37.500    0.00    2.30     3.600  O        |        |        |        |      1.90
37.583    0.00    2.29     3.584  O        |        |        |        |      1.89
37.667    0.00    2.29     3.568  O        |        |        |        |      1.89
37.750    0.00    2.29     3.552  O        |        |        |        |      1.88
37.833    0.00    2.29     3.537  O        |        |        |        |      1.87
37.917    0.00    2.28     3.521  O        |        |        |        |      1.87
38.000    0.00    2.28     3.505  O        |        |        |        |      1.86
38.083    0.00    2.28     3.490  O        |        |        |        |      1.85
38.167    0.00    2.27     3.474  O        |        |        |        |      1.84
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38.250    0.00    2.27     3.458  O        |        |        |        |       1.84
38.333    0.00    2.27     3.443  O        |        |        |        |       1.83
38.417    0.00    2.26     3.427  O        |        |        |        |       1.82
38.500    0.00    2.26     3.411  O        |        |        |        |       1.81
38.583    0.00    2.26     3.396  O        |        |        |        |       1.81
38.667    0.00    2.25     3.380  O        |        |        |        |       1.80
38.750    0.00    2.25     3.365  O        |        |        |        |       1.79
38.833    0.00    2.25     3.349  O        |        |        |        |       1.78
38.917    0.00    2.24     3.334  O        |        |        |        |       1.78
39.000    0.00    2.24     3.318  O        |        |        |        |       1.77
39.083    0.00    2.24     3.303  O        |        |        |        |       1.76
39.167    0.00    2.23     3.288  O        |        |        |        |       1.75
39.250    0.00    2.23     3.272  O        |        |        |        |       1.75
39.333    0.00    2.23     3.257  O        |        |        |        |       1.74
39.417    0.00    2.23     3.242  O        |        |        |        |       1.73
39.500    0.00    2.22     3.226  O        |        |        |        |       1.73
39.583    0.00    2.22     3.211  O        |        |        |        |       1.72
39.667    0.00    2.22     3.196  O        |        |        |        |       1.71
39.750    0.00    2.21     3.180  O        |        |        |        |       1.70
39.833    0.00    2.21     3.165  O        |        |        |        |       1.70
39.917    0.00    2.21     3.150  O        |        |        |        |       1.69
40.000    0.00    2.20     3.135  O        |        |        |        |       1.68
40.083    0.00    2.20     3.120  O        |        |        |        |       1.68
40.167    0.00    2.20     3.105  O        |        |        |        |       1.67
40.250    0.00    2.19     3.089  O        |        |        |        |       1.66
40.333    0.00    2.19     3.074  O        |        |        |        |       1.65
40.417    0.00    2.19     3.059  O        |        |        |        |       1.65
40.500    0.00    2.18     3.044  O        |        |        |        |       1.64
40.583    0.00    2.18     3.029  O        |        |        |        |       1.63
40.667    0.00    2.18     3.014  O        |        |        |        |       1.63
40.750    0.00    2.18     2.999  O        |        |        |        |       1.62
40.833    0.00    2.17     2.984  O        |        |        |        |       1.61
40.917    0.00    2.17     2.969  O        |        |        |        |       1.60
41.000    0.00    2.17     2.954  O        |        |        |        |       1.60
41.083    0.00    2.16     2.939  O        |        |        |        |       1.59
41.167    0.00    2.16     2.924  O        |        |        |        |       1.58
41.250    0.00    2.16     2.910  O        |        |        |        |       1.58
41.333    0.00    2.15     2.895  O        |        |        |        |       1.57
41.417    0.00    2.15     2.880  O        |        |        |        |       1.56
41.500    0.00    2.15     2.865  O        |        |        |        |       1.55
41.583    0.00    2.15     2.850  O        |        |        |        |       1.55
41.667    0.00    2.14     2.836  O        |        |        |        |       1.54
41.750    0.00    2.14     2.821  O        |        |        |        |       1.53
41.833    0.00    2.14     2.806  O        |        |        |        |       1.53
41.917    0.00    2.13     2.791  O        |        |        |        |       1.52
42.000    0.00    2.13     2.777  O        |        |        |        |       1.51
42.083    0.00    2.13     2.762  O        |        |        |        |       1.51
42.167    0.00    2.12     2.747  O        |        |        |        |       1.50
42.250    0.00    2.12     2.733  O        |        |        |        |       1.49
42.333    0.00    2.12     2.718  O        |        |        |        |       1.49
42.417    0.00    2.12     2.704  O        |        |        |        |       1.48
42.500    0.00    2.11     2.689  O        |        |        |        |       1.47
42.583    0.00    2.11     2.674  O        |        |        |        |       1.46
42.667    0.00    2.11     2.660  O        |        |        |        |       1.46
42.750    0.00    2.10     2.645  O        |        |        |        |       1.45
42.833    0.00    2.10     2.631  O        |        |        |        |       1.44
42.917    0.00    2.10     2.617  O        |        |        |        |       1.44
43.000    0.00    2.10     2.602  O        |        |        |        |       1.43
43.083    0.00    2.09     2.588  O        |        |        |        |       1.42
43.167    0.00    2.09     2.573  O        |        |        |        |       1.42
43.250    0.00    2.09     2.559  O        |        |        |        |       1.41
43.333    0.00    2.08     2.545  O        |        |        |        |       1.40
43.417    0.00    2.08     2.530  O        |        |        |        |       1.40
43.500    0.00    2.08     2.516  O        |        |        |        |       1.39
43.583    0.00    2.07     2.502  O        |        |        |        |       1.38
43.667    0.00    2.07     2.487  O        |        |        |        |       1.38
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43.750    0.00    2.07     2.473  O        |       |       |       |     1.37
43.833    0.00    2.07     2.459  O        |       |       |       |     1.36
43.917    0.00    2.06     2.445  O        |       |       |       |     1.36
44.000    0.00    2.06     2.430  O        |       |       |       |     1.35
44.083    0.00    2.06     2.416  O        |       |       |       |     1.34
44.167    0.00    2.05     2.402  O        |       |       |       |     1.34
44.250    0.00    2.05     2.388  O        |       |       |       |     1.33
44.333    0.00    2.05     2.374  O        |       |       |       |     1.32
44.417    0.00    2.05     2.360  O        |       |       |       |     1.32
44.500    0.00    2.04     2.346  O        |       |       |       |     1.31
44.583    0.00    2.04     2.332  O        |       |       |       |     1.30
44.667    0.00    2.04     2.318  O        |       |       |       |     1.30
44.750    0.00    2.03     2.304  O        |       |       |       |     1.29
44.833    0.00    2.03     2.290  O        |       |       |       |     1.28
44.917    0.00    2.03     2.276  O        |       |       |       |     1.28
45.000    0.00    2.03     2.262  O        |       |       |       |     1.27
45.083    0.00    2.02     2.248  O        |       |       |       |     1.26
45.167    0.00    2.02     2.234  O        |       |       |       |     1.26
45.250    0.00    2.02     2.220  O        |       |       |       |     1.25
45.333    0.00    2.01     2.206  O        |       |       |       |     1.24
45.417    0.00    2.01     2.192  O        |       |       |       |     1.24
45.500    0.00    2.01     2.178  O        |       |       |       |     1.23
45.583    0.00    2.01     2.164  O        |       |       |       |     1.22
45.667    0.00    2.00     2.151  O        |       |       |       |     1.22
45.750    0.00    2.00     2.137  O        |       |       |       |     1.21
45.833    0.00    2.00     2.123  O        |       |       |       |     1.20
45.917    0.00    1.99     2.109  O        |       |       |       |     1.20
46.000    0.00    1.99     2.096  O        |       |       |       |     1.19
46.083    0.00    1.99     2.082  O        |       |       |       |     1.18
46.167    0.00    1.99     2.068  O        |       |       |       |     1.18
46.250    0.00    1.98     2.054  O        |       |       |       |     1.17
46.333    0.00    1.98     2.041  O        |       |       |       |     1.16
46.417    0.00    1.98     2.027  O        |       |       |       |     1.16
46.500    0.00    1.98     2.014  O        |       |       |       |     1.15
46.583    0.00    1.97     2.000  O        |       |       |       |     1.15
46.667    0.00    1.97     1.986  O        |       |       |       |     1.14
46.750    0.00    1.97     1.973  O        |       |       |       |     1.13
46.833    0.00    1.96     1.959  O        |       |       |       |     1.13
46.917    0.00    1.96     1.946  O        |       |       |       |     1.12
47.000    0.00    1.96     1.932  O        |       |       |       |     1.11
47.083    0.00    1.96     1.919  O        |       |       |       |     1.11
47.167    0.00    1.95     1.905  O        |       |       |       |     1.10
47.250    0.00    1.95     1.892  O        |       |       |       |     1.09
47.333    0.00    1.95     1.879  O        |       |       |       |     1.09
47.417    0.00    1.95     1.865  O        |       |       |       |     1.08
47.500    0.00    1.94     1.852  O        |       |       |       |     1.08
47.583    0.00    1.94     1.838  O        |       |       |       |     1.07
47.667    0.00    1.94     1.825  O        |       |       |       |     1.06
47.750    0.00    1.93     1.812  O        |       |       |       |     1.06
47.833    0.00    1.93     1.798  O        |       |       |       |     1.05
47.917    0.00    1.93     1.785  O        |       |       |       |     1.04
48.000    0.00    1.93     1.772  O        |       |       |       |     1.04
48.083    0.00    1.92     1.759  O        |       |       |       |     1.03
48.167    0.00    1.92     1.745  O        |       |       |       |     1.02
48.250    0.00    1.92     1.732  O        |       |       |       |     1.02
48.333    0.00    1.92     1.719  O        |       |       |       |     1.01
48.417    0.00    1.91     1.706  O        |       |       |       |     1.01
48.500    0.00    1.91     1.693  O        |       |       |       |     1.00
48.583    0.00    1.89     1.679  O        |       |       |       |     0.99
48.667    0.00    1.88     1.666  O        |       |       |       |     0.98
48.750    0.00    1.87     1.654  O        |       |       |       |     0.98
48.833    0.00    1.85     1.641  O        |       |       |       |     0.97
48.917    0.00    1.84     1.628  O        |       |       |       |     0.96
49.000    0.00    1.82     1.615  O        |       |       |       |     0.95
49.083    0.00    1.81     1.603  O        |       |       |       |     0.95
49.167    0.00    1.79     1.591  O        |       |       |       |     0.94
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49.250	0.00	1.78	1.578	O	|	|	|	|	0.93
49.333	0.00	1.77	1.566	O	|	|	|	|	0.92
49.417	0.00	1.75	1.554	O	|	|	|	|	0.92
49.500	0.00	1.74	1.542	O	|	|	|	|	0.91
49.583	0.00	1.73	1.530	O	|	|	|	|	0.90
49.667	0.00	1.71	1.518	O	|	|	|	|	0.90
49.750	0.00	1.70	1.506	O	|	|	|	|	0.89
49.833	0.00	1.69	1.495	O	|	|	|	|	0.88
49.917	0.00	1.67	1.483	O	|	|	|	|	0.88
50.000	0.00	1.66	1.472	O	|	|	|	|	0.87
50.083	0.00	1.65	1.460	O	|	|	|	|	0.86
50.167	0.00	1.63	1.449	O	|	|	|	|	0.86
50.250	0.00	1.62	1.438	O	|	|	|	|	0.85
50.333	0.00	1.61	1.427	O	|	|	|	|	0.84
50.417	0.00	1.60	1.416	O	|	|	|	|	0.84
50.500	0.00	1.58	1.405	O	|	|	|	|	0.83
50.583	0.00	1.57	1.394	O	|	|	|	|	0.82
50.667	0.00	1.56	1.383	O	|	|	|	|	0.82
50.750	0.00	1.55	1.372	O	|	|	|	|	0.81
50.833	0.00	1.54	1.362	O	|	|	|	|	0.80
50.917	0.00	1.52	1.351	O	|	|	|	|	0.80
51.000	0.00	1.51	1.341	O	|	|	|	|	0.79
51.083	0.00	1.50	1.330	O	|	|	|	|	0.79
51.167	0.00	1.49	1.320	O	|	|	|	|	0.78
51.250	0.00	1.48	1.310	O	|	|	|	|	0.77
51.333	0.00	1.47	1.300	O	|	|	|	|	0.77
51.417	0.00	1.45	1.290	O	|	|	|	|	0.76
51.500	0.00	1.44	1.280	O	|	|	|	|	0.76
51.583	0.00	1.43	1.270	O	|	|	|	|	0.75
51.667	0.00	1.42	1.260	O	|	|	|	|	0.74
51.750	0.00	1.41	1.250	O	|	|	|	|	0.74
51.833	0.00	1.40	1.240	O	|	|	|	|	0.73
51.917	0.00	1.39	1.231	O	|	|	|	|	0.73
52.000	0.00	1.38	1.221	O	|	|	|	|	0.72
52.083	0.00	1.37	1.212	O	|	|	|	|	0.72
52.167	0.00	1.36	1.202	O	|	|	|	|	0.71
52.250	0.00	1.35	1.193	O	|	|	|	|	0.70
52.333	0.00	1.34	1.184	O	|	|	|	|	0.70
52.417	0.00	1.33	1.175	O	|	|	|	|	0.69
52.500	0.00	1.32	1.166	O	|	|	|	|	0.69
52.583	0.00	1.30	1.157	O	|	|	|	|	0.68
52.667	0.00	1.29	1.148	O	|	|	|	|	0.68
52.750	0.00	1.28	1.139	O	|	|	|	|	0.67
52.833	0.00	1.27	1.130	O	|	|	|	|	0.67
52.917	0.00	1.26	1.121	O	|	|	|	|	0.66
53.000	0.00	1.26	1.113	O	|	|	|	|	0.66
53.083	0.00	1.25	1.104	O	|	|	|	|	0.65
53.167	0.00	1.24	1.095	O	|	|	|	|	0.65
53.250	0.00	1.23	1.087	O	|	|	|	|	0.64
53.333	0.00	1.22	1.079	O	|	|	|	|	0.64
53.417	0.00	1.21	1.070	O	|	|	|	|	0.63
53.500	0.00	1.20	1.062	O	|	|	|	|	0.63
53.583	0.00	1.19	1.054	O	|	|	|	|	0.62
53.667	0.00	1.18	1.046	O	|	|	|	|	0.62
53.750	0.00	1.17	1.037	O	|	|	|	|	0.61
53.833	0.00	1.16	1.029	O	|	|	|	|	0.61
53.917	0.00	1.15	1.021	O	|	|	|	|	0.60
54.000	0.00	1.14	1.014	O	|	|	|	|	0.60
54.083	0.00	1.13	1.006	O	|	|	|	|	0.59
54.167	0.00	1.13	0.998	O	|	|	|	|	0.59
54.250	0.00	1.12	0.990	O	|	|	|	|	0.58
54.333	0.00	1.11	0.982	O	|	|	|	|	0.58
54.417	0.00	1.10	0.975	O	|	|	|	|	0.58
54.500	0.00	1.09	0.967	O	|	|	|	|	0.57
54.583	0.00	1.08	0.960	O	|	|	|	|	0.57
54.667	0.00	1.07	0.952	O	|	|	|	|	0.56

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54.750    0.00    1.07      0.945  O        |        |        |        |       0.56
54.833    0.00    1.06      0.938  O        |        |        |        |       0.55
54.917    0.00    1.05      0.930  O        |        |        |        |       0.55
55.000    0.00    1.04      0.923  O        |        |        |        |       0.55
55.083    0.00    1.03      0.916  O        |        |        |        |       0.54
55.167    0.00    1.03      0.909  O        |        |        |        |       0.54
55.250    0.00    1.02      0.902  O        |        |        |        |       0.53
55.333    0.00    1.01      0.895  O        |        |        |        |       0.53
55.417    0.00    1.00      0.888  O        |        |        |        |       0.52
55.500    0.00    0.99      0.881  O        |        |        |        |       0.52
55.583    0.00    0.99      0.874  O        |        |        |        |       0.52
55.667    0.00    0.98      0.868  O        |        |        |        |       0.51
55.750    0.00    0.97      0.861  O        |        |        |        |       0.51
55.833    0.00    0.96      0.854  O        |        |        |        |       0.50
55.917    0.00    0.96      0.848  O        |        |        |        |       0.50
56.000    0.00    0.95      0.841  O        |        |        |        |       0.50
56.083    0.00    0.94      0.835  O        |        |        |        |       0.49
56.167    0.00    0.93      0.828  O        |        |        |        |       0.49
56.250    0.00    0.93      0.822  O        |        |        |        |       0.49
56.333    0.00    0.92      0.815  O        |        |        |        |       0.48
56.417    0.00    0.91      0.809  O        |        |        |        |       0.48
56.500    0.00    0.91      0.803  O        |        |        |        |       0.47
56.583    0.00    0.90      0.797  O        |        |        |        |       0.47
56.667    0.00    0.89      0.790  O        |        |        |        |       0.47
56.750    0.00    0.88      0.784  O        |        |        |        |       0.46
56.833    0.00    0.88      0.778  O        |        |        |        |       0.46
56.917    0.00    0.87      0.772  O        |        |        |        |       0.46
57.000    0.00    0.86      0.766  O        |        |        |        |       0.45
57.083    0.00    0.86      0.760  O        |        |        |        |       0.45
57.167    0.00    0.85      0.754  O        |        |        |        |       0.45
57.250    0.00    0.84      0.749  O        |        |        |        |       0.44
57.333    0.00    0.84      0.743  O        |        |        |        |       0.44
57.417    0.00    0.83      0.737  O        |        |        |        |       0.44
57.500    0.00    0.83      0.731  O        |        |        |        |       0.43
57.583    0.00    0.82      0.726  O        |        |        |        |       0.43
57.667    0.00    0.81      0.720  O        |        |        |        |       0.43
57.750    0.00    0.81      0.714  O        |        |        |        |       0.42
57.833    0.00    0.80      0.709  O        |        |        |        |       0.42
57.917    0.00    0.79      0.703  O        |        |        |        |       0.42
58.000    0.00    0.79      0.698  O        |        |        |        |       0.41
58.083    0.00    0.78      0.693  O        |        |        |        |       0.41
58.167    0.00    0.78      0.687  O        |        |        |        |       0.41
58.250    0.00    0.77      0.682  O        |        |        |        |       0.40
58.333    0.00    0.76      0.677  O        |        |        |        |       0.40
58.417    0.00    0.76      0.671  O        |        |        |        |       0.40
58.500    0.00    0.75      0.666  O        |        |        |        |       0.39
58.583    0.00    0.75      0.661  O        |        |        |        |       0.39
58.667    0.00    0.74      0.656  O        |        |        |        |       0.39
58.750    0.00    0.73      0.651  O        |        |        |        |       0.38
58.833    0.00    0.73      0.646  O        |        |        |        |       0.38
58.917    0.00    0.72      0.641  O        |        |        |        |       0.38
59.000    0.00    0.72      0.636  O        |        |        |        |       0.38
59.083    0.00    0.71      0.631  O        |        |        |        |       0.37
59.167    0.00    0.71      0.626  O        |        |        |        |       0.37
59.250    0.00    0.70      0.621  O        |        |        |        |       0.37
59.333    0.00    0.70      0.616  O        |        |        |        |       0.36
59.417    0.00    0.69      0.612  O        |        |        |        |       0.36
59.500    0.00    0.68      0.607  O        |        |        |        |       0.36
59.583    0.00    0.68      0.602  O        |        |        |        |       0.36
59.667    0.00    0.67      0.598  O        |        |        |        |       0.35
59.750    0.00    0.67      0.593  O        |        |        |        |       0.35
59.833    0.00    0.66      0.588  O        |        |        |        |       0.35
59.917    0.00    0.66      0.584  O        |        |        |        |       0.34
60.000    0.00    0.65      0.579  O        |        |        |        |       0.34
60.083    0.00    0.65      0.575  O        |        |        |        |       0.34
60.167    0.00    0.64      0.570  O        |        |        |        |       0.34
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60.250	0.00	0.64	0.566	O	|	|	|	|	0.33
60.333	0.00	0.63	0.562	O	|	|	|	|	0.33
60.417	0.00	0.63	0.557	O	|	|	|	|	0.33
60.500	0.00	0.62	0.553	O	|	|	|	|	0.33
60.583	0.00	0.62	0.549	O	|	|	|	|	0.32
60.667	0.00	0.61	0.544	O	|	|	|	|	0.32
60.750	0.00	0.61	0.540	O	|	|	|	|	0.32
60.833	0.00	0.60	0.536	O	|	|	|	|	0.32
60.917	0.00	0.60	0.532	O	|	|	|	|	0.31
61.000	0.00	0.60	0.528	O	|	|	|	|	0.31
61.083	0.00	0.59	0.524	O	|	|	|	|	0.31
61.167	0.00	0.59	0.520	O	|	|	|	|	0.31
61.250	0.00	0.58	0.516	O	|	|	|	|	0.30
61.333	0.00	0.58	0.512	O	|	|	|	|	0.30
61.417	0.00	0.57	0.508	O	|	|	|	|	0.30
61.500	0.00	0.57	0.504	O	|	|	|	|	0.30
61.583	0.00	0.56	0.500	O	|	|	|	|	0.30
61.667	0.00	0.56	0.496	O	|	|	|	|	0.29
61.750	0.00	0.56	0.492	O	|	|	|	|	0.29
61.833	0.00	0.55	0.488	O	|	|	|	|	0.29
61.917	0.00	0.55	0.484	O	|	|	|	|	0.29
62.000	0.00	0.54	0.481	O	|	|	|	|	0.28
62.083	0.00	0.54	0.477	O	|	|	|	|	0.28
62.167	0.00	0.53	0.473	O	|	|	|	|	0.28
62.250	0.00	0.53	0.470	O	|	|	|	|	0.28
62.333	0.00	0.53	0.466	O	|	|	|	|	0.28
62.417	0.00	0.52	0.462	O	|	|	|	|	0.27
62.500	0.00	0.52	0.459	O	|	|	|	|	0.27
62.583	0.00	0.51	0.455	O	|	|	|	|	0.27
62.667	0.00	0.51	0.452	O	|	|	|	|	0.27
62.750	0.00	0.51	0.448	O	|	|	|	|	0.26
62.833	0.00	0.50	0.445	O	|	|	|	|	0.26
62.917	0.00	0.50	0.441	O	|	|	|	|	0.26
63.000	0.00	0.49	0.438	O	|	|	|	|	0.26
63.083	0.00	0.49	0.435	O	|	|	|	|	0.26
63.167	0.00	0.49	0.431	O	|	|	|	|	0.25
63.250	0.00	0.48	0.428	O	|	|	|	|	0.25
63.333	0.00	0.48	0.425	O	|	|	|	|	0.25
63.417	0.00	0.48	0.421	O	|	|	|	|	0.25
63.500	0.00	0.47	0.418	O	|	|	|	|	0.25
63.583	0.00	0.47	0.415	O	|	|	|	|	0.24
63.667	0.00	0.46	0.412	O	|	|	|	|	0.24
63.750	0.00	0.46	0.408	O	|	|	|	|	0.24
63.833	0.00	0.46	0.405	O	|	|	|	|	0.24
63.917	0.00	0.45	0.402	O	|	|	|	|	0.24
64.000	0.00	0.45	0.399	O	|	|	|	|	0.24
64.083	0.00	0.45	0.396	O	|	|	|	|	0.23
64.167	0.00	0.44	0.393	O	|	|	|	|	0.23
64.250	0.00	0.44	0.390	O	|	|	|	|	0.23
64.333	0.00	0.44	0.387	O	|	|	|	|	0.23
64.417	0.00	0.43	0.384	O	|	|	|	|	0.23
64.500	0.00	0.43	0.381	O	|	|	|	|	0.22
64.583	0.00	0.43	0.378	O	|	|	|	|	0.22
64.667	0.00	0.42	0.375	O	|	|	|	|	0.22
64.750	0.00	0.42	0.372	O	|	|	|	|	0.22
64.833	0.00	0.42	0.369	O	|	|	|	|	0.22
64.917	0.00	0.41	0.366	O	|	|	|	|	0.22
65.000	0.00	0.41	0.363	O	|	|	|	|	0.21
65.083	0.00	0.41	0.361	O	|	|	|	|	0.21
65.167	0.00	0.40	0.358	O	|	|	|	|	0.21
65.250	0.00	0.40	0.355	O	|	|	|	|	0.21
65.333	0.00	0.40	0.352	O	|	|	|	|	0.21
65.417	0.00	0.39	0.350	O	|	|	|	|	0.21
65.500	0.00	0.39	0.347	O	|	|	|	|	0.20
65.583	0.00	0.39	0.344	O	|	|	|	|	0.20
65.667	0.00	0.39	0.342	O	|	|	|	|	0.20

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65.750    0.00    0.38     0.339  O      |       |       |       |      0.20
65.833    0.00    0.38     0.336  O      |       |       |       |      0.20
65.917    0.00    0.38     0.334  O      |       |       |       |      0.20
66.000    0.00    0.37     0.331  O      |       |       |       |      0.20
66.083    0.00    0.37     0.329  O      |       |       |       |      0.19
66.167    0.00    0.37     0.326  O      |       |       |       |      0.19
66.250    0.00    0.36     0.323  O      |       |       |       |      0.19
66.333    0.00    0.36     0.321  O      |       |       |       |      0.19
66.417    0.00    0.36     0.318  O      |       |       |       |      0.19
66.500    0.00    0.36     0.316  O      |       |       |       |      0.19
66.583    0.00    0.35     0.314  O      |       |       |       |      0.19
66.667    0.00    0.35     0.311  O      |       |       |       |      0.18
66.750    0.00    0.35     0.309  O      |       |       |       |      0.18
66.833    0.00    0.35     0.306  O      |       |       |       |      0.18
66.917    0.00    0.34     0.304  O      |       |       |       |      0.18
67.000    0.00    0.34     0.302  O      |       |       |       |      0.18
67.083    0.00    0.34     0.299  O      |       |       |       |      0.18
67.167    0.00    0.34     0.297  O      |       |       |       |      0.18
67.250    0.00    0.33     0.295  O      |       |       |       |      0.17
67.333    0.00    0.33     0.292  O      |       |       |       |      0.17
67.417    0.00    0.33     0.290  O      |       |       |       |      0.17
67.500    0.00    0.32     0.288  O      |       |       |       |      0.17
67.583    0.00    0.32     0.286  O      |       |       |       |      0.17
67.667    0.00    0.32     0.283  O      |       |       |       |      0.17
67.750    0.00    0.32     0.281  O      |       |       |       |      0.17
67.833    0.00    0.31     0.279  O      |       |       |       |      0.16
67.917    0.00    0.31     0.277  O      |       |       |       |      0.16
68.000    0.00    0.31     0.275  O      |       |       |       |      0.16
68.083    0.00    0.31     0.273  O      |       |       |       |      0.16
68.167    0.00    0.31     0.271  O      |       |       |       |      0.16
68.250    0.00    0.30     0.268  O      |       |       |       |      0.16
68.333    0.00    0.30     0.266  O      |       |       |       |      0.16
68.417    0.00    0.30     0.264  O      |       |       |       |      0.16
68.500    0.00    0.30     0.262  O      |       |       |       |      0.15
68.583    0.00    0.29     0.260  O      |       |       |       |      0.15
68.667    0.00    0.29     0.258  O      |       |       |       |      0.15
68.750    0.00    0.29     0.256  O      |       |       |       |      0.15
68.833    0.00    0.29     0.254  O      |       |       |       |      0.15
68.917    0.00    0.28     0.252  O      |       |       |       |      0.15
69.000    0.00    0.28     0.250  O      |       |       |       |      0.15
69.083    0.00    0.28     0.248  O      |       |       |       |      0.15
69.167    0.00    0.28     0.246  O      |       |       |       |      0.15
69.250    0.00    0.28     0.245  O      |       |       |       |      0.14
69.333    0.00    0.27     0.243  O      |       |       |       |      0.14
69.417    0.00    0.27     0.241  O      |       |       |       |      0.14
69.500    0.00    0.27     0.239  O      |       |       |       |      0.14
69.583    0.00    0.27     0.237  O      |       |       |       |      0.14
69.667    0.00    0.27     0.235  O      |       |       |       |      0.14
69.750    0.00    0.26     0.233  O      |       |       |       |      0.14
69.833    0.00    0.26     0.232  O      |       |       |       |      0.14
69.917    0.00    0.26     0.230  O      |       |       |       |      0.14
70.000    0.00    0.26     0.228  O      |       |       |       |      0.13
70.083    0.00    0.26     0.226  O      |       |       |       |      0.13
70.167    0.00    0.25     0.224  O      |       |       |       |      0.13
70.250    0.00    0.25     0.223  O      |       |       |       |      0.13
70.333    0.00    0.25     0.221  O      |       |       |       |      0.13
70.417    0.00    0.25     0.219  O      |       |       |       |      0.13
70.500    0.00    0.25     0.218  O      |       |       |       |      0.13
70.583    0.00    0.24     0.216  O      |       |       |       |      0.13
70.667    0.00    0.24     0.214  O      |       |       |       |      0.13
70.750    0.00    0.24     0.213  O      |       |       |       |      0.13
70.833    0.00    0.24     0.211  O      |       |       |       |      0.12
70.917    0.00    0.24     0.209  O      |       |       |       |      0.12
71.000    0.00    0.23     0.208  O      |       |       |       |      0.12
71.083    0.00    0.23     0.206  O      |       |       |       |      0.12
71.167    0.00    0.23     0.205  O      |       |       |       |      0.12
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71.250	0.00	0.23	0.203	O	|	|	|	|	0.12
71.333	0.00	0.23	0.201	O	|	|	|	|	0.12
71.417	0.00	0.23	0.200	O	|	|	|	|	0.12
71.500	0.00	0.22	0.198	O	|	|	|	|	0.12
71.583	0.00	0.22	0.197	O	|	|	|	|	0.12
71.667	0.00	0.22	0.195	O	|	|	|	|	0.12
71.750	0.00	0.22	0.194	O	|	|	|	|	0.11
71.833	0.00	0.22	0.192	O	|	|	|	|	0.11
71.917	0.00	0.22	0.191	O	|	|	|	|	0.11
72.000	0.00	0.21	0.189	O	|	|	|	|	0.11
72.083	0.00	0.21	0.188	O	|	|	|	|	0.11
72.167	0.00	0.21	0.186	O	|	|	|	|	0.11
72.250	0.00	0.21	0.185	O	|	|	|	|	0.11
72.333	0.00	0.21	0.183	O	|	|	|	|	0.11
72.417	0.00	0.21	0.182	O	|	|	|	|	0.11
72.500	0.00	0.20	0.181	O	|	|	|	|	0.11
72.583	0.00	0.20	0.179	O	|	|	|	|	0.11
72.667	0.00	0.20	0.178	O	|	|	|	|	0.11
72.750	0.00	0.20	0.176	O	|	|	|	|	0.10
72.833	0.00	0.20	0.175	O	|	|	|	|	0.10
72.917	0.00	0.20	0.174	O	|	|	|	|	0.10
73.000	0.00	0.19	0.172	O	|	|	|	|	0.10
73.083	0.00	0.19	0.171	O	|	|	|	|	0.10
73.167	0.00	0.19	0.170	O	|	|	|	|	0.10
73.250	0.00	0.19	0.168	O	|	|	|	|	0.10
73.333	0.00	0.19	0.167	O	|	|	|	|	0.10
73.417	0.00	0.19	0.166	O	|	|	|	|	0.10
73.500	0.00	0.19	0.165	O	|	|	|	|	0.10
73.583	0.00	0.18	0.163	O	|	|	|	|	0.10
73.667	0.00	0.18	0.162	O	|	|	|	|	0.10
73.750	0.00	0.18	0.161	O	|	|	|	|	0.09
73.833	0.00	0.18	0.159	O	|	|	|	|	0.09
73.917	0.00	0.18	0.158	O	|	|	|	|	0.09
74.000	0.00	0.18	0.157	O	|	|	|	|	0.09
74.083	0.00	0.18	0.156	O	|	|	|	|	0.09
74.167	0.00	0.17	0.155	O	|	|	|	|	0.09
74.250	0.00	0.17	0.153	O	|	|	|	|	0.09
74.333	0.00	0.17	0.152	O	|	|	|	|	0.09
74.417	0.00	0.17	0.151	O	|	|	|	|	0.09
74.500	0.00	0.17	0.150	O	|	|	|	|	0.09
74.583	0.00	0.17	0.149	O	|	|	|	|	0.09
74.667	0.00	0.17	0.148	O	|	|	|	|	0.09
74.750	0.00	0.17	0.146	O	|	|	|	|	0.09
74.833	0.00	0.16	0.145	O	|	|	|	|	0.09
74.917	0.00	0.16	0.144	O	|	|	|	|	0.09
75.000	0.00	0.16	0.143	O	|	|	|	|	0.08
75.083	0.00	0.16	0.142	O	|	|	|	|	0.08
75.167	0.00	0.16	0.141	O	|	|	|	|	0.08
75.250	0.00	0.16	0.140	O	|	|	|	|	0.08
75.333	0.00	0.16	0.139	O	|	|	|	|	0.08
75.417	0.00	0.16	0.138	O	|	|	|	|	0.08
75.500	0.00	0.15	0.137	O	|	|	|	|	0.08
75.583	0.00	0.15	0.135	O	|	|	|	|	0.08
75.667	0.00	0.15	0.134	O	|	|	|	|	0.08
75.750	0.00	0.15	0.133	O	|	|	|	|	0.08
75.833	0.00	0.15	0.132	O	|	|	|	|	0.08
75.917	0.00	0.15	0.131	O	|	|	|	|	0.08
76.000	0.00	0.15	0.130	O	|	|	|	|	0.08
76.083	0.00	0.15	0.129	O	|	|	|	|	0.08
76.167	0.00	0.14	0.128	O	|	|	|	|	0.08
76.250	0.00	0.14	0.127	O	|	|	|	|	0.08
76.333	0.00	0.14	0.126	O	|	|	|	|	0.07
76.417	0.00	0.14	0.125	O	|	|	|	|	0.07
76.500	0.00	0.14	0.124	O	|	|	|	|	0.07
76.583	0.00	0.14	0.123	O	|	|	|	|	0.07
76.667	0.00	0.14	0.122	O	|	|	|	|	0.07

76.750	0.00	0.14	0.122	O	0.07
76.833	0.00	0.14	0.121	O	0.07
76.917	0.00	0.13	0.120	O	0.07
77.000	0.00	0.13	0.119	O	0.07
77.083	0.00	0.13	0.118	O	0.07
77.167	0.00	0.13	0.117	O	0.07
77.250	0.00	0.13	0.116	O	0.07
77.333	0.00	0.13	0.115	O	0.07
77.417	0.00	0.13	0.114	O	0.07
77.500	0.00	0.13	0.113	O	0.07
77.583	0.00	0.13	0.112	O	0.07
77.667	0.00	0.13	0.112	O	0.07
77.750	0.00	0.12	0.111	O	0.07
77.833	0.00	0.12	0.110	O	0.06
77.917	0.00	0.12	0.109	O	0.06
78.000	0.00	0.12	0.108	O	0.06
78.083	0.00	0.12	0.107	O	0.06
78.167	0.00	0.12	0.106	O	0.06
78.250	0.00	0.12	0.106	O	0.06
78.333	0.00	0.12	0.105	O	0.06
78.417	0.00	0.12	0.104	O	0.06
78.500	0.00	0.12	0.103	O	0.06
78.583	0.00	0.12	0.102	O	0.06
78.667	0.00	0.11	0.102	O	0.06
78.750	0.00	0.11	0.101	O	0.06
78.833	0.00	0.11	0.100	O	0.06
78.917	0.00	0.11	0.099	O	0.06
79.000	0.00	0.11	0.099	O	0.06
79.083	0.00	0.11	0.098	O	0.06
79.167	0.00	0.11	0.097	O	0.06
79.250	0.00	0.11	0.096	O	0.06
79.333	0.00	0.11	0.096	O	0.06
79.417	0.00	0.11	0.095	O	0.06
79.500	0.00	0.11	0.094	O	0.06
79.583	0.00	0.11	0.093	O	0.06
79.667	0.00	0.10	0.093	O	0.05
79.750	0.00	0.10	0.092	O	0.05
79.833	0.00	0.10	0.091	O	0.05
79.917	0.00	0.10	0.090	O	0.05
80.000	0.00	0.10	0.090	O	0.05
80.083	0.00	0.10	0.089	O	0.05
80.167	0.00	0.10	0.088	O	0.05
80.250	0.00	0.10	0.088	O	0.05
80.333	0.00	0.10	0.087	O	0.05
80.417	0.00	0.10	0.086	O	0.05
80.500	0.00	0.10	0.086	O	0.05
80.583	0.00	0.10	0.085	O	0.05
80.667	0.00	0.10	0.084	O	0.05
80.750	0.00	0.09	0.084	O	0.05
80.833	0.00	0.09	0.083	O	0.05
80.917	0.00	0.09	0.082	O	0.05
81.000	0.00	0.09	0.082	O	0.05
81.083	0.00	0.09	0.081	O	0.05
81.167	0.00	0.09	0.080	O	0.05
81.250	0.00	0.09	0.080	O	0.05
81.333	0.00	0.09	0.079	O	0.05
81.417	0.00	0.09	0.079	O	0.05
81.500	0.00	0.09	0.078	O	0.05
81.583	0.00	0.09	0.077	O	0.05
81.667	0.00	0.09	0.077	O	0.05
81.750	0.00	0.09	0.076	O	0.05
81.833	0.00	0.09	0.076	O	0.04
81.917	0.00	0.08	0.075	O	0.04
82.000	0.00	0.08	0.074	O	0.04
82.083	0.00	0.08	0.074	O	0.04
82.167	0.00	0.08	0.073	O	0.04

82.250	0.00	0.08	0.073	O	|	|	|	|	0.04
82.333	0.00	0.08	0.072	O	|	|	|	|	0.04
82.417	0.00	0.08	0.072	O	|	|	|	|	0.04
82.500	0.00	0.08	0.071	O	|	|	|	|	0.04
82.583	0.00	0.08	0.071	O	|	|	|	|	0.04
82.667	0.00	0.08	0.070	O	|	|	|	|	0.04
82.750	0.00	0.08	0.069	O	|	|	|	|	0.04
82.833	0.00	0.08	0.069	O	|	|	|	|	0.04
82.917	0.00	0.08	0.068	O	|	|	|	|	0.04
83.000	0.00	0.08	0.068	O	|	|	|	|	0.04
83.083	0.00	0.08	0.067	O	|	|	|	|	0.04
83.167	0.00	0.08	0.067	O	|	|	|	|	0.04
83.250	0.00	0.07	0.066	O	|	|	|	|	0.04
83.333	0.00	0.07	0.066	O	|	|	|	|	0.04
83.417	0.00	0.07	0.065	O	|	|	|	|	0.04
83.500	0.00	0.07	0.065	O	|	|	|	|	0.04
83.583	0.00	0.07	0.064	O	|	|	|	|	0.04
83.667	0.00	0.07	0.064	O	|	|	|	|	0.04
83.750	0.00	0.07	0.063	O	|	|	|	|	0.04
83.833	0.00	0.07	0.063	O	|	|	|	|	0.04
83.917	0.00	0.07	0.062	O	|	|	|	|	0.04
84.000	0.00	0.07	0.062	O	|	|	|	|	0.04
84.083	0.00	0.07	0.061	O	|	|	|	|	0.04
84.167	0.00	0.07	0.061	O	|	|	|	|	0.04
84.250	0.00	0.07	0.060	O	|	|	|	|	0.04
84.333	0.00	0.07	0.060	O	|	|	|	|	0.04
84.417	0.00	0.07	0.059	O	|	|	|	|	0.04
84.500	0.00	0.07	0.059	O	|	|	|	|	0.03
84.583	0.00	0.07	0.059	O	|	|	|	|	0.03
84.667	0.00	0.07	0.058	O	|	|	|	|	0.03
84.750	0.00	0.07	0.058	O	|	|	|	|	0.03
84.833	0.00	0.06	0.057	O	|	|	|	|	0.03
84.917	0.00	0.06	0.057	O	|	|	|	|	0.03
85.000	0.00	0.06	0.056	O	|	|	|	|	0.03
85.083	0.00	0.06	0.056	O	|	|	|	|	0.03
85.167	0.00	0.06	0.055	O	|	|	|	|	0.03
85.250	0.00	0.06	0.055	O	|	|	|	|	0.03
85.333	0.00	0.06	0.055	O	|	|	|	|	0.03
85.417	0.00	0.06	0.054	O	|	|	|	|	0.03
85.500	0.00	0.06	0.054	O	|	|	|	|	0.03
85.583	0.00	0.06	0.053	O	|	|	|	|	0.03
85.667	0.00	0.06	0.053	O	|	|	|	|	0.03
85.750	0.00	0.06	0.053	O	|	|	|	|	0.03
85.833	0.00	0.06	0.052	O	|	|	|	|	0.03
85.917	0.00	0.06	0.052	O	|	|	|	|	0.03
86.000	0.00	0.06	0.051	O	|	|	|	|	0.03
86.083	0.00	0.06	0.051	O	|	|	|	|	0.03
86.167	0.00	0.06	0.051	O	|	|	|	|	0.03
86.250	0.00	0.06	0.050	O	|	|	|	|	0.03
86.333	0.00	0.06	0.050	O	|	|	|	|	0.03
86.417	0.00	0.06	0.049	O	|	|	|	|	0.03
86.500	0.00	0.06	0.049	O	|	|	|	|	0.03
86.583	0.00	0.05	0.049	O	|	|	|	|	0.03
86.667	0.00	0.05	0.048	O	|	|	|	|	0.03
86.750	0.00	0.05	0.048	O	|	|	|	|	0.03
86.833	0.00	0.05	0.047	O	|	|	|	|	0.03
86.917	0.00	0.05	0.047	O	|	|	|	|	0.03
87.000	0.00	0.05	0.047	O	|	|	|	|	0.03
87.083	0.00	0.05	0.046	O	|	|	|	|	0.03
87.167	0.00	0.05	0.046	O	|	|	|	|	0.03
87.250	0.00	0.05	0.046	O	|	|	|	|	0.03
87.333	0.00	0.05	0.045	O	|	|	|	|	0.03
87.417	0.00	0.05	0.045	O	|	|	|	|	0.03
87.500	0.00	0.05	0.045	O	|	|	|	|	0.03
87.583	0.00	0.05	0.044	O	|	|	|	|	0.03
87.667	0.00	0.05	0.044	O	|	|	|	|	0.03

87.750	0.00	0.05	0.044	O	0.03
87.833	0.00	0.05	0.043	O	0.03
87.917	0.00	0.05	0.043	O	0.03
88.000	0.00	0.05	0.043	O	0.03
88.083	0.00	0.05	0.042	O	0.02
88.167	0.00	0.05	0.042	O	0.02
88.250	0.00	0.05	0.042	O	0.02
88.333	0.00	0.05	0.041	O	0.02
88.417	0.00	0.05	0.041	O	0.02
88.500	0.00	0.05	0.041	O	0.02
88.583	0.00	0.05	0.040	O	0.02
88.667	0.00	0.05	0.040	O	0.02
88.750	0.00	0.04	0.040	O	0.02
88.833	0.00	0.04	0.039	O	0.02
88.917	0.00	0.04	0.039	O	0.02
89.000	0.00	0.04	0.039	O	0.02
89.083	0.00	0.04	0.038	O	0.02
89.167	0.00	0.04	0.038	O	0.02
89.250	0.00	0.04	0.038	O	0.02
89.333	0.00	0.04	0.038	O	0.02
89.417	0.00	0.04	0.037	O	0.02
89.500	0.00	0.04	0.037	O	0.02
89.583	0.00	0.04	0.037	O	0.02
89.667	0.00	0.04	0.036	O	0.02
89.750	0.00	0.04	0.036	O	0.02
89.833	0.00	0.04	0.036	O	0.02
89.917	0.00	0.04	0.036	O	0.02
90.000	0.00	0.04	0.035	O	0.02
90.083	0.00	0.04	0.035	O	0.02
90.167	0.00	0.04	0.035	O	0.02
90.250	0.00	0.04	0.035	O	0.02
90.333	0.00	0.04	0.034	O	0.02
90.417	0.00	0.04	0.034	O	0.02
90.500	0.00	0.04	0.034	O	0.02
90.583	0.00	0.04	0.033	O	0.02
90.667	0.00	0.04	0.033	O	0.02
90.750	0.00	0.04	0.033	O	0.02
90.833	0.00	0.04	0.033	O	0.02
90.917	0.00	0.04	0.032	O	0.02
91.000	0.00	0.04	0.032	O	0.02
91.083	0.00	0.04	0.032	O	0.02
91.167	0.00	0.04	0.032	O	0.02
91.250	0.00	0.04	0.031	O	0.02
91.333	0.00	0.04	0.031	O	0.02
91.417	0.00	0.03	0.031	O	0.02
91.500	0.00	0.03	0.031	O	0.02
91.583	0.00	0.03	0.030	O	0.02
91.667	0.00	0.03	0.030	O	0.02
91.750	0.00	0.03	0.030	O	0.02
91.833	0.00	0.03	0.030	O	0.02
91.917	0.00	0.03	0.030	O	0.02
92.000	0.00	0.03	0.029	O	0.02
92.083	0.00	0.03	0.029	O	0.02
92.167	0.00	0.03	0.029	O	0.02
92.250	0.00	0.03	0.029	O	0.02
92.333	0.00	0.03	0.028	O	0.02
92.417	0.00	0.03	0.028	O	0.02
92.500	0.00	0.03	0.028	O	0.02
92.583	0.00	0.03	0.028	O	0.02
92.667	0.00	0.03	0.028	O	0.02
92.750	0.00	0.03	0.027	O	0.02
92.833	0.00	0.03	0.027	O	0.02
92.917	0.00	0.03	0.027	O	0.02
93.000	0.00	0.03	0.027	O	0.02
93.083	0.00	0.03	0.026	O	0.02
93.167	0.00	0.03	0.026	O	0.02

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93.250    0.00    0.03     0.026  O       |        |        |        |      0.02
93.333    0.00    0.03     0.026  O       |        |        |        |      0.02
93.417    0.00    0.03     0.026  O       |        |        |        |      0.02
93.500    0.00    0.03     0.025  O       |        |        |        |      0.02
93.583    0.00    0.03     0.025  O       |        |        |        |      0.01
93.667    0.00    0.03     0.025  O       |        |        |        |      0.01
93.750    0.00    0.03     0.025  O       |        |        |        |      0.01
93.833    0.00    0.03     0.025  O       |        |        |        |      0.01
93.917    0.00    0.03     0.025  O       |        |        |        |      0.01
94.000    0.00    0.03     0.024  O       |        |        |        |      0.01
94.083    0.00    0.03     0.024  O       |        |        |        |      0.01
94.167    0.00    0.03     0.024  O       |        |        |        |      0.01
94.250    0.00    0.03     0.024  O       |        |        |        |      0.01
94.333    0.00    0.03     0.024  O       |        |        |        |      0.01
94.417    0.00    0.03     0.023  O       |        |        |        |      0.01
94.500    0.00    0.03     0.023  O       |        |        |        |      0.01
94.583    0.00    0.03     0.023  O       |        |        |        |      0.01
94.667    0.00    0.03     0.023  O       |        |        |        |      0.01
94.750    0.00    0.03     0.023  O       |        |        |        |      0.01
94.833    0.00    0.03     0.023  O       |        |        |        |      0.01
94.917    0.00    0.03     0.022  O       |        |        |        |      0.01
95.000    0.00    0.03     0.022  O       |        |        |        |      0.01
95.083    0.00    0.02     0.022  O       |        |        |        |      0.01
95.167    0.00    0.02     0.022  O       |        |        |        |      0.01
95.250    0.00    0.02     0.022  O       |        |        |        |      0.01
95.333    0.00    0.02     0.021  O       |        |        |        |      0.01
95.417    0.00    0.02     0.021  O       |        |        |        |      0.01
95.500    0.00    0.02     0.021  O       |        |        |        |      0.01
95.583    0.00    0.02     0.021  O       |        |        |        |      0.01
95.667    0.00    0.02     0.021  O       |        |        |        |      0.01
95.750    0.00    0.02     0.021  O       |        |        |        |      0.01
95.833    0.00    0.02     0.021  O       |        |        |        |      0.01
95.917    0.00    0.02     0.020  O       |        |        |        |      0.01
96.000    0.00    0.02     0.020  O       |        |        |        |      0.01
96.083    0.00    0.02     0.020  O       |        |        |        |      0.01
96.167    0.00    0.02     0.020  O       |        |        |        |      0.01
96.250    0.00    0.02     0.020  O       |        |        |        |      0.01
96.333    0.00    0.02     0.020  O       |        |        |        |      0.01
96.417    0.00    0.02     0.019  O       |        |        |        |      0.01
96.500    0.00    0.02     0.019  O       |        |        |        |      0.01
96.583    0.00    0.02     0.019  O       |        |        |        |      0.01
96.667    0.00    0.02     0.019  O       |        |        |        |      0.01
96.750    0.00    0.02     0.019  O       |        |        |        |      0.01
96.833    0.00    0.02     0.019  O       |        |        |        |      0.01
96.917    0.00    0.02     0.019  O       |        |        |        |      0.01
97.000    0.00    0.02     0.018  O       |        |        |        |      0.01
97.083    0.00    0.02     0.018  O       |        |        |        |      0.01
97.167    0.00    0.02     0.018  O       |        |        |        |      0.01
97.250    0.00    0.02     0.018  O       |        |        |        |      0.01
97.333    0.00    0.02     0.018  O       |        |        |        |      0.01
97.417    0.00    0.02     0.018  O       |        |        |        |      0.01
97.500    0.00    0.02     0.018  O       |        |        |        |      0.01
97.583    0.00    0.02     0.017  O       |        |        |        |      0.01
97.667    0.00    0.02     0.017  O       |        |        |        |      0.01
97.750    0.00    0.02     0.017  O       |        |        |        |      0.01
97.833    0.00    0.02     0.017  O       |        |        |        |      0.01
97.917    0.00    0.02     0.017  O       |        |        |        |      0.01
98.000    0.00    0.02     0.017  O       |        |        |        |      0.01
98.083    0.00    0.02     0.017  O       |        |        |        |      0.01
98.167    0.00    0.02     0.016  O       |        |        |        |      0.01
98.250    0.00    0.02     0.016  O       |        |        |        |      0.01
98.333    0.00    0.02     0.016  O       |        |        |        |      0.01
98.417    0.00    0.02     0.016  O       |        |        |        |      0.01
98.500    0.00    0.02     0.016  O       |        |        |        |      0.01
98.583    0.00    0.02     0.016  O       |        |        |        |      0.01
98.667    0.00    0.02     0.016  O       |        |        |        |      0.01
```

```
 98.750    0.00    0.02      0.016  O        |        |        |        |      0.01
 98.833    0.00    0.02      0.016  O        |        |        |        |      0.01
 98.917    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.000    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.083    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.167    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.250    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.333    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.417    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.500    0.00    0.02      0.015  O        |        |        |        |      0.01
 99.583    0.00    0.02      0.014  O        |        |        |        |      0.01
 99.667    0.00    0.02      0.014  O        |        |        |        |      0.01
 99.750    0.00    0.02      0.014  O        |        |        |        |      0.01
 99.833    0.00    0.02      0.014  O        |        |        |        |      0.01
 99.917    0.00    0.02      0.014  O        |        |        |        |      0.01
100.000    0.00    0.02      0.014  O        |        |        |        |      0.01
100.083    0.00    0.02      0.014  O        |        |        |        |      0.01
100.167    0.00    0.02      0.014  O        |        |        |        |      0.01
100.250    0.00    0.02      0.014  O        |        |        |        |      0.01
100.333    0.00    0.02      0.013  O        |        |        |        |      0.01
100.417    0.00    0.02      0.013  O        |        |        |        |      0.01
100.500    0.00    0.01      0.013  O        |        |        |        |      0.01
100.583    0.00    0.01      0.013  O        |        |        |        |      0.01
100.667    0.00    0.01      0.013  O        |        |        |        |      0.01
100.750    0.00    0.01      0.013  O        |        |        |        |      0.01
100.833    0.00    0.01      0.013  O        |        |        |        |      0.01
100.917    0.00    0.01      0.013  O        |        |        |        |      0.01
101.000    0.00    0.01      0.013  O        |        |        |        |      0.01
101.083    0.00    0.01      0.013  O        |        |        |        |      0.01
101.167    0.00    0.01      0.012  O        |        |        |        |      0.01
101.250    0.00    0.01      0.012  O        |        |        |        |      0.01
101.333    0.00    0.01      0.012  O        |        |        |        |      0.01
101.417    0.00    0.01      0.012  O        |        |        |        |      0.01
101.500    0.00    0.01      0.012  O        |        |        |        |      0.01
101.583    0.00    0.01      0.012  O        |        |        |        |      0.01
101.667    0.00    0.01      0.012  O        |        |        |        |      0.01
101.750    0.00    0.01      0.012  O        |        |        |        |      0.01
101.833    0.00    0.01      0.012  O        |        |        |        |      0.01
101.917    0.00    0.01      0.012  O        |        |        |        |      0.01
102.000    0.00    0.01      0.012  O        |        |        |        |      0.01
102.083    0.00    0.01      0.011  O        |        |        |        |      0.01
102.167    0.00    0.01      0.011  O        |        |        |        |      0.01
102.250    0.00    0.01      0.011  O        |        |        |        |      0.01
102.333    0.00    0.01      0.011  O        |        |        |        |      0.01
102.417    0.00    0.01      0.011  O        |        |        |        |      0.01
102.500    0.00    0.01      0.011  O        |        |        |        |      0.01
102.583    0.00    0.01      0.011  O        |        |        |        |      0.01
102.667    0.00    0.01      0.011  O        |        |        |        |      0.01
102.750    0.00    0.01      0.011  O        |        |        |        |      0.01
102.833    0.00    0.01      0.011  O        |        |        |        |      0.01
102.917    0.00    0.01      0.011  O        |        |        |        |      0.01
103.000    0.00    0.01      0.011  O        |        |        |        |      0.01
103.083    0.00    0.01      0.010  O        |        |        |        |      0.01
103.167    0.00    0.01      0.010  O        |        |        |        |      0.01
103.250    0.00    0.01      0.010  O        |        |        |        |      0.01
103.333    0.00    0.01      0.010  O        |        |        |        |      0.01
103.417    0.00    0.01      0.010  O        |        |        |        |      0.01
103.500    0.00    0.01      0.010  O        |        |        |        |      0.01
103.583    0.00    0.01      0.010  O        |        |        |        |      0.01
103.667    0.00    0.01      0.010  O        |        |        |        |      0.01
103.750    0.00    0.01      0.010  O        |        |        |        |      0.01
103.833    0.00    0.01      0.010  O        |        |        |        |      0.01
103.917    0.00    0.01      0.010  O        |        |        |        |      0.01
104.000    0.00    0.01      0.010  O        |        |        |        |      0.01
104.083    0.00    0.01      0.010  O        |        |        |        |      0.01
104.167    0.00    0.01      0.009  O        |        |        |        |      0.01
```

```
104.250   0.00   0.01   0.009  O      |      |      |      |     0.01
104.333   0.00   0.01   0.009  O      |      |      |      |     0.01
104.417   0.00   0.01   0.009  O      |      |      |      |     0.01
104.500   0.00   0.01   0.009  O      |      |      |      |     0.01
104.583   0.00   0.01   0.009  O      |      |      |      |     0.01
104.667   0.00   0.01   0.009  O      |      |      |      |     0.01
104.750   0.00   0.01   0.009  O      |      |      |      |     0.01
104.833   0.00   0.01   0.009  O      |      |      |      |     0.01
104.917   0.00   0.01   0.009  O      |      |      |      |     0.01
105.000   0.00   0.01   0.009  O      |      |      |      |     0.01
105.083   0.00   0.01   0.009  O      |      |      |      |     0.01
105.167   0.00   0.01   0.009  O      |      |      |      |     0.01
105.250   0.00   0.01   0.009  O      |      |      |      |     0.01
105.333   0.00   0.01   0.008  O      |      |      |      |     0.00
105.417   0.00   0.01   0.008  O      |      |      |      |     0.00
105.500   0.00   0.01   0.008  O      |      |      |      |     0.00
105.583   0.00   0.01   0.008  O      |      |      |      |     0.00
105.667   0.00   0.01   0.008  O      |      |      |      |     0.00
105.750   0.00   0.01   0.008  O      |      |      |      |     0.00
105.833   0.00   0.01   0.008  O      |      |      |      |     0.00
105.917   0.00   0.01   0.008  O      |      |      |      |     0.00
106.000   0.00   0.01   0.008  O      |      |      |      |     0.00
106.083   0.00   0.01   0.008  O      |      |      |      |     0.00
106.167   0.00   0.01   0.008  O      |      |      |      |     0.00
106.250   0.00   0.01   0.008  O      |      |      |      |     0.00
106.333   0.00   0.01   0.008  O      |      |      |      |     0.00
106.417   0.00   0.01   0.008  O      |      |      |      |     0.00
106.500   0.00   0.01   0.008  O      |      |      |      |     0.00
106.583   0.00   0.01   0.008  O      |      |      |      |     0.00
106.667   0.00   0.01   0.007  O      |      |      |      |     0.00
106.750   0.00   0.01   0.007  O      |      |      |      |     0.00
106.833   0.00   0.01   0.007  O      |      |      |      |     0.00
106.917   0.00   0.01   0.007  O      |      |      |      |     0.00
107.000   0.00   0.01   0.007  O      |      |      |      |     0.00
107.083   0.00   0.01   0.007  O      |      |      |      |     0.00
107.167   0.00   0.01   0.007  O      |      |      |      |     0.00
107.250   0.00   0.01   0.007  O      |      |      |      |     0.00
107.333   0.00   0.01   0.007  O      |      |      |      |     0.00
107.417   0.00   0.01   0.007  O      |      |      |      |     0.00
107.500   0.00   0.01   0.007  O      |      |      |      |     0.00
107.583   0.00   0.01   0.007  O      |      |      |      |     0.00
107.667   0.00   0.01   0.007  O      |      |      |      |     0.00
107.750   0.00   0.01   0.007  O      |      |      |      |     0.00
107.833   0.00   0.01   0.007  O      |      |      |      |     0.00
107.917   0.00   0.01   0.007  O      |      |      |      |     0.00
108.000   0.00   0.01   0.007  O      |      |      |      |     0.00
108.083   0.00   0.01   0.007  O      |      |      |      |     0.00
108.167   0.00   0.01   0.006  O      |      |      |      |     0.00
108.250   0.00   0.01   0.006  O      |      |      |      |     0.00
108.333   0.00   0.01   0.006  O      |      |      |      |     0.00
108.417   0.00   0.01   0.006  O      |      |      |      |     0.00
108.500   0.00   0.01   0.006  O      |      |      |      |     0.00
108.583   0.00   0.01   0.006  O      |      |      |      |     0.00
108.667   0.00   0.01   0.006  O      |      |      |      |     0.00
108.750   0.00   0.01   0.006  O      |      |      |      |     0.00
108.833   0.00   0.01   0.006  O      |      |      |      |     0.00
108.917   0.00   0.01   0.006  O      |      |      |      |     0.00
109.000   0.00   0.01   0.006  O      |      |      |      |     0.00
109.083   0.00   0.01   0.006  O      |      |      |      |     0.00
109.167   0.00   0.01   0.006  O      |      |      |      |     0.00
109.250   0.00   0.01   0.006  O      |      |      |      |     0.00
109.333   0.00   0.01   0.006  O      |      |      |      |     0.00
109.417   0.00   0.01   0.006  O      |      |      |      |     0.00
109.500   0.00   0.01   0.006  O      |      |      |      |     0.00
109.583   0.00   0.01   0.006  O      |      |      |      |     0.00
109.667   0.00   0.01   0.006  O      |      |      |      |     0.00
```

109.750	0.00	0.01	0.006	O	0.00
109.833	0.00	0.01	0.006	O	0.00
109.917	0.00	0.01	0.006	O	0.00
110.000	0.00	0.01	0.005	O	0.00
110.083	0.00	0.01	0.005	O	0.00
110.167	0.00	0.01	0.005	O	0.00
110.250	0.00	0.01	0.005	O	0.00
110.333	0.00	0.01	0.005	O	0.00
110.417	0.00	0.01	0.005	O	0.00
110.500	0.00	0.01	0.005	O	0.00
110.583	0.00	0.01	0.005	O	0.00
110.667	0.00	0.01	0.005	O	0.00
110.750	0.00	0.01	0.005	O	0.00
110.833	0.00	0.01	0.005	O	0.00
110.917	0.00	0.01	0.005	O	0.00
111.000	0.00	0.01	0.005	O	0.00
111.083	0.00	0.01	0.005	O	0.00
111.167	0.00	0.01	0.005	O	0.00
111.250	0.00	0.01	0.005	O	0.00
111.333	0.00	0.01	0.005	O	0.00
111.417	0.00	0.01	0.005	O	0.00
111.500	0.00	0.01	0.005	O	0.00
111.583	0.00	0.01	0.005	O	0.00
111.667	0.00	0.01	0.005	O	0.00
111.750	0.00	0.01	0.005	O	0.00
111.833	0.00	0.01	0.005	O	0.00
111.917	0.00	0.01	0.005	O	0.00
112.000	0.00	0.01	0.005	O	0.00
112.083	0.00	0.01	0.005	O	0.00
112.167	0.00	0.01	0.004	O	0.00
112.250	0.00	0.01	0.004	O	0.00
112.333	0.00	0.00	0.004	O	0.00
112.417	0.00	0.00	0.004	O	0.00
112.500	0.00	0.00	0.004	O	0.00
112.583	0.00	0.00	0.004	O	0.00
112.667	0.00	0.00	0.004	O	0.00
112.750	0.00	0.00	0.004	O	0.00
112.833	0.00	0.00	0.004	O	0.00
112.917	0.00	0.00	0.004	O	0.00
113.000	0.00	0.00	0.004	O	0.00
113.083	0.00	0.00	0.004	O	0.00
113.167	0.00	0.00	0.004	O	0.00
113.250	0.00	0.00	0.004	O	0.00
113.333	0.00	0.00	0.004	O	0.00
113.417	0.00	0.00	0.004	O	0.00
113.500	0.00	0.00	0.004	O	0.00
113.583	0.00	0.00	0.004	O	0.00
113.667	0.00	0.00	0.004	O	0.00
113.750	0.00	0.00	0.004	O	0.00
113.833	0.00	0.00	0.004	O	0.00
113.917	0.00	0.00	0.004	O	0.00
114.000	0.00	0.00	0.004	O	0.00
114.083	0.00	0.00	0.004	O	0.00
114.167	0.00	0.00	0.004	O	0.00
114.250	0.00	0.00	0.004	O	0.00
114.333	0.00	0.00	0.004	O	0.00
114.417	0.00	0.00	0.004	O	0.00
114.500	0.00	0.00	0.004	O	0.00
114.583	0.00	0.00	0.004	O	0.00
114.667	0.00	0.00	0.004	O	0.00
114.750	0.00	0.00	0.004	O	0.00
114.833	0.00	0.00	0.003	O	0.00
114.917	0.00	0.00	0.003	O	0.00
115.000	0.00	0.00	0.003	O	0.00
115.083	0.00	0.00	0.003	O	0.00
115.167	0.00	0.00	0.003	O	0.00

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115.250    0.00    0.00      0.003  O        |         |         |         |       0.00
115.333    0.00    0.00      0.003  O        |         |         |         |       0.00
115.417    0.00    0.00      0.003  O        |         |         |         |       0.00
115.500    0.00    0.00      0.003  O        |         |         |         |       0.00
115.583    0.00    0.00      0.003  O        |         |         |         |       0.00
115.667    0.00    0.00      0.003  O        |         |         |         |       0.00
115.750    0.00    0.00      0.003  O        |         |         |         |       0.00
115.833    0.00    0.00      0.003  O        |         |         |         |       0.00
115.917    0.00    0.00      0.003  O        |         |         |         |       0.00
116.000    0.00    0.00      0.003  O        |         |         |         |       0.00
116.083    0.00    0.00      0.003  O        |         |         |         |       0.00
116.167    0.00    0.00      0.003  O        |         |         |         |       0.00
116.250    0.00    0.00      0.003  O        |         |         |         |       0.00
116.333    0.00    0.00      0.003  O        |         |         |         |       0.00
116.417    0.00    0.00      0.003  O        |         |         |         |       0.00
116.500    0.00    0.00      0.003  O        |         |         |         |       0.00
116.583    0.00    0.00      0.003  O        |         |         |         |       0.00
116.667    0.00    0.00      0.003  O        |         |         |         |       0.00
116.750    0.00    0.00      0.003  O        |         |         |         |       0.00
116.833    0.00    0.00      0.003  O        |         |         |         |       0.00
116.917    0.00    0.00      0.003  O        |         |         |         |       0.00
117.000    0.00    0.00      0.003  O        |         |         |         |       0.00
117.083    0.00    0.00      0.003  O        |         |         |         |       0.00
117.167    0.00    0.00      0.003  O        |         |         |         |       0.00
117.250    0.00    0.00      0.003  O        |         |         |         |       0.00
117.333    0.00    0.00      0.003  O        |         |         |         |       0.00
117.417    0.00    0.00      0.003  O        |         |         |         |       0.00
117.500    0.00    0.00      0.003  O        |         |         |         |       0.00
117.583    0.00    0.00      0.003  O        |         |         |         |       0.00
117.667    0.00    0.00      0.003  O        |         |         |         |       0.00
117.750    0.00    0.00      0.003  O        |         |         |         |       0.00
117.833    0.00    0.00      0.003  O        |         |         |         |       0.00
117.917    0.00    0.00      0.003  O        |         |         |         |       0.00
118.000    0.00    0.00      0.003  O        |         |         |         |       0.00
118.083    0.00    0.00      0.003  O        |         |         |         |       0.00
118.167    0.00    0.00      0.003  O        |         |         |         |       0.00
118.250    0.00    0.00      0.003  O        |         |         |         |       0.00
118.333    0.00    0.00      0.003  O        |         |         |         |       0.00
118.417    0.00    0.00      0.002  O        |         |         |         |       0.00
118.500    0.00    0.00      0.002  O        |         |         |         |       0.00
118.583    0.00    0.00      0.002  O        |         |         |         |       0.00
118.667    0.00    0.00      0.002  O        |         |         |         |       0.00
118.750    0.00    0.00      0.002  O        |         |         |         |       0.00
118.833    0.00    0.00      0.002  O        |         |         |         |       0.00
118.917    0.00    0.00      0.002  O        |         |         |         |       0.00
119.000    0.00    0.00      0.002  O        |         |         |         |       0.00
119.083    0.00    0.00      0.002  O        |         |         |         |       0.00
119.167    0.00    0.00      0.002  O        |         |         |         |       0.00
119.250    0.00    0.00      0.002  O        |         |         |         |       0.00
119.333    0.00    0.00      0.002  O        |         |         |         |       0.00
119.417    0.00    0.00      0.002  O        |         |         |         |       0.00
119.500    0.00    0.00      0.002  O        |         |         |         |       0.00
119.583    0.00    0.00      0.002  O        |         |         |         |       0.00
119.667    0.00    0.00      0.002  O        |         |         |         |       0.00
119.750    0.00    0.00      0.002  O        |         |         |         |       0.00
119.833    0.00    0.00      0.002  O        |         |         |         |       0.00
119.917    0.00    0.00      0.002  O        |         |         |         |       0.00
120.000    0.00    0.00      0.002  O        |         |         |         |       0.00
120.083    0.00    0.00      0.002  O        |         |         |         |       0.00
120.167    0.00    0.00      0.002  O        |         |         |         |       0.00
120.250    0.00    0.00      0.002  O        |         |         |         |       0.00
120.333    0.00    0.00      0.002  O        |         |         |         |       0.00
120.417    0.00    0.00      0.002  O        |         |         |         |       0.00
120.500    0.00    0.00      0.002  O        |         |         |         |       0.00
120.583    0.00    0.00      0.002  O        |         |         |         |       0.00
120.667    0.00    0.00      0.002  O        |         |         |         |       0.00
```

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120.750    0.00    0.00      0.002  O       |       |       |       |      0.00
120.833    0.00    0.00      0.002  O       |       |       |       |      0.00
120.917    0.00    0.00      0.002  O       |       |       |       |      0.00
121.000    0.00    0.00      0.002  O       |       |       |       |      0.00
121.083    0.00    0.00      0.002  O       |       |       |       |      0.00
121.167    0.00    0.00      0.002  O       |       |       |       |      0.00
121.250    0.00    0.00      0.002  O       |       |       |       |      0.00
121.333    0.00    0.00      0.002  O       |       |       |       |      0.00
121.417    0.00    0.00      0.002  O       |       |       |       |      0.00
121.500    0.00    0.00      0.002  O       |       |       |       |      0.00
121.583    0.00    0.00      0.002  O       |       |       |       |      0.00
121.667    0.00    0.00      0.002  O       |       |       |       |      0.00
121.750    0.00    0.00      0.002  O       |       |       |       |      0.00
121.833    0.00    0.00      0.002  O       |       |       |       |      0.00
121.917    0.00    0.00      0.002  O       |       |       |       |      0.00
122.000    0.00    0.00      0.002  O       |       |       |       |      0.00
122.083    0.00    0.00      0.002  O       |       |       |       |      0.00
122.167    0.00    0.00      0.002  O       |       |       |       |      0.00
122.250    0.00    0.00      0.002  O       |       |       |       |      0.00
122.333    0.00    0.00      0.002  O       |       |       |       |      0.00
122.417    0.00    0.00      0.002  O       |       |       |       |      0.00
122.500    0.00    0.00      0.002  O       |       |       |       |      0.00
122.583    0.00    0.00      0.002  O       |       |       |       |      0.00
122.667    0.00    0.00      0.002  O       |       |       |       |      0.00


      Remaining water in basin =    0.00 (Ac.Ft)


      ***************************HYDROGRAPH DATA***************************
                   Number of intervals =  1472
                   Time interval =    5.0 (Min.)
                   Maximum/Peak flow rate =       78.747 (CFS)
                   Total volume =      20.420 (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: 05/07/21

Keller Crossing – Basin C
Detention Basin Routing
Inflow Hydrograph 100-year 24-hour storm

Program License Serial Number 4029

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

From study/file name: kxprh24100.rte

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

Number of intervals = 294
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 66.833 (CFS)
Total volume = 34.880 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

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Process from Point/Station 10.000 to Point/Station 11.000

**** RETARDING BASIN ROUTING ****

User entry of depth-outflow-storage data

Total number of inflow hydrograph intervals = 294
Hydrograph time unit = 5.000 (Min.)
Initial depth in storage basin = 0.00(Ft.)

Initial basin depth = 0.00 (Ft.)
Initial basin storage = 0.00 (Ac.Ft)
Initial basin outflow = 0.00 (CFS)

Depth vs. Storage and Depth vs. Discharge data:

Basin Depth (Ft.)	Storage (Ac.Ft)	Outflow (CFS)	(S-O*dt/2) (Ac.Ft)	(S+O*dt/2) (Ac.Ft)
0.000	0.000	0.000	0.000	0.000
1.000	1.693	1.910	1.686	1.700
2.000	3.806	2.340	3.798	3.814
3.000	6.534	2.710	6.525	6.543
4.000	9.741	3.030	9.731	9.751
5.000	13.275	33.320	13.160	13.390
6.000	16.265	88.430	15.960	16.570

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        16.7    33.42    50.12    66.83 (Ft.)
 0.083    0.66    0.00       0.002  O          |        |        |        |      0.00
 0.167    1.97    0.01       0.011  O          |        |        |        |      0.01
 0.250    2.33    0.03       0.026  OI         |        |        |        |      0.02
 0.333    2.82    0.05       0.043  OI         |        |        |        |      0.03
 0.417    3.57    0.07       0.065  OI         |        |        |        |      0.04
 0.500    3.81    0.10       0.090  OI         |        |        |        |      0.05
 0.583    3.93    0.13       0.116  OI         |        |        |        |      0.07
 0.667    3.98    0.16       0.142  OI         |        |        |        |      0.08
 0.750    4.01    0.19       0.168  OI         |        |        |        |      0.10
 0.833    4.36    0.22       0.196  O I        |        |        |        |      0.12
 0.917    5.01    0.26       0.226  O I        |        |        |        |      0.13
 1.000    5.19    0.29       0.259  O I        |        |        |        |      0.15
 1.083    4.95    0.33       0.292  O I        |        |        |        |      0.17
 1.167    4.34    0.36       0.322  O I        |        |        |        |      0.19
 1.250    4.18    0.39       0.349  O I        |        |        |        |      0.21
 1.333    4.12    0.42       0.374  OI         |        |        |        |      0.22
 1.417    4.08    0.45       0.400  OI         |        |        |        |      0.24
 1.500    4.05    0.48       0.424  OI         |        |        |        |      0.25
 1.583    4.03    0.51       0.449  OI         |        |        |        |      0.27
 1.667    4.03    0.53       0.473  OI         |        |        |        |      0.28
 1.750    4.03    0.56       0.497  OI         |        |        |        |      0.29
 1.833    4.36    0.59       0.522  O I        |        |        |        |      0.31
 1.917    5.01    0.62       0.550  O I        |        |        |        |      0.32
 2.000    5.19    0.66       0.581  O I        |        |        |        |      0.34
 2.083    5.28    0.69       0.612  O I        |        |        |        |      0.36
 2.167    5.32    0.73       0.644  O I        |        |        |        |      0.38
 2.250    5.35    0.76       0.675  O I        |        |        |        |      0.40
 2.333    5.37    0.80       0.707  O I        |        |        |        |      0.42
 2.417    5.37    0.83       0.738  O I        |        |        |        |      0.44
 2.500    5.37    0.87       0.769  O I        |        |        |        |      0.45
 2.583    5.70    0.90       0.802  O I        |        |        |        |      0.47
 2.667    6.36    0.94       0.837  O  I       |        |        |        |      0.49
 2.750    6.54    0.99       0.874  O  I       |        |        |        |      0.52
 2.833    6.62    1.03       0.913  O  I       |        |        |        |      0.54
 2.917    6.67    1.07       0.951  O  I       |        |        |        |      0.56
 3.000    6.69    1.12       0.990  O  I       |        |        |        |      0.58
 3.083    6.71    1.16       1.028  O  I       |        |        |        |      0.61
 3.167    6.71    1.20       1.066  O  I       |        |        |        |      0.63
 3.250    6.71    1.25       1.104  O  I       |        |        |        |      0.65
 3.333    6.71    1.29       1.142  O  I       |        |        |        |      0.67
 3.417    6.71    1.33       1.179  O  I       |        |        |        |      0.70
 3.500    6.71    1.37       1.216  O  I       |        |        |        |      0.72
 3.583    6.71    1.41       1.252  O  I       |        |        |        |      0.74
 3.667    6.71    1.45       1.289  O  I       |        |        |        |      0.76
 3.750    6.71    1.49       1.325  O  I       |        |        |        |      0.78
 3.833    7.04    1.54       1.362  O  I       |        |        |        |      0.80
 3.917    7.70    1.58       1.402  O  I       |        |        |        |      0.83
 4.000    7.88    1.63       1.444  O  I       |        |        |        |      0.85
 4.083    7.96    1.68       1.488  O  I       |        |        |        |      0.88
 4.167    8.01    1.73       1.531  O  I       |        |        |        |      0.90
 4.250    8.04    1.78       1.574  O  I       |        |        |        |      0.93
 4.333    8.39    1.83       1.618  O   I      |        |        |        |      0.96
 4.417    9.04    1.88       1.665  O   I      |        |        |        |      0.98
 4.500    9.22    1.91       1.715  O   I      |        |        |        |      1.01
 4.583    9.31    1.92       1.766  O   I      |        |        |        |      1.03
 4.667    9.35    1.94       1.817  O   I      |        |        |        |      1.06
 4.750    9.38    1.95       1.868  O   I      |        |        |        |      1.08
 4.833    9.73    1.96       1.920  O   I      |        |        |        |      1.11
 4.917   10.38    1.97       1.976  O   I      |        |        |        |      1.13
 5.000   10.57    1.98       2.035  O    I     |        |        |        |      1.16
 5.083    9.99    1.99       2.092  O   I      |        |        |        |      1.19
 5.167    8.73    2.00       2.142  O   I      |        |        |        |      1.21
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 5.250    8.39    2.01      2.187  O   I   |       |       |       |     1.23
 5.333    8.58    2.02      2.232  O   I   |       |       |       |     1.26
 5.417    9.14    2.03      2.279  O   I   |       |       |       |     1.28
 5.500    9.27    2.04      2.328  O   I   |       |       |       |     1.30
 5.583    9.63    2.05      2.379  O   I   |       |       |       |     1.32
 5.667   10.34    2.06      2.434  O   I   |       |       |       |     1.35
 5.750   10.54    2.07      2.492  O    I  |       |       |       |     1.38
 5.833   10.65    2.08      2.550  O    I  |       |       |       |     1.41
 5.917   10.69    2.10      2.609  |O   I  |       |       |       |     1.43
 6.000   10.72    2.11      2.669  |O   I  |       |       |       |     1.46
 6.083   11.07    2.12      2.729  |O   I  |       |       |       |     1.49
 6.167   11.73    2.13      2.793  |O   I  |       |       |       |     1.52
 6.250   11.91    2.15      2.860  |O   I  |       |       |       |     1.55
 6.333   11.99    2.16      2.927  |O   I  |       |       |       |     1.58
 6.417   12.04    2.17      2.995  |O   I  |       |       |       |     1.62
 6.500   12.06    2.19      3.063  |O   I  |       |       |       |     1.65
 6.583   12.41    2.20      3.132  |O   I  |       |       |       |     1.68
 6.667   13.07    2.22      3.205  |O    I |       |       |       |     1.72
 6.750   13.25    2.23      3.280  |O    I |       |       |       |     1.75
 6.833   13.33    2.25      3.356  |O    I |       |       |       |     1.79
 6.917   13.38    2.26      3.433  |O    I |       |       |       |     1.82
 7.000   13.41    2.28      3.509  |O    I |       |       |       |     1.86
 7.083   13.43    2.30      3.586  |O    I |       |       |       |     1.90
 7.167   13.43    2.31      3.662  |O    I |       |       |       |     1.93
 7.250   13.43    2.33      3.739  |O    I |       |       |       |     1.97
 7.333   13.76    2.34      3.816  |O    I |       |       |       |     2.00
 7.417   14.41    2.35      3.897  |O    I |       |       |       |     2.03
 7.500   14.59    2.36      3.981  |O    I |       |       |       |     2.06
 7.583   15.14    2.38      4.067  |O     I|       |       |       |     2.10
 7.667   16.12    2.39      4.158  |O     I|       |       |       |     2.13
 7.750   16.44    2.40      4.254  |O     I|       |       |       |     2.16
 7.833   17.14    2.41      4.353  |O      I       |       |       |     2.20
 7.917   18.31    2.43      4.458  |O      I       |       |       |     2.24
 8.000   18.68    2.44      4.569  |O      I       |       |       |     2.28
 8.083   19.94    2.46      4.685  |O      |I      |       |       |     2.32
 8.167   22.17    2.48      4.813  |O      | I     |       |       |     2.37
 8.250   22.85    2.50      4.951  |O      | I     |       |       |     2.42
 8.333   23.19    2.51      5.092  |O      |  I    |       |       |     2.47
 8.417   23.38    2.53      5.235  |O      |  I    |       |       |     2.52
 8.500   23.51    2.55      5.379  |O      |  I    |       |       |     2.58
 8.583   24.15    2.57      5.526  |O      |  I    |       |       |     2.63
 8.667   25.25    2.59      5.678  |O      |   I   |       |       |     2.69
 8.750   25.58    2.62      5.835  |O      |   I   |       |       |     2.74
 8.833   26.29    2.64      5.996  |O      |   I   |       |       |     2.80
 8.917   27.46    2.66      6.163  |O      |    I  |       |       |     2.86
 9.000   27.84    2.68      6.335  |O      |    I  |       |       |     2.93
 9.083   29.11    2.71      6.512  |O      |    I  |       |       |     2.99
 9.167   31.34    2.73      6.702  |O      |      I|       |       |     3.05
 9.250   32.01    2.75      6.901  |O      |      I|       |       |     3.11
 9.333   32.88    2.77      7.105  |O      |      I|       |       |     3.18
 9.417   34.12    2.79      7.317  |O      |       I       |       |     3.24
 9.500   34.55    2.81      7.534  |O      |       I       |       |     3.31
 9.583   35.32    2.83      7.755  |O      |       I       |       |     3.38
 9.667   36.49    2.85      7.983  |O      |       |I      |       |     3.45
 9.750   36.87    2.88      8.216  |O      |       |I      |       |     3.52
 9.833   37.60    2.90      8.452  |O      |       | I     |       |     3.60
 9.917   38.78    2.93      8.695  |O      |       | I     |       |     3.67
10.000   39.15    2.95      8.943  |O      |       | I     |       |     3.75
10.083   35.65    2.97      9.181  |O      |       |I      |       |     3.83
10.167   28.37    2.99      9.380  |O      |    I  |       |       |     3.89
10.250   26.40    3.01      9.548  |O      |   I   |       |       |     3.94
10.333   25.54    3.03      9.706  |O      |   I   |       |       |     3.99
10.417   25.06    4.02      9.856  |O      |  I    |       |       |     4.03
10.500   24.79    5.22      9.996  | O     |  I    |       |       |     4.07
10.583   27.23    6.41     10.135  |  O    |    I  |       |       |     4.11
10.667   32.56    7.76     10.292  |  O    |      I|       |       |     4.16
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10.750   34.06    9.22     10.463   |   O   |       I       |       |     4.20
10.833   34.77   10.67     10.632   |    O  |       I       |       |     4.25
10.917   35.18   12.06     10.795   |    O  |       I       |       |     4.30
11.000   35.43   13.39     10.950   |     O |       I       |       |     4.34
11.083   35.11   14.65     11.096   |      O|       I       |       |     4.38
11.167   34.10   15.79     11.230   |      O|       I       |       |     4.42
11.250   33.84   16.83     11.351   |       O       I       |       |     4.46
11.333   33.74   17.81     11.465   |       O       I       |       |     4.49
11.417   33.71   18.72     11.571   |       O       I       |       |     4.52
11.500   33.70   19.58     11.672   |       |O      I       |       |     4.55
11.583   32.64   20.36     11.763   |       |O     I|       |       |     4.57
11.667   30.57   21.00     11.838   |       | O   I |       |       |     4.59
11.750   30.02   21.53     11.900   |       | O   I |       |       |     4.61
11.833   30.32   22.03     11.958   |       | O   I |       |       |     4.63
11.917   31.26   22.53     12.016   |       | O   I |       |       |     4.64
12.000   31.50   23.04     12.076   |       |  O   I|       |       |     4.66
12.083   35.31   23.63     12.145   |       |  O    I       |       |     4.68
12.167   42.82   24.52     12.248   |       |  O    |   I   |       |     4.71
12.250   44.95   25.63     12.378   |       |   O   |    I  |       |     4.75
12.333   46.49   26.78     12.512   |       |   O   |     I |       |     4.78
12.417   48.10   27.96     12.649   |       |    O  |      I|       |     4.82
12.500   48.73   29.13     12.786   |       |    O  |      I|       |     4.86
12.583   50.21   30.30     12.922   |       |     O |       I       |     4.90
12.667   52.43   31.50     13.063   |       |      O|       |I      |     4.94
12.750   53.09   32.72     13.205   |       |      O|       |I      |     4.98
12.833   53.96   34.56     13.342   |       |       O       |I      |     5.02
12.917   55.20   36.95     13.472   |       |       |O      | I     |     5.07
13.000   55.62   39.15     13.591   |       |       | O     | I     |     5.11
13.083   58.50   41.29     13.707   |       |       |  O    |   I   |     5.14
13.167   63.89   43.66     13.836   |       |       |   O   |     I |     5.19
13.250   65.44   46.17     13.972   |       |       |     O |      I|     5.23
13.333   66.17   48.51     14.099   |       |       |      O|      I|     5.28
13.417   66.58   50.65     14.215   |       |       |       O      I|     5.31
13.500   66.83   52.56     14.319   |       |       |       |O      I     5.35
13.583   61.21   53.93     14.393   |       |       |       |O   I  |     5.37
13.667   49.62   54.11     14.403   |       |       |      I|O      |     5.38
13.750   46.43   53.38     14.364   |       |       |     I |O      |     5.36
13.833   45.00   52.47     14.314   |       |       |    I  |O      |     5.35
13.917   44.21   51.53     14.263   |       |       |    I  O       |     5.33
14.000   43.76   50.63     14.214   |       |       |   I   O       |     5.31
14.083   45.53   49.92     14.175   |       |       |    I O|       |     5.30
14.167   49.79   49.65     14.161   |       |       |      O|       |     5.30
14.250   51.00   49.74     14.166   |       |       |      OI       |     5.30
14.333   51.03   49.89     14.174   |       |       |      OI       |     5.30
14.417   50.31   49.98     14.179   |       |       |      OI       |     5.30
14.500   50.22   50.02     14.181   |       |       |      OI       |     5.30
14.583   50.26   50.04     14.182   |       |       |      OI       |     5.30
14.667   50.22   50.07     14.184   |       |       |      OI       |     5.30
14.750   50.20   50.08     14.184   |       |       |      OI       |     5.30
14.833   49.67   50.07     14.184   |       |       |      O|       |     5.30
14.917   48.65   49.96     14.178   |       |       |      O|       |     5.30
15.000   48.38   49.79     14.168   |       |       |      O|       |     5.30
15.083   47.75   49.58     14.157   |       |       |     IO|       |     5.30
15.167   46.65   49.30     14.142   |       |       |     IO|       |     5.29
15.250   46.35   48.96     14.124   |       |       |     IO|       |     5.28
15.333   45.68   48.61     14.105   |       |       |    I O|       |     5.28
15.417   44.58   48.19     14.082   |       |       |    I O|       |     5.27
15.500   44.27   47.74     14.058   |       |       |    IO |       |     5.26
15.583   42.01   47.20     14.028   |       |       |   I O |       |     5.25
15.667   37.74   46.32     13.980   |       |       | I   O |       |     5.24
15.750   36.56   45.23     13.921   |       |       |I   O  |       |     5.22
15.833   36.02   44.16     13.863   |       |       |I   O  |       |     5.20
15.917   35.75   43.17     13.810   |       |       |I  O   |       |     5.18
16.000   35.60   42.28     13.761   |       |       |I  O   |       |     5.16
16.083   28.12   41.03     13.694   |       |    I  |  O    |       |     5.14
16.167   13.42   38.61     13.562   |     I |       | O     |       |     5.10
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16.250    9.35   35.36     13.386  |   I   |       O       |       |     5.04
16.333    7.50   32.76     13.209  |  I    |      O|       |       |     4.98
16.417    6.46   31.28     13.037  |  I    |     O |       |       |     4.93
16.500    5.86   29.84     12.869  | I     |     O |       |       |     4.89
16.583    5.04   28.44     12.706  | I     |    O  |       |       |     4.84
16.667    4.39   27.08     12.547  | I     |   O   |       |       |     4.79
16.750    4.21   25.77     12.395  | I     |   O   |       |       |     4.75
16.833    4.12   24.54     12.250  |I      |  O    |       |       |     4.71
16.917    4.08   23.36     12.113  |I      |  O    |       |       |     4.67
17.000    4.05   22.26     11.984  |I      | O     |       |       |     4.63
17.083    4.69   21.23     11.865  | I     | O     |       |       |     4.60
17.167    6.00   20.32     11.758  | I     |O      |       |       |     4.57
17.250    6.36   19.51     11.664  |  I    |O      |       |       |     4.54
17.333    6.52   18.76     11.576  |  I    O       |       |       |     4.52
17.417    6.62   18.06     11.495  |  I    O       |       |       |     4.50
17.500    6.67   17.41     11.418  |  I    O       |       |       |     4.47
17.583    6.71   16.79     11.347  |  I    O       |       |       |     4.45
17.667    6.71   16.21     11.279  |  I   O|       |       |       |     4.44
17.750    6.71   15.67     11.216  |  I   O|       |       |       |     4.42
17.833    6.39   15.15     11.155  |  I   O|       |       |       |     4.40
17.917    5.73   14.63     11.094  | I    O|       |       |       |     4.38
18.000    5.55   14.11     11.034  | I   O |       |       |       |     4.37
18.083    5.47   13.62     10.976  | I   O |       |       |       |     4.35
18.167    5.42   13.15     10.922  | I   O |       |       |       |     4.33
18.250    5.39   12.70     10.870  | I   O |       |       |       |     4.32
18.333    5.37   12.28     10.821  | I  O  |       |       |       |     4.31
18.417    5.37   11.89     10.775  | I  O  |       |       |       |     4.29
18.500    5.37   11.51     10.731  | I  O  |       |       |       |     4.28
18.583    5.04   11.15     10.689  | I  O  |       |       |       |     4.27
18.667    4.39   10.78     10.646  | I  O  |       |       |       |     4.26
18.750    4.21   10.41     10.602  | I O   |       |       |       |     4.24
18.833    3.79   10.04     10.559  |I  O   |       |       |       |     4.23
18.917    3.09    9.67     10.515  |I  O   |       |       |       |     4.22
19.000    2.88    9.28     10.471  |I  O   |       |       |       |     4.21
19.083    3.11    8.92     10.429  |I  O   |       |       |       |     4.19
19.167    3.72    8.61     10.392  |I  O   |       |       |       |     4.18
19.250    3.87    8.33     10.359  |I O    |       |       |       |     4.18
19.333    4.26    8.09     10.331  | IO    |       |       |       |     4.17
19.417    4.96    7.89     10.308  | IO    |       |       |       |     4.16
19.500    5.17    7.73     10.289  | IO    |       |       |       |     4.16
19.583    4.95    7.57     10.271  | IO    |       |       |       |     4.15
19.667    4.34    7.40     10.251  | IO    |       |       |       |     4.14
19.750    4.18    7.22     10.230  | IO    |       |       |       |     4.14
19.833    3.79    7.04     10.209  |I O    |       |       |       |     4.13
19.917    3.09    6.83     10.185  |I O    |       |       |       |     4.13
20.000    2.88    6.61     10.159  |I O    |       |       |       |     4.12
20.083    3.11    6.41     10.135  |I O    |       |       |       |     4.11
20.167    3.72    6.23     10.115  |IO     |       |       |       |     4.11
20.250    3.87    6.09     10.098  |IO     |       |       |       |     4.10
20.333    3.93    5.97     10.084  |IO     |       |       |       |     4.10
20.417    3.98    5.85     10.070  |IO     |       |       |       |     4.09
20.500    4.01    5.75     10.058  |IO     |       |       |       |     4.09
20.583    4.03    5.65     10.046  |IO     |       |       |       |     4.09
20.667    4.03    5.55     10.036  |IO     |       |       |       |     4.08
20.750    4.03    5.47     10.025  |IO     |       |       |       |     4.08
20.833    3.70    5.38     10.015  |IO     |       |       |       |     4.08
20.917    3.05    5.26     10.001  |IO     |       |       |       |     4.07
21.000    2.86    5.13      9.986  |IO     |       |       |       |     4.07
21.083    3.11    5.01      9.971  |IO     |       |       |       |     4.07
21.167    3.72    4.91      9.961  |IO     |       |       |       |     4.06
21.250    3.87    4.85      9.953  |IO     |       |       |       |     4.06
21.333    3.61    4.79      9.946  |IO     |       |       |       |     4.06
21.417    3.00    4.70      9.936  |IO     |       |       |       |     4.06
21.500    2.84    4.60      9.924  |IO     |       |       |       |     4.05
21.583    3.11    4.51      9.913  |IO     |       |       |       |     4.05
21.667    3.72    4.44      9.906  |IO     |       |       |       |     4.05
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21.750    3.87    4.41      9.902  |IO     |       |       |       |     4.05
21.833    3.61    4.37      9.897  |IO     |       |       |       |     4.04
21.917    3.00    4.31      9.890  |IO     |       |       |       |     4.04
22.000    2.84    4.23      9.881  |IO     |       |       |       |     4.04
22.083    3.11    4.16      9.872  |O      |       |       |       |     4.04
22.167    3.72    4.11      9.867  |O      |       |       |       |     4.04
22.250    3.87    4.09      9.865  |O      |       |       |       |     4.04
22.333    3.61    4.07      9.863  |O      |       |       |       |     4.03
22.417    3.00    4.03      9.858  |O      |       |       |       |     4.03
22.500    2.84    3.97      9.850  |O      |       |       |       |     4.03
22.583    2.78    3.90      9.842  |O      |       |       |       |     4.03
22.667    2.73    3.83      9.835  |O      |       |       |       |     4.03
22.750    2.71    3.77      9.827  |O      |       |       |       |     4.02
22.833    2.69    3.71      9.820  |O      |       |       |       |     4.02
22.917    2.69    3.65      9.813  |O      |       |       |       |     4.02
23.000    2.69    3.60      9.807  |O      |       |       |       |     4.02
23.083    2.69    3.54      9.801  |O      |       |       |       |     4.02
23.167    2.69    3.49      9.795  |O      |       |       |       |     4.02
23.250    2.69    3.45      9.790  |O      |       |       |       |     4.01
23.333    2.69    3.40      9.785  |O      |       |       |       |     4.01
23.417    2.69    3.36      9.780  |O      |       |       |       |     4.01
23.500    2.69    3.32      9.775  |O      |       |       |       |     4.01
23.583    2.69    3.29      9.771  |O      |       |       |       |     4.01
23.667    2.69    3.25      9.767  |O      |       |       |       |     4.01
23.750    2.69    3.22      9.763  |O      |       |       |       |     4.01
23.833    2.69    3.19      9.760  |O      |       |       |       |     4.01
23.917    2.69    3.16      9.756  |O      |       |       |       |     4.00
24.000    2.69    3.13      9.753  |O      |       |       |       |     4.00
24.083    2.03    3.09      9.748  IO      |       |       |       |     4.00
24.167    0.72    3.03      9.736  IO      |       |       |       |     4.00
24.250    0.35    3.03      9.719  IO      |       |       |       |     3.99
24.333    0.19    3.03      9.700  IO      |       |       |       |     3.99
24.417    0.10    3.02      9.680  IO      |       |       |       |     3.98
24.500    0.04    3.02      9.660  IO      |       |       |       |     3.97
24.583    0.00    3.02      9.639  IO      |       |       |       |     3.97
24.667    0.00    3.02      9.619  IO      |       |       |       |     3.96
24.750    0.00    3.02      9.598  IO      |       |       |       |     3.96
24.833    0.00    3.01      9.577  IO      |       |       |       |     3.95
24.917    0.00    3.01      9.556  IO      |       |       |       |     3.94
25.000    0.00    3.01      9.535  IO      |       |       |       |     3.94
25.083    0.00    3.01      9.515  IO      |       |       |       |     3.93
25.167    0.00    3.01      9.494  IO      |       |       |       |     3.92
25.250    0.00    3.00      9.473  IO      |       |       |       |     3.92
25.333    0.00    3.00      9.453  IO      |       |       |       |     3.91
25.417    0.00    3.00      9.432  IO      |       |       |       |     3.90
25.500    0.00    3.00      9.411  IO      |       |       |       |     3.90
25.583    0.00    3.00      9.391  IO      |       |       |       |     3.89
25.667    0.00    2.99      9.370  IO      |       |       |       |     3.88
25.750    0.00    2.99      9.350  IO      |       |       |       |     3.88
25.833    0.00    2.99      9.329  IO      |       |       |       |     3.87
25.917    0.00    2.99      9.308  IO      |       |       |       |     3.87
26.000    0.00    2.98      9.288  IO      |       |       |       |     3.86
26.083    0.00    2.98      9.267  IO      |       |       |       |     3.85
26.167    0.00    2.98      9.247  IO      |       |       |       |     3.85
26.250    0.00    2.98      9.226  IO      |       |       |       |     3.84
26.333    0.00    2.98      9.206  IO      |       |       |       |     3.83
26.417    0.00    2.97      9.185  IO      |       |       |       |     3.83
26.500    0.00    2.97      9.165  IO      |       |       |       |     3.82
26.583    0.00    2.97      9.144  IO      |       |       |       |     3.81
26.667    0.00    2.97      9.124  IO      |       |       |       |     3.81
26.750    0.00    2.97      9.103  IO      |       |       |       |     3.80
26.833    0.00    2.96      9.083  IO      |       |       |       |     3.79
26.917    0.00    2.96      9.063  IO      |       |       |       |     3.79
27.000    0.00    2.96      9.042  IO      |       |       |       |     3.78
27.083    0.00    2.96      9.022  IO      |       |       |       |     3.78
27.167    0.00    2.96      9.001  IO      |       |       |       |     3.77
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27.250	0.00	2.95	8.981	IO					3.76
27.333	0.00	2.95	8.961	IO					3.76
27.417	0.00	2.95	8.940	IO					3.75
27.500	0.00	2.95	8.920	IO					3.74
27.583	0.00	2.95	8.900	IO					3.74
27.667	0.00	2.94	8.879	IO					3.73
27.750	0.00	2.94	8.859	IO					3.73
27.833	0.00	2.94	8.839	IO					3.72
27.917	0.00	2.94	8.819	IO					3.71
28.000	0.00	2.94	8.798	IO					3.71
28.083	0.00	2.93	8.778	IO					3.70
28.167	0.00	2.93	8.758	IO					3.69
28.250	0.00	2.93	8.738	IO					3.69
28.333	0.00	2.93	8.718	IO					3.68
28.417	0.00	2.93	8.698	IO					3.67
28.500	0.00	2.92	8.677	IO					3.67
28.583	0.00	2.92	8.657	IO					3.66
28.667	0.00	2.92	8.637	IO					3.66
28.750	0.00	2.92	8.617	IO					3.65
28.833	0.00	2.92	8.597	IO					3.64
28.917	0.00	2.91	8.577	IO					3.64
29.000	0.00	2.91	8.557	IO					3.63
29.083	0.00	2.91	8.537	IO					3.62
29.167	0.00	2.91	8.517	IO					3.62
29.250	0.00	2.91	8.497	IO					3.61
29.333	0.00	2.90	8.477	IO					3.61
29.417	0.00	2.90	8.457	IO					3.60
29.500	0.00	2.90	8.437	IO					3.59
29.583	0.00	2.90	8.417	IO					3.59
29.667	0.00	2.90	8.397	IO					3.58
29.750	0.00	2.89	8.377	IO					3.57
29.833	0.00	2.89	8.357	IO					3.57
29.917	0.00	2.89	8.337	IO					3.56
30.000	0.00	2.89	8.317	IO					3.56
30.083	0.00	2.89	8.297	IO					3.55
30.167	0.00	2.88	8.277	IO					3.54
30.250	0.00	2.88	8.258	IO					3.54
30.333	0.00	2.88	8.238	IO					3.53
30.417	0.00	2.88	8.218	IO					3.53
30.500	0.00	2.88	8.198	IO					3.52
30.583	0.00	2.87	8.178	IO					3.51
30.667	0.00	2.87	8.159	IO					3.51
30.750	0.00	2.87	8.139	IO					3.50
30.833	0.00	2.87	8.119	IO					3.49
30.917	0.00	2.87	8.099	IO					3.49
31.000	0.00	2.86	8.079	IO					3.48
31.083	0.00	2.86	8.060	IO					3.48
31.167	0.00	2.86	8.040	IO					3.47
31.250	0.00	2.86	8.020	IO					3.46
31.333	0.00	2.86	8.001	IO					3.46
31.417	0.00	2.85	7.981	IO					3.45
31.500	0.00	2.85	7.961	IO					3.45
31.583	0.00	2.85	7.942	IO					3.44
31.667	0.00	2.85	7.922	IO					3.43
31.750	0.00	2.85	7.903	IO					3.43
31.833	0.00	2.84	7.883	IO					3.42
31.917	0.00	2.84	7.863	IO					3.41
32.000	0.00	2.84	7.844	IO					3.41
32.083	0.00	2.84	7.824	IO					3.40
32.167	0.00	2.84	7.805	IO					3.40
32.250	0.00	2.83	7.785	IO					3.39
32.333	0.00	2.83	7.766	IO					3.38
32.417	0.00	2.83	7.746	IO					3.38
32.500	0.00	2.83	7.727	IO					3.37
32.583	0.00	2.83	7.707	IO					3.37
32.667	0.00	2.83	7.688	IO					3.36

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32.750   0.00   2.82   7.668  IO    |    |    |    |   3.35
32.833   0.00   2.82   7.649  IO    |    |    |    |   3.35
32.917   0.00   2.82   7.629  IO    |    |    |    |   3.34
33.000   0.00   2.82   7.610  IO    |    |    |    |   3.34
33.083   0.00   2.82   7.591  IO    |    |    |    |   3.33
33.167   0.00   2.81   7.571  IO    |    |    |    |   3.32
33.250   0.00   2.81   7.552  IO    |    |    |    |   3.32
33.333   0.00   2.81   7.532  IO    |    |    |    |   3.31
33.417   0.00   2.81   7.513  IO    |    |    |    |   3.31
33.500   0.00   2.81   7.494  IO    |    |    |    |   3.30
33.583   0.00   2.80   7.474  IO    |    |    |    |   3.29
33.667   0.00   2.80   7.455  IO    |    |    |    |   3.29
33.750   0.00   2.80   7.436  IO    |    |    |    |   3.28
33.833   0.00   2.80   7.417  IO    |    |    |    |   3.28
33.917   0.00   2.80   7.397  IO    |    |    |    |   3.27
34.000   0.00   2.79   7.378  IO    |    |    |    |   3.26
34.083   0.00   2.79   7.359  IO    |    |    |    |   3.26
34.167   0.00   2.79   7.340  IO    |    |    |    |   3.25
34.250   0.00   2.79   7.320  IO    |    |    |    |   3.25
34.333   0.00   2.79   7.301  IO    |    |    |    |   3.24
34.417   0.00   2.78   7.282  IO    |    |    |    |   3.23
34.500   0.00   2.78   7.263  IO    |    |    |    |   3.23
34.583   0.00   2.78   7.244  IO    |    |    |    |   3.22
34.667   0.00   2.78   7.225  IO    |    |    |    |   3.22
34.750   0.00   2.78   7.205  IO    |    |    |    |   3.21
34.833   0.00   2.78   7.186  IO    |    |    |    |   3.20
34.917   0.00   2.77   7.167  IO    |    |    |    |   3.20
35.000   0.00   2.77   7.148  IO    |    |    |    |   3.19
35.083   0.00   2.77   7.129  IO    |    |    |    |   3.19
35.167   0.00   2.77   7.110  IO    |    |    |    |   3.18
35.250   0.00   2.77   7.091  IO    |    |    |    |   3.17
35.333   0.00   2.76   7.072  IO    |    |    |    |   3.17
35.417   0.00   2.76   7.053  IO    |    |    |    |   3.16
35.500   0.00   2.76   7.034  IO    |    |    |    |   3.16
35.583   0.00   2.76   7.015  IO    |    |    |    |   3.15
35.667   0.00   2.76   6.996  IO    |    |    |    |   3.14
35.750   0.00   2.75   6.977  IO    |    |    |    |   3.14
35.833   0.00   2.75   6.958  IO    |    |    |    |   3.13
35.917   0.00   2.75   6.939  IO    |    |    |    |   3.13
36.000   0.00   2.75   6.920  IO    |    |    |    |   3.12
36.083   0.00   2.75   6.901  IO    |    |    |    |   3.11
36.167   0.00   2.74   6.882  IO    |    |    |    |   3.11
36.250   0.00   2.74   6.863  IO    |    |    |    |   3.10
36.333   0.00   2.74   6.844  IO    |    |    |    |   3.10
36.417   0.00   2.74   6.826  IO    |    |    |    |   3.09
36.500   0.00   2.74   6.807  IO    |    |    |    |   3.09
36.583   0.00   2.74   6.788  IO    |    |    |    |   3.08
36.667   0.00   2.73   6.769  IO    |    |    |    |   3.07
36.750   0.00   2.73   6.750  IO    |    |    |    |   3.07
36.833   0.00   2.73   6.731  IO    |    |    |    |   3.06
36.917   0.00   2.73   6.713  IO    |    |    |    |   3.06
37.000   0.00   2.73   6.694  IO    |    |    |    |   3.05
37.083   0.00   2.72   6.675  IO    |    |    |    |   3.04
37.167   0.00   2.72   6.656  IO    |    |    |    |   3.04
37.250   0.00   2.72   6.638  IO    |    |    |    |   3.03
37.333   0.00   2.72   6.619  IO    |    |    |    |   3.03
37.417   0.00   2.72   6.600  IO    |    |    |    |   3.02
37.500   0.00   2.71   6.581  IO    |    |    |    |   3.01
37.583   0.00   2.71   6.563  IO    |    |    |    |   3.01
37.667   0.00   2.71   6.544  IO    |    |    |    |   3.00
37.750   0.00   2.71   6.525  IO    |    |    |    |   3.00
37.833   0.00   2.71   6.507  IO    |    |    |    |   2.99
37.917   0.00   2.70   6.488  IO    |    |    |    |   2.98
38.000   0.00   2.70   6.469  IO    |    |    |    |   2.98
38.083   0.00   2.70   6.451  IO    |    |    |    |   2.97
38.167   0.00   2.70   6.432  IO    |    |    |    |   2.96
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38.250    0.00    2.69     6.414  IO     |      |      |      |     2.96
38.333    0.00    2.69     6.395  IO     |      |      |      |     2.95
38.417    0.00    2.69     6.377  IO     |      |      |      |     2.94
38.500    0.00    2.69     6.358  IO     |      |      |      |     2.94
38.583    0.00    2.68     6.340  IO     |      |      |      |     2.93
38.667    0.00    2.68     6.321  IO     |      |      |      |     2.92
38.750    0.00    2.68     6.303  IO     |      |      |      |     2.92
38.833    0.00    2.68     6.284  IO     |      |      |      |     2.91
38.917    0.00    2.67     6.266  IO     |      |      |      |     2.90
39.000    0.00    2.67     6.247  IO     |      |      |      |     2.89
39.083    0.00    2.67     6.229  IO     |      |      |      |     2.89
39.167    0.00    2.67     6.211  IO     |      |      |      |     2.88
39.250    0.00    2.66     6.192  IO     |      |      |      |     2.87
39.333    0.00    2.66     6.174  IO     |      |      |      |     2.87
39.417    0.00    2.66     6.156  IO     |      |      |      |     2.86
39.500    0.00    2.66     6.137  IO     |      |      |      |     2.85
39.583    0.00    2.65     6.119  IO     |      |      |      |     2.85
39.667    0.00    2.65     6.101  IO     |      |      |      |     2.84
39.750    0.00    2.65     6.083  IO     |      |      |      |     2.83
39.833    0.00    2.65     6.064  IO     |      |      |      |     2.83
39.917    0.00    2.64     6.046  IO     |      |      |      |     2.82
40.000    0.00    2.64     6.028  IO     |      |      |      |     2.81
40.083    0.00    2.64     6.010  IO     |      |      |      |     2.81
40.167    0.00    2.64     5.992  IO     |      |      |      |     2.80
40.250    0.00    2.63     5.973  IO     |      |      |      |     2.79
40.333    0.00    2.63     5.955  IO     |      |      |      |     2.79
40.417    0.00    2.63     5.937  IO     |      |      |      |     2.78
40.500    0.00    2.63     5.919  IO     |      |      |      |     2.77
40.583    0.00    2.62     5.901  IO     |      |      |      |     2.77
40.667    0.00    2.62     5.883  IO     |      |      |      |     2.76
40.750    0.00    2.62     5.865  IO     |      |      |      |     2.75
40.833    0.00    2.62     5.847  IO     |      |      |      |     2.75
40.917    0.00    2.61     5.829  IO     |      |      |      |     2.74
41.000    0.00    2.61     5.811  IO     |      |      |      |     2.73
41.083    0.00    2.61     5.793  IO     |      |      |      |     2.73
41.167    0.00    2.61     5.775  IO     |      |      |      |     2.72
41.250    0.00    2.60     5.757  IO     |      |      |      |     2.72
41.333    0.00    2.60     5.739  IO     |      |      |      |     2.71
41.417    0.00    2.60     5.721  IO     |      |      |      |     2.70
41.500    0.00    2.60     5.703  IO     |      |      |      |     2.70
41.583    0.00    2.59     5.685  IO     |      |      |      |     2.69
41.667    0.00    2.59     5.667  IO     |      |      |      |     2.68
41.750    0.00    2.59     5.650  IO     |      |      |      |     2.68
41.833    0.00    2.59     5.632  IO     |      |      |      |     2.67
41.917    0.00    2.59     5.614  IO     |      |      |      |     2.66
42.000    0.00    2.58     5.596  IO     |      |      |      |     2.66
42.083    0.00    2.58     5.578  IO     |      |      |      |     2.65
42.167    0.00    2.58     5.561  IO     |      |      |      |     2.64
42.250    0.00    2.58     5.543  IO     |      |      |      |     2.64
42.333    0.00    2.57     5.525  IO     |      |      |      |     2.63
42.417    0.00    2.57     5.507  IO     |      |      |      |     2.62
42.500    0.00    2.57     5.490  IO     |      |      |      |     2.62
42.583    0.00    2.57     5.472  IO     |      |      |      |     2.61
42.667    0.00    2.56     5.454  IO     |      |      |      |     2.60
42.750    0.00    2.56     5.437  IO     |      |      |      |     2.60
42.833    0.00    2.56     5.419  IO     |      |      |      |     2.59
42.917    0.00    2.56     5.402  IO     |      |      |      |     2.58
43.000    0.00    2.55     5.384  IO     |      |      |      |     2.58
43.083    0.00    2.55     5.366  IO     |      |      |      |     2.57
43.167    0.00    2.55     5.349  IO     |      |      |      |     2.57
43.250    0.00    2.55     5.331  IO     |      |      |      |     2.56
43.333    0.00    2.54     5.314  IO     |      |      |      |     2.55
43.417    0.00    2.54     5.296  IO     |      |      |      |     2.55
43.500    0.00    2.54     5.279  IO     |      |      |      |     2.54
43.583    0.00    2.54     5.261  IO     |      |      |      |     2.53
43.667    0.00    2.54     5.244  IO     |      |      |      |     2.53
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43.750    0.00    2.53     5.226  IO      |       |       |       |      2.52
43.833    0.00    2.53     5.209  IO      |       |       |       |      2.51
43.917    0.00    2.53     5.191  IO      |       |       |       |      2.51
44.000    0.00    2.53     5.174  IO      |       |       |       |      2.50
44.083    0.00    2.52     5.157  IO      |       |       |       |      2.50
44.167    0.00    2.52     5.139  IO      |       |       |       |      2.49
44.250    0.00    2.52     5.122  IO      |       |       |       |      2.48
44.333    0.00    2.52     5.105  IO      |       |       |       |      2.48
44.417    0.00    2.51     5.087  IO      |       |       |       |      2.47
44.500    0.00    2.51     5.070  IO      |       |       |       |      2.46
44.583    0.00    2.51     5.053  IO      |       |       |       |      2.46
44.667    0.00    2.51     5.035  IO      |       |       |       |      2.45
44.750    0.00    2.50     5.018  IO      |       |       |       |      2.44
44.833    0.00    2.50     5.001  IO      |       |       |       |      2.44
44.917    0.00    2.50     4.984  IO      |       |       |       |      2.43
45.000    0.00    2.50     4.966  IO      |       |       |       |      2.43
45.083    0.00    2.50     4.949  IO      |       |       |       |      2.42
45.167    0.00    2.49     4.932  IO      |       |       |       |      2.41
45.250    0.00    2.49     4.915  IO      |       |       |       |      2.41
45.333    0.00    2.49     4.898  IO      |       |       |       |      2.40
45.417    0.00    2.49     4.881  IO      |       |       |       |      2.39
45.500    0.00    2.48     4.864  IO      |       |       |       |      2.39
45.583    0.00    2.48     4.846  IO      |       |       |       |      2.38
45.667    0.00    2.48     4.829  IO      |       |       |       |      2.38
45.750    0.00    2.48     4.812  IO      |       |       |       |      2.37
45.833    0.00    2.47     4.795  IO      |       |       |       |      2.36
45.917    0.00    2.47     4.778  IO      |       |       |       |      2.36
46.000    0.00    2.47     4.761  IO      |       |       |       |      2.35
46.083    0.00    2.47     4.744  IO      |       |       |       |      2.34
46.167    0.00    2.46     4.727  IO      |       |       |       |      2.34
46.250    0.00    2.46     4.710  IO      |       |       |       |      2.33
46.333    0.00    2.46     4.693  IO      |       |       |       |      2.33
46.417    0.00    2.46     4.676  IO      |       |       |       |      2.32
46.500    0.00    2.46     4.659  IO      |       |       |       |      2.31
46.583    0.00    2.45     4.643  IO      |       |       |       |      2.31
46.667    0.00    2.45     4.626  IO      |       |       |       |      2.30
46.750    0.00    2.45     4.609  IO      |       |       |       |      2.29
46.833    0.00    2.45     4.592  IO      |       |       |       |      2.29
46.917    0.00    2.44     4.575  IO      |       |       |       |      2.28
47.000    0.00    2.44     4.558  IO      |       |       |       |      2.28
47.083    0.00    2.44     4.541  IO      |       |       |       |      2.27
47.167    0.00    2.44     4.525  IO      |       |       |       |      2.26
47.250    0.00    2.44     4.508  IO      |       |       |       |      2.26
47.333    0.00    2.43     4.491  IO      |       |       |       |      2.25
47.417    0.00    2.43     4.474  IO      |       |       |       |      2.25
47.500    0.00    2.43     4.458  IO      |       |       |       |      2.24
47.583    0.00    2.43     4.441  IO      |       |       |       |      2.23
47.667    0.00    2.42     4.424  IO      |       |       |       |      2.23
47.750    0.00    2.42     4.408  IO      |       |       |       |      2.22
47.833    0.00    2.42     4.391  IO      |       |       |       |      2.21
47.917    0.00    2.42     4.374  IO      |       |       |       |      2.21
48.000    0.00    2.41     4.358  IO      |       |       |       |      2.20
48.083    0.00    2.41     4.341  IO      |       |       |       |      2.20
48.167    0.00    2.41     4.324  IO      |       |       |       |      2.19
48.250    0.00    2.41     4.308  IO      |       |       |       |      2.18
48.333    0.00    2.41     4.291  IO      |       |       |       |      2.18
48.417    0.00    2.40     4.275  IO      |       |       |       |      2.17
48.500    0.00    2.40     4.258  IO      |       |       |       |      2.17
48.583    0.00    2.40     4.242  IO      |       |       |       |      2.16
48.667    0.00    2.40     4.225  IO      |       |       |       |      2.15
48.750    0.00    2.39     4.209  IO      |       |       |       |      2.15
48.833    0.00    2.39     4.192  IO      |       |       |       |      2.14
48.917    0.00    2.39     4.176  IO      |       |       |       |      2.14
49.000    0.00    2.39     4.159  IO      |       |       |       |      2.13
49.083    0.00    2.39     4.143  IO      |       |       |       |      2.12
49.167    0.00    2.38     4.126  IO      |       |       |       |      2.12
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49.250	0.00	2.38	4.110	IO					2.11
49.333	0.00	2.38	4.093	IO					2.11
49.417	0.00	2.38	4.077	IO					2.10
49.500	0.00	2.37	4.061	IO					2.09
49.583	0.00	2.37	4.044	IO					2.09
49.667	0.00	2.37	4.028	IO					2.08
49.750	0.00	2.37	4.012	IO					2.08
49.833	0.00	2.37	3.995	IO					2.07
49.917	0.00	2.36	3.979	IO					2.06
50.000	0.00	2.36	3.963	IO					2.06
50.083	0.00	2.36	3.947	IO					2.05
50.167	0.00	2.36	3.930	IO					2.05
50.250	0.00	2.35	3.914	IO					2.04
50.333	0.00	2.35	3.898	IO					2.03
50.417	0.00	2.35	3.882	IO					2.03
50.500	0.00	2.35	3.866	IO					2.02
50.583	0.00	2.35	3.849	IO					2.02
50.667	0.00	2.34	3.833	IO					2.01
50.750	0.00	2.34	3.817	IO					2.00
50.833	0.00	2.34	3.801	IO					2.00
50.917	0.00	2.34	3.785	IO					1.99
51.000	0.00	2.33	3.769	IO					1.98
51.083	0.00	2.33	3.753	IO					1.97
51.167	0.00	2.33	3.737	IO					1.97
51.250	0.00	2.32	3.721	IO					1.96
51.333	0.00	2.32	3.705	IO					1.95
51.417	0.00	2.32	3.689	IO					1.94
51.500	0.00	2.31	3.673	IO					1.94
51.583	0.00	2.31	3.657	IO					1.93
51.667	0.00	2.31	3.641	IO					1.92
51.750	0.00	2.30	3.625	IO					1.91
51.833	0.00	2.30	3.609	IO					1.91
51.917	0.00	2.30	3.594	IO					1.90
52.000	0.00	2.29	3.578	IO					1.89
52.083	0.00	2.29	3.562	IO					1.88
52.167	0.00	2.29	3.546	IO					1.88
52.250	0.00	2.28	3.530	IO					1.87
52.333	0.00	2.28	3.515	IO					1.86
52.417	0.00	2.28	3.499	IO					1.85
52.500	0.00	2.27	3.483	IO					1.85
52.583	0.00	2.27	3.468	IO					1.84
52.667	0.00	2.27	3.452	IO					1.83
52.750	0.00	2.26	3.436	IO					1.83
52.833	0.00	2.26	3.421	IO					1.82
52.917	0.00	2.26	3.405	IO					1.81
53.000	0.00	2.26	3.390	IO					1.80
53.083	0.00	2.25	3.374	IO					1.80
53.167	0.00	2.25	3.359	IO					1.79
53.250	0.00	2.25	3.343	IO					1.78
53.333	0.00	2.24	3.328	IO					1.77
53.417	0.00	2.24	3.312	IO					1.77
53.500	0.00	2.24	3.297	IO					1.76
53.583	0.00	2.23	3.282	IO					1.75
53.667	0.00	2.23	3.266	IO					1.74
53.750	0.00	2.23	3.251	IO					1.74
53.833	0.00	2.22	3.235	IO					1.73
53.917	0.00	2.22	3.220	IO					1.72
54.000	0.00	2.22	3.205	IO					1.72
54.083	0.00	2.21	3.190	IO					1.71
54.167	0.00	2.21	3.174	IO					1.70
54.250	0.00	2.21	3.159	IO					1.69
54.333	0.00	2.21	3.144	IO					1.69
54.417	0.00	2.20	3.129	IO					1.68
54.500	0.00	2.20	3.114	IO					1.67
54.583	0.00	2.20	3.099	IO					1.67
54.667	0.00	2.19	3.083	IO					1.66

54.750	0.00	2.19	3.068	IO	1.65
54.833	0.00	2.19	3.053	IO	1.64
54.917	0.00	2.18	3.038	IO	1.64
55.000	0.00	2.18	3.023	IO	1.63
55.083	0.00	2.18	3.008	IO	1.62
55.167	0.00	2.17	2.993	IO	1.62
55.250	0.00	2.17	2.978	IO	1.61
55.333	0.00	2.17	2.963	IO	1.60
55.417	0.00	2.17	2.948	IO	1.59
55.500	0.00	2.16	2.933	IO	1.59
55.583	0.00	2.16	2.919	IO	1.58
55.667	0.00	2.16	2.904	IO	1.57
55.750	0.00	2.15	2.889	IO	1.57
55.833	0.00	2.15	2.874	IO	1.56
55.917	0.00	2.15	2.859	IO	1.55
56.000	0.00	2.14	2.844	IO	1.54
56.083	0.00	2.14	2.830	IO	1.54
56.167	0.00	2.14	2.815	IO	1.53
56.250	0.00	2.14	2.800	IO	1.52
56.333	0.00	2.13	2.786	IO	1.52
56.417	0.00	2.13	2.771	IO	1.51
56.500	0.00	2.13	2.756	IO	1.50
56.583	0.00	2.12	2.742	IO	1.50
56.667	0.00	2.12	2.727	IO	1.49
56.750	0.00	2.12	2.712	IO	1.48
56.833	0.00	2.11	2.698	IO	1.48
56.917	0.00	2.11	2.683	IO	1.47
57.000	0.00	2.11	2.669	IO	1.46
57.083	0.00	2.11	2.654	IO	1.45
57.167	0.00	2.10	2.640	IO	1.45
57.250	0.00	2.10	2.625	IO	1.44
57.333	0.00	2.10	2.611	IO	1.43
57.417	0.00	2.09	2.596	IO	1.43
57.500	0.00	2.09	2.582	IO	1.42
57.583	0.00	2.09	2.568	O	1.41
57.667	0.00	2.09	2.553	O	1.41
57.750	0.00	2.08	2.539	O	1.40
57.833	0.00	2.08	2.525	O	1.39
57.917	0.00	2.08	2.510	O	1.39
58.000	0.00	2.07	2.496	O	1.38
58.083	0.00	2.07	2.482	O	1.37
58.167	0.00	2.07	2.467	O	1.37
58.250	0.00	2.06	2.453	O	1.36
58.333	0.00	2.06	2.439	O	1.35
58.417	0.00	2.06	2.425	O	1.35
58.500	0.00	2.06	2.411	O	1.34
58.583	0.00	2.05	2.396	O	1.33
58.667	0.00	2.05	2.382	O	1.33
58.750	0.00	2.05	2.368	O	1.32
58.833	0.00	2.04	2.354	O	1.31
58.917	0.00	2.04	2.340	O	1.31
59.000	0.00	2.04	2.326	O	1.30
59.083	0.00	2.04	2.312	O	1.29
59.167	0.00	2.03	2.298	O	1.29
59.250	0.00	2.03	2.284	O	1.28
59.333	0.00	2.03	2.270	O	1.27
59.417	0.00	2.02	2.256	O	1.27
59.500	0.00	2.02	2.242	O	1.26
59.583	0.00	2.02	2.228	O	1.25
59.667	0.00	2.02	2.214	O	1.25
59.750	0.00	2.01	2.200	O	1.24
59.833	0.00	2.01	2.187	O	1.23
59.917	0.00	2.01	2.173	O	1.23
60.000	0.00	2.00	2.159	O	1.22
60.083	0.00	2.00	2.145	O	1.21
60.167	0.00	2.00	2.131	O	1.21

60.250	0.00	2.00	2.118	O	|	|	|	|	1.20
60.333	0.00	1.99	2.104	O	|	|	|	|	1.19
60.417	0.00	1.99	2.090	O	|	|	|	|	1.19
60.500	0.00	1.99	2.076	O	|	|	|	|	1.18
60.583	0.00	1.99	2.063	O	|	|	|	|	1.17
60.667	0.00	1.98	2.049	O	|	|	|	|	1.17
60.750	0.00	1.98	2.035	O	|	|	|	|	1.16
60.833	0.00	1.98	2.022	O	|	|	|	|	1.16
60.917	0.00	1.97	2.008	O	|	|	|	|	1.15
61.000	0.00	1.97	1.995	O	|	|	|	|	1.14
61.083	0.00	1.97	1.981	O	|	|	|	|	1.14
61.167	0.00	1.97	1.967	O	|	|	|	|	1.13
61.250	0.00	1.96	1.954	O	|	|	|	|	1.12
61.333	0.00	1.96	1.940	O	|	|	|	|	1.12
61.417	0.00	1.96	1.927	O	|	|	|	|	1.11
61.500	0.00	1.95	1.913	O	|	|	|	|	1.10
61.583	0.00	1.95	1.900	O	|	|	|	|	1.10
61.667	0.00	1.95	1.887	O	|	|	|	|	1.09
61.750	0.00	1.95	1.873	O	|	|	|	|	1.09
61.833	0.00	1.94	1.860	O	|	|	|	|	1.08
61.917	0.00	1.94	1.846	O	|	|	|	|	1.07
62.000	0.00	1.94	1.833	O	|	|	|	|	1.07
62.083	0.00	1.94	1.820	O	|	|	|	|	1.06
62.167	0.00	1.93	1.806	O	|	|	|	|	1.05
62.250	0.00	1.93	1.793	O	|	|	|	|	1.05
62.333	0.00	1.93	1.780	O	|	|	|	|	1.04
62.417	0.00	1.92	1.767	O	|	|	|	|	1.03
62.500	0.00	1.92	1.753	O	|	|	|	|	1.03
62.583	0.00	1.92	1.740	O	|	|	|	|	1.02
62.667	0.00	1.92	1.727	O	|	|	|	|	1.02
62.750	0.00	1.91	1.714	O	|	|	|	|	1.01
62.833	0.00	1.91	1.700	O	|	|	|	|	1.00
62.917	0.00	1.90	1.687	O	|	|	|	|	1.00
63.000	0.00	1.89	1.674	O	|	|	|	|	0.99
63.083	0.00	1.87	1.661	O	|	|	|	|	0.98
63.167	0.00	1.86	1.648	O	|	|	|	|	0.97
63.250	0.00	1.85	1.636	O	|	|	|	|	0.97
63.333	0.00	1.83	1.623	O	|	|	|	|	0.96
63.417	0.00	1.82	1.610	O	|	|	|	|	0.95
63.500	0.00	1.80	1.598	O	|	|	|	|	0.94
63.583	0.00	1.79	1.586	O	|	|	|	|	0.94
63.667	0.00	1.78	1.573	O	|	|	|	|	0.93
63.750	0.00	1.76	1.561	O	|	|	|	|	0.92
63.833	0.00	1.75	1.549	O	|	|	|	|	0.92
63.917	0.00	1.73	1.537	O	|	|	|	|	0.91
64.000	0.00	1.72	1.525	O	|	|	|	|	0.90
64.083	0.00	1.71	1.513	O	|	|	|	|	0.89
64.167	0.00	1.69	1.502	O	|	|	|	|	0.89
64.250	0.00	1.68	1.490	O	|	|	|	|	0.88
64.333	0.00	1.67	1.479	O	|	|	|	|	0.87
64.417	0.00	1.66	1.467	O	|	|	|	|	0.87
64.500	0.00	1.64	1.456	O	|	|	|	|	0.86
64.583	0.00	1.63	1.444	O	|	|	|	|	0.85
64.667	0.00	1.62	1.433	O	|	|	|	|	0.85
64.750	0.00	1.60	1.422	O	|	|	|	|	0.84
64.833	0.00	1.59	1.411	O	|	|	|	|	0.83
64.917	0.00	1.58	1.400	O	|	|	|	|	0.83
65.000	0.00	1.57	1.389	O	|	|	|	|	0.82
65.083	0.00	1.56	1.379	O	|	|	|	|	0.81
65.167	0.00	1.54	1.368	O	|	|	|	|	0.81
65.250	0.00	1.53	1.357	O	|	|	|	|	0.80
65.333	0.00	1.52	1.347	O	|	|	|	|	0.80
65.417	0.00	1.51	1.336	O	|	|	|	|	0.79
65.500	0.00	1.50	1.326	O	|	|	|	|	0.78
65.583	0.00	1.48	1.316	O	|	|	|	|	0.78
65.667	0.00	1.47	1.306	O	|	|	|	|	0.77

65.750	0.00	1.46	1.296	O	|	|	|	|	0.77
65.833	0.00	1.45	1.286	O	|	|	|	|	0.76
65.917	0.00	1.44	1.276	O	|	|	|	|	0.75
66.000	0.00	1.43	1.266	O	|	|	|	|	0.75
66.083	0.00	1.42	1.256	O	|	|	|	|	0.74
66.167	0.00	1.41	1.246	O	|	|	|	|	0.74
66.250	0.00	1.40	1.237	O	|	|	|	|	0.73
66.333	0.00	1.38	1.227	O	|	|	|	|	0.72
66.417	0.00	1.37	1.218	O	|	|	|	|	0.72
66.500	0.00	1.36	1.208	O	|	|	|	|	0.71
66.583	0.00	1.35	1.199	O	|	|	|	|	0.71
66.667	0.00	1.34	1.189	O	|	|	|	|	0.70
66.750	0.00	1.33	1.180	O	|	|	|	|	0.70
66.833	0.00	1.32	1.171	O	|	|	|	|	0.69
66.917	0.00	1.31	1.162	O	|	|	|	|	0.69
67.000	0.00	1.30	1.153	O	|	|	|	|	0.68
67.083	0.00	1.29	1.144	O	|	|	|	|	0.68
67.167	0.00	1.28	1.135	O	|	|	|	|	0.67
67.250	0.00	1.27	1.126	O	|	|	|	|	0.67
67.333	0.00	1.26	1.118	O	|	|	|	|	0.66
67.417	0.00	1.25	1.109	O	|	|	|	|	0.66
67.500	0.00	1.24	1.101	O	|	|	|	|	0.65
67.583	0.00	1.23	1.092	O	|	|	|	|	0.65
67.667	0.00	1.22	1.084	O	|	|	|	|	0.64
67.750	0.00	1.21	1.075	O	|	|	|	|	0.64
67.833	0.00	1.20	1.067	O	|	|	|	|	0.63
67.917	0.00	1.19	1.059	O	|	|	|	|	0.63
68.000	0.00	1.19	1.050	O	|	|	|	|	0.62
68.083	0.00	1.18	1.042	O	|	|	|	|	0.62
68.167	0.00	1.17	1.034	O	|	|	|	|	0.61
68.250	0.00	1.16	1.026	O	|	|	|	|	0.61
68.333	0.00	1.15	1.018	O	|	|	|	|	0.60
68.417	0.00	1.14	1.010	O	|	|	|	|	0.60
68.500	0.00	1.13	1.003	O	|	|	|	|	0.59
68.583	0.00	1.12	0.995	O	|	|	|	|	0.59
68.667	0.00	1.11	0.987	O	|	|	|	|	0.58
68.750	0.00	1.11	0.979	O	|	|	|	|	0.58
68.833	0.00	1.10	0.972	O	|	|	|	|	0.57
68.917	0.00	1.09	0.964	O	|	|	|	|	0.57
69.000	0.00	1.08	0.957	O	|	|	|	|	0.57
69.083	0.00	1.07	0.949	O	|	|	|	|	0.56
69.167	0.00	1.06	0.942	O	|	|	|	|	0.56
69.250	0.00	1.05	0.935	O	|	|	|	|	0.55
69.333	0.00	1.05	0.928	O	|	|	|	|	0.55
69.417	0.00	1.04	0.920	O	|	|	|	|	0.54
69.500	0.00	1.03	0.913	O	|	|	|	|	0.54
69.583	0.00	1.02	0.906	O	|	|	|	|	0.54
69.667	0.00	1.01	0.899	O	|	|	|	|	0.53
69.750	0.00	1.01	0.892	O	|	|	|	|	0.53
69.833	0.00	1.00	0.885	O	|	|	|	|	0.52
69.917	0.00	0.99	0.879	O	|	|	|	|	0.52
70.000	0.00	0.98	0.872	O	|	|	|	|	0.51
70.083	0.00	0.98	0.865	O	|	|	|	|	0.51
70.167	0.00	0.97	0.858	O	|	|	|	|	0.51
70.250	0.00	0.96	0.852	O	|	|	|	|	0.50
70.333	0.00	0.95	0.845	O	|	|	|	|	0.50
70.417	0.00	0.95	0.838	O	|	|	|	|	0.50
70.500	0.00	0.94	0.832	O	|	|	|	|	0.49
70.583	0.00	0.93	0.826	O	|	|	|	|	0.49
70.667	0.00	0.92	0.819	O	|	|	|	|	0.48
70.750	0.00	0.92	0.813	O	|	|	|	|	0.48
70.833	0.00	0.91	0.807	O	|	|	|	|	0.48
70.917	0.00	0.90	0.800	O	|	|	|	|	0.47
71.000	0.00	0.90	0.794	O	|	|	|	|	0.47
71.083	0.00	0.89	0.788	O	|	|	|	|	0.47
71.167	0.00	0.88	0.782	O	|	|	|	|	0.46

71.250	0.00	0.88	0.776	O	|	|	|	|	0.46
71.333	0.00	0.87	0.770	O	|	|	|	|	0.45
71.417	0.00	0.86	0.764	O	|	|	|	|	0.45
71.500	0.00	0.86	0.758	O	|	|	|	|	0.45
71.583	0.00	0.85	0.752	O	|	|	|	|	0.44
71.667	0.00	0.84	0.746	O	|	|	|	|	0.44
71.750	0.00	0.84	0.740	O	|	|	|	|	0.44
71.833	0.00	0.83	0.735	O	|	|	|	|	0.43
71.917	0.00	0.82	0.729	O	|	|	|	|	0.43
72.000	0.00	0.82	0.723	O	|	|	|	|	0.43
72.083	0.00	0.81	0.718	O	|	|	|	|	0.42
72.167	0.00	0.80	0.712	O	|	|	|	|	0.42
72.250	0.00	0.80	0.707	O	|	|	|	|	0.42
72.333	0.00	0.79	0.701	O	|	|	|	|	0.41
72.417	0.00	0.79	0.696	O	|	|	|	|	0.41
72.500	0.00	0.78	0.690	O	|	|	|	|	0.41
72.583	0.00	0.77	0.685	O	|	|	|	|	0.40
72.667	0.00	0.77	0.680	O	|	|	|	|	0.40
72.750	0.00	0.76	0.675	O	|	|	|	|	0.40
72.833	0.00	0.76	0.669	O	|	|	|	|	0.40
72.917	0.00	0.75	0.664	O	|	|	|	|	0.39
73.000	0.00	0.74	0.659	O	|	|	|	|	0.39
73.083	0.00	0.74	0.654	O	|	|	|	|	0.39
73.167	0.00	0.73	0.649	O	|	|	|	|	0.38
73.250	0.00	0.73	0.644	O	|	|	|	|	0.38
73.333	0.00	0.72	0.639	O	|	|	|	|	0.38
73.417	0.00	0.72	0.634	O	|	|	|	|	0.37
73.500	0.00	0.71	0.629	O	|	|	|	|	0.37
73.583	0.00	0.70	0.624	O	|	|	|	|	0.37
73.667	0.00	0.70	0.619	O	|	|	|	|	0.37
73.750	0.00	0.69	0.615	O	|	|	|	|	0.36
73.833	0.00	0.69	0.610	O	|	|	|	|	0.36
73.917	0.00	0.68	0.605	O	|	|	|	|	0.36
74.000	0.00	0.68	0.600	O	|	|	|	|	0.35
74.083	0.00	0.67	0.596	O	|	|	|	|	0.35
74.167	0.00	0.67	0.591	O	|	|	|	|	0.35
74.250	0.00	0.66	0.587	O	|	|	|	|	0.35
74.333	0.00	0.66	0.582	O	|	|	|	|	0.34
74.417	0.00	0.65	0.577	O	|	|	|	|	0.34
74.500	0.00	0.65	0.573	O	|	|	|	|	0.34
74.583	0.00	0.64	0.569	O	|	|	|	|	0.34
74.667	0.00	0.64	0.564	O	|	|	|	|	0.33
74.750	0.00	0.63	0.560	O	|	|	|	|	0.33
74.833	0.00	0.63	0.555	O	|	|	|	|	0.33
74.917	0.00	0.62	0.551	O	|	|	|	|	0.33
75.000	0.00	0.62	0.547	O	|	|	|	|	0.32
75.083	0.00	0.61	0.543	O	|	|	|	|	0.32
75.167	0.00	0.61	0.538	O	|	|	|	|	0.32
75.250	0.00	0.60	0.534	O	|	|	|	|	0.32
75.333	0.00	0.60	0.530	O	|	|	|	|	0.31
75.417	0.00	0.59	0.526	O	|	|	|	|	0.31
75.500	0.00	0.59	0.522	O	|	|	|	|	0.31
75.583	0.00	0.58	0.518	O	|	|	|	|	0.31
75.667	0.00	0.58	0.514	O	|	|	|	|	0.30
75.750	0.00	0.58	0.510	O	|	|	|	|	0.30
75.833	0.00	0.57	0.506	O	|	|	|	|	0.30
75.917	0.00	0.57	0.502	O	|	|	|	|	0.30
76.000	0.00	0.56	0.498	O	|	|	|	|	0.29
76.083	0.00	0.56	0.494	O	|	|	|	|	0.29
76.167	0.00	0.55	0.491	O	|	|	|	|	0.29
76.250	0.00	0.55	0.487	O	|	|	|	|	0.29
76.333	0.00	0.54	0.483	O	|	|	|	|	0.29
76.417	0.00	0.54	0.479	O	|	|	|	|	0.28
76.500	0.00	0.54	0.476	O	|	|	|	|	0.28
76.583	0.00	0.53	0.472	O	|	|	|	|	0.28
76.667	0.00	0.53	0.468	O	|	|	|	|	0.28

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76.750    0.00    0.52      0.465  O       |       |       |       |       0.27
76.833    0.00    0.52      0.461  O       |       |       |       |       0.27
76.917    0.00    0.52      0.457  O       |       |       |       |       0.27
77.000    0.00    0.51      0.454  O       |       |       |       |       0.27
77.083    0.00    0.51      0.450  O       |       |       |       |       0.27
77.167    0.00    0.50      0.447  O       |       |       |       |       0.26
77.250    0.00    0.50      0.443  O       |       |       |       |       0.26
77.333    0.00    0.50      0.440  O       |       |       |       |       0.26
77.417    0.00    0.49      0.437  O       |       |       |       |       0.26
77.500    0.00    0.49      0.433  O       |       |       |       |       0.26
77.583    0.00    0.48      0.430  O       |       |       |       |       0.25
77.667    0.00    0.48      0.427  O       |       |       |       |       0.25
77.750    0.00    0.48      0.423  O       |       |       |       |       0.25
77.833    0.00    0.47      0.420  O       |       |       |       |       0.25
77.917    0.00    0.47      0.417  O       |       |       |       |       0.25
78.000    0.00    0.47      0.413  O       |       |       |       |       0.24
78.083    0.00    0.46      0.410  O       |       |       |       |       0.24
78.167    0.00    0.46      0.407  O       |       |       |       |       0.24
78.250    0.00    0.46      0.404  O       |       |       |       |       0.24
78.333    0.00    0.45      0.401  O       |       |       |       |       0.24
78.417    0.00    0.45      0.398  O       |       |       |       |       0.23
78.500    0.00    0.45      0.395  O       |       |       |       |       0.23
78.583    0.00    0.44      0.392  O       |       |       |       |       0.23
78.667    0.00    0.44      0.389  O       |       |       |       |       0.23
78.750    0.00    0.43      0.386  O       |       |       |       |       0.23
78.833    0.00    0.43      0.383  O       |       |       |       |       0.23
78.917    0.00    0.43      0.380  O       |       |       |       |       0.22
79.000    0.00    0.42      0.377  O       |       |       |       |       0.22
79.083    0.00    0.42      0.374  O       |       |       |       |       0.22
79.167    0.00    0.42      0.371  O       |       |       |       |       0.22
79.250    0.00    0.42      0.368  O       |       |       |       |       0.22
79.333    0.00    0.41      0.365  O       |       |       |       |       0.22
79.417    0.00    0.41      0.362  O       |       |       |       |       0.21
79.500    0.00    0.41      0.359  O       |       |       |       |       0.21
79.583    0.00    0.40      0.357  O       |       |       |       |       0.21
79.667    0.00    0.40      0.354  O       |       |       |       |       0.21
79.750    0.00    0.40      0.351  O       |       |       |       |       0.21
79.833    0.00    0.39      0.348  O       |       |       |       |       0.21
79.917    0.00    0.39      0.346  O       |       |       |       |       0.20
80.000    0.00    0.39      0.343  O       |       |       |       |       0.20
80.083    0.00    0.38      0.340  O       |       |       |       |       0.20
80.167    0.00    0.38      0.338  O       |       |       |       |       0.20
80.250    0.00    0.38      0.335  O       |       |       |       |       0.20
80.333    0.00    0.38      0.333  O       |       |       |       |       0.20
80.417    0.00    0.37      0.330  O       |       |       |       |       0.19
80.500    0.00    0.37      0.327  O       |       |       |       |       0.19
80.583    0.00    0.37      0.325  O       |       |       |       |       0.19
80.667    0.00    0.36      0.322  O       |       |       |       |       0.19
80.750    0.00    0.36      0.320  O       |       |       |       |       0.19
80.833    0.00    0.36      0.317  O       |       |       |       |       0.19
80.917    0.00    0.36      0.315  O       |       |       |       |       0.19
81.000    0.00    0.35      0.313  O       |       |       |       |       0.18
81.083    0.00    0.35      0.310  O       |       |       |       |       0.18
81.167    0.00    0.35      0.308  O       |       |       |       |       0.18
81.250    0.00    0.34      0.305  O       |       |       |       |       0.18
81.333    0.00    0.34      0.303  O       |       |       |       |       0.18
81.417    0.00    0.34      0.301  O       |       |       |       |       0.18
81.500    0.00    0.34      0.298  O       |       |       |       |       0.18
81.583    0.00    0.33      0.296  O       |       |       |       |       0.17
81.667    0.00    0.33      0.294  O       |       |       |       |       0.17
81.750    0.00    0.33      0.291  O       |       |       |       |       0.17
81.833    0.00    0.33      0.289  O       |       |       |       |       0.17
81.917    0.00    0.32      0.287  O       |       |       |       |       0.17
82.000    0.00    0.32      0.285  O       |       |       |       |       0.17
82.083    0.00    0.32      0.283  O       |       |       |       |       0.17
82.167    0.00    0.32      0.280  O       |       |       |       |       0.17
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82.250    0.00    0.31     0.278  O       |       |       |       |      0.16
82.333    0.00    0.31     0.276  O       |       |       |       |      0.16
82.417    0.00    0.31     0.274  O       |       |       |       |      0.16
82.500    0.00    0.31     0.272  O       |       |       |       |      0.16
82.583    0.00    0.30     0.270  O       |       |       |       |      0.16
82.667    0.00    0.30     0.268  O       |       |       |       |      0.16
82.750    0.00    0.30     0.266  O       |       |       |       |      0.16
82.833    0.00    0.30     0.263  O       |       |       |       |      0.16
82.917    0.00    0.29     0.261  O       |       |       |       |      0.15
83.000    0.00    0.29     0.259  O       |       |       |       |      0.15
83.083    0.00    0.29     0.257  O       |       |       |       |      0.15
83.167    0.00    0.29     0.255  O       |       |       |       |      0.15
83.250    0.00    0.29     0.253  O       |       |       |       |      0.15
83.333    0.00    0.28     0.251  O       |       |       |       |      0.15
83.417    0.00    0.28     0.250  O       |       |       |       |      0.15
83.500    0.00    0.28     0.248  O       |       |       |       |      0.15
83.583    0.00    0.28     0.246  O       |       |       |       |      0.15
83.667    0.00    0.28     0.244  O       |       |       |       |      0.14
83.750    0.00    0.27     0.242  O       |       |       |       |      0.14
83.833    0.00    0.27     0.240  O       |       |       |       |      0.14
83.917    0.00    0.27     0.238  O       |       |       |       |      0.14
84.000    0.00    0.27     0.236  O       |       |       |       |      0.14
84.083    0.00    0.26     0.234  O       |       |       |       |      0.14
84.167    0.00    0.26     0.233  O       |       |       |       |      0.14
84.250    0.00    0.26     0.231  O       |       |       |       |      0.14
84.333    0.00    0.26     0.229  O       |       |       |       |      0.14
84.417    0.00    0.26     0.227  O       |       |       |       |      0.13
84.500    0.00    0.25     0.226  O       |       |       |       |      0.13
84.583    0.00    0.25     0.224  O       |       |       |       |      0.13
84.667    0.00    0.25     0.222  O       |       |       |       |      0.13
84.750    0.00    0.25     0.220  O       |       |       |       |      0.13
84.833    0.00    0.25     0.219  O       |       |       |       |      0.13
84.917    0.00    0.24     0.217  O       |       |       |       |      0.13
85.000    0.00    0.24     0.215  O       |       |       |       |      0.13
85.083    0.00    0.24     0.214  O       |       |       |       |      0.13
85.167    0.00    0.24     0.212  O       |       |       |       |      0.13
85.250    0.00    0.24     0.210  O       |       |       |       |      0.12
85.333    0.00    0.24     0.209  O       |       |       |       |      0.12
85.417    0.00    0.23     0.207  O       |       |       |       |      0.12
85.500    0.00    0.23     0.205  O       |       |       |       |      0.12
85.583    0.00    0.23     0.204  O       |       |       |       |      0.12
85.667    0.00    0.23     0.202  O       |       |       |       |      0.12
85.750    0.00    0.23     0.201  O       |       |       |       |      0.12
85.833    0.00    0.22     0.199  O       |       |       |       |      0.12
85.917    0.00    0.22     0.198  O       |       |       |       |      0.12
86.000    0.00    0.22     0.196  O       |       |       |       |      0.12
86.083    0.00    0.22     0.195  O       |       |       |       |      0.11
86.167    0.00    0.22     0.193  O       |       |       |       |      0.11
86.250    0.00    0.22     0.192  O       |       |       |       |      0.11
86.333    0.00    0.21     0.190  O       |       |       |       |      0.11
86.417    0.00    0.21     0.189  O       |       |       |       |      0.11
86.500    0.00    0.21     0.187  O       |       |       |       |      0.11
86.583    0.00    0.21     0.186  O       |       |       |       |      0.11
86.667    0.00    0.21     0.184  O       |       |       |       |      0.11
86.750    0.00    0.21     0.183  O       |       |       |       |      0.11
86.833    0.00    0.20     0.181  O       |       |       |       |      0.11
86.917    0.00    0.20     0.180  O       |       |       |       |      0.11
87.000    0.00    0.20     0.179  O       |       |       |       |      0.11
87.083    0.00    0.20     0.177  O       |       |       |       |      0.10
87.167    0.00    0.20     0.176  O       |       |       |       |      0.10
87.250    0.00    0.20     0.175  O       |       |       |       |      0.10
87.333    0.00    0.20     0.173  O       |       |       |       |      0.10
87.417    0.00    0.19     0.172  O       |       |       |       |      0.10
87.500    0.00    0.19     0.171  O       |       |       |       |      0.10
87.583    0.00    0.19     0.169  O       |       |       |       |      0.10
87.667    0.00    0.19     0.168  O       |       |       |       |      0.10
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87.750	0.00	0.19	0.167	O	|	|	|	|	0.10
87.833	0.00	0.19	0.165	O	|	|	|	|	0.10
87.917	0.00	0.19	0.164	O	|	|	|	|	0.10
88.000	0.00	0.18	0.163	O	|	|	|	|	0.10
88.083	0.00	0.18	0.161	O	|	|	|	|	0.10
88.167	0.00	0.18	0.160	O	|	|	|	|	0.09
88.250	0.00	0.18	0.159	O	|	|	|	|	0.09
88.333	0.00	0.18	0.158	O	|	|	|	|	0.09
88.417	0.00	0.18	0.157	O	|	|	|	|	0.09
88.500	0.00	0.18	0.155	O	|	|	|	|	0.09
88.583	0.00	0.17	0.154	O	|	|	|	|	0.09
88.667	0.00	0.17	0.153	O	|	|	|	|	0.09
88.750	0.00	0.17	0.152	O	|	|	|	|	0.09
88.833	0.00	0.17	0.151	O	|	|	|	|	0.09
88.917	0.00	0.17	0.149	O	|	|	|	|	0.09
89.000	0.00	0.17	0.148	O	|	|	|	|	0.09
89.083	0.00	0.17	0.147	O	|	|	|	|	0.09
89.167	0.00	0.16	0.146	O	|	|	|	|	0.09
89.250	0.00	0.16	0.145	O	|	|	|	|	0.09
89.333	0.00	0.16	0.144	O	|	|	|	|	0.08
89.417	0.00	0.16	0.143	O	|	|	|	|	0.08
89.500	0.00	0.16	0.142	O	|	|	|	|	0.08
89.583	0.00	0.16	0.140	O	|	|	|	|	0.08
89.667	0.00	0.16	0.139	O	|	|	|	|	0.08
89.750	0.00	0.16	0.138	O	|	|	|	|	0.08
89.833	0.00	0.15	0.137	O	|	|	|	|	0.08
89.917	0.00	0.15	0.136	O	|	|	|	|	0.08
90.000	0.00	0.15	0.135	O	|	|	|	|	0.08
90.083	0.00	0.15	0.134	O	|	|	|	|	0.08
90.167	0.00	0.15	0.133	O	|	|	|	|	0.08
90.250	0.00	0.15	0.132	O	|	|	|	|	0.08
90.333	0.00	0.15	0.131	O	|	|	|	|	0.08
90.417	0.00	0.15	0.130	O	|	|	|	|	0.08
90.500	0.00	0.15	0.129	O	|	|	|	|	0.08
90.583	0.00	0.14	0.128	O	|	|	|	|	0.08
90.667	0.00	0.14	0.127	O	|	|	|	|	0.07
90.750	0.00	0.14	0.126	O	|	|	|	|	0.07
90.833	0.00	0.14	0.125	O	|	|	|	|	0.07
90.917	0.00	0.14	0.124	O	|	|	|	|	0.07
91.000	0.00	0.14	0.123	O	|	|	|	|	0.07
91.083	0.00	0.14	0.122	O	|	|	|	|	0.07
91.167	0.00	0.14	0.121	O	|	|	|	|	0.07
91.250	0.00	0.14	0.120	O	|	|	|	|	0.07
91.333	0.00	0.13	0.119	O	|	|	|	|	0.07
91.417	0.00	0.13	0.118	O	|	|	|	|	0.07
91.500	0.00	0.13	0.117	O	|	|	|	|	0.07
91.583	0.00	0.13	0.117	O	|	|	|	|	0.07
91.667	0.00	0.13	0.116	O	|	|	|	|	0.07
91.750	0.00	0.13	0.115	O	|	|	|	|	0.07
91.833	0.00	0.13	0.114	O	|	|	|	|	0.07
91.917	0.00	0.13	0.113	O	|	|	|	|	0.07
92.000	0.00	0.13	0.112	O	|	|	|	|	0.07
92.083	0.00	0.13	0.111	O	|	|	|	|	0.07
92.167	0.00	0.12	0.110	O	|	|	|	|	0.07
92.250	0.00	0.12	0.109	O	|	|	|	|	0.06
92.333	0.00	0.12	0.109	O	|	|	|	|	0.06
92.417	0.00	0.12	0.108	O	|	|	|	|	0.06
92.500	0.00	0.12	0.107	O	|	|	|	|	0.06
92.583	0.00	0.12	0.106	O	|	|	|	|	0.06
92.667	0.00	0.12	0.105	O	|	|	|	|	0.06
92.750	0.00	0.12	0.105	O	|	|	|	|	0.06
92.833	0.00	0.12	0.104	O	|	|	|	|	0.06
92.917	0.00	0.12	0.103	O	|	|	|	|	0.06
93.000	0.00	0.12	0.102	O	|	|	|	|	0.06
93.083	0.00	0.11	0.101	O	|	|	|	|	0.06
93.167	0.00	0.11	0.101	O	|	|	|	|	0.06

93.250	0.00	0.11	0.100	O	|	|	|	|	0.06
93.333	0.00	0.11	0.099	O	|	|	|	|	0.06
93.417	0.00	0.11	0.098	O	|	|	|	|	0.06
93.500	0.00	0.11	0.097	O	|	|	|	|	0.06
93.583	0.00	0.11	0.097	O	|	|	|	|	0.06
93.667	0.00	0.11	0.096	O	|	|	|	|	0.06
93.750	0.00	0.11	0.095	O	|	|	|	|	0.06
93.833	0.00	0.11	0.094	O	|	|	|	|	0.06
93.917	0.00	0.11	0.094	O	|	|	|	|	0.06
94.000	0.00	0.10	0.093	O	|	|	|	|	0.05
94.083	0.00	0.10	0.092	O	|	|	|	|	0.05
94.167	0.00	0.10	0.092	O	|	|	|	|	0.05
94.250	0.00	0.10	0.091	O	|	|	|	|	0.05
94.333	0.00	0.10	0.090	O	|	|	|	|	0.05
94.417	0.00	0.10	0.089	O	|	|	|	|	0.05
94.500	0.00	0.10	0.089	O	|	|	|	|	0.05
94.583	0.00	0.10	0.088	O	|	|	|	|	0.05
94.667	0.00	0.10	0.087	O	|	|	|	|	0.05
94.750	0.00	0.10	0.087	O	|	|	|	|	0.05
94.833	0.00	0.10	0.086	O	|	|	|	|	0.05
94.917	0.00	0.10	0.085	O	|	|	|	|	0.05
95.000	0.00	0.10	0.085	O	|	|	|	|	0.05
95.083	0.00	0.09	0.084	O	|	|	|	|	0.05
95.167	0.00	0.09	0.083	O	|	|	|	|	0.05
95.250	0.00	0.09	0.083	O	|	|	|	|	0.05
95.333	0.00	0.09	0.082	O	|	|	|	|	0.05
95.417	0.00	0.09	0.082	O	|	|	|	|	0.05
95.500	0.00	0.09	0.081	O	|	|	|	|	0.05
95.583	0.00	0.09	0.080	O	|	|	|	|	0.05
95.667	0.00	0.09	0.080	O	|	|	|	|	0.05
95.750	0.00	0.09	0.079	O	|	|	|	|	0.05
95.833	0.00	0.09	0.078	O	|	|	|	|	0.05
95.917	0.00	0.09	0.078	O	|	|	|	|	0.05
96.000	0.00	0.09	0.077	O	|	|	|	|	0.05
96.083	0.00	0.09	0.077	O	|	|	|	|	0.05
96.167	0.00	0.09	0.076	O	|	|	|	|	0.04
96.250	0.00	0.09	0.075	O	|	|	|	|	0.04
96.333	0.00	0.08	0.075	O	|	|	|	|	0.04
96.417	0.00	0.08	0.074	O	|	|	|	|	0.04
96.500	0.00	0.08	0.074	O	|	|	|	|	0.04
96.583	0.00	0.08	0.073	O	|	|	|	|	0.04
96.667	0.00	0.08	0.073	O	|	|	|	|	0.04
96.750	0.00	0.08	0.072	O	|	|	|	|	0.04
96.833	0.00	0.08	0.071	O	|	|	|	|	0.04
96.917	0.00	0.08	0.071	O	|	|	|	|	0.04
97.000	0.00	0.08	0.070	O	|	|	|	|	0.04
97.083	0.00	0.08	0.070	O	|	|	|	|	0.04
97.167	0.00	0.08	0.069	O	|	|	|	|	0.04
97.250	0.00	0.08	0.069	O	|	|	|	|	0.04
97.333	0.00	0.08	0.068	O	|	|	|	|	0.04
97.417	0.00	0.08	0.068	O	|	|	|	|	0.04
97.500	0.00	0.08	0.067	O	|	|	|	|	0.04
97.583	0.00	0.08	0.067	O	|	|	|	|	0.04
97.667	0.00	0.07	0.066	O	|	|	|	|	0.04
97.750	0.00	0.07	0.066	O	|	|	|	|	0.04
97.833	0.00	0.07	0.065	O	|	|	|	|	0.04
97.917	0.00	0.07	0.065	O	|	|	|	|	0.04
98.000	0.00	0.07	0.064	O	|	|	|	|	0.04
98.083	0.00	0.07	0.064	O	|	|	|	|	0.04
98.167	0.00	0.07	0.063	O	|	|	|	|	0.04
98.250	0.00	0.07	0.063	O	|	|	|	|	0.04
98.333	0.00	0.07	0.062	O	|	|	|	|	0.04
98.417	0.00	0.07	0.062	O	|	|	|	|	0.04
98.500	0.00	0.07	0.061	O	|	|	|	|	0.04
98.583	0.00	0.07	0.061	O	|	|	|	|	0.04
98.667	0.00	0.07	0.060	O	|	|	|	|	0.04

98.750	0.00	0.07	0.060	O	|	|	|	|	0.04
98.833	0.00	0.07	0.059	O	|	|	|	|	0.04
98.917	0.00	0.07	0.059	O	|	|	|	|	0.03
99.000	0.00	0.07	0.058	O	|	|	|	|	0.03
99.083	0.00	0.07	0.058	O	|	|	|	|	0.03
99.167	0.00	0.06	0.057	O	|	|	|	|	0.03
99.250	0.00	0.06	0.057	O	|	|	|	|	0.03
99.333	0.00	0.06	0.057	O	|	|	|	|	0.03
99.417	0.00	0.06	0.056	O	|	|	|	|	0.03
99.500	0.00	0.06	0.056	O	|	|	|	|	0.03
99.583	0.00	0.06	0.055	O	|	|	|	|	0.03
99.667	0.00	0.06	0.055	O	|	|	|	|	0.03
99.750	0.00	0.06	0.054	O	|	|	|	|	0.03
99.833	0.00	0.06	0.054	O	|	|	|	|	0.03
99.917	0.00	0.06	0.054	O	|	|	|	|	0.03
100.000	0.00	0.06	0.053	O	|	|	|	|	0.03
100.083	0.00	0.06	0.053	O	|	|	|	|	0.03
100.167	0.00	0.06	0.052	O	|	|	|	|	0.03
100.250	0.00	0.06	0.052	O	|	|	|	|	0.03
100.333	0.00	0.06	0.052	O	|	|	|	|	0.03
100.417	0.00	0.06	0.051	O	|	|	|	|	0.03
100.500	0.00	0.06	0.051	O	|	|	|	|	0.03
100.583	0.00	0.06	0.050	O	|	|	|	|	0.03
100.667	0.00	0.06	0.050	O	|	|	|	|	0.03
100.750	0.00	0.06	0.050	O	|	|	|	|	0.03
100.833	0.00	0.06	0.049	O	|	|	|	|	0.03
100.917	0.00	0.06	0.049	O	|	|	|	|	0.03
101.000	0.00	0.05	0.048	O	|	|	|	|	0.03
101.083	0.00	0.05	0.048	O	|	|	|	|	0.03
101.167	0.00	0.05	0.048	O	|	|	|	|	0.03
101.250	0.00	0.05	0.047	O	|	|	|	|	0.03
101.333	0.00	0.05	0.047	O	|	|	|	|	0.03
101.417	0.00	0.05	0.047	O	|	|	|	|	0.03
101.500	0.00	0.05	0.046	O	|	|	|	|	0.03
101.583	0.00	0.05	0.046	O	|	|	|	|	0.03
101.667	0.00	0.05	0.046	O	|	|	|	|	0.03
101.750	0.00	0.05	0.045	O	|	|	|	|	0.03
101.833	0.00	0.05	0.045	O	|	|	|	|	0.03
101.917	0.00	0.05	0.044	O	|	|	|	|	0.03
102.000	0.00	0.05	0.044	O	|	|	|	|	0.03
102.083	0.00	0.05	0.044	O	|	|	|	|	0.03
102.167	0.00	0.05	0.043	O	|	|	|	|	0.03
102.250	0.00	0.05	0.043	O	|	|	|	|	0.03
102.333	0.00	0.05	0.043	O	|	|	|	|	0.03
102.417	0.00	0.05	0.042	O	|	|	|	|	0.03
102.500	0.00	0.05	0.042	O	|	|	|	|	0.02
102.583	0.00	0.05	0.042	O	|	|	|	|	0.02
102.667	0.00	0.05	0.041	O	|	|	|	|	0.02
102.750	0.00	0.05	0.041	O	|	|	|	|	0.02
102.833	0.00	0.05	0.041	O	|	|	|	|	0.02
102.917	0.00	0.05	0.041	O	|	|	|	|	0.02
103.000	0.00	0.05	0.040	O	|	|	|	|	0.02
103.083	0.00	0.04	0.040	O	|	|	|	|	0.02
103.167	0.00	0.04	0.040	O	|	|	|	|	0.02
103.250	0.00	0.04	0.039	O	|	|	|	|	0.02
103.333	0.00	0.04	0.039	O	|	|	|	|	0.02
103.417	0.00	0.04	0.039	O	|	|	|	|	0.02
103.500	0.00	0.04	0.038	O	|	|	|	|	0.02
103.583	0.00	0.04	0.038	O	|	|	|	|	0.02
103.667	0.00	0.04	0.038	O	|	|	|	|	0.02
103.750	0.00	0.04	0.037	O	|	|	|	|	0.02
103.833	0.00	0.04	0.037	O	|	|	|	|	0.02
103.917	0.00	0.04	0.037	O	|	|	|	|	0.02
104.000	0.00	0.04	0.037	O	|	|	|	|	0.02
104.083	0.00	0.04	0.036	O	|	|	|	|	0.02
104.167	0.00	0.04	0.036	O	|	|	|	|	0.02

104.250	0.00	0.04	0.036	O	|	|	|	|	0.02
104.333	0.00	0.04	0.035	O	|	|	|	|	0.02
104.417	0.00	0.04	0.035	O	|	|	|	|	0.02
104.500	0.00	0.04	0.035	O	|	|	|	|	0.02
104.583	0.00	0.04	0.035	O	|	|	|	|	0.02
104.667	0.00	0.04	0.034	O	|	|	|	|	0.02
104.750	0.00	0.04	0.034	O	|	|	|	|	0.02
104.833	0.00	0.04	0.034	O	|	|	|	|	0.02
104.917	0.00	0.04	0.034	O	|	|	|	|	0.02
105.000	0.00	0.04	0.033	O	|	|	|	|	0.02
105.083	0.00	0.04	0.033	O	|	|	|	|	0.02
105.167	0.00	0.04	0.033	O	|	|	|	|	0.02
105.250	0.00	0.04	0.033	O	|	|	|	|	0.02
105.333	0.00	0.04	0.032	O	|	|	|	|	0.02
105.417	0.00	0.04	0.032	O	|	|	|	|	0.02
105.500	0.00	0.04	0.032	O	|	|	|	|	0.02
105.583	0.00	0.04	0.032	O	|	|	|	|	0.02
105.667	0.00	0.04	0.031	O	|	|	|	|	0.02
105.750	0.00	0.04	0.031	O	|	|	|	|	0.02
105.833	0.00	0.03	0.031	O	|	|	|	|	0.02
105.917	0.00	0.03	0.031	O	|	|	|	|	0.02
106.000	0.00	0.03	0.030	O	|	|	|	|	0.02
106.083	0.00	0.03	0.030	O	|	|	|	|	0.02
106.167	0.00	0.03	0.030	O	|	|	|	|	0.02
106.250	0.00	0.03	0.030	O	|	|	|	|	0.02
106.333	0.00	0.03	0.029	O	|	|	|	|	0.02
106.417	0.00	0.03	0.029	O	|	|	|	|	0.02
106.500	0.00	0.03	0.029	O	|	|	|	|	0.02
106.583	0.00	0.03	0.029	O	|	|	|	|	0.02
106.667	0.00	0.03	0.029	O	|	|	|	|	0.02
106.750	0.00	0.03	0.028	O	|	|	|	|	0.02
106.833	0.00	0.03	0.028	O	|	|	|	|	0.02
106.917	0.00	0.03	0.028	O	|	|	|	|	0.02
107.000	0.00	0.03	0.028	O	|	|	|	|	0.02
107.083	0.00	0.03	0.027	O	|	|	|	|	0.02
107.167	0.00	0.03	0.027	O	|	|	|	|	0.02
107.250	0.00	0.03	0.027	O	|	|	|	|	0.02
107.333	0.00	0.03	0.027	O	|	|	|	|	0.02
107.417	0.00	0.03	0.027	O	|	|	|	|	0.02
107.500	0.00	0.03	0.026	O	|	|	|	|	0.02
107.583	0.00	0.03	0.026	O	|	|	|	|	0.02
107.667	0.00	0.03	0.026	O	|	|	|	|	0.02
107.750	0.00	0.03	0.026	O	|	|	|	|	0.02
107.833	0.00	0.03	0.026	O	|	|	|	|	0.02
107.917	0.00	0.03	0.025	O	|	|	|	|	0.02
108.000	0.00	0.03	0.025	O	|	|	|	|	0.01
108.083	0.00	0.03	0.025	O	|	|	|	|	0.01
108.167	0.00	0.03	0.025	O	|	|	|	|	0.01
108.250	0.00	0.03	0.025	O	|	|	|	|	0.01
108.333	0.00	0.03	0.024	O	|	|	|	|	0.01
108.417	0.00	0.03	0.024	O	|	|	|	|	0.01
108.500	0.00	0.03	0.024	O	|	|	|	|	0.01
108.583	0.00	0.03	0.024	O	|	|	|	|	0.01
108.667	0.00	0.03	0.024	O	|	|	|	|	0.01
108.750	0.00	0.03	0.024	O	|	|	|	|	0.01
108.833	0.00	0.03	0.023	O	|	|	|	|	0.01
108.917	0.00	0.03	0.023	O	|	|	|	|	0.01
109.000	0.00	0.03	0.023	O	|	|	|	|	0.01
109.083	0.00	0.03	0.023	O	|	|	|	|	0.01
109.167	0.00	0.03	0.023	O	|	|	|	|	0.01
109.250	0.00	0.03	0.022	O	|	|	|	|	0.01
109.333	0.00	0.03	0.022	O	|	|	|	|	0.01
109.417	0.00	0.02	0.022	O	|	|	|	|	0.01
109.500	0.00	0.02	0.022	O	|	|	|	|	0.01
109.583	0.00	0.02	0.022	O	|	|	|	|	0.01
109.667	0.00	0.02	0.022	O	|	|	|	|	0.01

```
109.750    0.00    0.02      0.021  O        |        |        |        |      0.01
109.833    0.00    0.02      0.021  O        |        |        |        |      0.01
109.917    0.00    0.02      0.021  O        |        |        |        |      0.01
110.000    0.00    0.02      0.021  O        |        |        |        |      0.01
110.083    0.00    0.02      0.021  O        |        |        |        |      0.01
110.167    0.00    0.02      0.021  O        |        |        |        |      0.01
110.250    0.00    0.02      0.020  O        |        |        |        |      0.01
110.333    0.00    0.02      0.020  O        |        |        |        |      0.01
110.417    0.00    0.02      0.020  O        |        |        |        |      0.01
110.500    0.00    0.02      0.020  O        |        |        |        |      0.01
110.583    0.00    0.02      0.020  O        |        |        |        |      0.01
110.667    0.00    0.02      0.020  O        |        |        |        |      0.01
110.750    0.00    0.02      0.020  O        |        |        |        |      0.01
110.833    0.00    0.02      0.019  O        |        |        |        |      0.01
110.917    0.00    0.02      0.019  O        |        |        |        |      0.01
111.000    0.00    0.02      0.019  O        |        |        |        |      0.01
111.083    0.00    0.02      0.019  O        |        |        |        |      0.01
111.167    0.00    0.02      0.019  O        |        |        |        |      0.01
111.250    0.00    0.02      0.019  O        |        |        |        |      0.01
111.333    0.00    0.02      0.018  O        |        |        |        |      0.01
111.417    0.00    0.02      0.018  O        |        |        |        |      0.01
111.500    0.00    0.02      0.018  O        |        |        |        |      0.01
111.583    0.00    0.02      0.018  O        |        |        |        |      0.01
111.667    0.00    0.02      0.018  O        |        |        |        |      0.01
111.750    0.00    0.02      0.018  O        |        |        |        |      0.01
111.833    0.00    0.02      0.018  O        |        |        |        |      0.01
111.917    0.00    0.02      0.018  O        |        |        |        |      0.01
112.000    0.00    0.02      0.017  O        |        |        |        |      0.01
112.083    0.00    0.02      0.017  O        |        |        |        |      0.01
112.167    0.00    0.02      0.017  O        |        |        |        |      0.01
112.250    0.00    0.02      0.017  O        |        |        |        |      0.01
112.333    0.00    0.02      0.017  O        |        |        |        |      0.01
112.417    0.00    0.02      0.017  O        |        |        |        |      0.01
112.500    0.00    0.02      0.017  O        |        |        |        |      0.01
112.583    0.00    0.02      0.016  O        |        |        |        |      0.01
112.667    0.00    0.02      0.016  O        |        |        |        |      0.01
112.750    0.00    0.02      0.016  O        |        |        |        |      0.01
112.833    0.00    0.02      0.016  O        |        |        |        |      0.01
112.917    0.00    0.02      0.016  O        |        |        |        |      0.01
113.000    0.00    0.02      0.016  O        |        |        |        |      0.01
113.083    0.00    0.02      0.016  O        |        |        |        |      0.01
113.167    0.00    0.02      0.016  O        |        |        |        |      0.01
113.250    0.00    0.02      0.015  O        |        |        |        |      0.01
113.333    0.00    0.02      0.015  O        |        |        |        |      0.01
113.417    0.00    0.02      0.015  O        |        |        |        |      0.01
113.500    0.00    0.02      0.015  O        |        |        |        |      0.01
113.583    0.00    0.02      0.015  O        |        |        |        |      0.01
113.667    0.00    0.02      0.015  O        |        |        |        |      0.01
113.750    0.00    0.02      0.015  O        |        |        |        |      0.01
113.833    0.00    0.02      0.015  O        |        |        |        |      0.01
113.917    0.00    0.02      0.015  O        |        |        |        |      0.01
114.000    0.00    0.02      0.014  O        |        |        |        |      0.01
114.083    0.00    0.02      0.014  O        |        |        |        |      0.01
114.167    0.00    0.02      0.014  O        |        |        |        |      0.01
114.250    0.00    0.02      0.014  O        |        |        |        |      0.01
114.333    0.00    0.02      0.014  O        |        |        |        |      0.01
114.417    0.00    0.02      0.014  O        |        |        |        |      0.01
114.500    0.00    0.02      0.014  O        |        |        |        |      0.01
114.583    0.00    0.02      0.014  O        |        |        |        |      0.01
114.667    0.00    0.02      0.014  O        |        |        |        |      0.01
114.750    0.00    0.02      0.013  O        |        |        |        |      0.01
114.833    0.00    0.02      0.013  O        |        |        |        |      0.01
114.917    0.00    0.01      0.013  O        |        |        |        |      0.01
115.000    0.00    0.01      0.013  O        |        |        |        |      0.01
115.083    0.00    0.01      0.013  O        |        |        |        |      0.01
115.167    0.00    0.01      0.013  O        |        |        |        |      0.01
```

115.250	0.00	0.01	0.013	O	|	|	|	|	0.01
115.333	0.00	0.01	0.013	O	|	|	|	|	0.01
115.417	0.00	0.01	0.013	O	|	|	|	|	0.01
115.500	0.00	0.01	0.013	O	|	|	|	|	0.01
115.583	0.00	0.01	0.012	O	|	|	|	|	0.01
115.667	0.00	0.01	0.012	O	|	|	|	|	0.01
115.750	0.00	0.01	0.012	O	|	|	|	|	0.01
115.833	0.00	0.01	0.012	O	|	|	|	|	0.01
115.917	0.00	0.01	0.012	O	|	|	|	|	0.01
116.000	0.00	0.01	0.012	O	|	|	|	|	0.01
116.083	0.00	0.01	0.012	O	|	|	|	|	0.01
116.167	0.00	0.01	0.012	O	|	|	|	|	0.01
116.250	0.00	0.01	0.012	O	|	|	|	|	0.01
116.333	0.00	0.01	0.012	O	|	|	|	|	0.01
116.417	0.00	0.01	0.012	O	|	|	|	|	0.01
116.500	0.00	0.01	0.011	O	|	|	|	|	0.01
116.583	0.00	0.01	0.011	O	|	|	|	|	0.01
116.667	0.00	0.01	0.011	O	|	|	|	|	0.01
116.750	0.00	0.01	0.011	O	|	|	|	|	0.01
116.833	0.00	0.01	0.011	O	|	|	|	|	0.01
116.917	0.00	0.01	0.011	O	|	|	|	|	0.01
117.000	0.00	0.01	0.011	O	|	|	|	|	0.01
117.083	0.00	0.01	0.011	O	|	|	|	|	0.01
117.167	0.00	0.01	0.011	O	|	|	|	|	0.01
117.250	0.00	0.01	0.011	O	|	|	|	|	0.01
117.333	0.00	0.01	0.011	O	|	|	|	|	0.01
117.417	0.00	0.01	0.010	O	|	|	|	|	0.01
117.500	0.00	0.01	0.010	O	|	|	|	|	0.01
117.583	0.00	0.01	0.010	O	|	|	|	|	0.01
117.667	0.00	0.01	0.010	O	|	|	|	|	0.01
117.750	0.00	0.01	0.010	O	|	|	|	|	0.01
117.833	0.00	0.01	0.010	O	|	|	|	|	0.01
117.917	0.00	0.01	0.010	O	|	|	|	|	0.01
118.000	0.00	0.01	0.010	O	|	|	|	|	0.01
118.083	0.00	0.01	0.010	O	|	|	|	|	0.01
118.167	0.00	0.01	0.010	O	|	|	|	|	0.01
118.250	0.00	0.01	0.010	O	|	|	|	|	0.01
118.333	0.00	0.01	0.010	O	|	|	|	|	0.01
118.417	0.00	0.01	0.010	O	|	|	|	|	0.01
118.500	0.00	0.01	0.009	O	|	|	|	|	0.01
118.583	0.00	0.01	0.009	O	|	|	|	|	0.01
118.667	0.00	0.01	0.009	O	|	|	|	|	0.01
118.750	0.00	0.01	0.009	O	|	|	|	|	0.01
118.833	0.00	0.01	0.009	O	|	|	|	|	0.01
118.917	0.00	0.01	0.009	O	|	|	|	|	0.01
119.000	0.00	0.01	0.009	O	|	|	|	|	0.01
119.083	0.00	0.01	0.009	O	|	|	|	|	0.01
119.167	0.00	0.01	0.009	O	|	|	|	|	0.01
119.250	0.00	0.01	0.009	O	|	|	|	|	0.01
119.333	0.00	0.01	0.009	O	|	|	|	|	0.01
119.417	0.00	0.01	0.009	O	|	|	|	|	0.01
119.500	0.00	0.01	0.009	O	|	|	|	|	0.01
119.583	0.00	0.01	0.009	O	|	|	|	|	0.01
119.667	0.00	0.01	0.008	O	|	|	|	|	0.01
119.750	0.00	0.01	0.008	O	|	|	|	|	0.00
119.833	0.00	0.01	0.008	O	|	|	|	|	0.00
119.917	0.00	0.01	0.008	O	|	|	|	|	0.00
120.000	0.00	0.01	0.008	O	|	|	|	|	0.00
120.083	0.00	0.01	0.008	O	|	|	|	|	0.00
120.167	0.00	0.01	0.008	O	|	|	|	|	0.00
120.250	0.00	0.01	0.008	O	|	|	|	|	0.00
120.333	0.00	0.01	0.008	O	|	|	|	|	0.00
120.417	0.00	0.01	0.008	O	|	|	|	|	0.00
120.500	0.00	0.01	0.008	O	|	|	|	|	0.00
120.583	0.00	0.01	0.008	O	|	|	|	|	0.00
120.667	0.00	0.01	0.008	O	|	|	|	|	0.00

```
120.750    0.00    0.01     0.008  O       |       |       |       |      0.00
120.833    0.00    0.01     0.008  O       |       |       |       |      0.00
120.917    0.00    0.01     0.008  O       |       |       |       |      0.00
121.000    0.00    0.01     0.008  O       |       |       |       |      0.00
121.083    0.00    0.01     0.007  O       |       |       |       |      0.00
121.167    0.00    0.01     0.007  O       |       |       |       |      0.00
121.250    0.00    0.01     0.007  O       |       |       |       |      0.00
121.333    0.00    0.01     0.007  O       |       |       |       |      0.00
121.417    0.00    0.01     0.007  O       |       |       |       |      0.00
121.500    0.00    0.01     0.007  O       |       |       |       |      0.00
121.583    0.00    0.01     0.007  O       |       |       |       |      0.00
121.667    0.00    0.01     0.007  O       |       |       |       |      0.00
121.750    0.00    0.01     0.007  O       |       |       |       |      0.00
121.833    0.00    0.01     0.007  O       |       |       |       |      0.00
121.917    0.00    0.01     0.007  O       |       |       |       |      0.00
122.000    0.00    0.01     0.007  O       |       |       |       |      0.00
122.083    0.00    0.01     0.007  O       |       |       |       |      0.00
122.167    0.00    0.01     0.007  O       |       |       |       |      0.00
122.250    0.00    0.01     0.007  O       |       |       |       |      0.00
122.333    0.00    0.01     0.007  O       |       |       |       |      0.00
122.417    0.00    0.01     0.007  O       |       |       |       |      0.00
122.500    0.00    0.01     0.007  O       |       |       |       |      0.00
122.583    0.00    0.01     0.006  O       |       |       |       |      0.00
122.667    0.00    0.01     0.006  O       |       |       |       |      0.00
122.750    0.00    0.01     0.006  O       |       |       |       |      0.00
122.833    0.00    0.01     0.006  O       |       |       |       |      0.00
122.917    0.00    0.01     0.006  O       |       |       |       |      0.00
123.000    0.00    0.01     0.006  O       |       |       |       |      0.00
123.083    0.00    0.01     0.006  O       |       |       |       |      0.00
123.167    0.00    0.01     0.006  O       |       |       |       |      0.00
123.250    0.00    0.01     0.006  O       |       |       |       |      0.00
123.333    0.00    0.01     0.006  O       |       |       |       |      0.00
123.417    0.00    0.01     0.006  O       |       |       |       |      0.00
123.500    0.00    0.01     0.006  O       |       |       |       |      0.00
123.583    0.00    0.01     0.006  O       |       |       |       |      0.00
123.667    0.00    0.01     0.006  O       |       |       |       |      0.00
123.750    0.00    0.01     0.006  O       |       |       |       |      0.00
123.833    0.00    0.01     0.006  O       |       |       |       |      0.00
123.917    0.00    0.01     0.006  O       |       |       |       |      0.00
124.000    0.00    0.01     0.006  O       |       |       |       |      0.00
124.083    0.00    0.01     0.006  O       |       |       |       |      0.00
124.167    0.00    0.01     0.006  O       |       |       |       |      0.00
124.250    0.00    0.01     0.006  O       |       |       |       |      0.00
124.333    0.00    0.01     0.005  O       |       |       |       |      0.00
124.417    0.00    0.01     0.005  O       |       |       |       |      0.00
124.500    0.00    0.01     0.005  O       |       |       |       |      0.00
124.583    0.00    0.01     0.005  O       |       |       |       |      0.00
124.667    0.00    0.01     0.005  O       |       |       |       |      0.00
124.750    0.00    0.01     0.005  O       |       |       |       |      0.00
124.833    0.00    0.01     0.005  O       |       |       |       |      0.00
124.917    0.00    0.01     0.005  O       |       |       |       |      0.00
125.000    0.00    0.01     0.005  O       |       |       |       |      0.00
125.083    0.00    0.01     0.005  O       |       |       |       |      0.00
125.167    0.00    0.01     0.005  O       |       |       |       |      0.00
125.250    0.00    0.01     0.005  O       |       |       |       |      0.00
125.333    0.00    0.01     0.005  O       |       |       |       |      0.00
125.417    0.00    0.01     0.005  O       |       |       |       |      0.00
125.500    0.00    0.01     0.005  O       |       |       |       |      0.00
125.583    0.00    0.01     0.005  O       |       |       |       |      0.00
125.667    0.00    0.01     0.005  O       |       |       |       |      0.00
125.750    0.00    0.01     0.005  O       |       |       |       |      0.00
125.833    0.00    0.01     0.005  O       |       |       |       |      0.00
125.917    0.00    0.01     0.005  O       |       |       |       |      0.00
126.000    0.00    0.01     0.005  O       |       |       |       |      0.00
126.083    0.00    0.01     0.005  O       |       |       |       |      0.00
126.167    0.00    0.01     0.005  O       |       |       |       |      0.00
```

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126.250    0.00    0.01     0.005  O       |       |       |       |      0.00
126.333    0.00    0.01     0.005  O       |       |       |       |      0.00
126.417    0.00    0.01     0.005  O       |       |       |       |      0.00
126.500    0.00    0.01     0.004  O       |       |       |       |      0.00
126.583    0.00    0.01     0.004  O       |       |       |       |      0.00
126.667    0.00    0.00     0.004  O       |       |       |       |      0.00
126.750    0.00    0.00     0.004  O       |       |       |       |      0.00
126.833    0.00    0.00     0.004  O       |       |       |       |      0.00
126.917    0.00    0.00     0.004  O       |       |       |       |      0.00
127.000    0.00    0.00     0.004  O       |       |       |       |      0.00
127.083    0.00    0.00     0.004  O       |       |       |       |      0.00
127.167    0.00    0.00     0.004  O       |       |       |       |      0.00
127.250    0.00    0.00     0.004  O       |       |       |       |      0.00
127.333    0.00    0.00     0.004  O       |       |       |       |      0.00
127.417    0.00    0.00     0.004  O       |       |       |       |      0.00
127.500    0.00    0.00     0.004  O       |       |       |       |      0.00
127.583    0.00    0.00     0.004  O       |       |       |       |      0.00
127.667    0.00    0.00     0.004  O       |       |       |       |      0.00
127.750    0.00    0.00     0.004  O       |       |       |       |      0.00
127.833    0.00    0.00     0.004  O       |       |       |       |      0.00
127.917    0.00    0.00     0.004  O       |       |       |       |      0.00
128.000    0.00    0.00     0.004  O       |       |       |       |      0.00
128.083    0.00    0.00     0.004  O       |       |       |       |      0.00
128.167    0.00    0.00     0.004  O       |       |       |       |      0.00
128.250    0.00    0.00     0.004  O       |       |       |       |      0.00
128.333    0.00    0.00     0.004  O       |       |       |       |      0.00
128.417    0.00    0.00     0.004  O       |       |       |       |      0.00
128.500    0.00    0.00     0.004  O       |       |       |       |      0.00
128.583    0.00    0.00     0.004  O       |       |       |       |      0.00
128.667    0.00    0.00     0.004  O       |       |       |       |      0.00
128.750    0.00    0.00     0.004  O       |       |       |       |      0.00
128.833    0.00    0.00     0.004  O       |       |       |       |      0.00
128.917    0.00    0.00     0.004  O       |       |       |       |      0.00
129.000    0.00    0.00     0.004  O       |       |       |       |      0.00
129.083    0.00    0.00     0.004  O       |       |       |       |      0.00
129.167    0.00    0.00     0.004  O       |       |       |       |      0.00
129.250    0.00    0.00     0.003  O       |       |       |       |      0.00
129.333    0.00    0.00     0.003  O       |       |       |       |      0.00
129.417    0.00    0.00     0.003  O       |       |       |       |      0.00
129.500    0.00    0.00     0.003  O       |       |       |       |      0.00
129.583    0.00    0.00     0.003  O       |       |       |       |      0.00
129.667    0.00    0.00     0.003  O       |       |       |       |      0.00
129.750    0.00    0.00     0.003  O       |       |       |       |      0.00
129.833    0.00    0.00     0.003  O       |       |       |       |      0.00
129.917    0.00    0.00     0.003  O       |       |       |       |      0.00
130.000    0.00    0.00     0.003  O       |       |       |       |      0.00
130.083    0.00    0.00     0.003  O       |       |       |       |      0.00
130.167    0.00    0.00     0.003  O       |       |       |       |      0.00
130.250    0.00    0.00     0.003  O       |       |       |       |      0.00
130.333    0.00    0.00     0.003  O       |       |       |       |      0.00
130.417    0.00    0.00     0.003  O       |       |       |       |      0.00
130.500    0.00    0.00     0.003  O       |       |       |       |      0.00
130.583    0.00    0.00     0.003  O       |       |       |       |      0.00
130.667    0.00    0.00     0.003  O       |       |       |       |      0.00
130.750    0.00    0.00     0.003  O       |       |       |       |      0.00
130.833    0.00    0.00     0.003  O       |       |       |       |      0.00
130.917    0.00    0.00     0.003  O       |       |       |       |      0.00
131.000    0.00    0.00     0.003  O       |       |       |       |      0.00
131.083    0.00    0.00     0.003  O       |       |       |       |      0.00
131.167    0.00    0.00     0.003  O       |       |       |       |      0.00
131.250    0.00    0.00     0.003  O       |       |       |       |      0.00
131.333    0.00    0.00     0.003  O       |       |       |       |      0.00
131.417    0.00    0.00     0.003  O       |       |       |       |      0.00
131.500    0.00    0.00     0.003  O       |       |       |       |      0.00
131.583    0.00    0.00     0.003  O       |       |       |       |      0.00
131.667    0.00    0.00     0.003  O       |       |       |       |      0.00
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131.750	0.00	0.00	0.003	O	|	|	|	|	0.00
131.833	0.00	0.00	0.003	O	|	|	|	|	0.00
131.917	0.00	0.00	0.003	O	|	|	|	|	0.00
132.000	0.00	0.00	0.003	O	|	|	|	|	0.00
132.083	0.00	0.00	0.003	O	|	|	|	|	0.00
132.167	0.00	0.00	0.003	O	|	|	|	|	0.00
132.250	0.00	0.00	0.003	O	|	|	|	|	0.00
132.333	0.00	0.00	0.003	O	|	|	|	|	0.00
132.417	0.00	0.00	0.003	O	|	|	|	|	0.00
132.500	0.00	0.00	0.003	O	|	|	|	|	0.00
132.583	0.00	0.00	0.003	O	|	|	|	|	0.00
132.667	0.00	0.00	0.003	O	|	|	|	|	0.00
132.750	0.00	0.00	0.003	O	|	|	|	|	0.00
132.833	0.00	0.00	0.002	O	|	|	|	|	0.00
132.917	0.00	0.00	0.002	O	|	|	|	|	0.00
133.000	0.00	0.00	0.002	O	|	|	|	|	0.00
133.083	0.00	0.00	0.002	O	|	|	|	|	0.00
133.167	0.00	0.00	0.002	O	|	|	|	|	0.00
133.250	0.00	0.00	0.002	O	|	|	|	|	0.00
133.333	0.00	0.00	0.002	O	|	|	|	|	0.00
133.417	0.00	0.00	0.002	O	|	|	|	|	0.00
133.500	0.00	0.00	0.002	O	|	|	|	|	0.00
133.583	0.00	0.00	0.002	O	|	|	|	|	0.00
133.667	0.00	0.00	0.002	O	|	|	|	|	0.00
133.750	0.00	0.00	0.002	O	|	|	|	|	0.00
133.833	0.00	0.00	0.002	O	|	|	|	|	0.00
133.917	0.00	0.00	0.002	O	|	|	|	|	0.00
134.000	0.00	0.00	0.002	O	|	|	|	|	0.00
134.083	0.00	0.00	0.002	O	|	|	|	|	0.00
134.167	0.00	0.00	0.002	O	|	|	|	|	0.00
134.250	0.00	0.00	0.002	O	|	|	|	|	0.00
134.333	0.00	0.00	0.002	O	|	|	|	|	0.00
134.417	0.00	0.00	0.002	O	|	|	|	|	0.00
134.500	0.00	0.00	0.002	O	|	|	|	|	0.00
134.583	0.00	0.00	0.002	O	|	|	|	|	0.00
134.667	0.00	0.00	0.002	O	|	|	|	|	0.00
134.750	0.00	0.00	0.002	O	|	|	|	|	0.00
134.833	0.00	0.00	0.002	O	|	|	|	|	0.00
134.917	0.00	0.00	0.002	O	|	|	|	|	0.00
135.000	0.00	0.00	0.002	O	|	|	|	|	0.00
135.083	0.00	0.00	0.002	O	|	|	|	|	0.00
135.167	0.00	0.00	0.002	O	|	|	|	|	0.00
135.250	0.00	0.00	0.002	O	|	|	|	|	0.00
135.333	0.00	0.00	0.002	O	|	|	|	|	0.00
135.417	0.00	0.00	0.002	O	|	|	|	|	0.00
135.500	0.00	0.00	0.002	O	|	|	|	|	0.00
135.583	0.00	0.00	0.002	O	|	|	|	|	0.00
135.667	0.00	0.00	0.002	O	|	|	|	|	0.00
135.750	0.00	0.00	0.002	O	|	|	|	|	0.00
135.833	0.00	0.00	0.002	O	|	|	|	|	0.00
135.917	0.00	0.00	0.002	O	|	|	|	|	0.00
136.000	0.00	0.00	0.002	O	|	|	|	|	0.00
136.083	0.00	0.00	0.002	O	|	|	|	|	0.00
136.167	0.00	0.00	0.002	O	|	|	|	|	0.00
136.250	0.00	0.00	0.002	O	|	|	|	|	0.00
136.333	0.00	0.00	0.002	O	|	|	|	|	0.00
136.417	0.00	0.00	0.002	O	|	|	|	|	0.00
136.500	0.00	0.00	0.002	O	|	|	|	|	0.00
136.583	0.00	0.00	0.002	O	|	|	|	|	0.00
136.667	0.00	0.00	0.002	O	|	|	|	|	0.00
136.750	0.00	0.00	0.002	O	|	|	|	|	0.00
136.833	0.00	0.00	0.002	O	|	|	|	|	0.00
136.917	0.00	0.00	0.002	O	|	|	|	|	0.00
137.000	0.00	0.00	0.002	O	|	|	|	|	0.00

```
Remaining water in basin =    0.00 (Ac.Ft)


****************************HYDROGRAPH DATA****************************
             Number of intervals =  1644
             Time interval =    5.0 (Min.)
             Maximum/Peak flow rate =       54.109 (CFS)
             Total volume =      34.878 (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
***********************************************************************

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

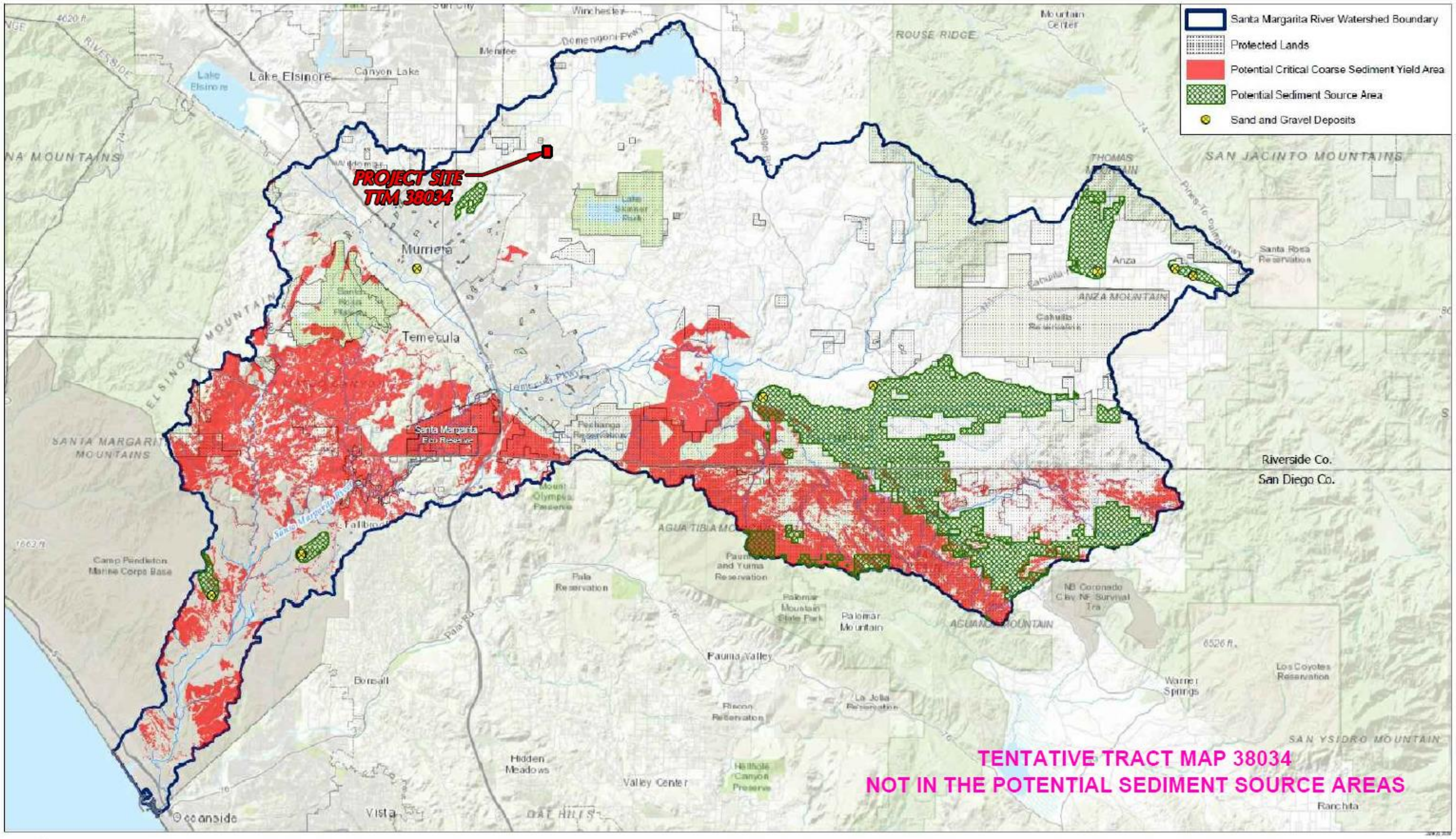


Exhibit G-1

SANTA MARGARITA RIVER WATERSHED

POTENTIAL CRITICAL COARSE SEDIMENT YIELD AREAS AND POTENTIAL SEDIMENT SOURCE AREAS

K&A Engineering, Inc.

ENGINEERING
LAND PLANNING
SURVEYING

357 N. SHERIDAN STREET
SUITE 117
CORONA, CALIFORNIA 92880
TEL. (951) 279-1800
FAX (951) 279-4380

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

For Final WQMP, include a copy of the completed Pollutant Sources/Source Control Checklist in the subsequent pages and summarize Source Control BMPs in Section H of this Template.

Appendix 8

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section H of the 2018 SMR 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 H.1 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.

Appendix 8
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**
❑ **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.	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://www.rcwatershed.org/about/materials-library/#1450469138395-bb76dd39-d810 ❑ Provide IPM information to new owners, lessees and operators.

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**
❑ **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://www.rcwatershed.org/about/materials-library/#1450469201433-f5f358c9-6008
❑ **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://www.rcwatershed.org/about/materials-library/#1450389926766-61e8af0b-53a9 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

Appendix 8
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**
❑ **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://www.rcwatershed.org/about/materials-library/#1450389926766-61e8af0b-53a9
❑ **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

Appendix 8

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**
❑ **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://www.rcwatershed.org/about/materials-library/#1450389926766-61e8af0b-53a9 ❑ Car dealerships and similar may rinse cars with water only.

Appendix 8

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**
❑ **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; "Outdoor Cleaning Activities;" and "Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants. Brochures can be found at: http://www.rcwatershed.org/about/materials-library/ **#1450389926766-61e8af0b-53a9**

Appendix 8
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**
❑ **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.

Appendix 8

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**
❑ **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

Appendix 8
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**
❑ **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.	

Appendix 8

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

For the Final WQMP the following information shall be provided:

1. Maintenance Plan per Section 5.3.5 of the WQMP Guidance Document. County will regularly inspect BMPs, so BMPs without access (e.g. backyards, etc) will be rejected. Due to liability, the County does not allow for overlapping private maintenance in the public right-of-way.
2. For all projects, include one wet-signed and notarized hardcopy of the BMP Maintenance agreement. Please note, references to Exhibit A and B on Page 1can be struck out if the entire parcel is mentioned in the "Legal Description" on Page 1 of the agreement. Otherwise see below for Exhibit A and B standards. For BMP agreement, ensure that the name on the agreement matches throughout and the notary sheet, Notary shall be the latest California format, the date of the agreement is the date of the notary, all text does not exceed the margins, then the County will sign, attest & record
3. For Tracts, contact County EDA regarding maintenance determinations/formations. Include a completed Exhibit B.9 - WQMP O&M Cost Sheet.xlsx that is signed by both the preparer (to ensure quantities are correct) and the owner (to understand the maintenance obligations in perpetuity) & an Approved Maintenance Exhibit from EDA.
4. For Tracts or any project , written documentation from the maintenance entity that they are willing to maintain (e.g. CFD, CSA, L&LMD, etc.)

BMP EXHIBIT "A" STANDARDS

1. Use the legal description of the parcel as shown on the tentative exhibit. If not available, use the one in the most current title report.
2. As a backup, if the project is a map the description of the future lot may be included for reference

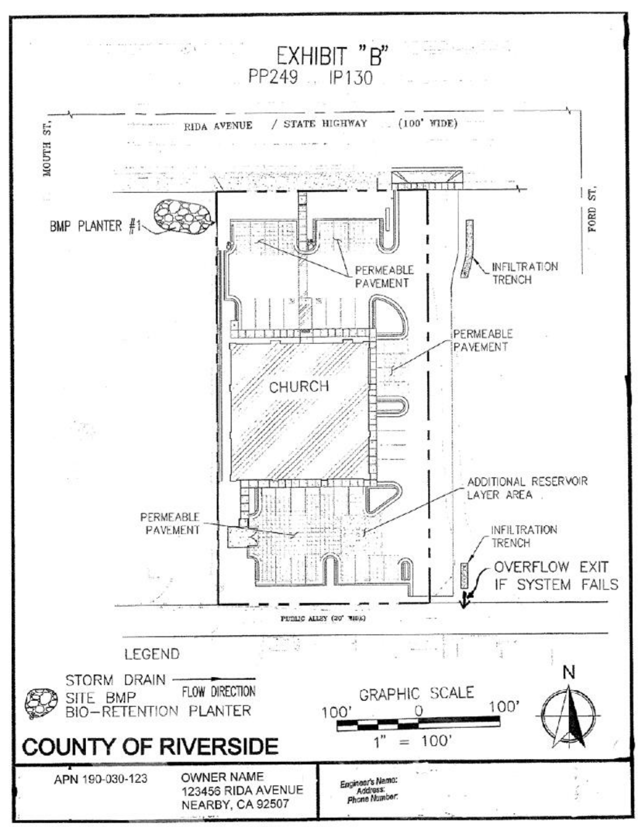
BMP EXHIBIT "B" STANDARDS

1. 0.12" minimum lettering
2. Sheet size must be 8.5" x 11"
3. Show Street names, north arrow
4. Indicate point of flow exit into street if basin system fails
5. Indicate Q100 of flow exit into street
6. Indicate direction of flow exit into street
7. Indicate by notation and/or show nearest downstream drainage facility (catch basin, culvert, riser, etc)
8. Show "Exhibit A", IP and project number (TR, PM, PUP, PP etc)
9. Title block, signature block, engineer seals, USA note is not necessary on Exhibit
10. Show scale used for drawing, provide 4" graphic scale

MAINTENANCE EXHIBIT "B" STANDARDS

1. 0.12" minimum lettering
2. Sheet size must be 8.5" x 11"
3. Show street names, north arrow
4. Show "Exhibit A", IP and project number (TR, PM, PUP, PP etc)
5. Title block, signature block, engineer seals, USA note is not necessary on Exhibit
6. Show scale used for drawing, provide 4" graphic scale

BMP EXHIBIT B EXAMPLE



Recorded at the request of:
COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT

THIS INSTRUMENT IS FOR THE BENEFIT OF THE COUNTY OF RIVERSIDE AND ENTITLED TO BE RECORDED WITHOUT FEE.(GOV. CODE 6103)

RETURN TO:
RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT. **STOP NO. 1080**
4080 LEMON STREET
RIVERSIDE, CA 92501

COVENANT AND AGREEMENT REGARDING WATER QUALITY MANAGEMENT PLAN BMP, CONSENT TO INSPECT, MAINTENANCE AND INDEMNIFICATION

APN:________________ PROJECT No.______________ IP No.____________________

OWNER(S):____

PROPERTY ADDRESS:____

LEGAL DESCRIPTION:____
____
____

THIS AGREEMENT is made and entered into in Riverside County, California, this _____ day of __________ Year______, by and between______________________, (hereinafter referred to as "Covenantor" or "Owner") and the COUNTY OF RIVERSIDE via its Department of Transportation, a political subdivision of the State of California (hereinafter referred to as "County").

RECITALS

WHEREAS, the Covenantor owns real property ("Property") in the County of Riverside, State of California, more specifically described in Exhibit "A" and depicted in Exhibit "B", each of these exhibits is attached, and incorporated herein by this reference;

WHEREAS, the County is the owner of interests in that certain real property within the unincorporated area of the County of Riverside, State of California, containing storm drains, pipelines, and related appurtenances constituting the County's municipal separate storm sewer system (the County's "MS4");

WHEREAS, Covenantor intends to develop, improve, and/or use the Property is such a way that approval by the County for such development, improvement, and/or use is required pursuant to applicable laws;

WHEREAS, As a condition for said approval by the County, County required Covenantor, and Covenantor desires to, restrict the use of the Property according to the conditions, covenants, equitable servitudes, and restrictions contained herein for the express benefit of the County's MS4, which include requirements that the Property incorporate post construction on-site stormwater quality control measures;

WHEREAS, the Covenantor/Owner has chosen to install one or more ________________, hereinafter referred to as "Device", as the on-site control measure to minimize pollutants in urban runoff;

WHEREAS, said Device has been installed in accordance with plans and specifications accepted by the County;

WHEREAS, said Device, with installation on private property and draining only private property, is a private facility with all maintenance or replacement, therefore, the sole responsibility of the Covenantor/Owner in accordance with the terms of this Agreement;

WHEREAS, the Covenantor/Owner is aware that periodic and continuous maintenance, including, but not necessarily limited to, filter material replacement and sediment removal, is required to assure peak performance of Device and that, furthermore, such maintenance activity will require compliance with all Local, State, or Federal laws and regulations, including those pertaining; to confined space and waste disposal methods, in effect at the time such maintenance occurs;

NOW THEREFORE, incorporating the foregoing Recitals and in consideration of the covenants and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and expressly for the benefit of, and to bind, their sucessors in interest, the parties hereto agree as follows:

1. Covenantor/Owner hereby provides the County or County's designee complete access to the Device and its immediate vicinity and such access onto the property to permit access to the devise at any time, upon twenty-four *(24)* hour advance notice in writing, of any duration for the purpose of inspection, sampling and testing of the Device. County shall make every effort at all times to minimize or avoid interference with Owner's use of the Property.

2. Covenantor/Owner shall use its best efforts diligently to maintain the Device in a manner assuring peak performance at all times. All reasonable precautions shall be exercised by Owner and Owner's representative or contractor in the removal and extraction of material(s) from the Device and the ultimate disposal of the material(s) in a manner consistent with all relevant laws and regulations in effect at the time. As may be requested from time to time by the County / Regional Water Quality Control Board (RWQCB), the Owner shall provide the RWQCB with documentation identifying the material(s) removed, the quantity, and disposal destination.

3. In the event Covenantor/Owner, or its successors or assigns, fails to accomplish the necessary maintenance contemplated by this Agreement, within five (5) days of being given written notice by the County, the County is hereby authorized to cause any maintenance necessary to be done and charge the entire cost and expense to the Owner or Owner's successors or assigns, including administrative costs and interest thereon at the maximum rate authorized by the Civil Code from the date of notice of expense until paid in full.

4. The County may require the Covenantor/Owner to post security in a form and for a time period satisfactory to the County to guarantee the performance of the obligations stated herein. Should the Owner fail to perform the obligations under this Agreement, the County may, in the case of a cash deposit, certificate of deposit or letter of credit, act for the Owner using the proceeds from it, or in the case of a surety bond, require the sureties to perform the obligations of the Agreement.

5. The County may, but shall not be obligated to, enforce this Agreement by a proceeding at law or in equity against any person or persons violating or attempting to violate any condition, covenant, equitable servitude, or restriction provided for herein, either to restrain such violation or to recover damages.

6. This Agreement constitutes the entire agreement and understanding between the parties with respect to the subject matter of this Agreement and supersedes all prior or contemporaneous agreements and understandings with respect to the subject matter hereof, whether oral or written.

7. If any part of this Agreement is declared by a final decision of a court of competent jurisdiction to be invalid for any reason, such shall not affect the validity of the rest of the Agreement. The other parts of this Agreement shall remain in effect as if this Agreement had been executed without the invalid parts(s). The parties declare that they intend and desire that the remaining parts of this Agreement continue to be effective without any part(s) that have been declared invalid.

8. This Agreement may be executed in counterparts, each of which so executed shall, irrespective of the date of its execution and delivery, be deemed an orginal, and all such counterparts together shall constitute one and the same instrument.

9. This Agreement shall be recorded in the Office of the Recorder of Riverside County, California and shall constitute notice to all successors and assigns of the title to said Property of the obligation herein set forth.

10. In the event of legal action occasioned by any default or action of the Covenantor/Owner, or its successors or assigns, then the Covenantor/Owner and its successors or assigns agree(s) to pay all costs incurred by the County in enforcing the terms of this Agreement, including reasonable attorney's fees and costs, and that the same shall become a part of the lien against said Property.

11. Covenantor/Owner agrees to indemnify, defend, and hold harmless the County, its elected officers, employees, agents, and contractors from and against any and all liability, expense, including costs and reasonable legal fees, and claims of damage of any nature whatsoever including, but not limited to, death, bodily injury, personal injury, or property damage arising from or connected with the County inspection of the Property except where such liability, expense, or claim for damage results from the sole negligence or willful misconduct of the County.

12. It is the intent of the parties hereto that burdens and benefits herein undertaken shall constitute covenants that run with said Property and constitute a lien thereon against.

13. The obligations herein undertaken shall be binding upon the heirs, successors, executors, administrators and assigns of the parties hereto and any other present or future interest holders or estate holders in the property. The term "Owner" shall include not only the present Owner, but also its heirs, successors in interest and in title to the property, executors, administrators, and assigns. Owner shall notify any successor to title of all or part of the Property about the existence of this Agreement. Owner shall provide such notice prior to such successor obtaining an interest in all or part of the Property. Owner shall provide a copy of such notice to the County at the same time such notice is provided to the successor.

14. Time is of the essence in the performance of this Agreement.

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15. Any notice to a party required or called for in this Agreement shall be served in person, or by deposit in the U.S. Mail, first class postage prepaid, to the address set forth below. Notice(s) shall be deemed effective upon receipt, or seventy-two *(72)* hours after deposit in the U.S. Mail, whichever is earlier. A party may change a notice address only by providing written notice thereof to the other party.

COVENANTOR/OWNER NAME:

COUNTY:

Riverside County Department of Transportation
Attn: Transportation Director
4080 Lemon Street
Riverside, CA

COUNTY OF RIVERSIDE TRANSPORTATION DEPARTMENT	**COVENANTOR/OWNER**
Patricia Romo, P.E. Director of Transportation — Date	Signature of Covenantor/Owner
	(Print Name)
(Attest) — Date	(Print Title)
	Attach Notary

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

For the Final WQMP, examples of material to provide in Appendix 10 may include but are not limited to the following:

- BMP Fact Sheets for proposed BMPs form Exhibit C: LID BMP Design Handbook of the SMR WQMP,
- Source control information and training material for site owners and operators,
- O&M training material,
- Other educational/training material related to site drainage and BMPs.

After the Storm

A Citizen's Guide to Understanding Stormwater

EPA 833-B-03-002
January 2003

For more information contact:

or visit
www.epa.gov/npdes/stormwater
www.epa.gov/nps

What is stormwater runoff?

Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?

Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution

Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.

- Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.

- Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.

Stormwater Pollution Solutions

Residential

Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.

- Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- Cover piles of dirt or mulch being used in landscaping projects.

Septic systems

Leaking and poorly maintained septic systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- Don't dispose of household hazardous waste in sinks or toilets.

Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.

Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.

Rain Gardens and Grassy Swales—Specially designed areas planted with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.

Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.

Commercial

Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- Cover grease storage and dumpsters and keep them clean to avoid leaks.
- Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.

Construction

Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- Divert stormwater away from disturbed or exposed areas of the construction site.
- Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.

Agriculture

Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

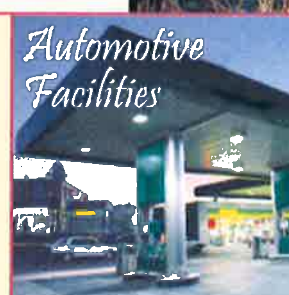
- Keep livestock away from streambanks and provide them a water source away from waterbodies.
- Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- Vegetate riparian areas along waterways.
- Rotate animal grazing to prevent soil erosion in fields.
- Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.

Forestry

Improperly managed logging operations can result in erosion and sedimentation.

- Conduct preharvest planning to prevent erosion and lower costs.
- Use logging methods and equipment that minimize soil disturbance.
- Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- Construct stream crossings so that they minimize erosion and physical changes to streams.
- Expedite revegetation of cleared areas.

Automotive Facilities



Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- Clean up spills immediately and properly dispose of cleanup materials.
- Provide cover over fueling stations and design or retrofit facilities for spill containment.
- Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- Install and maintain oil/water separators.

Because every industrial site is unique, every SWPPP is unique. The SWPPP needs to be reviewed and updated by the operator on a regular basis. Please visit **www.epa.gov/npdes/stormwater/msgp** for more information on how to develop your SWPPP.

Basic SWPPP Elements

- Stormwater pollution prevention team
- Site description
- Summary of potential pollutant sources
- Description of control measures
- Schedules and procedures
- Documentation to support eligibility considerations under other federal laws
- Certification of the SWPPP

3. Complete documentation for eligibility under other Federal laws.
The operator must assess the potential effects of stormwater runoff on federally listed endangered and threatened species and any designated critical habitat located on or near the site, as well as impacts on historic properties on or near the facility. In making these determinations, the operator needs to consider areas beyond the immediate footprint of the facility site as well as beyond the property line—areas that could be affected directly or indirectly by stormwater discharges. The MSGP contains more information about completing these determinations in applying for permit coverage.

4. File a Notice of Intent (NOI) application.
The Notice of Intent (NOI) form lets EPA know that you are filing for permit coverage. It also attests that you have read, understood, and are complying with the requirements of the MSGP. The fastest and easiest way to file an NOI is through EPA's online permit application system (www.epa.gov/npdes/enoi). (Mailing a paper NOI to EPA can add 2 or more weeks to your processing time.) Your permit coverage begins after a 30-day waiting period, during which NOIs are reviewed by EPA and others.

5. Implement all stormwater control measures outlined in your SWPPP.
Your SWPPP must be updated as conditions at the industrial facility and as practices change.

Storm drain adjacent to access road to plant; drain is not protected and not being serviced.

Questions?

To find out more about the stormwater permit program, please contact in the EPA Region 10 Seattle office:

Julie Congdon
Stormwater Compliance Assistance Coordinator
Office of Compliance & Enforcement, NPDES Unit
1.800.424.4372, x. **2752**
congdon.julie@epa.gov

Michael Le
Industrial Stormwater Permits
Office of Water & Watersheds, NPDES Permits Unit
1.800.424.4372, x. **1099**
le.michael@epa.gov

Notice: The statements in this document are intended solely as guidance to aid regulated entities in complying with the Clean Water Act's stormwater requirements. The guidance is not a substitute for reading the Clean Water Act and its implementing regulations and understanding all its requirements as they apply to your facility. This guidance does not constitute rulemaking by the EPA and may not be relied on to create a substantive or procedural right or benefit enforceable, at law or in equity, by any person. EPA may decide to update this guide without public notice to reflect changes in EPA's approach to implementing the Clean Water Act. This document reflects information available in EPA's NPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity.

Waste materials are left exposed to the elements and stormwater runoff. Lack of secondary containment for the tank.

EPA
United States Environmental Protection Agency

EPA 910-K-09-008

Does Your Facility Need a Stormwater Permit?

An Industrial Facility Operator's Guide to EPA's Stormwater Permit Program

Office of Compliance and Enforcement
US EPA Region 10

Many Industrial Facilities *(with few exceptions)* Need Stormwater Permit Coverage!

Why is stormwater runoff a problem?

Runoff from rainstorms and snowmelt picks up pollutants like sediment, oil and grease, nitrogen, phosphorus, and other chemicals and carries them into storm drains or directly into waterbodies. Because most storm drain systems do not provide any treatment to the water they collect, preventing contamination of stormwater is critically important. Otherwise, polluted runoff will be discharged untreated into the waterbodies we use for swimming, fishing, and drinking water.

This brochure describes who must comply with the EPA's stormwater permit requirements for:

- Idaho
- Federal facilities in Washington
- Indian Country within Alaska, Idaho, Oregon and Washington.*

* *If your facility is not in one of the areas noted, you will need to obtain permit coverage from the appropriate state authority. A list of state permitting authorities can be found at* **www.epa.gov/npdes/stormwater**.

Unauthorized non-stormwater discharge from an industrial facility.

Photo courtesy of TetraTech.

Two photos showing an industrial facility before and after it followed good housekeeping practices.

Photos courtesy of TetraTech.

What is the Multi-Sector General Permit, or MSGP?

EPA's National Pollutant Discharge Elimination System (NPDES) program regulates stormwater runoff from industrial facilities. The Multi-Sector General Permit (MSGP) covers industrial facilities in 29 different industrial sectors.

If your facility...

- is located in Idaho, Indian Country or is a Federal facility in Washington,
- has "primary" or "co-located" industrial activities covered by the MSGP,
- has stormwater runoff that discharges to a surface water or to a storm sewer that flows to a surface water,

you need permit coverage under the **Multi-Sector General Permit.**

What industries are covered by the MSGP?

Permit eligibility is limited to discharges from facilities in the "sectors" of industrial activity listed. The sector descriptions are based on Standard Industrial Classification (SIC) Codes and Industrial Activity Codes. For a more detailed list, please see Appendix D of the MSGP. The industrial sectors listed in the table must minimize pollutants in their stormwater discharges and obtain permit coverage under the MSGP.

Industries Covered by the MSGP and SIC Codes

SIC Code	*Industrial Activity Sector*
24xx	A: Timber Products
26xx	B: Paper Products
28xx, 3952	C: Chemical Products
29xx	D: Asphalt/Roofing
32xx	E: Glass, Clay, Cement
33xx	F: Primary Metals
10xx	G: Metal Mining
12xx	H: Coal Mines
13xx	I: Oil and Gas
14xx	J: Mineral Mining
HZ	K: Hazardous Waste
LF	L: Landfills
5015	M: Auto Salvage Yards
5093	N: Scrap Recycling
SE	O: Steam Electric Facilities
40xx, 41xx, 42xx, 4311, 5171	P: Land Transportation
44xx	Q: Water Transportation
37xx	R: Ship/Boat Building, Repair
45xx	S: Air Transportation
TW	T: Treatment Works (WWTPs)
20xx, 21xx	U: Food Products
22xx, 23xx, 31xx	V: Textile Mills
2434, 25xx	W: Furniture and Fixtures
27xx	X: Printing, Publishing
30xx, 39xx	Y: Rubber, Misc. Plastics
3111	Z: Leather Tanning/ Finishing
34xx, 39xx	AA: Fabricated Metal Products
35xx, 37xx	AB: Transportation Equip.
357x, 38xx, 36xx	AC: Electronic, photo goods

I need permit coverage. *Where do I begin?*

1. Read EPA's Multi-Sector General Permit.

You can download a copy of EPA's permit at **www.epa.gov/npdes/stormwater/msgp**. Read the permit carefully, and remember that operators are legally responsible for complying with all of its requirements.

Who is responsible for coverage and who submits an NOI?

The "operator" submits a Notice of Intent (NOI) application. The operator is the entity (generally the company, corporation, etc.) that has operational control over the industrial activities, or has day-to-day operational control of activities at the facility necessary to implement the Stormwater Pollution Prevention Plan (SWPPP—see below/ next page for more information) and ensure compliance with the permit (e.g., the entity is authorized to direct workers at a facility to carry out activities required by the permit).

It is the responsibility of the operator(s) to develop and implement a SWPPP and maintain all "best management practices" or stormwater control measures at the facility. These include swales, detention ponds, spill protection equipment, schedules of activities, prohibitions of practices, and maintenance procedures that you use to prevent or reduce the discharge of pollutants.

2. Develop a site-specific stormwater pollution prevention plan (SWPPP).

The SWPPP explains how you will control pollutants in stormwater runoff from your facility. It is a written document that identifies the sources of pollution and industrial activities conducted at the site, including stormwater control practices which the operator will use to prevent pollutants from making their way into stormwater runoff. The SWPPP must be completed before you apply for permit coverage. EPA does not require that you submit the SWPPP with your application to obtain permit coverage, but the plan must be available to EPA by request or for review during inspection.

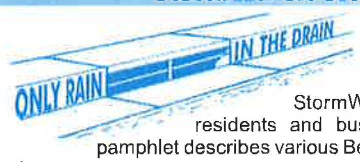
StormWater Pollution . . . What You Should Know

Riverside County has two drainage systems - sewers and storm drains. The storm drain system was designed to reduce flooding by carrying excess rainwater away from streets and developed areas. Since the storm drain system does not provide for water treatment, it also serves the *unintended* function of transporting pollutants directly to our local waterways.

Unlike sanitary sewers, storm drains are not connected to a wastewater treatment plant – they flow directly to our local streams, rivers and lakes.

Stormwater runoff is a part of the natural hydrologic process. However, land development and construction activities can significantly alter natural drainage processes and introduce pollutants into stormwater runoff. Polluted stormwater runoff from construction sites has been identified as a major source of water pollution in California. It jeopardizes the quality of our local waterways and can pose a serious threat to the health of our aquatic ecosystems.

The Cities and County of Riverside StormWater/CleanWater Protection Program



Because preventing pollution is much easier and less costly than cleaning up "after the fact," the Cities and County of Riverside StormWater/CleanWater Protection Program informs residents and businesses on pollution prevention activities. This pamphlet describes various Best Management Practices (BMPs) that construction site operators can use to prevent stormwater pollution.

In accordance with applicable federal and state law, the Cities and County of Riverside have adopted ordinances for stormwater management and discharge control that **prohibit** the discharge of pollutants into the storm drain system or local surface water. This includes discharges from construction sites containing sediment, concrete, mortar, paint, solvents, lubricants, vehicle fluids, fuel, pesticides, and construction debris.

PLEASE NOTE: The Federal, State and local regulations strictly prohibit the discharge of sediment and pollutants into the streets, the storm drain system or waterways. As an owner, operator or supervisor of a construction site, you may be held financially responsible for any environmental damage caused by your subcontractors or employees.

Stormwater Pollution from Construction Activities

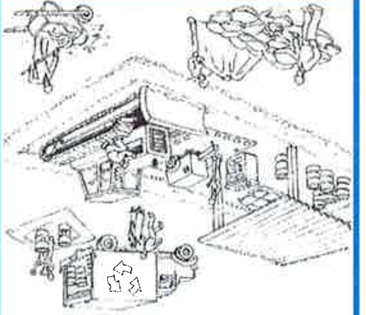
The two most common sources of stormwater pollution problems associated with construction activities are ***erosion*** and ***sedimentation***. Failure to maintain adequate erosion and sediment controls at construction sites often results in sediment discharges into the storm drain system, creating multiple problems once it enters local waterways.

Construction vehicles and heavy equipment can also track significant amounts of mud and sediment onto adjacent streets. Additionally, wind may transport construction materials and wastes into streets storm drains, or directly into our local waterways.

StormWater Pollution

What you should know for...

GENERAL CONSTRUCTION & SITE SUPERVISION



Best Management Practices (BMPs) for:

- Developers
- General Contractors
- Home Builders
- Construction Inspectors
- Anyone in the construction business

To report a hazardous materials spill, call:

Riverside County Hazardous Materials Emergency Response Team
(909) 358-5055 8:00 a.m. – 5:00 p.m.
(909) 358-5245 after 5:00 p.m.

In an emergency call: **911**

For recycling and hazardous waste disposal, call:

(909) 358-5055

To report an illegal dumping or a clogged storm drain, call:

1-800-506-2555

To order additional brochures or to obtain information on other pollution prevention activities, please call (909) 955-1200 or visit the StormWater/CleanWater Protection Program website at:
www.co.riverside.ca.us/depts/flood/waterquality npdes.asp

StormWater CleanWater PROTECTION PROGRAM

The StormWater/CleanWater Protection Program gratefully acknowledges the Santa Clara Valley Nonpoint Pollution Control Program, Alameda Countywide CleanWater Program and the City of Los Angeles Stormwater Management Division for information provided in this brochure.

Resources

State Water Resources Control Board
Division of Water Quality
1001 I Street
Sacramento CA 95814
(916) 341-5455
www.swrcb.ca.gov/stormwtr/

Colorado River Basin Regional Water Quality Control Board - Region 7
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260
(760) 346-7491
www.swrcb.ca.gov/~rwqcb7/

Santa Ana Regional Water Quality Control Board - Region 8
3737 Main Street, Suite 500
Riverside, CA 92501-3348
(909) 782-4130
www.swrcb.ca.gov/~rwqcb8/

San Diego Regional Water Quality Control Board - Region 9
9771 Clairemont Mesa Blvd., Suite A
San Diego, CA 92124
(858) 467-2952
www.swrcb.ca.gov/~rwqcb9/

What Should You Do?

Advance Planning to Prevent Pollution

- ❑ Remove existing vegetation only as needed.
- ❑ Schedule excavation, grading, and paving operations for dry weather periods, if possible.
- ❑ Designate a specific area of the construction site, well away from storm drain inlets or watercourses, for material storage and equipment maintenance.
- ❑ Develop and implement an effective combination of erosion and sediment controls for the construction site.
- ❑ Practice source reduction by ordering only the amount of materials that are needed to finish the project.
- ❑ Educate your employees and subcontractors about stormwater management requirements and their pollution prevention responsibilities.
- ❑ Control the amount of surface runoff at the construction site by impeding internally generated flows and using berms or drainage ditches to direct incoming offsite flows to go around the site. ***Note:*** *Consult local drainage policies for more information.*

Best Management Practices

The following Best Management Practices (BMPs) can significantly reduce pollutant discharges from your construction site. Compliance with stormwater regulations can be as simple as minimizing stormwater contact with potential pollutants by providing covers and secondary containment for construction materials, designating areas away from storm drain systems for storing equipment and materials and implementing good housekeeping practices at the construction site.

- ❑ Protect all storm drain inlets and streams located near the construction site to prevent sediment-laden water from entering the storm drain system.
- ❑ Limit access to and from the site. Stabilize construction entrances/exits to minimize the track out of dirt and mud onto adjacent streets. Conduct frequent street sweeping.
- ❑ Protect stockpiles and construction materials from winds and rain by storing them under a roof, secured impermeable tarp or plastic sheeting.
- ❑ Avoid storing or stockpiling materials near storm drain inlets, gullies or streams.
- ❑ Phase grading operations to limit disturbed areas and duration of exposure.
- ❑ Perform major maintenance and repairs of vehicles and equipment offsite.
- ❑ Wash out concrete mixers only in designated washout areas at the construction site.
- ❑ Set-up and operate small concrete mixers on tarps or heavy plastic drop cloths.
- ❑ Keep construction sites clean by removing trash, debris, wastes, etc. on a regular basis.
- ❑ Clean-up spills immediately using dry clean-up methods (e.g., absorbent materials such as cat litter, sand or rags for liquid spills; sweeping for dry spills such as cement, mortar or fertilizer) and by removing the contaminated soil from spills on dirt areas..
- ❑ Prevent erosion by implementing any or a combination of soil stabilization practices such as mulching, surface roughening, permanent or temporary seeding.
- ❑ Maintain all vehicles and equipment in good working condition. Inspect frequently for leaks, and repair promptly.
- ❑ Practice proper waste disposal. Many construction materials and wastes, including solvents, water-based paint, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste.
- ❑ Cover open dumpsters with secured tarps or plastic sheeting. Never clean out a dumpster by washing it down on the construction site.
- ❑ Arrange for an adequate debris disposal schedule to insure that dumpsters do not overflow.

General Construction Activities Stormwater Permit

(Construction Activities General Permit)

The State Water Resources Control Board (SWRCB) adopted a new Construction Activities General Permit (WQ Order No. 99-08DWQ) on August 19, 1999, superseding the now expired SWRCB statewide General Permit (WQ Order No. 92-08DWQ). This permit is administered and enforced by the SWRCB and the local Regional Water Quality Control Boards (RWQCB). The updated Construction Activities General Permit establishes a number of new stormwater management requirements for construction site operator.

NOTE: Some construction activies stormwater permits are issued on a regional basis. Consult your local RWQCB to find out if your project requires coverage under any of these permits.

Frequently Asked Questions:

Does my construction site require coverage under the Construction Activities General Permit?

Yes, if construction activity results in the disturbance of five or more acres of total land area or is part of a common plan of development that results in the disturbance of five or more acres.

How do I obtain coverage under the Construction Activities General Permit?

Obtain the permit package and submit the completed Notice of Intent (NOI) form to the SWRCB prior to grading or disturbing soil at the construction site. For ongoing construction activity involving a change of ownership, the new owner must submit a new NOI within 30 days of the date of change of ownership. The completed NOI along with the required fee should be mailed to the SWRCB.

What must I do to comply with the requirements of the Construction Activities General Permit?

- Implement BMPs for non-stormwater discharges year-round.
- Prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) prior to commencing construction activities.
- Keep a copy of the SWPPP at the construction site for the entire duration of the project.
- Calculate the anticipated stormwater run-off.
- Implement an effective combination of erosion and sediment control on all soil disturbed areas.
- Conduct site inspections prior to anticipated storm events, every 24-hours during extended storm events, and after actual storm event.
- Perform repair and maintenance of BMPs as soon as possible after storm events depending upon worker safety.
- Update the SWPPP as needed, to manage pollutants or reflect changes in site conditions.
- Include description of post construction BMPs at the construction site, including parties responsible for long-term maintenance.

NOTE: Please refer to the Construction Activities General Permit for detailed information. You may contact the SWRCB, your local RWQCB, or visit the SWRCB website at www.swrcb.ca.gov/stormwtr/ to obtain a State Construction Activities Stormwater General Permit packet.

How long is this Construction Activities General Permit in effect?

The Permit coverage stays in effect untilyou submit a Notice of Termination (NOT) to the SWRCB. For the purpose of submitting a NOT, all soil disturbing activities have to be completed and one of the three following criteria has to be met:

1. Change of ownership;
2. A uniform vegetative cover with 70 percent coverage has been established; or,
3. Equivalent stabilization measures such as the use of reinforced channel liners, soil cement, fiber matrices, geotextiles, etc., have been employed.

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.

SD-10 Site Design & Landscape Planning

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.

Roof Runoff Controls

Rain Garden

Design Objectives

- ☑ Maximize Infiltration
- ☑ Provide Retention
- ☑ Slow Runoff
- Minimize Impervious Land Coverage
- Prohibit Dumping of Improper Materials
- ☑ Contain Pollutants
- Collect and Convey

Description

Various roof runoff controls are available to address stormwater that drains off rooftops. The objective is to reduce the total volume and rate of runoff from individual lots, and retain the pollutants on site that may be picked up from roofing materials and atmospheric deposition. Roof runoff controls consist of directing the roof runoff away from paved areas and mitigating flow to the storm drain system through one of several general approaches: cisterns or rain barrels; dry wells or infiltration trenches; pop-up emitters, and foundation planting. The first three approaches require the roof runoff to be contained in a gutter and downspout system. Foundation planting provides a vegetated strip under the drip line of the roof.

Approach

Design of individual lots for single-family homes as well as lots for higher density residential and commercial structures should consider site design provisions for containing and infiltrating roof runoff or directing roof runoff to vegetative swales or buffer areas. Retained water can be reused for watering gardens, lawns, and trees. Benefits to the environment include reduced demand for potable water used for irrigation, improved stormwater quality, increased groundwater recharge, decreased runoff volume and peak flows, and decreased flooding potential.

Suitable Applications

Appropriate applications include residential, commercial and industrial areas planned for development or redevelopment.

Design Considerations

Designing New Installations

Cisterns or Rain Barrels

One method of addressing roof runoff is to direct roof downspouts to cisterns or rain barrels. A cistern is an above ground storage vessel with either a manually operated valve or a permanently open outlet. Roof runoff is temporarily stored and then released for irrigation or infiltration between storms. The number of rain

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barrels needed is a function of the rooftop area. Some low impact developers recommend that every house have at least 2 rain barrels, with a minimum storage capacity of 1000 liters. Roof barrels serve several purposes including mitigating the first flush from the roof which has a high volume, amount of contaminants, and thermal load. Several types of rain barrels are commercially available. Consideration must be given to selecting rain barrels that are vector proof and childproof. In addition, some barrels are designed with a bypass valve that filters out grit and other contaminants and routes overflow to a soak-away pit or rain garden.

If the cistern has an operable valve, the valve can be closed to store stormwater for irrigation or infiltration between storms. This system requires continual monitoring by the resident or grounds crews, but provides greater flexibility in water storage and metering. If a cistern is provided with an operable valve and water is stored inside for long periods, the cistern must be covered to prevent mosquitoes from breeding.

A cistern system with a permanently open outlet can also provide for metering stormwater runoff. If the cistern outlet is significantly smaller than the size of the downspout inlet (say ¼ to ½ inch diameter), runoff will build up inside the cistern during storms, and will empty out slowly after peak intensities subside. This is a feasible way to mitigate the peak flow increases caused by rooftop impervious land coverage, especially for the frequent, small storms.

Dry wells and Infiltration Trenches

Roof downspouts can be directed to dry wells or infiltration trenches. A dry well is constructed by excavating a hole in the ground and filling it with an open graded aggregate, and allowing the water to fill the dry well and infiltrate after the storm event. An underground connection from the downspout conveys water into the dry well, allowing it to be stored in the voids. To minimize sedimentation from lateral soil movement, the sides and top of the stone storage matrix can be wrapped in a permeable filter fabric, though the bottom may remain open. A perforated observation pipe can be inserted vertically into the dry well to allow for inspection and maintenance.

In practice, dry wells receiving runoff from single roof downspouts have been successful over long periods because they contain very little sediment. They must be sized according to the amount of rooftop runoff received, but are typically 4 to 5 feet square, and 2 to 3 feet deep, with a minimum of 1-foot soil cover over the top (maximum depth of 10 feet).

To protect the foundation, dry wells must be set away from the building at least 10 feet. They must be installed in solids that accommodate infiltration. In poorly drained soils, dry wells have very limited feasibility.

Infiltration trenches function in a similar manner and would be particularly effective for larger roof areas. An infiltration trench is a long, narrow, rock-filled trench with no outlet that receives stormwater runoff. These are described under Treatment Controls.

Pop-up Drainage Emitter

Roof downspouts can be directed to an underground pipe that daylights some distance from the building foundation, releasing the roof runoff through a pop-up emitter. Similar to a pop-up irrigation head, the emitter only opens when there is flow from the roof. The emitter remains flush to the ground during dry periods, for ease of lawn or landscape maintenance.

Foundation Planting

Landscape planting can be provided around the base to allow increased opportunities for stormwater infiltration and protect the soil from erosion caused by concentrated sheet flow coming off the roof. Foundation plantings can reduce the physical impact of water on the soil and provide a subsurface matrix of roots that encourage infiltration. These plantings must be sturdy enough to tolerate the heavy runoff sheet flows, and periodic soil saturation.

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.

Supplemental Information

Examples

- City of Ottawa's Water Links Surface –Water Quality Protection Program
- City of Toronto Downspout Disconnection Program
- City of Boston, MA, Rain Barrel Demonstration Program

Other Resources

Hager, Marty Catherine, Stormwater, "Low-Impact Development", January/February 2003. www.stormh2o.com

Low Impact Urban Design Tools, Low Impact Development Design Center, Beltsville, MD. www.lid-stormwater.net

Start at the Source, Bay Area Stormwater Management Agencies Association, 1999 Edition

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.

- 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

– 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.

Drainage System Maintenance SC-44

Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize

Targeted Constituents

Sediment	✓
Nutrients	
Trash	✓
Metals	
Bacteria	✓
Oil and Grease	
Organics	

Description

As a consequence of its function, the stormwater conveyance system collects and transports urban runoff and stormwater that may contain certain pollutants. The protocols in this fact sheet are intended to reduce pollutants reaching receiving waters through proper conveyance system operation and maintenance.

Approach

Pollution Prevention

Maintain catch basins, stormwater inlets, and other stormwater conveyance structures on a regular basis to remove pollutants, reduce high pollutant concentrations during the first flush of storms, prevent clogging of the downstream conveyance system, restore catch basins' sediment trapping capacity, and ensure the system functions properly hydraulically to avoid flooding.

Suggested Protocols

Catch Basins/Inlet Structures

- Staff should regularly inspect facilities to ensure compliance with the following:
  - Immediate repair of any deterioration threatening structural integrity.
  - Cleaning before the sump is 40% full. Catch basins should be cleaned as frequently as needed to meet this standard.
  - Stenciling of catch basins and inlets (see SC34 Waste Handling and Disposal).

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- Clean catch basins, storm drain inlets, and other conveyance structures before the wet season to remove sediments and debris accumulated during the summer.

- Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed.

- Keep accurate logs of the number of catch basins cleaned.

- Store wastes collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain.

- Dewater the wastes if necessary with outflow into the sanitary sewer if permitted. Water should be treated with an appropriate filtering device prior to discharge to the sanitary sewer. If discharge to the sanitary sewer is not allowed, water should be pumped or vacuumed to a tank and properly disposed. Do not dewater near a storm drain or stream.

Storm Drain Conveyance System

- Locate reaches of storm drain with deposit problems and develop a flushing schedule that keeps the pipe clear of excessive buildup.

- Collect and pump flushed effluent to the sanitary sewer for treatment whenever possible.

Pump Stations

- Clean all storm drain pump stations prior to the wet season to remove silt and trash.

- Do not allow discharge to reach the storm drain system when cleaning a storm drain pump station or other facility.

- Conduct routine maintenance at each pump station.

- Inspect, clean, and repair as necessary all outlet structures prior to the wet season.

Open Channel

- Modify storm channel characteristics to improve channel hydraulics, increase pollutant removals, and enhance channel/creek aesthetic and habitat value.

- Conduct channel modification/improvement in accordance with existing laws. Any person, government agency, or public utility proposing an activity that will change the natural (emphasis added) state of any river, stream, or lake in California, must enter into a Steam or Lake Alteration Agreement with the Department of Fish and Game. The developer-applicant should also contact local governments (city, county, special districts), other state agencies (SWRCB, RWQCB, Department of Forestry, Department of Water Resources), and Federal Corps of Engineers and USFWS.

Illicit Connections and Discharges

- Look for evidence of illegal discharges or illicit connections during routine maintenance of conveyance system and drainage structures:

  - Is there evidence of spills such as paints, discoloring, etc?

- Are there any odors associated with the drainage system?
- Record locations of apparent illegal discharges/illicit connections?
- Track flows back to potential dischargers and conduct aboveground inspections. This can be done through visual inspection of upgradient manholes or alternate techniques including zinc chloride smoke testing, fluorometric dye testing, physical inspection testing, or television camera inspection.
- Eliminate the discharge once the origin of flow is established.

- Stencil or demarcate storm drains, where applicable, to prevent illegal disposal of pollutants. Storm drain inlets should have messages such as "Dump No Waste Drains to Stream" stenciled next to them to warn against ignorant or intentional dumping of pollutants into the storm drainage system.
- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Illegal Dumping

- Inspect and clean up hot spots and other storm drainage areas regularly where illegal dumping and disposal occurs.
- Establish a system for tracking incidents. The system should be designed to identify the following:
  - Illegal dumping hot spots
  - Types and quantities (in some cases) of wastes
  - Patterns in time of occurrence (time of day/night, month, or year)
  - Mode of dumping (abandoned containers, "midnight dumping" from moving vehicles, direct dumping of materials, accidents/spills)
  - Responsible parties
- Post "No Dumping" signs in problem areas with a phone number for reporting dumping and disposal. Signs should also indicate fines and penalties for illegal dumping.
- Refer to fact sheet SC-10 Non-Stormwater Discharges.

Training

- Train crews in proper maintenance activities, including record keeping and disposal.
- Allow only properly trained individuals to handle hazardous materials/wastes.
- Have staff involved in detection and removal of illicit connections trained in the following:
  - OSHA-required Health and Safety Training (29 CFR 1910.120) plus annual refresher training (as needed).

- OSHA Confined Space Entry training (Cal-OSHA Confined Space, Title 8 and Federal OSHA 29 CFR 1910.146).

- Procedural training (field screening, sampling, smoke/dye testing, TV inspection).

Spill Response and Prevention

- Investigate all reports of spills, leaks, and/or illegal dumping promptly.

- Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags) or dig up, remove, and properly dispose of contaminated soil.

- Refer to fact sheet SC-11 Spill Prevention, Control, and Cleanup.

Other Considerations (Limitations and Regulations)

- Clean-up activities may create a slight disturbance for local aquatic species. Access to items and material on private property may be limited. Trade-offs may exist between channel hydraulics and water quality/riparian habitat. If storm channels or basins are recognized as wetlands, many activities, including maintenance, may be subject to regulation and permitting.

- Storm drain flushing is most effective in small diameter pipes (36-inch diameter pipe or less, depending on water supply and sediment collection capacity). Other considerations associated with storm drain flushing may include the availability of a water source, finding a downstream area to collect sediments, liquid/sediment disposal, and prohibition against disposal of flushed effluent to sanitary sewer in some areas.

- Regulations may include adoption of substantial penalties for illegal dumping and disposal.

- Local municipal codes may include sections prohibiting discharge of soil, debris, refuse, hazardous wastes, and other pollutants into the storm drain system.

Requirements

Costs

- An aggressive catch basin cleaning program could require a significant capital and O&M budget.

- The elimination of illegal dumping is dependent on the availability, convenience, and cost of alternative means of disposal. The primary cost is for staff time. Cost depends on how aggressively a program is implemented. Other cost considerations for an illegal dumping program include:

  - Purchase and installation of signs.

  - Rental of vehicle(s) to haul illegally-disposed items and material to landfills.

  - Rental of heavy equipment to remove larger items (e.g., car bodies) from channels.

  - Purchase of landfill space to dispose of illegally-dumped items and material.

- Methods used for illicit connection detection (smoke testing, dye testing, visual inspection, and flow monitoring) can be costly and time-consuming. Site-specific factors, such as the level of impervious area, the density and ages of buildings, and type of land use will determine the level of investigation necessary.

Maintenance

- Two-person teams may be required to clean catch basins with vactor trucks.
- Teams of at least two people plus administrative personnel are required to identify illicit discharges, depending on the complexity of the storm sewer system.
- Arrangements must be made for proper disposal of collected wastes.
- Technical staff are required to detect and investigate illegal dumping violations.

Supplemental Information

Further Detail of the BMP

Storm Drain Flushing

Flushing is a common maintenance activity used to improve pipe hydraulics and to remove pollutants in storm drainage systems. Flushing may be designed to hydraulically convey accumulated material to strategic locations, such as an open channel, another point where flushing will be initiated, or the sanitary sewer and the treatment facilities, thus preventing resuspension and overflow of a portion of the solids during storm events. Flushing prevents "plug flow" discharges of concentrated pollutant loadings and sediments. Deposits can hinder the designed conveyance capacity of the storm drain system and potentially cause backwater conditions in severe cases of clogging.

Storm drain flushing usually takes place along segments of pipe with grades that are too flat to maintain adequate velocity to keep particles in suspension. An upstream manhole is selected to place an inflatable device that temporarily plugs the pipe. Further upstream, water is pumped into the line to create a flushing wave. When the upstream reach of pipe is sufficiently full to cause a flushing wave, the inflated device is rapidly deflated with the assistance of a vacuum pump, thereby releasing the backed up water and resulting in the cleaning of the storm drain segment.

To further reduce impacts of stormwater pollution, a second inflatable device placed well downstream may be used to recollect the water after the force of the flushing wave has dissipated. A pump may then be used to transfer the water and accumulated material to the sanitary sewer for treatment. In some cases, an interceptor structure may be more practical or required to recollect the flushed waters.

It has been found that cleansing efficiency of periodic flush waves is dependent upon flush volume, flush discharge rate, sewer slope, sewer length, sewer flow rate, sewer diameter, and population density. As a rule of thumb, the length of line to be flushed should not exceed 700 feet. At this maximum recommended length, the percent removal efficiency ranges between 65-75% for organics and 55-65% for dry weather grit/inorganic material. The percent removal efficiency drops rapidly beyond that. Water is commonly supplied by a water truck, but fire hydrants can also supply water. To make the best use of water, it is recommended that reclaimed water be used or that fire hydrant line flushing coincide with storm sewer flushing.

References and Resources

California's Nonpoint Source Program Plan http://www.swrcb.ca.gov/nps/index.html

Clark County Storm Water Pollution Control Manual
http://www.co.clark.wa.us/pubworks/bmpman.pdf

Ferguson, B.K. 1991. Urban Stream Reclamation, p. 324-322, Journal of Soil and Water Conservation.

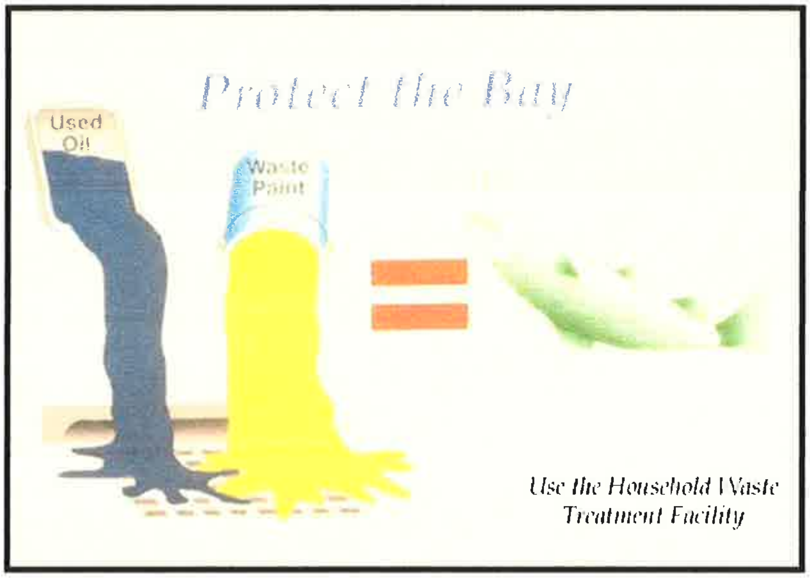
King County Storm Water Pollution Control Manual http://dnr.metrokc.gov/wlr/dss/spcm.htm

Oregon Association of Clean Water Agencies. Oregon Municipal Stormwater Toolbox for Maintenance Practices. June 1998.

Santa Clara Valley Urban Runoff Pollution Prevention Program http://www.scvurppp.org

The Storm Water Managers Resource Center http://www.stormwatercenter.net

United States Environmental Protection Agency (USEPA). 2002. Pollution Prevention/Good Housekeeping for Municipal Operations Storm Drain System Cleaning. On line: http://www.epa.gov/npdes/menuofbmps/poll_16.htm



Objectives

- Cover
- Contain
- Educate
- Reduce/Minimize
- Product Substitution

Targeted Constituents

Sediment	
Nutrients	✓
Trash	
Metals	✓
Bacteria	✓
Oil and Grease	✓
Organics	✓

Description

Non-stormwater discharges are those flows that do not consist entirely of stormwater. Some non-stormwater discharges do not include pollutants and may be discharged to the storm drain. These include uncontaminated groundwater and natural springs. There are also some non-stormwater discharges that typically do not contain pollutants and may be discharged to the storm drain with conditions. These include car washing, air conditioner condensate, etc. However there are certain non-stormwater discharges that pose environmental concern. These discharges may originate from illegal dumping or from internal floor drains, appliances, industrial processes, sinks, and toilets that are connected to the nearby storm drainage system. These discharges (which may include: process waste waters, cooling waters, wash waters, and sanitary wastewater) can carry substances such as paint, oil, fuel and other automotive fluids, chemicals and other pollutants into storm drains. They can generally be detected through a combination of detection and elimination. The ultimate goal is to effectively eliminate non-stormwater discharges to the stormwater drainage system through implementation of measures to detect, correct, and enforce against illicit connections and illegal discharges of pollutants on streets and into the storm drain system and creeks.

Approach

Initially the industry must make an assessment of non-stormwater discharges to determine which types must be eliminated or addressed through BMPs. The focus of the following approach is in the elimination of non-stormwater discharges.

CASQA
California Stormwater Quality Association