FINAL REPORT

Coal Creek

Headwaters to Jefferson/Boulder County Line

Hydrology Evaluation

Prepared for

CDOT
Region 4

August 28, 2014

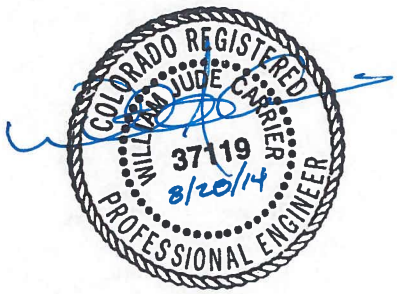
URS Corporation
2315 Briargate Parkway, Suite 150
Colorado Springs, CO 80920

Project No. 22243675

I hereby affirm that this report and hydrologic analysis for the Coal Creek was prepared by me, or under my direct supervision, for the owners thereof, in accordance with the current provisions of the Colorado Floodplain and Stormwater Criteria Manual, and approved variances and exceptions thereto.

Signature:

URS
August 28, 2014
William J. Carrier
Registered Professional Engineer State of Colorado No. PE 37119



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Executive Summary

In September 2013, the Colorado Front Range experienced an extensive rainstorm event spanning approximately ten days from September 9th to September 18th. The event generated widespread flooding as the long duration storm saturated soils and increased runoff potential. Flooding resulted in substantial erosion, bank widening, and realigning of stream channels; transport of mud, rock and debris; failures of dams; landslides; damage to roads, bridges, utilities, and other public infrastructures; and flood impacts to many residential and commercial structures. Ten fatalities were attributed to the floods.

During and immediately following the rainstorm event, the Colorado Department of Transportation (CDOT) engaged in a massive flood response effort to protect the traveling public, rebuild damaged roadways and bridges to get critical travel corridors open again, and engage in assessments and analyses to guide longer term rebuilding efforts. As part of this effort, CDOT partnered with the Colorado Water Conservation Board (CWCB) to initiate hydrologic analyses in several key river systems impacted by the floods. The work was contracted to three consultant teams led by the following firms.

Boulder Creek, Little Thompson Creek	CH2M HILL
Big Thompson River, St. Vrain Creek, Lefthand Creek	Jacobs
Coal Creek, South Platte River	URS

The purpose of the analyses is to ascertain the approximate magnitude of the September flood event in key locations throughout the watershed and to prepare estimates of peak discharge that can serve to guide the design of permanent roadway and other infrastructure improvements along the impacted streams. These estimates of peak discharges for various return periods will be shared with local floodplain administrators for their consideration in revising or updating any current regulatory discharges.

The primary tasks of the hydrologic analyses include:

1. Estimate peak discharges that were believed to have occurred during the flood event at key locations along the study streams. Summarize these discharges along with estimates provided by others in comparison to existing regulatory discharges. Document the approximate return period associated with the September flood event based on current regulatory discharges.
2. Prepare rainfall-runoff models of the study watersheds, input available rainfall data representing the September rainstorm, and calibrate results to provide correlation to estimated peak discharges.
3. Prepare updated flood frequency analyses using available gage data and incorporate the estimated peak discharges from the September event.
4. Use rainfall-runoff models to estimate predictive peak discharges for a number of return periods based on rainfall information published by the National Oceanic and Atmospheric

Administration (NOAA) [NOAA Atlas 14, Volume 8, Updated 2013]. Compare results to updated flood frequency analyses and unit discharge information and calibrate as appropriate.

This report documents the hydrologic evaluation for Coal Creek.

The Coal Creek basin project area begins at its headwaters in the foothills of Jefferson County and continues east to the Boulder/Jefferson county line near W. 120th Avenue State Highway 93. The study area is comprised of approximately 21 square miles of drainage area and 18 miles of Coal Creek channel. Roughly ninety percent of the basin is above 7500 feet mean sea Level (MSL) and has a mean slope in excess of thirty-five percent. The channel is confined in a steep walled canyon and opens to a wide, flat plains area in the last mile of the study reach. Along its 18 mile reach, it passes through small culverts, less than 36-inches in diameter, under private property access points. It also crosses State Highway 72 in the lower portion of the reach through three large double cell culverts owned and maintained by CDOT.

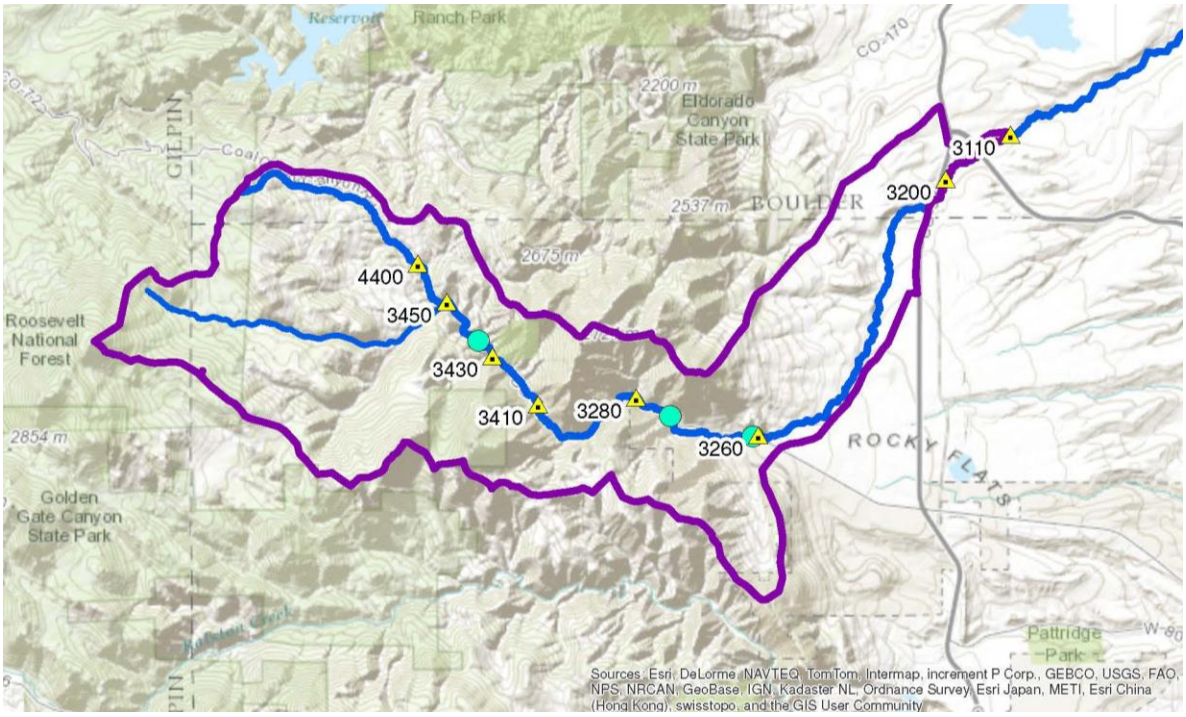


Figure 1.1 – Project Vicinity

Current Regulatory Flows

The current Flood Insurance Study for Jefferson County does not have any flood data related to Coal Creek. The floodplain on the correlating Flood Insurance Rate Map is designated Zone A. Zone A areas are those in which the floodplain is delineated by an approximate method. There are no detailed hydrologic or hydraulic models used to delineate the floodplain.

The *Coal Creek and Rock Creek Major Drainageway Plan* was developed 2012 under the commission of the Urban Drainage and Flood Control District of Denver. The restudy included developing existing and future flows for the purpose of developing conceptual plans for the conveyance of stormwater to minimize the risk of loss of life and property. The 2012 study area starts at Highway 128 and ends approximately 1 mile upstream of the confluence with Boulder Creek. This study area is below the area of interest for this report but includes the study area for hydrologic modeling purposes. Flood flows for Coal Creek have been developed in the 2012 report and accepted but, not published at the time of this report. The following table lists the calculated Peak flows at key design points from the 2012 Master Plan.

***Coal Creek and Rock Creek Major Drainageway Plan* Peak Flow s (RESPEC, 2012)**

Location		Peak Flow Rates					
		2- Year	10- Year	25- Year	50- Year	100- Year	500- Year
Design point	Description	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)
4440	Crescent Park Dr.	6	25	115	170	255	385
3450	Beaver Creek Confluence	11	75	865	1565	2750	4680
3430	Coal Creek-CO 72 CDOT STR E-15-D	7	65	740	1450	2735	4850
3410	Coal Creek-CO 72 CDOT STR E-15-G	6	70	755	1495	2840	5115
3280	Coal Creek-CO 72 CDOT STR E-15-P	6	70	800	1600	3080	5645
3260	Plainview Bridge	8	70	810	1635	3200	5920
3200	Coal Creek-CO 93	11	105	835	1775	3560	6760
3110	End of Study Area	11	105	830	1775	3580	6840

There is no mention of previous flooding in Coal Creek Canyon in any of the reports or publications which were reviewed for this study. This may be due to the relatively small size of the basin and the small amount of development in the canyon.

September 2013 Flood

The flood flows September flood event were re-created using the 2012 Hydrologic models, CUHP and SWMM, and the observed data from the September storm event. The hydrologic model was calibrated using estimated peak flows from a forensic approach of estimating flood flows. The method assumes critical-depth at a single cross section with a uniform channel slope and minimal bank erosion to develop an estimated flow based on the observed high water mark associated with the flood event at a given location. Modeling of the entire storm duration did not produce peaks flows that matched the forensically estimated peak flows. Calibration was achieved using only the peak 24-hour period of the

storm event. This may a result due to the modeling program having been designed primarily for the 24-hour storm event.

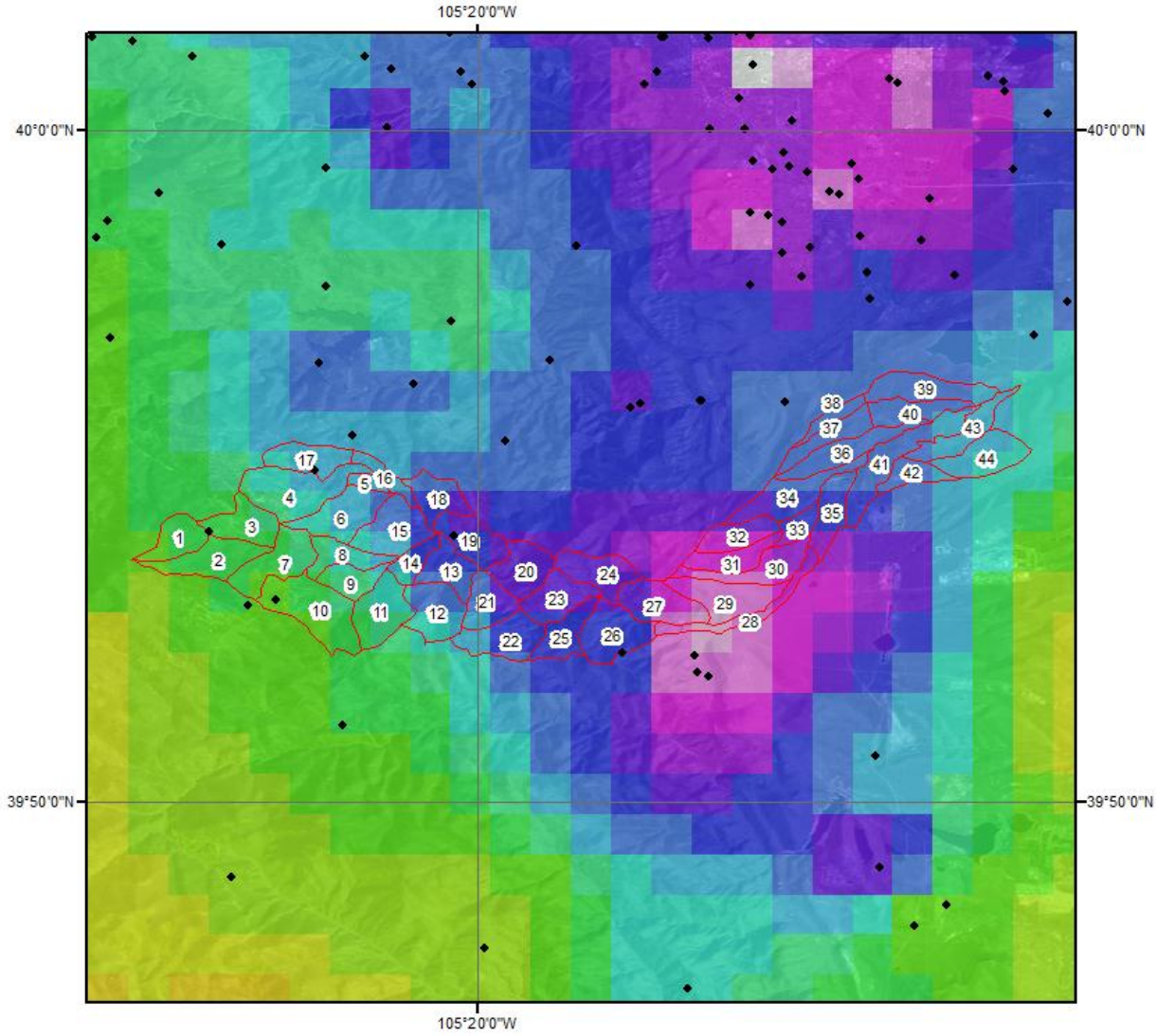
The September 2013 storm event produced significant runoff flows in Coal Creek Canyon. The upper portion of the basin experienced flows representative of a 50-year storm event. Based in the hydrologic modeling, it appears that the runoff increased significantly at design point 3450 at the confluence of Beaver Creek and Coal Creek. This spike in flow affected design point 3430, located at the intersection of Highway 72 and Crescent Park Drive. Large flows from the North were conveyed down Crescent Park Drive resulting in damage in the lower portion of Crescent Park Drive. This was confirmed by aerial photography and field observations. The estimated peak flows at key points within the canyon are listed in the following table.

September 2013 Estimated Peak Flows

Location		September 2013 Flood Event	
Design Point	**Description**	**24-hour Single Peak (cfs)**	**Approximate Event Flood Frequency* (years)**
4440	Crescent Park Drive	165	50
3450	Confluence with Beaver Creek	1190	30
3430	Coal Creek Crosses CO 72	1905	30
3410	Coal Creek Crosses CO 72	2335	35
3280	Coal Creek Crosses CO 72	3360	120
3260	Plainview Bridge	4060	200
3200	Coal Creek-CO 93	5550	350
3110	End of Study Area	5480	350

*Based on Drainage *Coal Creek and Rock Creek Major Drainageway Plan. REPSEC,* September 2012.

Throughout the lower portion of the Coal Creek Basin, large flows were produced as a result of intense precipitation in the northern sections. The flood flows in this section of the study area exceeded the 100-year storm event. At the Plainview Bridge gage site, the flooding correlated with storm return period of approximately a 300-year return interval. The total precipitation for this storm is displayed in the following figure produced by AWA and shows that the area of greatest precipitation is in the lower reaches of the basin.



Total 10-day Precipitation (in)
Sept 8, 2013 - Sept 17, 2013
SPAS #1302

Gauges

- 1302 Stations

Miles
0 0.5 1 2 3 4
Kilometers
0 1 2 4 6 8

Precipitation (inches)

0.13 - 1.00	5.01 - 6.00	10.01 - 11.00	15.01 - 16.00	20.01 - 21.00
1.01 - 2.00	6.01 - 7.00	11.01 - 12.00	16.01 - 17.00	
2.01 - 3.00	7.01 - 8.00	12.01 - 13.00	17.01 - 18.00	
3.01 - 4.00	8.01 - 9.00	13.01 - 14.00	18.01 - 19.00	
4.01 - 5.00	9.01 - 10.00	14.01 - 15.00	19.01 - 20.00	

01/22/2013

Predictive Peak Discharges

The general approach to modeling was to verify the existing models, update the model inputs as needed, and calibrated the models to known flows associated with the September 2013 Flood. The basin characteristics from the calibrated model were coupled with the new NOAA 14 precipitation data to estimate predictive peak discharges. The existing regulatory flows, the September 2013 event flows and the updated NOAA flows were compared to determine the predictive peak discharges for CDOT projects in the study area. The hydrologic model using the input data from the 24-hour storm model and the NOAA 14 precipitation data produced the highest peak flow values of any simulation.

Predictive Peak Discharges

Location		Peak Flow Rates					
		2- Year*	10- Year	25- Year	50- Year	100- Year	500- Year
Design point	Description	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)
4440	Crescent Park Dr.	4	25	105	175	265	455
3450	Beaver Creek Confluence	9	60	745	1630	2930	5670
3430	Coal Creek-CO 72 CDOT STR E-15-D	6	55	620	1515	2840	5945
3410	Coal Creek-CO 72 CDOT STR E-15-G	5	60	640	1575	2965	6295
3280	Coal Creek-CO 72 CDOT STR E-15-P	4	60	670	1675	3215	6995
3260	Plainview Bridge	4	55	670	1715	3330	7390
3200	Coal Creek-CO 93	4	55	650	1825	3790	8585
3110	End of Study Area	4	55	640	1815	3810	8720

Although the NOAA 14 storm event is recommended for the Design Flow for CDOT, the design value for the County and local municipalities will have to be decided in conjunction with these entities. As previously mentioned the highway is the single route in and out of the canyon and for this reason CDOT design criteria is based on the 100-year storm event. However, private access points along the highway are generally designed for 10-year storm events. The minor storm events are generally chosen due to cost associated with larger structures. Most private entities cannot afford to build to the 50-year or 100-year storm event. The required capacity increases from less than 100 cfs in the 10-year storm to accommodating well over 500 cfs for the 50-year storm in the lower portions of the basin.

This presents a challenge for CDOT at these access points. The private access roads constrict flows in the higher flood events forcing flows onto the highway because their hydraulic structures cannot support the high floods flows causing backwater conditions and roadway overtopping, which occurred

during the September 2013 event. This configuration has the potential to scour roadway pavement even during minor storm events. It is important that CDOT, the local jurisdiction and private property owners agree to an acceptable design flow and design criteria to prevent impacts to the highway during small flood events due to constrictions associated with private access.

I. Purpose and Objective

a. Background

In September 2013, the Colorado Front Range experienced an extensive rainstorm event spanning approximately ten days from September 9th to September 18th. The event generated widespread flooding as the long duration storm saturated soils and increased runoff potential. Flooding resulted in substantial erosion, bank widening, and realigning of stream channels; transport of mud, rock and debris; failures of dams; landslides; damage to roads, bridges, utilities, and other public infrastructures; and flood impacts to many residential and commercial structures. Ten fatalities were attributed to the floods.

During and immediately following the rainstorm event, the Colorado Department of Transportation (CDOT) engaged in a massive flood response effort to protect the traveling public, rebuild damaged roadways and bridges to get critical travel corridors open again, and engage in assessments and analyses to guide longer term rebuilding efforts. As part of this effort, CDOT partnered with the Colorado Water Conservation Board (CWCB) to initiate hydrologic analyses in several key river systems impacted by the floods. The work was contracted to three consultant teams led by the following firms.

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The purpose of the analyses is to ascertain the approximate magnitude of the September flood event in key locations throughout the watershed and to prepare estimates of peak discharge that can serve to guide the design of permanent roadway and other infrastructure improvements along the impacted streams. These estimates of peak discharges for various return periods will be shared with local floodplain administrators for their consideration in revising or updating any current regulatory discharges.

The primary tasks of the hydrologic analyses include:

5. Estimate peak discharges that were believed to have occurred during the flood event at key locations along the study streams. Summarize these discharges along with estimates provided by others in comparison to existing regulatory discharges. Document the approximate return period associated with the September flood event based on current regulatory discharges.
6. Prepare rainfall-runoff models of the study watersheds, input available rainfall data representing the September rainstorm, and calibrate results to provide correlation to estimated peak discharges.
7. Prepare updated flood frequency analyses using available gage data and incorporate the estimated peak discharges from the September event.

8. Use rainfall-runoff models to estimate predictive peak discharges for a number of return periods based on rainfall information published by the National Oceanic and Atmospheric Administration (NOAA) [NOAA Atlas 14, Volume 8, updated 2013]. Compare results to updated flood frequency analyses and unit discharge information and calibrate as appropriate.

This report documents the hydrologic evaluation for Coal Creek.

b. Project Area Description

The Coal Creek basin project area begins at its headwaters in the foothills of Jefferson County and continues east to the Boulder/Jefferson county line near W. 120th Avenue State Highway 93. The study area is comprised of approximately 21 square miles of drainage area and 18 miles of Coal Creek channel. Roughly ninety percent of the basin is above 7500 feet mean sea Level (MSL) and has a mean slope in excess of thirty-five percent. The channel is confined in a steep walled canyon and opens to a wide, flat plains area in the last mile of the study reach. Along its 18 mile reach, it passes through small culverts, less than 36-inches in diameter, under private property access points. It also crosses State Highway 72 in the lower portion of the reach through three large double cell culverts owned and maintained by CDOT.

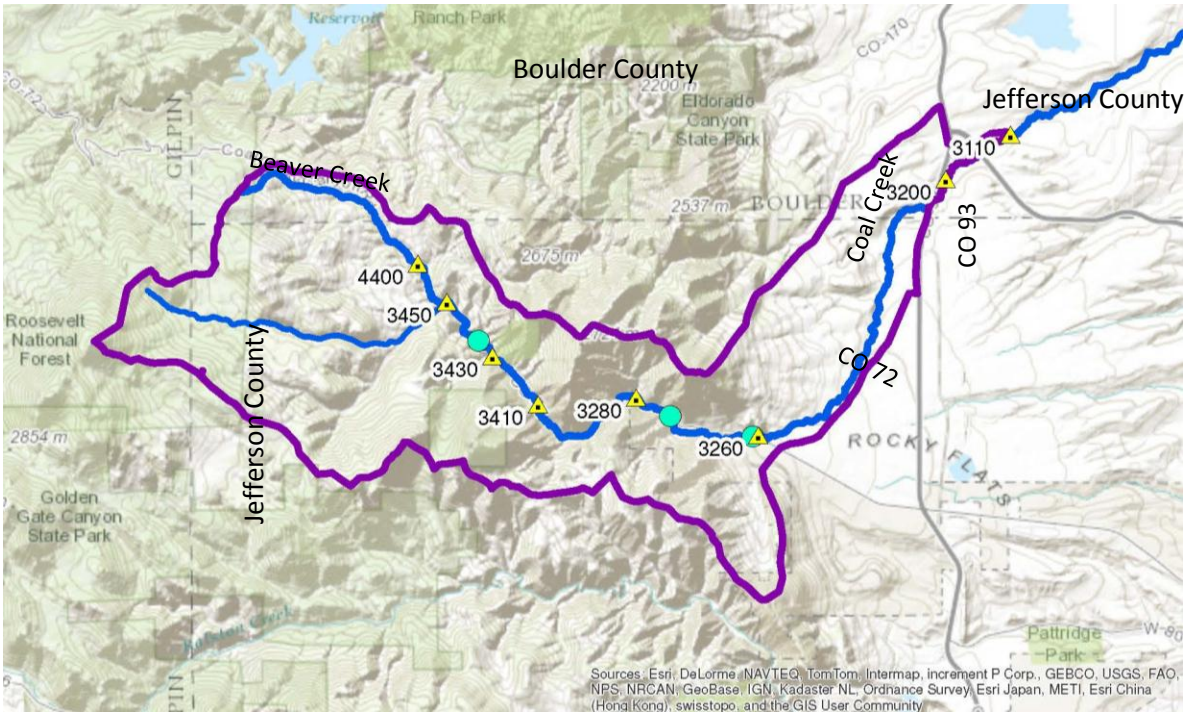

Figure 1.1 – Project

c. Vicinity Mapping

Mapping of the project area was based on light detection and ranging (LIDAR) data and aerial photography provided by CDOT for this project. The LIDAR data was used to produce a Digital Elevation Model (DEM).

Soils data was obtained from the U.S. Department of Agriculture, Natural Resources Conservation Service web soil survey. Starting at the headwaters in the mountains, the Coal Creek watershed is primarily Type D Soils with small amounts of C and B soils. In the lower portions of the study area, the plains, the watershed is primarily Type C soils with small amounts of A and B soils. See Appendix A: Hydrologic Soil Group.

Land cover information was also derived from digital land use data from the NRCS. See Appendix A: Land Use Map.

d. Data Collection

Data collection for this project included obtaining published reports, site visits and computer models previous performed in association with the published reports.

e. Flood History

There is no mention of previous flooding in Coal Creek Canyon in any of the reports or publications which were reviewed for this study. This may be due to the relatively small size of the basin and the small amount of development in the canyon.

II. Hydrologic Analysis

a. Previous Studies

The original hydrologic study of Coal Creek was done by the U.S. Department of Agriculture Soils Conservation Service in 1976. The findings were published in the *Flood Hazard Analyses Coal Creek and Rock Creek Boulder and Weld Counties Colorado*.

In 2006 Kiowa Engineering completed an updated hydrology assessment. The resulting *Coal Creek (through Town of Superior) Major Drainageway Planning* study was published by the Urban Drainage and Flood Control District of Denver (UDFCD). The restudy involved converting the models to Colorado Urban Hydrograph Procedure (CUHP) v1.3.3 and EPA Stormwater Management Model (SWMM) v 5.0.022. It also included updating the rain gages to match the *Jefferson County Storm Drainage Design & Technical Criteria* and the *Boulder County Storm Drainage Criteria Manual*. Some basin characteristics were modified but, none of those basins are located in the upper reaches of Coal Creek which are part of this study.

In 2012 RESPEC was tasked with developing a master plan for Coal Creek. The restudy of the Kiowa 2006 Study included developing existing and future flows for the purpose of developing conceptual plans for the conveyance of stormwater to minimize the risk of loss of life and property. The 2012 study area starts at Highway 128 and ends approximately 1 mile upstream of the confluence with Boulder

Creek. This RESPEC study area is below the area of interest for this report. The hydrology models from this RESPEC study were provided by UDFCD to URS and have hydrologic modeling for the upper Coal Creek area. URS incorporated this information to develop the hydrologic models for this study

b. Stream Gage Analysis

Coal Creek has a gage (COCREPO.06730300) near Plainview Bridge at the mouth of the canyon (figure 2.1) with 53 years of record (1959-2012). The previous maximum recorded flow was 2,060 cfs (1969). The September 2013 peak flow record exceeded the range of calibrated gage height (7.71 feet) and no peak flow was recorded for the event. Log-Pearson analysis of the 53 year gage record with the station skew estimated the 100- year peak flow as 386 cfs. If the estimated flood flows for September 2013 flood are included in the analysis, the 100- year peak flow was estimated to be 983 cfs and 922 cfs with station and regional skews respectively.

September 2013 flood peak flows were estimated using "paleo-flood" methodologies, which are similar to the critical depth estimates assuming uniform channel slope and the minimum bank erosion. The estimated peak at the gage site (3,900 cfs) was much higher than the highest gaged peak record. The peak was not treated as an historical event in the frequency analysis.

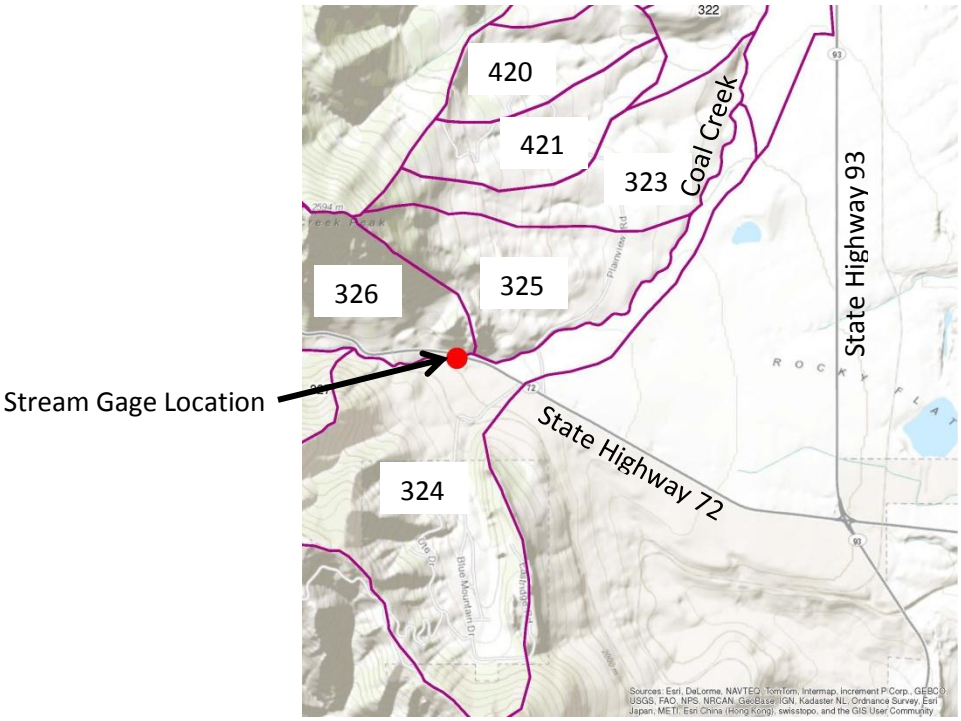

Figure 2.1 – Stream Gage Location

Table 2.1: Gage Data Analysis, Station Skew

Return Period (years)	Flows (cfs)		Confidence Limits	
	Computed Curve	Expected Probability	.05	.95
			FLOW (cfs)	
2	42.5	50	52.7	34.4
5	101.5	102.6	132.7	80.4
10	154.7	157.7	211.5	119.3
25	236.8	244.7	340.6	176.4
50	307.6	321.5	457.8	223.8
100	386.0	408.4	592.1	274.1
500	596.2	651.0	971.7	406.3

The gage analysis was also conducted including the estimated flood flows for the September 2013 event. The results are summarized in Table 2.2.

Table 2.2: Gage Data Analysis including September Flood, Station Skew

Return Period (years)	Flows (cfs)		Confidence Limits	
	Computed Curve	Expected Probability	.05	.95
			FLOW (cfs)	
2	51.8	51.8	73.2	36.4
5	176.0	181.4	372.5	121.9
10	358.7	381.3	618.3	234.7
25	810.6	911.6	1610.7	486.0
50	1417.1	1685.5	3128.9	793.4
100	2393.0	3040.7	5855.2	1251.9
500	3936.3	5409.9	10643.3	1926.3

Performing the Gage analysis including the estimated flood flows for the September 2013 event and the regional skew equation developed specifically for this project by Ayers and Associates yielded the follow results.

Table 2.3: Gage Data Analysis including September Flood, Regional Skew

Return Period (years)	Flows (cfs)		Confidence Limits	
	Computed Curve	Expected Probability	.05	.95
			FLOW (cfs)	
2	54.7	54.7	77.3	38.5
5	180.6	185.7	281.5	124.9
10	351.1	371.2	603.1	230.2
25	735.6	816.5	1435.8	446.0
50	1206.7	1403.8	2583.5	689.4
100	1905.5	2341.2	4457.1	1027.1
500	2922.9	3826.9	7443.0	1489.0

c. Paleo-flood Evaluation

Paleo-flood evaluations involve a forensic approach to estimating flood flows. The method assumes critical-depth at a single cross section with a uniform channel slope and minimal bank erosion. In addition, chosen locations should not have a substantial amount of debris that could induce local backwater effects.

Typical high water marks observed at the peak flow estimate locations include bent grass and slackwater deposits of fine sediment, and organic material along the channel margins. Debris lines in mid-channel locations were ignored since these often reflect run up from high mid-channel velocities instead of actual peak water surface elevations. During floods, higher-gradient channels flow at or near critical depth, where the Froude number (*Fr*) is unity and the following equation was applied to each cross section:

$$Fr = 1 = \frac{V}{\sqrt{gD}}$$

In this method, *V* is the average X-S velocity, *D* is the average flow depth (*D* = *A*/*Tw*), *A* is the flow area, *Tw* is the top width, and *g* is the acceleration due to gravity. Using the continuity equation, *Q* = *VA*, the Froude number equation can be reformulated to obtain estimates of flow rate:

$$Q = A\sqrt{\frac{gA}{Tw}}$$

where *Q* is the discharge in cubic feet per second (cfs). During substantial floods relatively long stretches of river can flow at or near critical depth, with replicate estimates of critical depth (3 to 6) providing estimates within +/- 15% of discharges measured using current meters (Jarrett and Tomlinson 2000; Webb and Jarrett 2002; Jarrett and England 2002).

A paleo-flood evaluation was supplied to URS by Applied Weather Associates (AWA) at three locations along Coal Creek. These locations are shown on shown on the Basin Map in Appendix A of this report.

Table 2.4: Paleo-Flood Flow Estimations

Location	Latitude	Longitude	Estimated Flood Flow (cfs)
1-mile Downstream of confluence with Beaver Creek, near Wundervu	39 53 37	105 20 10	1100
~1 mile upstream of Plainview Gage Site	39 52 52	105 17 41	4800
Plainview Gage Site	39 52 40	105 16 37	3900

d. Rainfall / Runoff Modeling

The area of study for Coal Creek is located in Jefferson County which falls under the jurisdiction of the UDFCD. The Urban Drainage and Flood Control is quasi-governmental oversight in the Denver metropolitan area and parts of the 6 surrounding counties. The District works with the Federal Emergency Management Agency, the agency which administers the National Flood Insurance Program (NFIP) to assure consistency between District studies and Flood Insurance Rate Maps (FIRMs).

The initial hydrology for the basin was conducted in 1976 using the USDA SCS method. The 2006 Kiowa Engineering, *Coal Creek (through Town of Superior) Major Drainageway Planning* study updated the modeling to CUHP v 1.3.3 and EPA SWMM 5.0.022. In 2012, RESPEC revised the 2006 models and used the NOAA 2 precipitation data in the development of *Coal Creek and Rock Creek Major Drainageway Plan.* The event flows developed in this report have been accepted by UDFCD and FEMA as the regulatory flood flows to be used to delineate the regulatory floodplain. Although the flows have been accepted by UDFCD and FEMA, they have not been published.

URS used both CUHP and SWMM models from the RESPEC report as the basis for this study. CUHP and SWMM are the accepted practices of UDFCD and FEMA.

i. Overall Modeling Approach

The general approach to modeling was to verify the existing models, update the model inputs as needed, and calibrated the models to known flows associated with the September 2013 Flood. The basin characteristics from the calibrated model were coupled with the new NOAA 14 precipitation data to estimate predictive peak discharges. The existing regulatory flows, the September 2013 event flows and the updated NOAA flows were compared to determine the predictive peak discharges for CDOT projects in the study area.

Coal Creek is one a six watersheds in this CDOT Hydrologic Assessment. It is the only basin that did not use HEC-HMS to model for regulatory flows, but a HEC-HMS model was created for the statistical purpose of justifying parameter calibrations for the other watersheds. This report does not go into further detail of the HEC-HMS model as the Coal Creek watershed is located within UDFCD jurisdiction, which requires the use of CUHP/SWMM modeling.

ii. Basin Delineation

The 2012 study that was provided to URS contained delineated basins and basin characteristics. URS verified these basins with updated topographic information. The updated topographic information was LIDAR data provided to URS from the U.S. National Guard working in conjunction with CDOT and the data was used by URS to develop a DEM. The contours used for basin delineation in this study were 2 foot intervals developed from the DEM.

iii. Basin Characterization

The Coal Creek watershed receives water from 2 areas; the Beaver Creek sub-basins which are tributary to the south and bub-basins in lower the lower portion of the canyon that directly contribute to Coal Creek. The Beaver Creek sub-basins are located in the mountains of Jefferson County and have an average slope of 17 percent. These basins are primarily of type D soils with small amounts of type B and

C soils. The soils correspond directly with the land use characterization of dense forest with small amounts of impervious areas (remote cabins/houses). Basin's 1-15 flow into Beaver Creek before reaching Coal Creek at design point J28/3450. Maps of this watershed are located in Appendix A.

Sub- basins 16 through 38 discharge directly into Coal Creek. These consist of both the mountains and plains of Jefferson County. The basins within the mountains are at an average slope of 19 percent. The mountainous basins are consistent with that of Beaver Creek land use and soil type characteristics.

The foothills basins have an average slope of 10 percent consisting of primarily soil type C with small amounts of B and A. They correspond directly to the land use characteristics of grasses with small amounts of impervious areas (houses, parking lots, and roads).

The rainfall data is based on the Jefferson County Storm Drainage Design & Technical Criteria Manual (Jefferson County Manual). Within this manual, areas of Jefferson County are differentiated into zones. The study limits of the Coal Creek watershed are made-up of Jefferson County Zone's IIA and IIB. Zone IIA is used in the mountainous area and Zone IIB is associated the plain region. This is relevant for the input of rainfall data further explained later in this report.

iv. Model Development

URS obtained the 2012 CUHP and EPA SWMM models from the Urban Drainage and Flood Control District of Denver. These models were used as the basis for the development of the hydrologic model used in this report. These models are the current and accepted methodology of UDFCD and FEMA.

The basin parameters and rainfall hyetograph data for each sub-basin were the input for the CUHP model. Changes to the 2012 basin parameters were made to account for current conditions and updated mapping.

Minor changes were made to the basins based on the updated mapping. Only one basin required major changes; Basin 31/324 was changed to include basin areas that were not included in the previous report. This resulted in an increase of the drainage basin area from 0.41 square miles to 1.53 square miles.

Some of the basins did not outfall at low points in the 2013 contours. These basins were delineated to that they terminated at bridges or major culverts of hydraulic importance along Coal Creek. Hydraulic evaluations are not part of the scope of work for this report but, the basins delineated at the hydraulic structures for the purpose of preventing unnecessary re-delineation in the future.

Sub-basin delineation was not the only parameter changed as a result of to the increased contour accuracy. Parameters such as: length of the longest flow path, length to the basins' centroid, slope, percent imperviousness, depression storage, and infiltration rate, were slightly altered based on the updated topographic information. Again, only minor changes were made with the exception of Basin 31/324.

URS utilized current soil and land use data from the NRCS Web Soil Survey to determine CUHP input parameters used in the model. The soil types and land use, which directly affect percent imperviousness, depression storage, and infiltration rate, were revised to reflect the any changes that

have occurred since the 2006 Kiowa study. Land use values were revised as the 2006 study predicted a greater increase in population and a denser population than currently exists in the Coal Creek Watershed.

The CUHP input data are located in Appendix B.

Rainfall data was taken from the Jefferson County Manual, which references NOAA Atlas 2, Volume 3, Colorado 1973 (NOAA 2). As stated above, Jefferson County was broken into zones and each zone had its own incremental rainfall depths from NOAA 2. The CUHP model required an input of the zones' one hour and six hour rainfall depth in inches. The Jefferson County Manual provided rainfall depths for the 2-, 5-, 10-, 50-, and 100-year storm events, but not the 25- and 500-year storms. In order to produce rainfall depths for the unknown return periods, a logarithmic regression line was fit to the known return periods' one hour and six hour rainfall depths. See Appendix D for the one hour and six hour calculations of the 25- and 500-year storms.

An area correction factor was also implemented to each zone and return period within the CUHP model. Area correction accounts for the rainfall depth over a smaller area not having the same intensity of a storm that produces the same depth of rainfall over a larger area. This produces better representative hyetographs and unit/storm hydrographs for each basin. The area correction approach was implemented in the 2012 RESPEC model was by FEMA. URS used the same methodology and the table below lists the values used for the area correction factors.

Table 2.5: Area Correction Factors

Upstream Area (mi^2)	Correction Area applied In CUHP rain gage	Correction Factor
0-10	5	1.0000
10-20	15	0.9636
20-30	25	0.9584

v. Hydrograph Routing

The drainage system in the EPA SWMM model is comprised of sub-basins, junctions, and open channels. The routing parameters within the drainage system are input in the SWMM model along with the hydrographs created from the CUHP and routes them over a designated time period. This produces a routed storm hydrograph at specific locations. The SWMM data used for this model is the input data from the 2012 Major Drainageway Planning hydrologic model. No SWMM parameters were changed for this study. The SWMM input parameters can be found in Appendix C.

vi. Model Calibration and Validation

1. Reconstructed Events

The methodology for determining the updated hydrology for the Coal Creek Basin followed a process similar to that used in the FEMA letter of Map Revision. The process is as follows:

1. Duplicate the existing model
2. Develop Corrected Model

URS obtained the 2012 CUHP/ SWMM developed by RESPEC from UDFCD. The Major Drainageway Planning report focused on reaches within Boulder County, downstream of the study area associated with this report but, it contained sub-basin hydrology for the upper reach of Coal Creek. The input data was run by URS and compared to the results in the Major Drainageway Report (MDR). These results of the computed run were confirmed with results in the report. As such, it was assumed that the model was accepted for use in this study.

Once it was determined that the model was repeatable and verifiable, the model was truncated to include only the area of concern for this study. The existing input data used in the model was compared to the updated topographic mapping and adjusted to reflect the current conditions. The model was then re-run to substantiate the expected results.

vii. Calibration Process

The initial step in the calibration of the Hydrologic model was to run the CUHP/ SWMM models with the updated basin characteristics and the real-time rainfall precipitation data from the 6-day September 2013 storm event. AWA provided each basin‘s 10-day storm event precipitation data at 5 minute and 15 minute intervals.

The Storm Precipitation Analysis System (SPAS) was used to analyze the rainfall. SPAS uses a combination of climatological base maps and NEXRAD weather radar data that is calibrated and bias corrected to rain gage observations (considered ground truth) to spatially distribute the rainfall accumulation each hour over the entire domain of the storm. Therefore, SPAS through the use of climatological base maps and weather radar data accounts for topography and locations of rain gages. For QC, SPAS storm analyses have withheld some rain gages observations and run the rainfall analysis to see how well the magnitude and timing fit at the withheld rain gage locations. In almost all cases, the analyzed rainfall has been within five percent of the rain gage observations and usually within two percent. In data sparse regions where there are a limited number of rain gages, there can be increased uncertainty in traditional rainfall analyses, especially in topographically significant regions. For the September 2013 storm, this was not the case. There was excellent weather radar coverage along with many rainfall observations with excellent overall spatial distributions at both low and high elevation locations.

Further information on SPAS can be found at the Applied Weather Associates website http://www.appliedweatherassociates.com/spas-storm-analyses.html.

The 10-day precipitation distribution is shown in figure 2.2. Based on the data provided by AWA, the range of total precipitation for the storm ranged from 6 inches to 20 inches within the basin with the lowest totals in the western third of the basin. The area of heaviest precipitation started near Wondervu and was most intense near the Plainview Stream Gage.

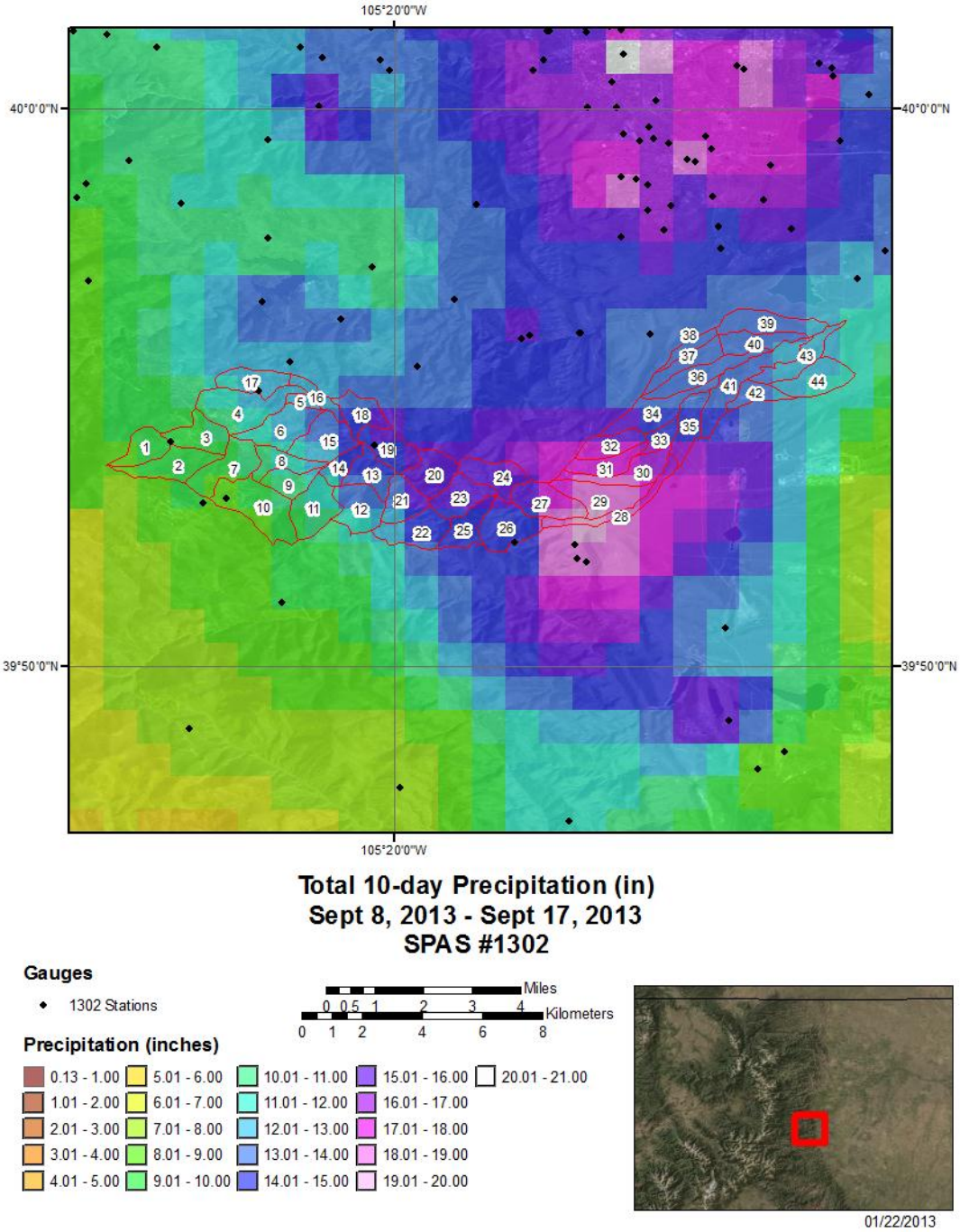

Figure 2.2 – SPAS 10-Day Precipitation Measurements

The models could not be calibrated to the Plainview stream gage. The flood flows exceeded the calibrated height (7.71 feet) during the 2013 flood event and no peak flood data was recorded. Instead, the model was calibrated to match the observed flows mentioned in the Paleo-Flood section of this report.

Peak flows were calibrated to the AWA, paleo-flood estimated flows near Wundervu and at the Plainview Gage site. These correlate to design points J28/3450 and J19/3260 in the SWMM model. AWA provided flows at a third design point approximately 1 mile upstream of the Plainview Gage Site, design point J21/3282. The estimated flows at this location were 1000 cfs greater than the estimated flows at the Plainview Gage site and there was evidence of downstream debris. Based on these observations, the resulting high water mark associated with this site was potentially a result of a debris dam. As a result this information the flow estimation data at this point was assumed to be erroneous and not used as a calibration point.

The analysis found that running un-calibrated models with the 6- day storm event resulted in significantly higher peaks than the paleo-flood estimates.

Three different calibrations attempts were performed using the precipitation data from the 6-day storm event. The three different calibration methods for the 6-day storm event were:

1. Modifying the initial and final infiltration rates
2. Varying the sub-basin imperviousness
3. Adjustments to both infiltration rates and the imperviousness

There was insufficient data to calibrated runoff volumes because Coal Creek does not have any regulated flood control structures or detention facilities within the studied basin.

1. Method 1: Modification of Infiltration Rates

The initial calibration attempt was based on modifying the infiltration rate parameters to calibrate the model. The majority of soils within the basin consist of type D soils. These soils consist of nearly impervious material and have a high runoff potential.

The Horton infiltration properties of the different hydrologic soil groups are listed in Table 2.6. These values were used in the corrected CUHP model and are in accordance with Urban Storm Drainage Criteria Manual (UDFCD) referenced in the Volumes 1, Chapter 6.

Table 2.6: Recommended Horton's Equation Parameters

Recommended Horton's Equation Parameters			
NRCS Hydrologic Soil Group	**Infiltration Rate (in/hour)**		**Decay Coefficient (α)**
	Initial	**Final**	
A	5	1	0.0007
B	4.5	0.6	0.0018
C	3	0.5	0.0018
D	3	0.5	0.0018

To duplicate the observed AWA flows, the initial infiltration rate had to be increased by 1.5 in/hour for each basin. The final infiltration rate was also adjusted upward by 0.5 in/hr. The resulting infiltration rates were more representative of type A and B soils.

In a second calibration effort, the initial infiltration rate was increased of 0.5 in/hour and the final rate increased by 0.2 in/hour to more closely reflect the infiltration rates of their original type D and C soils. This effort did not calibrate to the flows provided by AWA.

This model was abandoned as the changes in basin parameters did not reflect generally accepted engineering principles.

2. Method 2: Variation of Percent Imperviousness

The second method of calibration involved varying only the sub-basin percent imperviousness. The percent imperviousness in the corrected model was based on the current land use in each sub–basin. The value used in the calibration model for each basin was arbitrarily assumed to be one-half of the value used in the corrected model. Basins of greater than 4 percent imperviousness were adjusted one-half the actual imperviousness value. The minimum calibrated percent imperviousness was limited to 2 percent. Basins with less than 4 percent impervious area were adjusted to 2 percent. As an example, a basin with 8 percent imperviousness in the corrected model was adjusted to 4 percent in the calibration model and basin with 3 percent imperviousness was revised to 2 percent. Basin 13/440 was the only basin that had a great amount of change. It went from 22 percent imperviousness to 11 percent imperviousness.

Calibration of the six day storm was unachievable using method two. The model was unable to achieve the observed flows without inputting unrealistic percent imperviousness values below two percent. In the UDFCD Volume 1, Chapter 5, Figure RO-14 graphs the unmodified time to peak coefficient in relation to the percent imperviousness. The peak coefficient calculated by CUHP was 0.163. When this value is compared the UDFCD graph, it corresponds to a 0% impervious. This is does not correlate with accepted NRCS land use data.

3. Method 3: Adjustment Infiltration Rates and Percent Imperviousness

Lastly, from the combination of adjusted infiltration rates and percent imperviousness, the CUHP and SWMM models produced the known flow values. Soil types did not change classifications and pervious land use did not change to impervious. Parameter changes to basins did not affect the discharge rates at junctions. Increased flows were the result of greater rainfall intensity rather than adjustments to the basin characteristics. URS changed the percent imperviousness regardless, in order to stay consistent with their approach of halving percent imperviousness values. The calibration method was arbitrary and not a defendable method with evidence or statistical reasoning.

4. Method 4: 24-hour Storm Event

Although the CUHP model using the six day storm event was able to match the AWA paleo-flood estimates, other consultants performing similar analysis on other watersheds were unable to calibrate the hydrologic models. The computer programs used for hydrologic modeling are developed based on a hyetograph consisting of a single peak discharge. The September 2013 consisted of multiple peaks over

the 6-day period (see figure 2.2 below). The issue of storm duration and consecutive storm events was discussed in CDOT held meetings in Loveland, CO at the Incident Command Center (ICC). A group of well-respected hydrologists and engineers from local engineering firms proposed the September 2013 storm should be represented by the highest single peak 24-hour storm event (see figure 2.2 below). This was done for two reasons. First, the initial regulatory flood flows were developed using a single peak hyetograph. Secondly, the teams were unable to calibrate both the flood volumes and peak flows using the 6-day September 2013 precipitation data. The models could be calibrated to either the peak flow or the runoff volume, but not both.

URS modeled the 24-hour storm without changes to the infiltration rates and/or percent imperviousness and produced the results similar to those observed by AWA. The other hydrologic models developed by consultants within the ICC Hydrology Assessment group achieved calibration using this same method. Based on the similarity of results, the group decided to move forward using the single-peak hyetograph from the 24-hour storm for calibration.

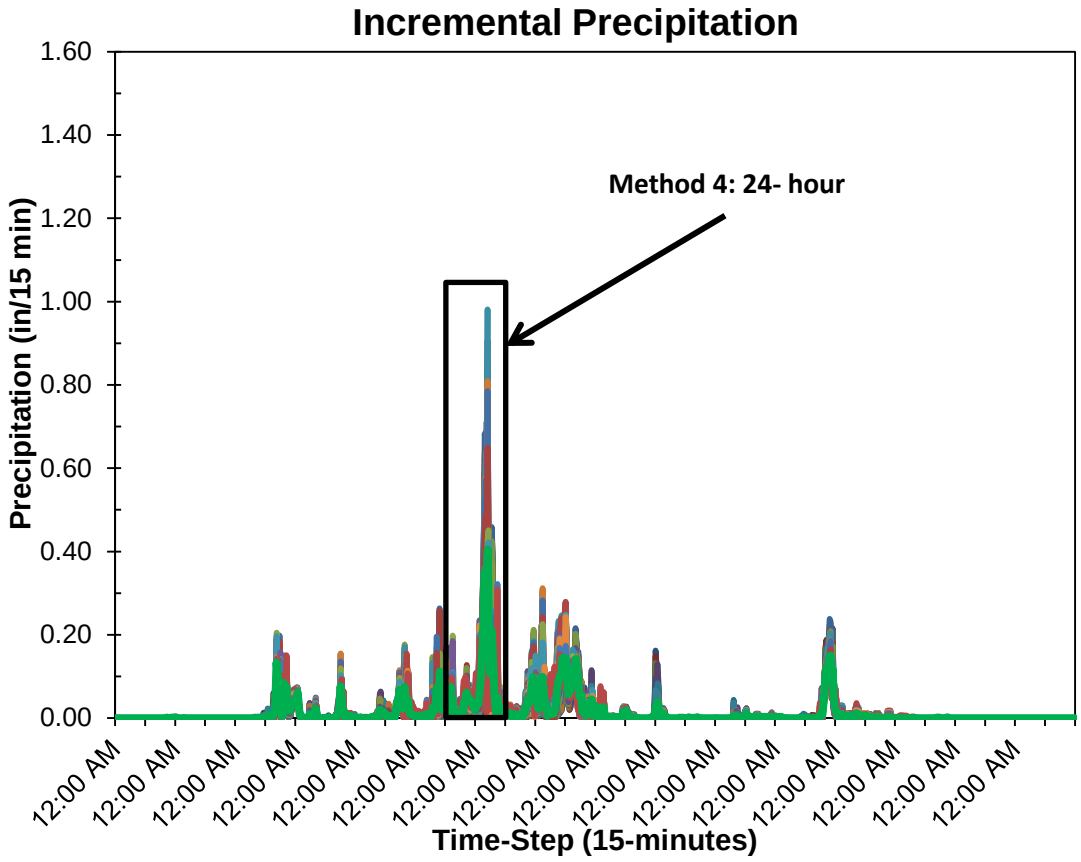

Figure 2.3 – SPAS Data for Incremental Precipitation

1. Calibration Results

The model estimates were compared to the estimated peaks by the paleo-flood approach. Calibration Method 3 was successful when matching peak storm flows, but the parameter changes were arbitrary. Changing input data can't be recognized as a successful calibration. Instead such unsuccessful calibration might reveal a limitation of the options selected in the existing model and whether the model options are suitable to simulate longer flooding events. Method 4 followed a typical FEMA analysis that used 24- hour precipitation data to estimate flood peaks. The single-peak hyetograph, 24-hour storm basin parameters were not altered (unlike Method 3) and produced flow values that varied less than 7 percent from the observed flows (see table 2.7).

Table 2.7: 6- day and 24-hour Storm Event Discharge

		September 2013 Flood Event		
Design Point	**Description**	**Method 3; 6-day Multiple Peak (cfs)**	**24-hour Single Peak (cfs)**	**AWA (cfs)**
4440	Crescent Park Drive	150	165	
3450	Confluence with Beaver Creek	1120	1190	1110
3430	Coal Creek Crosses CO 72 CDOT STR E-15-D	1860	1905	
3410	Coal Creek Crosses CO 72 CDOT STR E-15-G	2405	2335	
3280	Coal Creek Crosses CO 72 CDOT STR E-15-P	3380	3360	
3260	Plainview Bridge	4050	4060	3900
3200	Coal Creek-CO 93	5525	5550	
3110	End of Study Area	5430	5480	

1. Conventional Rainfall Input

The updated NOAA 14 rainfall data was processed using the basin parameters from the calibrated model (24-hour storm event model) to determine the estimated flood flows for the revised precipitation. NOAA 14 rainfall data was not provided in the Jefferson County Manual. URS estimated the locations for rainfall data within the Jefferson County Zone's IIA and IIB and the Coal Creek Watershed using the NOAA precipitation website. URS took the rainfall intensity from the centroid of each zone where it overlapped with the watershed. This provided an overall representation of rainfall intensity within the watershed and its delineated zone. The updated NOAA 14 has greater one hour and six hour rainfall depths for the 50-, 100-, and 500-year return periods than the NOAA 2.

The calculated flows were then compared to the existing regulatory flows and the September 2013 event flows to determine the recommended design flows for CDOT projects in the study area.

Table 2.8 compares the 100- year return period flows from the 2012 study and the updated flows from the calibrated 24-hour storm model using the NOAA 2 and NOAA 14 precipitation.

Table 2.8: 100- Year Return Period Flow Comparison

		100- Year Return Period		
Design Point	**Description**	**2012 Study (cfs)**	**Sept Flood Impacts NOAA 2 (cfs)**	**Sept Flood Impacts NOAA 14 (cfs)**
4440	Crescent Park Drive	255	255	265
3450	Confluence with Beaver Creek	3030	2750	2930
3430	Coal Creek Crosses CO 72 CDOT STR E-15-D	2930	2735	2840
3410	Coal Creek Crosses CO 72 CDOT STR E-15-G	3020	2840	2965
3280	Coal Creek Crosses CO 72 CDOT STR E-15-P	3225	3080	3215
3260	Plainview Bridge	3340	3200	3330
3200	Coal Creek-CO 93	3555	3560	3790
3110	End of Study Area	3580	3580	3810

The NOAA precipitation depths are statistically based. They have confidence intervals, which express a range of most expected values for rainfall depths in a given location. When selecting one value amongst a range of values for precipitation depth, there is uncertainty that can affect the flows produced by CUHP/SWMM. URS used the most probable values when inputting the data into the CUHP model.

III. Hydrologic Model Results

The September 2013 storm event produced significant runoff flows in Coal Creek Canyon. The upper portion of the basin experienced flows representative of a 50-year storm event. Based in the hydrologic modeling, it appears that the runoff increased significantly at design point 3450 at the confluence of Beaver Creek and Coal Creek. This spike in flow affected design point 3430, located at the intersection of Highway 72 and Crescent Park Drive. Large flows from the North were conveyed down Crescent Park Drive resulting in damage in the lower portion of Crescent Park Drive. This was confirmed by aerial photography and field observations.

Throughout the lower portion of the Coal Creek Basin, large flows were produced as a result of intense precipitation in the northern sections. The flood flows in this section of the study area exceeded the 100-year storm event. At the Plainview Bridge gage site, the flooding correlated with storm return period of approximately a 300-year return interval.

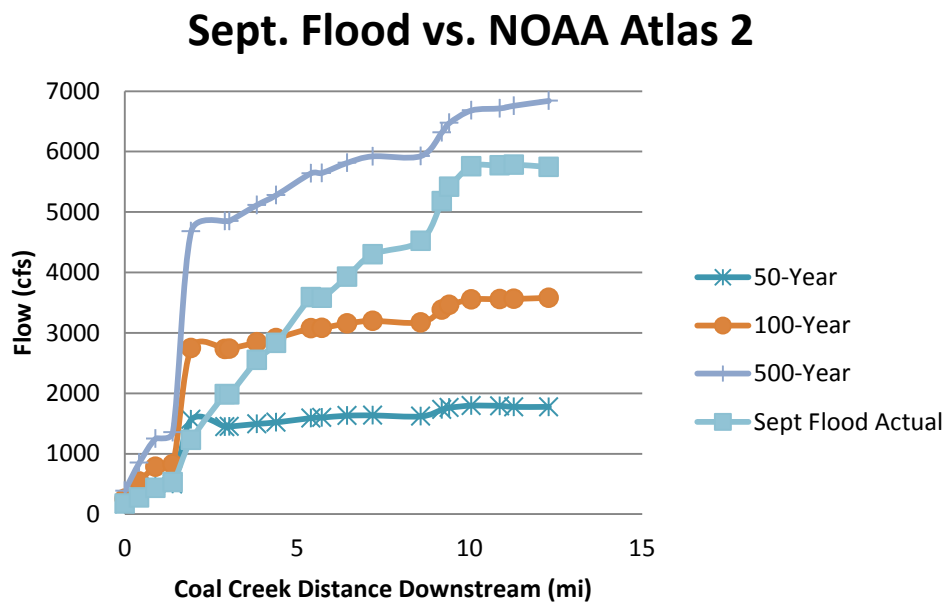

Figure 3.1 – Comparison of September Flows to NOAA Atlas 2

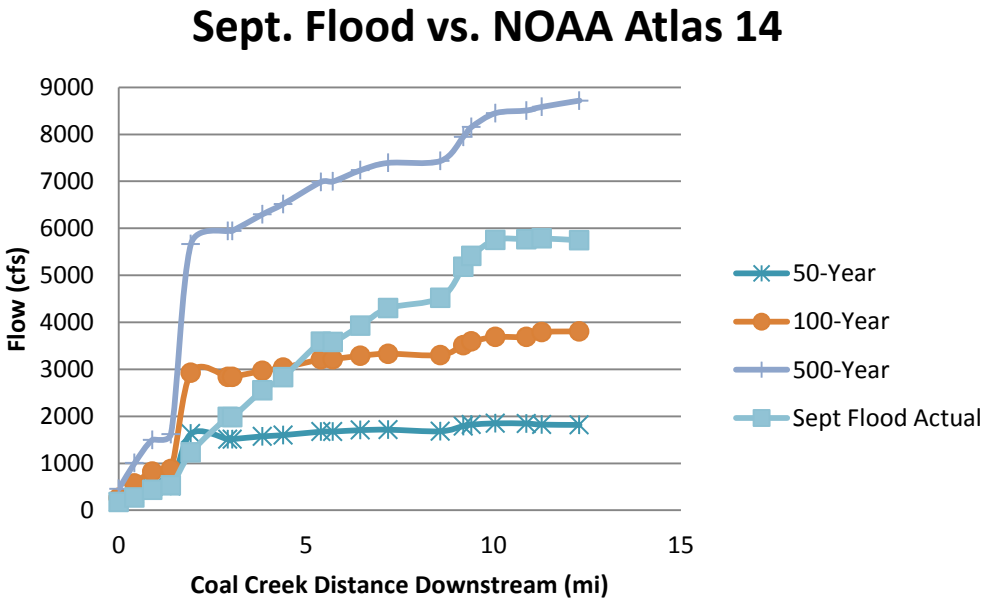

Figure 3.2 – Comparison of September Flows to NOAA Atlas 14

IV. Conclusions and Recommendations

The location of Coal Creek Canyon, in relation to Highway 72, is a condition that is similar to many mountain canyons in Colorado. The main channel of the stream runs adjacent to the highway and crosses under the highway in several locations. The highway is the single route in and out of the canyon.

The banks, roadway elevation, and crossings are designed to the 100-year storm event so that access can be maintained.

The 100-year return period flow comparison of the updated NOAA 2 and the updated NOAA 14 to the September Flood Event was used as the basis to estimate predictive peak discharges for CDOT repairs and/or future projects.

The hydrologic model using the input data from the 24-hour storm model and the NOAA 14 precipitation data produced the highest peak flow values of any simulation. This CUHP model with corrected basin characteristics from the 2013 MDP report did not make global modifications to the infiltrations rates or percent impervious parameters.

The NOAA 2 precipitation data in conjunction with the 6-day CUHP parameters produced the lowest peak flows. This model used the corrected basin parameters and global changes to the infiltration rates and percent imperviousness. Cailbration to observed flows was achieved for this model, but the model was abandoned for favor of the single peak, 24-hour storm.

Table 4.1 displays the return period flows at design points along Coal Creek with the 24-hour storm model and the NOAA 2 precipitation data. Table 4.2 displays the return period flows for the same model using the NOAA 14 precipitation data.

Table 4.1: Return Period Flows with NOAA 2

		2- Year*	10- Year	25- Year	50- Year	100- Year	500- Year
Design point	**Description**	**Q (cfs)**	**Q (cfs)**	**Q (cfs)**	**Q (cfs)**	**Q (cfs)**	**Q (cfs)**
4440	Crescent Park Dr.	6	25	115	170	255	385
3450	Beaver Creek Confluence	11	75	865	1565	2750	4680
3430	Coal Creek-CO 72 CDOT STR E-15-D	7	65	740	1450	2735	4850
3410	Coal Creek-CO 72 CDOT STR E-15-G	6	70	755	1495	2840	5115
3280	Coal Creek-CO 72 CDOT STR E-15-P	6	70	800	1600	3080	5645
3260	Plainview Bridge	8	70	810	1635	3200	5920
3200	Coal Creek-CO 93	11	105	835	1775	3560	6760
3110	End of Study Area	11	105	830	1775	3580	6840

Table 4.2: Return Period Flow with NOAA 14

		2- Year	10- Year	25- Year	50- Year	100- Year	500- Year
Design point	Description	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)	Q (cfs)
4440	Crescent Park Dr.	4	25	105	175	265	455
3450	Beaver Creek Confluence	9	60	745	1630	2930	5670
3430	Coal Creek-CO 72 CDOT STR E-15-D	6	55	620	1515	2840	5945
3410	Coal Creek-CO 72 CDOT STR E-15-G	5	60	640	1575	2965	6295
3280	Coal Creek-CO 72 CDOT STR E-15-P	4	60	670	1675	3215	6995
3260	Plainview Bridge	4	55	670	1715	3330	7390
3200	Coal Creek-CO 93	4	55	650	1825	3790	8585
3110	End of Study Area	4	55	640	1815	3810	8720

*2-year is based on rainfall data only and does not account for spring snowmelt runoff.

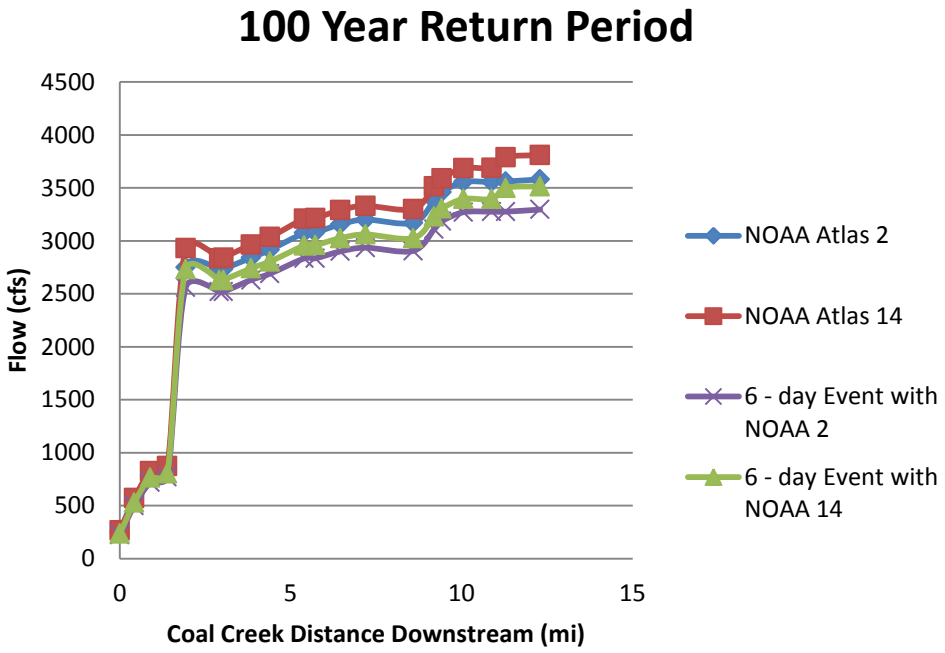

Figure 4.1 – Comparison of 100-year Flood Event Flows

Given the importance of access for citizens and emergency vehicles it is recommended that the corrected model using the predictive peak discharges associated with NOAA 14 rainfall intensity data be

accepted by CDOT as the design criteria standard for roadway and drainage improvements in Coal Creek Canyon.

Although the NOAA 14 storm event is recommended for the Design Flow for CDOT, the design value for the County and local municipalities will have to be decided in conjunction with these entities. As previously mentioned the highway is the single route in and out of the canyon and for this reason CDOT design criteria is based on the 100-year storm event. However, private access points along the highway are generally designed for 10-year storm events. The minor storm events are generally chosen due to cost associated with larger structures. Most private entities cannot afford to build to the 50-year or 100-year storm event. The required capacity increases from less than 100 cfs in the 10-year storm to accommodating well over 500 cfs for the 50-year storm in the lower portions of the basin (see Figure 4.2).

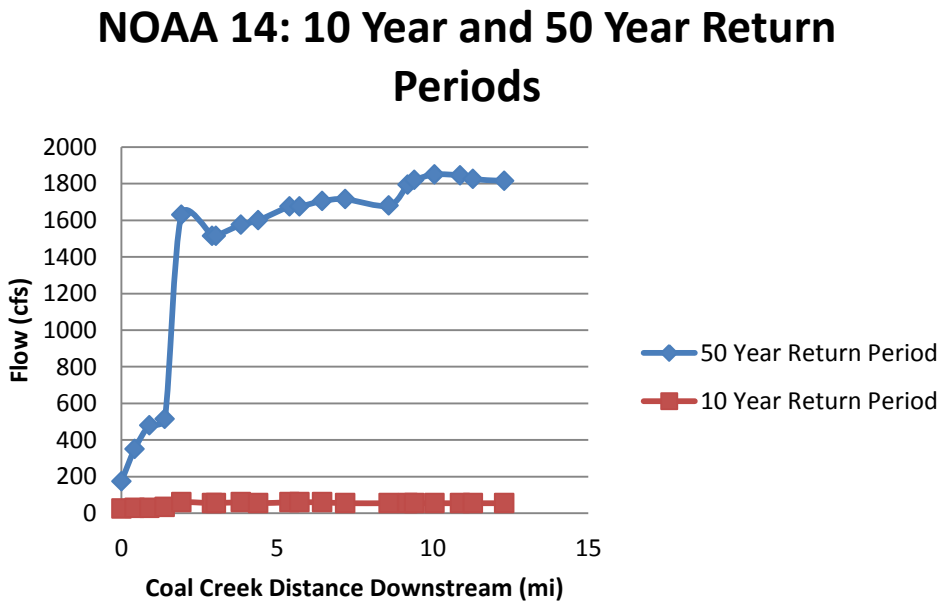

Figure 4.2 – Comparison of 100-year Flood Event Flows

This presents a challenge for CDOT at these access points. The private access roads constrict flows in the higher flood events forcing flows onto the highway because their hydraulic structures cannot support the high floods flows causing backwater conditions and roadway overtopping, which occurred during the September 2013 event. This configuration has the potential to scour roadway pavement even during minor storm events. It is important that CDOT, the local jurisdiction and private property owners agree to an acceptable design flow and design criteria to prevent impacts to the highway during small flood events due to constrictions associated with private access.

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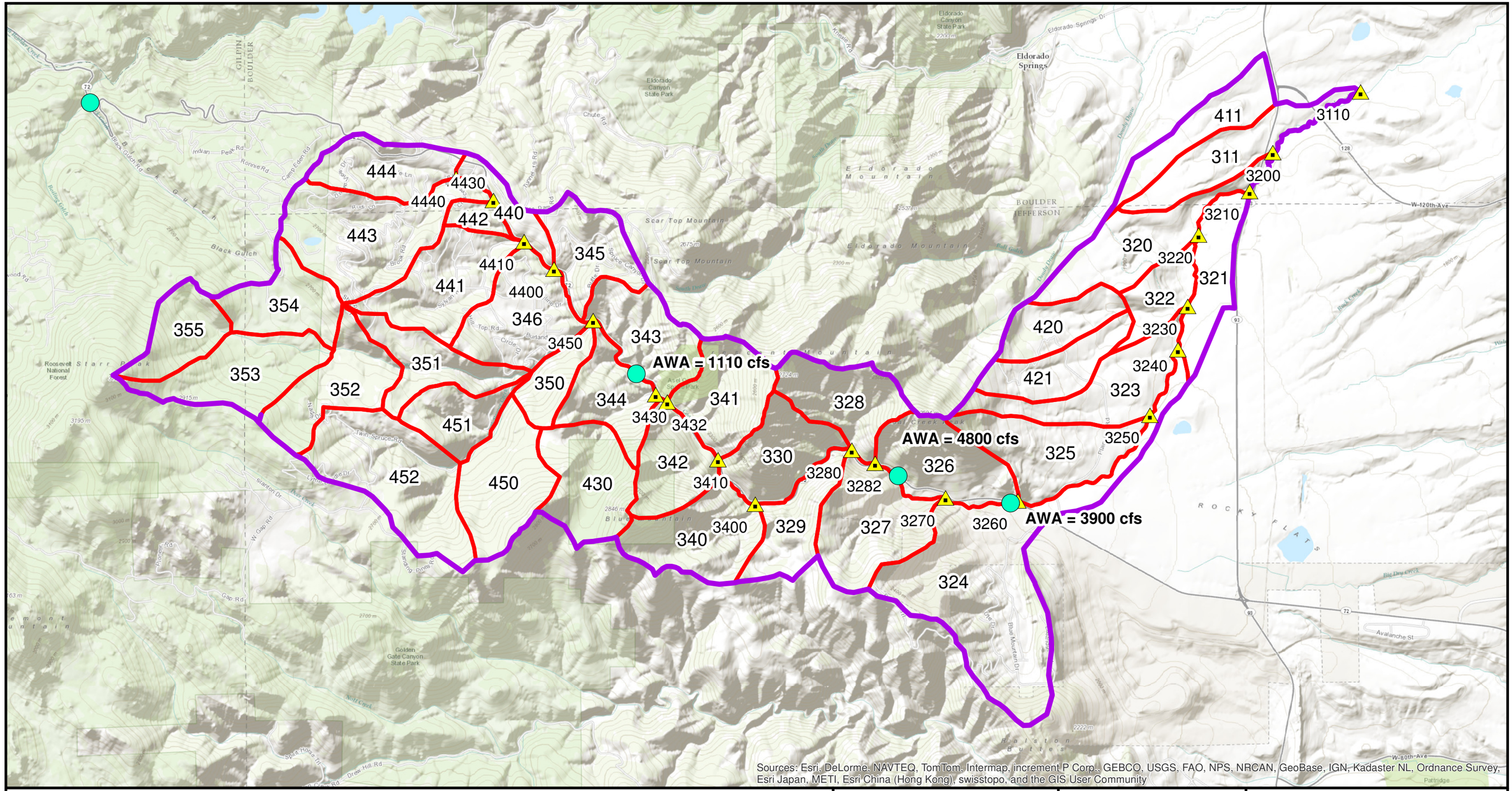
Appendix A
Maps



COAL CREEK WATERSHED

New Basin and Junction ID's

CDOT Flood Recovery Hydrologic Evaluation

21 March 2014

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URS

2315 Briargate Parkway, Suite 150
Colorado Springs, CO 80920
(719) 531-0001,

N
W E
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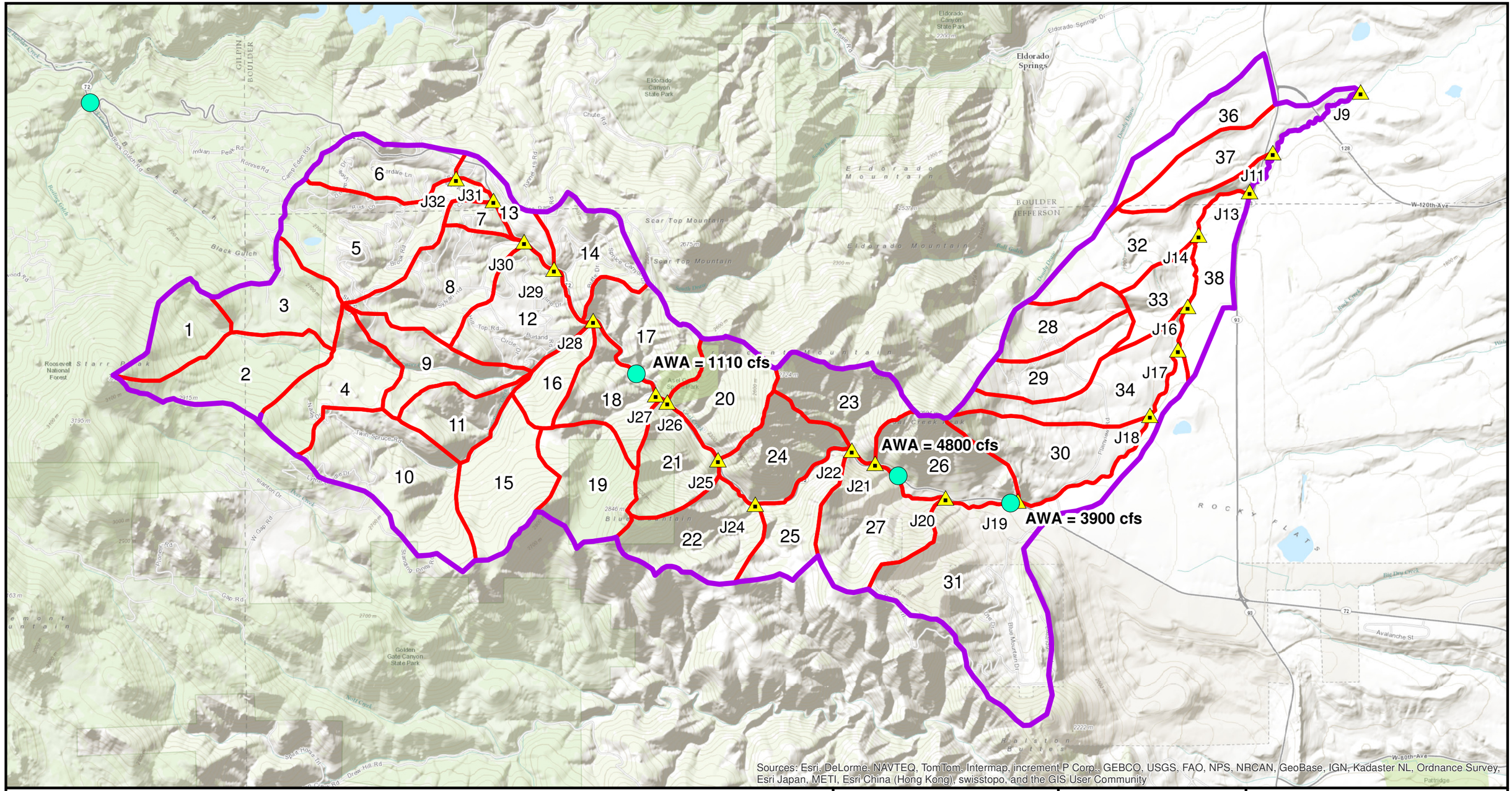
3,100 1,550 0 3,100 Feet

Legend

- AWA Locations
- SWMM Junctions
- Subwatersheds_outline
- Subwatersheds



COAL CREEK WATERSHED

Old Basin and Junction ID's

CDOT Flood Recovery Hydrologic Evaluation

21 March 2014

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URS

2315 Briargate Parkway, Suite 150
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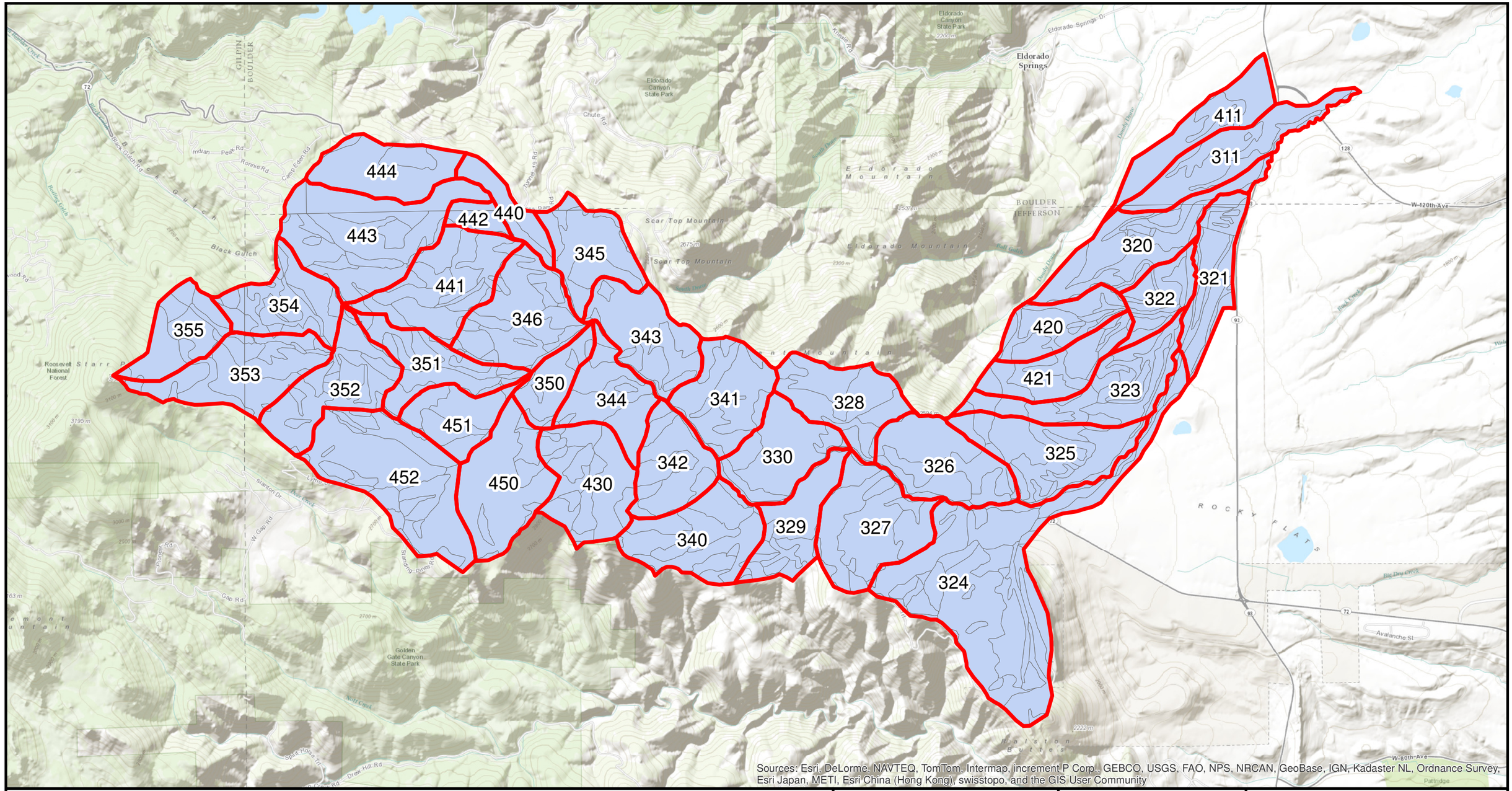

COAL CREEK WATERSHED

Soils Map

CDOT Flood Recovery Hydrologic Evaluation

21 March 2014

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URS

2315 Briargate Parkway, Suite 150
Colorado Springs, CO 80920
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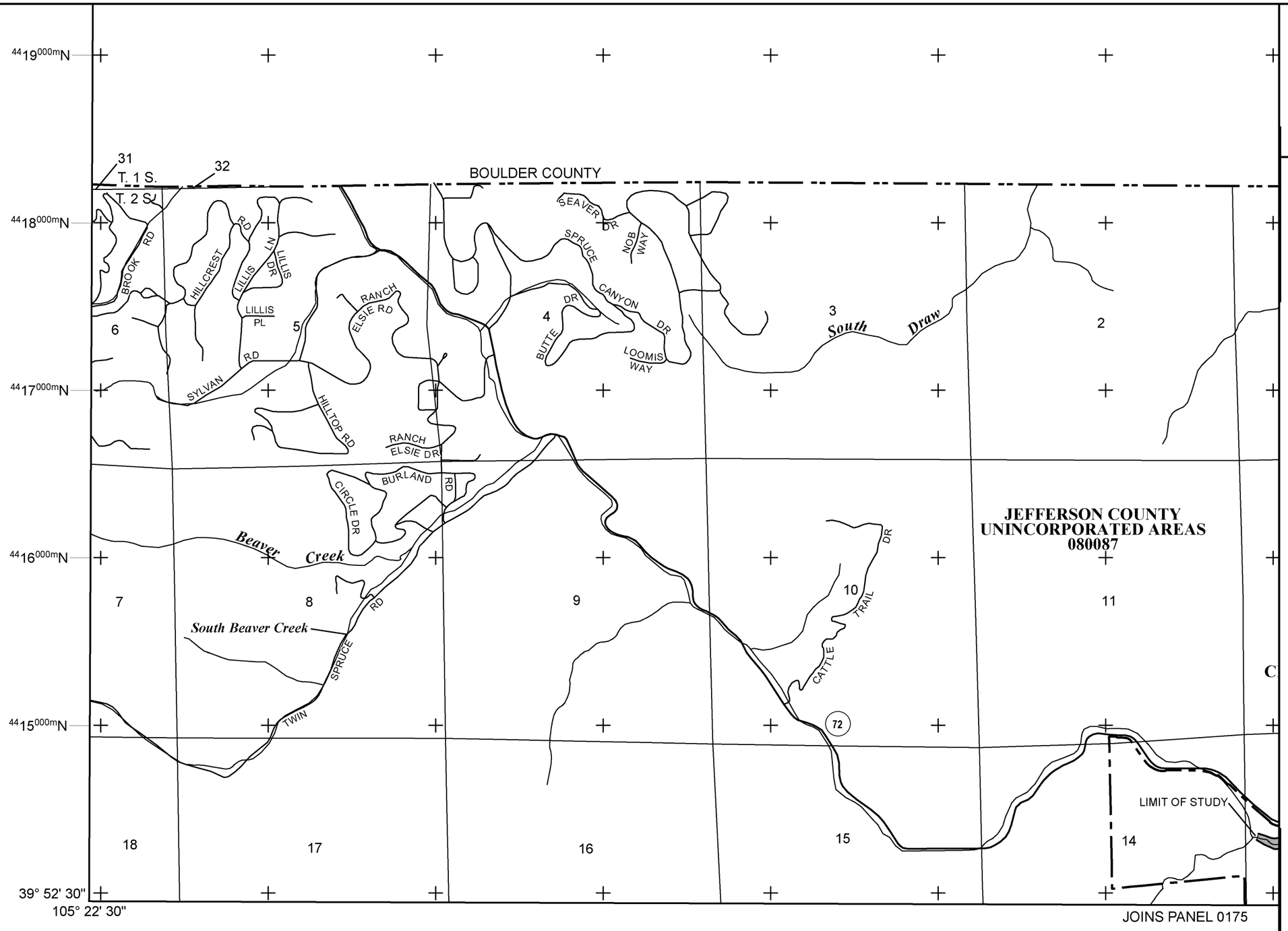
3,100 1,550 0 3,100 Feet

Legend

- Subwatersheds
- Subwatershed_Soils



MAP SCALE 1" = 2000'

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NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0050F

FIRM

FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY, COLORADO

AND INCORPORATED AREAS

PANEL 50 OF 675

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

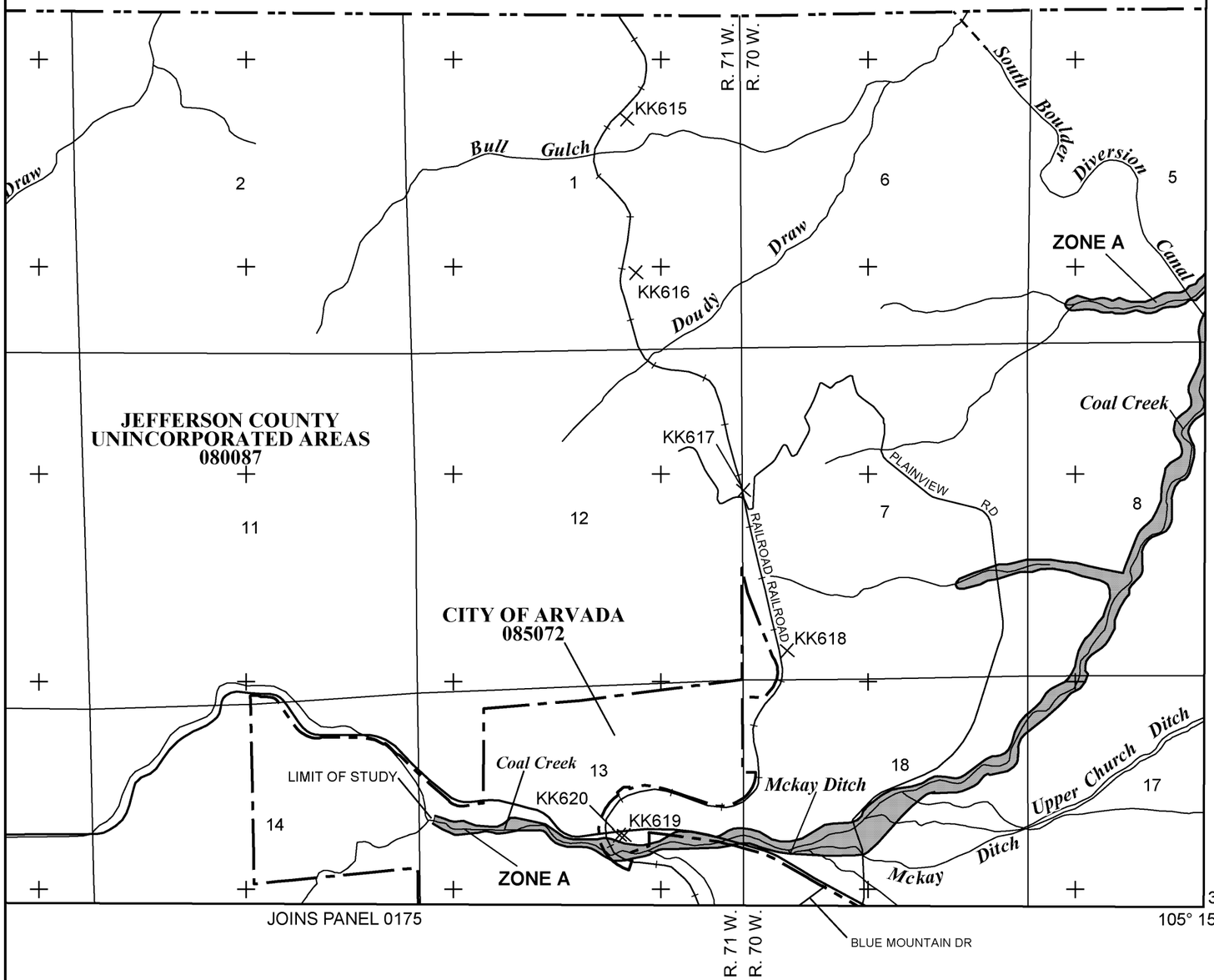
CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ARVADA, CITY OF	085072	0050	F
JEFFERSON COUNTY	080087	0050	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08059C0050F
MAP REVISED
FEBRUARY 5, 2014

Federal Emergency Management Agency



MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0050F

FIRM

FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY, COLORADO

AND INCORPORATED AREAS

PANEL 50 OF 675

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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COMMUNITY	NUMBER	PANEL	SUFFIX
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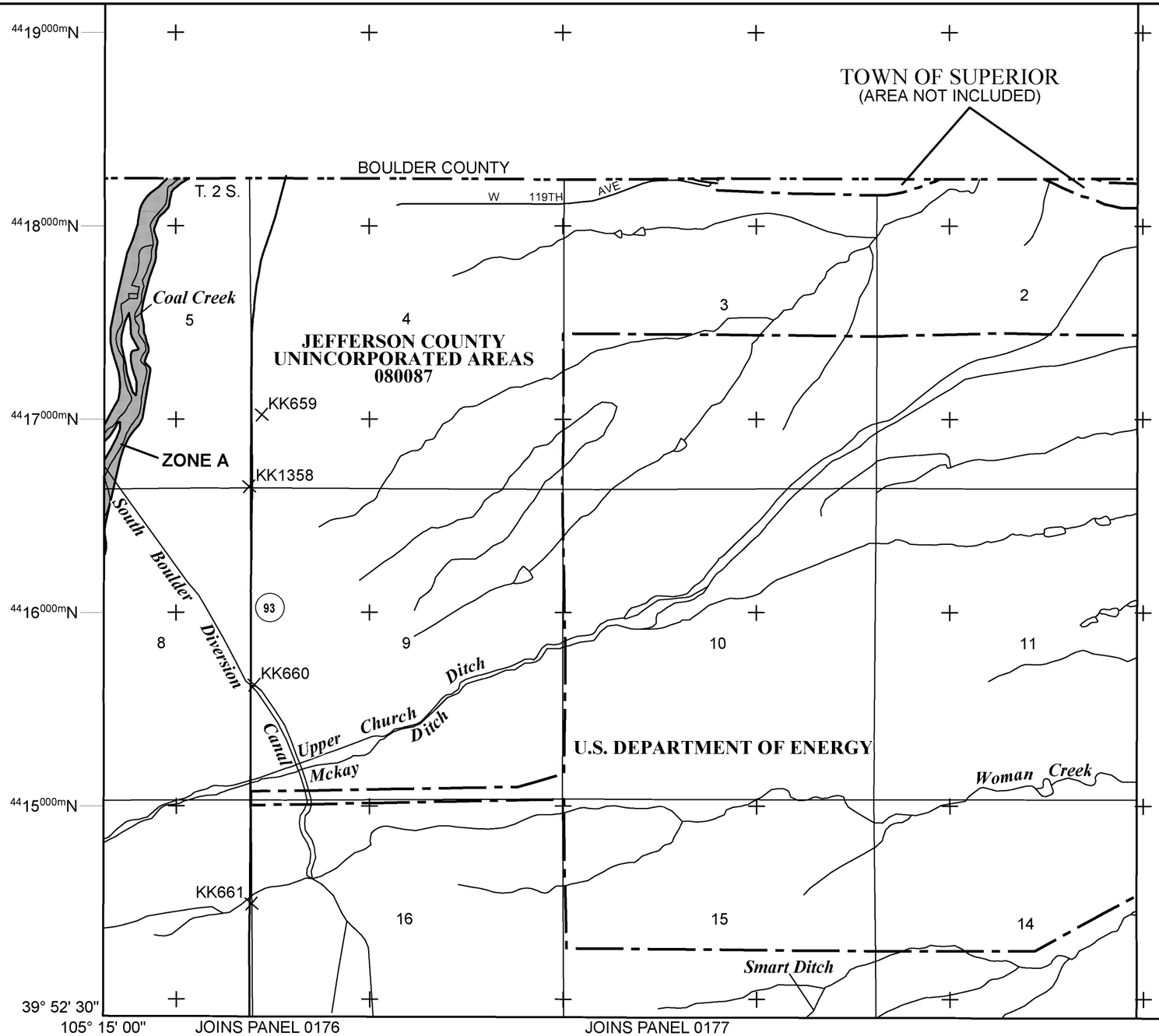
MAP REVISED
FEBRUARY 5, 2014

Federal Emergency Management Agency



MAP SCALE 1" = 2000'

1000 0 2000 4000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0075F

FIRM

FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 75 OF 675

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

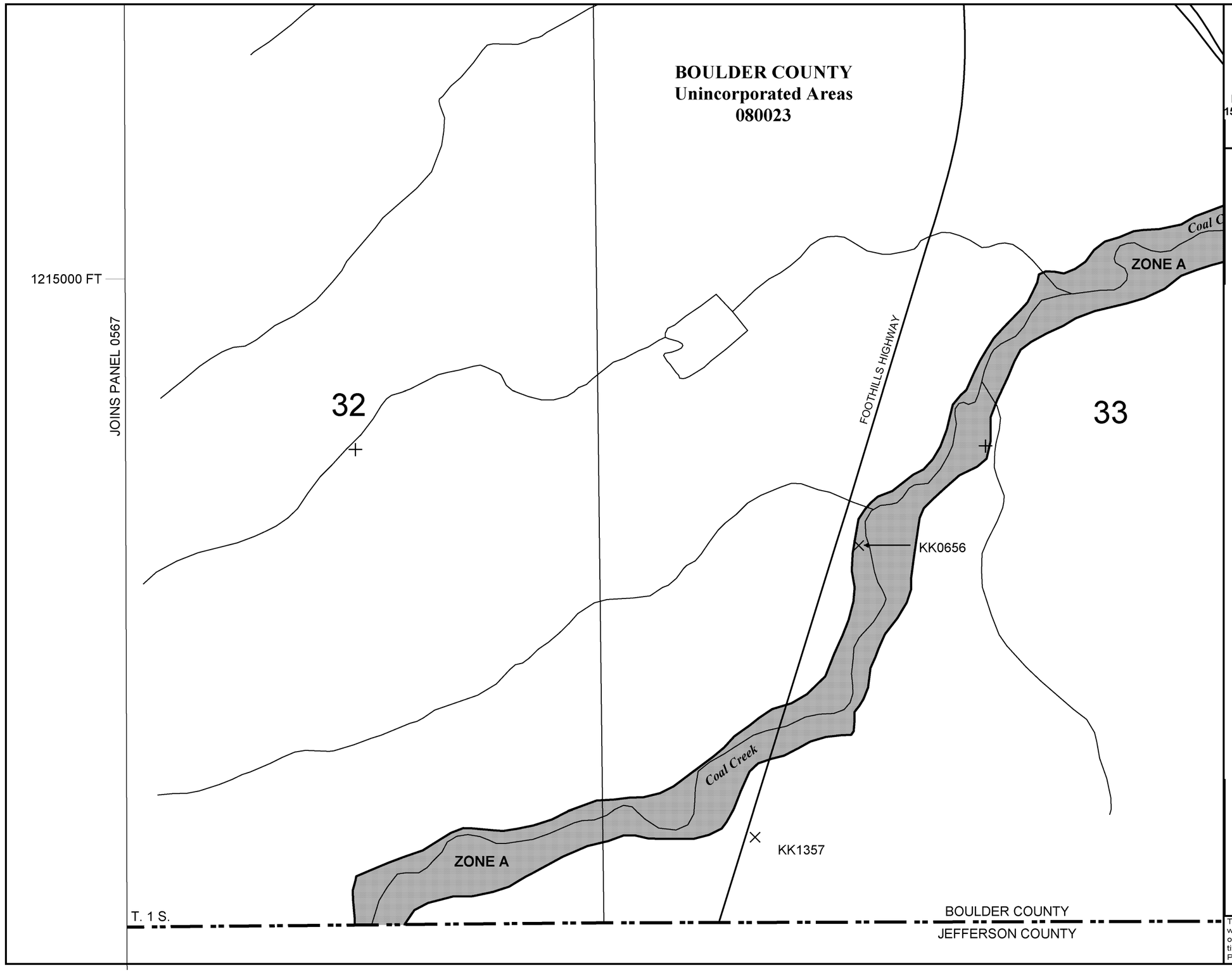
CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
JEFFERSON COUNTY	080087	0075	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08059C0075F
MAP REVISED
FEBRUARY 5, 2014

Federal Emergency Management Agency



MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 M

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0586J

FIRM

FLOOD INSURANCE RATE MAP

BOULDER COUNTY, COLORADO

AND INCORPORATED AREAS

PANEL 586 OF 615

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

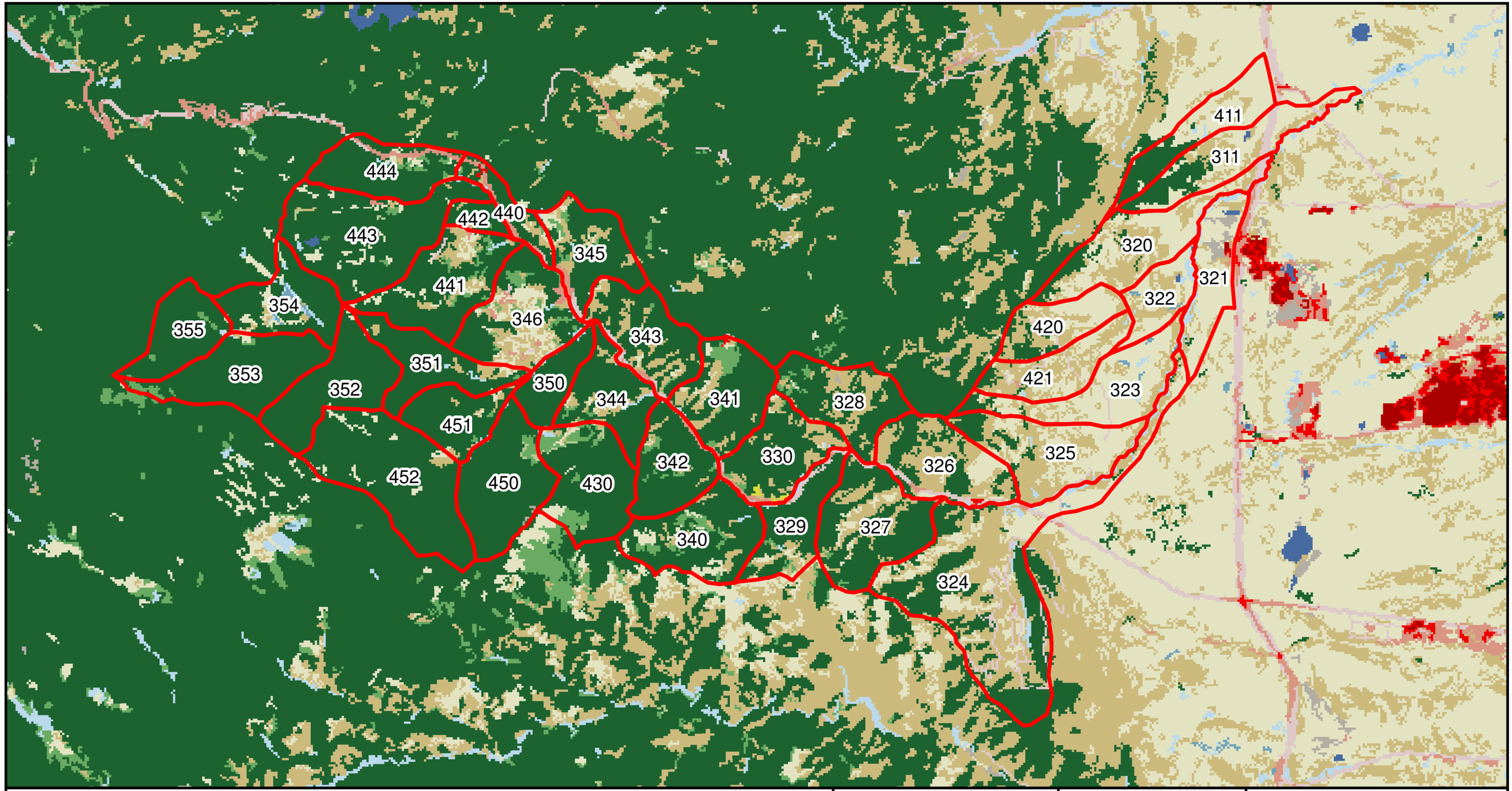
COMMUNITY	NUMBER	PANEL	SUFFIX
BOULDER COUNTY	080023	0586	J

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08013C0586J

MAP REVISED
DECEMBER 18, 2012

Federal Emergency Management Agency



COAL CREEK WATERSHED

Soils Map

CDOT Flood Recovery Hydrologic Evaluation

21 March 2014

P:\CDOT_Hydrologic_Evaluation\6.0 Deliverables\03-21-14\Coal Creek\Mapping

URS

2315 Briargate Parkway, Suite 150
Colorado Springs, CO 80920
(719) 531-0001,

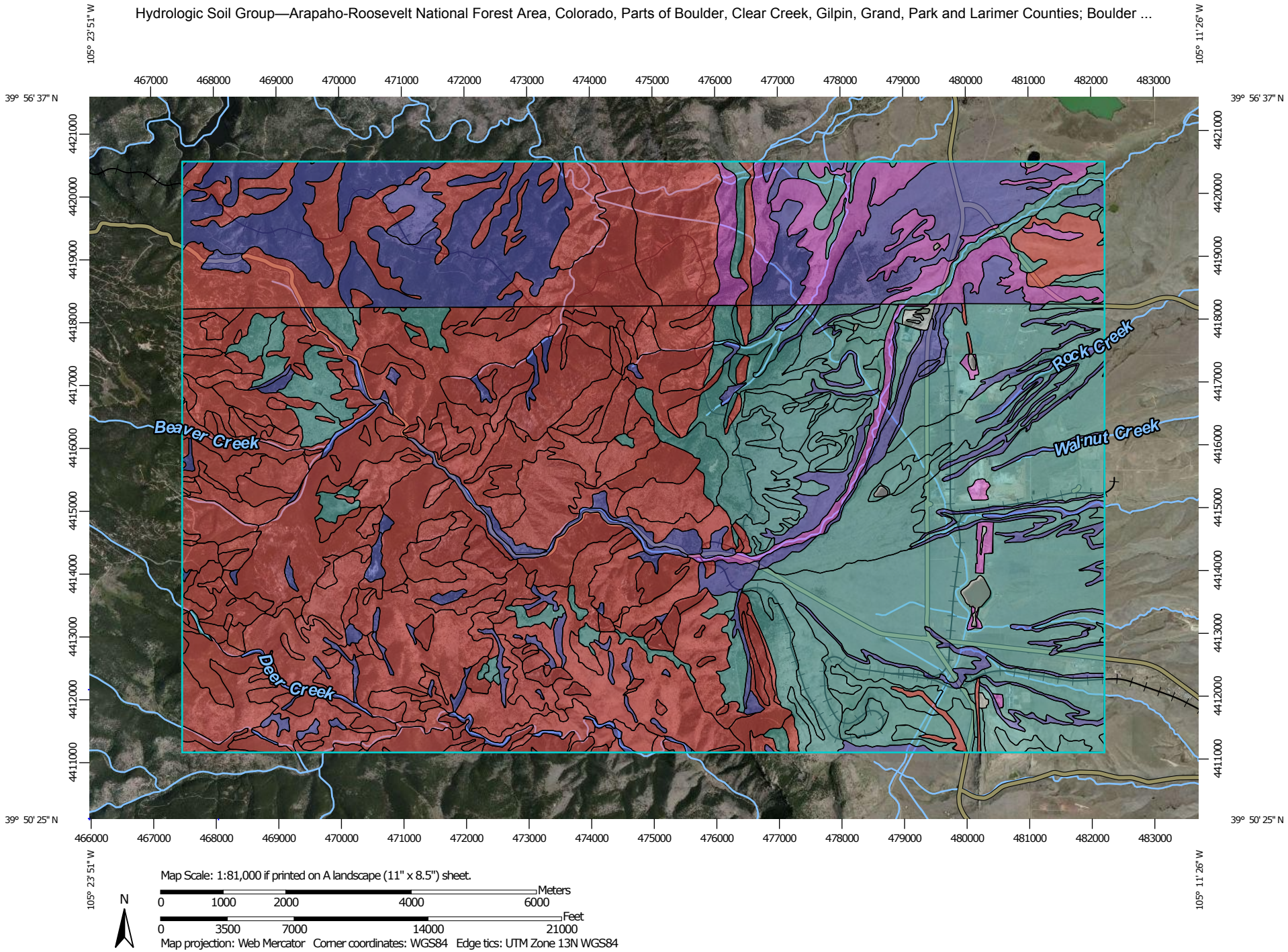
N
W E
S

3,100 1,550 0 3,100 Feet

Legend

Subwatersheds

Greens = Forest
Browns = Open Fields/ Grass
Blues = Open Water
Reds = Impervious


105° 23' 51" W
105° 11' 26" W
39° 56' 37" N
39° 50' 25" N
466000
467000
468000
469000
470000
471000
472000
473000
474000
475000
476000
477000
478000
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4421000
4420000
4419000
4418000
4417000
4416000
4415000
4414000
4413000
4412000
4411000
Beaver Creek
Deer Creek
Rock Creek
Walnut Creek
Map Scale: 1:81,000 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0
1000
2000
4000
6000
Feet
0
3500
7000
14000
21000
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points

- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:20,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Arapaho-Roosevelt National Forest Area, Colorado, Parts of Boulder, Clear Creek, Gilpin, Grand, Park and Larimer Counties
Survey Area Data: Version 2, Feb 4, 2008

Soil Survey Area: Boulder County Area, Colorado
Survey Area Data: Version 9, May 1, 2009

Soil Survey Area: Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties
Survey Area Data: Version 7, May 1, 2009

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 28, 2011—Aug 29, 2012

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Hydrologic Soil Group— Summary by Map Unit — Arapaho-Roosevelt National Forest Area, Colorado, Parts of Boulder, Clear Creek, Gilpin, Grand, Park and Larimer Counties (CO645)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
2703B	Cypher-Ratake families complex, 5 to 40 percent slopes	D	0.0	0.0%
2717B	Cypher-Wetmore-Ratake families complex, 5 to 40 percent slopes	D	0.6	0.0%
Subtotals for Soil Survey Area			**0.6**	**0.0%**
Totals for Area of Interest			**34,369.9**	**100.0%**

Hydrologic Soil Group— Summary by Map Unit — Boulder County Area, Colorado (CO643)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
BaF	Baller stony sandy loam, 9 to 35 percent slopes	D	85.1	0.2%
CaB	Calkins sandy loam, 1 to 3 percent slopes	C	24.6	0.1%
Cu	Colluvial land	A	306.0	0.9%
FcF	Fern Cliff-Allens Park-Rock outcrop complex, 15 to 60 percent slopes	B	1,908.0	5.6%
JrF	Juget-Rock outcrop complex, 9 to 55 percent slopes	D	1,849.5	5.4%
KuD	Kutch clay loam, 3 to 9 percent slopes	C	96.8	0.3%
Mm	McClave clay loam	C	7.2	0.0%
NdD	Nederland very cobbly sandy loam, 1 to 12 percent slopes	B	1,313.4	3.8%
Nh	Niwot soils	C	132.0	0.4%
NuB	Nunn clay loam, 1 to 3 percent slopes	C	54.7	0.2%
NuC	Nunn clay loam, 3 to 5 percent slopes	C	0.5	0.0%
NuD	Nunn clay loam, 5 to 9 percent slopes	C	62.8	0.2%
PgE	Peyton-Juget very gravelly loamy sands, 5 to 20 percent slopes	B	194.2	0.6%
Ro	Rock outcrop	D	952.8	2.8%

Hydrologic Soil Group— Summary by Map Unit — Boulder County Area, Colorado (CO643)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
SeE	Samsil-Shingle complex, 5 to 25 percent slopes	D	269.5	0.8%
SmF	Sixmile stony loam, 10 to 50 percent slopes	C	72.0	0.2%
Te	Terrace escarpments	A	1,013.8	2.9%
VcC	Valmont cobbly clay loam, 1 to 5 percent slopes	C	12.8	0.0%
VcE	Valmont cobbly clay loam, 5 to 25 percent slopes	C	27.6	0.1%
W	Water		5.9	0.0%
Subtotals for Soil Survey Area			**8,389.2**	**24.4%**
Totals for Area of Interest			**34,369.9**	**100.0%**

Hydrologic Soil Group— Summary by Map Unit — Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties (CO641)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
3	Allens Park variant-Ratake-Rock outcrop complex, 30 to 50 percent slopes	D	81.3	0.2%
5	Argiustolls-Rock outcrop complex, 15 to 60 percent slopes	C	461.6	1.3%
6	Arvada clay loam, 0 to 2 percent slopes	D	45.7	0.1%
9	Baller-Rock outcrop complex, 15 to 50 percent slopes	D	72.2	0.2%
19	Critchell gravelly sandy loam, 9 to 15 percent slopes	B	19.5	0.1%
21	Cryofluvents, 0 to 5 percent slopes	B	251.9	0.7%
23	Curecanti very stony sandy loam, 15 to 50 percent slopes	B	149.7	0.4%
26	Denver clay loam, 2 to 5 percent slopes	C	4.3	0.0%
27	Denver clay loam, 5 to 9 percent slopes	C	62.0	0.2%
29	Denver-Kutch clay loams, 5 to 9 percent slopes	C	22.9	0.1%
31	Denver-Kutch-Midway clay loams, 9 to 25 percent slopes	C	773.5	2.3%

Hydrologic Soil Group— Summary by Map Unit — Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties (CO641)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
37	Earcree gravelly sandy loam, 9 to 15 percent slopes	B	67.8	0.2%
43	Englewood clay loam, wet, 0 to 3 percent slopes	C	90.1	0.3%
45	Flatirons very cobbly sandy loam, 0 to 3 percent slopes	C	3,893.8	11.3%
46	Flatirons very stony sandy loam, 0 to 5 percent slopes	C	742.6	2.2%
47	Flatirons very stony sandy loam, 5 to 9 percent slopes	C	344.8	1.0%
48	Flatirons very stony sandy loam, 9 to 15 percent slopes	C	513.5	1.5%
49	Flatirons very stony sandy loam, 15 to 30 percent slopes	C	731.8	2.1%
55	Grimstone-Hiwan-Rock outcrop complex, 30 to 60 percent slopes	D	787.7	2.3%
56	Grimstone-Peeler-Rock outcrop complex, 15 to 30 percent slopes	B	20.3	0.1%
60	Haverson loam, 0 to 3 percent slopes	B	76.5	0.2%
61	Haverson loam, 3 to 9 percent slopes	B	124.7	0.4%
63	Heldt clay, 9 to 15 percent slopes	C	183.6	0.5%
64	Herbman-Sprucedale-Rock outcrop complex, 9 to 15 percent slopes	D	52.9	0.2%
65	Herbman-Sprucedale-Rock outcrop complex, 15 to 30 percent slopes	D	483.0	1.4%
67	Kittredge-Earcree complex, 9 to 20 percent slopes	B	146.5	0.4%
68	Kittredge-Venable complex, 0 to 15 percent slopes	B	0.0	0.0%
75	Legault-Hiwan stony loamy sands, 5 to 15 percent slopes	D	231.3	0.7%

Hydrologic Soil Group— Summary by Map Unit — Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties (CO641)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
76	Legault-Hiwan stony loamy sands, 15 to 30 percent slopes	D	373.0	1.1%
77	Legault-Hiwan-Rock outcrop complex, 30 to 50 percent slopes	D	511.8	1.5%
78	Legault-Tolvar-Rock outcrop complex, 50 to 70 percent slopes	D	2,977.3	8.7%
80	Leyden-Primen-Standley cobbly clay loams, 15 to 50 percent slopes	C	378.3	1.1%
82	Leyden-Standley-Primen cobbly clay loams, 9 to 15 percent slopes	C	32.1	0.1%
85	Lininger-Ratake complex, 15 to 30 percent slopes	C	137.2	0.4%
87	Lininger-Trag sandy loams, 9 to 20 percent slopes	C	99.9	0.3%
88	Loveland clay loam, 0 to 1 percent slopes	C	7.8	0.0%
91	Manzanola clay loam, 0 to 5 percent slopes	C	9.5	0.0%
100	Nederland very cobbly sandy loam, 15 to 50 percent slopes	B	670.4	2.0%
110	Pits, clayey		35.2	0.1%
111	Pits, gravel	A	86.8	0.3%
123	Ratake-Cathedral-Rock outcrop complex, 25 to 60 percent slopes	D	1,259.5	3.7%
125	Ratake-Lininger stony sandy loams, 30 to 60 percent slopes	D	452.9	1.3%
127	Razor-Heldt-Midway cobbly clay loams, 15 to 30 percent slopes	C	443.2	1.3%
138	Rock outcrop, igneous and metamorphic	D	1,194.3	3.5%
139	Rock outcrop, sedimentary	D	401.6	1.2%
140	Rock outcrop-Cathedral-Ratake complex, 50 to 100 percent slopes	D	783.0	2.3%

Hydrologic Soil Group— Summary by Map Unit — Golden Area, Colorado, Parts of Denver, Douglas, Jefferson, and Park Counties (CO641)				
Map unit symbol	**Map unit name**	**Rating**	**Acres in AOI**	**Percent of AOI**
141	Rogert-Herbman-Rock outcrop complex, 30 to 70 percent slopes	D	3,584.4	10.4%
149	Standley-Nunn gravelly clay loams, 0 to 5 percent slopes	C	2.2	0.0%
150	Tolvar very gravelly loamy sand, 15 to 30 percent slopes	B	92.0	0.3%
151	Torrifluvents, very gravelly, 0 to 3 percent slope	A	174.0	0.5%
152	Trag sandy loam, 3 to 9 percent slopes	B	33.0	0.1%
153	Trag sandy loam, 9 to 25 percent slopes	B	142.2	0.4%
154	Troutdale gravelly sandy loam, 3 to 9 percent slopes	C	66.3	0.2%
155	Troutdale-Kittredge sandy loams, 5 to 15 percent slopes	C	290.3	0.8%
156	Troutdale-Rogert-Kittredge complex, 15 to 30 percent slopes	C	169.9	0.5%
157	Troutdale-Sprucedale gravelly sandy loams, 3 to 15 percent slopes	C	87.5	0.3%
166	Ustic Torriorthents, clayey, 0 to 50 percent slopes	C	11.3	0.0%
167	Ustorthents, cool-Rock outcrop complex, 15 to 50 percent slopes	D	415.4	1.2%
168	Valmont clay loam, 0 to 3 percent slopes	C	76.2	0.2%
169	Veldkamp-Nederland very cobbly sandy loams, 0 to 3 percent slopes	B	361.7	1.1%
171	Venable loam, 3 to 9 percent slopes	D	5.5	0.0%
176	Yoder variant-Midway complex, 15 to 60 percent slopes	B	110.1	0.3%
178	Water		68.5	0.2%
Subtotals for Soil Survey Area			**25,980.0**	**75.6%**
Totals for Area of Interest			**34,369.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*

Tie-break Rule: Higher

CUHP INPUT

Summary of CUHP Input Parameters (Version 1.3.3)

							Depression Storage		Horton's Infiltration Parameters			DCIA Level and Fractions			
Catchment Name/ID	J1 = Jefferson Zone 2A J2 = Jefferson Zone 2B	Area (sq.mi.)	Dist. to Centroid (miles)	Length (miles)	Slope (ft./ft.)	Percent Imperv.	Pervious (inches)	Imperv. (inches)	Initial Rate (in./hr.)	Final Rate (in.hr.)	Decay Coeff. (1/sec.)	DCIA Level	Dir. Con'ct Imperv. Fraction	Receiv. Perv. Fraction	Percent Eff. Imperv.
311	100J1	0.554	1.274	2.323	0.035	8.4	0.60	0.10	4.60	0.72	0.0015	0.00	0.17	0.08	7.17
320	100J1	0.688	1.684	2.741	0.045	3.6	0.60	0.10	3.31	0.56	0.0017	0.00	0.07	0.04	3.00
321	100J1	0.445	1.011	1.956	0.032	5.8	0.60	0.10	3.56	0.57	0.0017	0.00	0.12	0.06	4.92
322	100J1	0.296	0.699	1.399	0.044	2.2	0.60	0.10	3.40	0.57	0.0017	0.00	0.04	0.02	1.81
323	100J1	0.640	1.325	2.747	0.060	1.8	0.60	0.10	3.38	0.55	0.0017	0.00	0.04	0.02	1.49
324	100J1	1.534	2.543	3.836	0.055	8.0	0.60	0.10	3.52	0.55	0.0018	0.00	0.16	0.08	6.87
325	100J1	0.690	0.910	1.833	0.060	2.7	0.60	0.10	3.46	0.56	0.0017	0.00	0.05	0.03	2.30
326	100J1	0.630	0.731	1.247	0.060	8.4	0.70	0.10	3.41	0.53	0.0018	0.00	0.17	0.08	7.21
327	100J1	0.745	0.815	1.466	0.060	3.1	0.60	0.10	3.06	0.50	0.0018	0.00	0.06	0.03	2.60
328	100J2	0.557	0.817	1.411	0.060	2.1	0.70	0.10	3.07	0.50	0.0018	0.00	0.04	0.02	1.74
329	100J2	0.437	1.107	1.915	0.060	8.5	0.70	0.10	3.23	0.52	0.0018	0.00	0.17	0.08	7.11
330	100J2	0.531	1.829	1.981	0.060	6.4	0.70	0.10	3.15	0.51	0.0018	0.00	0.13	0.06	5.37
340	100J2	0.654	0.668	1.567	0.060	2.2	0.70	0.10	3.46	0.53	0.0018	0.00	0.04	0.02	1.79
341	100J2	0.564	1.444	1.444	0.060	4.0	0.70	0.10	3.02	0.50	0.0018	0.00	0.08	0.04	3.34
342	100J2	0.473	0.473	1.062	0.060	5.5	0.70	0.10	3.00	0.50	0.0018	0.00	0.11	0.06	4.59
343	100J2	0.565	0.675	1.356	0.057	7.9	0.70	0.10	3.11	0.51	0.0018	0.00	0.16	0.08	6.58
344	100J2	0.464	0.437	1.049	0.060	3.1	0.70	0.10	3.06	0.50	0.0018	0.00	0.06	0.03	2.52
345	100J2	0.484	0.758	1.307	0.057	6.6	0.70	0.10	3.36	0.52	0.0018	0.00	0.13	0.07	5.52
346	100J2	0.675	0.683	1.465	0.060	7.3	0.70	0.10	3.75	0.55	0.0018	0.00	0.15	0.07	6.12
350	100J2	0.272	0.659	1.275	0.060	2.0	0.70	0.10	3.00	0.50	0.0018	0.00	0.04	0.02	1.64
351	100J2	0.401	0.872	1.963	0.060	2.0	0.70	0.10	3.02	0.50	0.0018	0.00	0.04	0.02	1.61
352	100J2	0.663	0.947	1.695	0.059	2.0	0.70	0.10	3.11	0.51	0.0018	0.00	0.04	0.02	1.62
353	100J2	0.653	0.889	1.291	0.060	2.0	0.70	0.10	3.43	0.59	0.0016	0.00	0.04	0.02	1.62
354	100J2	0.501	0.618	2.056	0.056	1.8	0.70	0.10	3.04	0.50	0.0018	0.00	0.04	0.02	1.44
355	100J2	0.410	0.387	1.087	0.060	2.0	0.70	0.10	3.77	0.69	0.0014	0.00	0.04	0.02	1.63
411	100J1	0.441	0.765	1.937	0.032	1.4	0.60	0.10	4.58	0.67	0.0016	0.00	0.03	0.01	1.21
420	100J1	0.381	0.613	1.314	0.060	3.6	0.60	0.10	3.07	0.50	0.0018	0.00	0.07	0.04	3.02
421	100J1	0.425	0.835	1.567	0.060	5.1	0.60	0.10	3.00	0.50	0.0018	0.00	0.10	0.05	4.32
430	100J2	0.642	0.525	1.315	0.060	1.9	0.70	0.10	3.23	0.52	0.0018	0.00	0.04	0.02	1.57
440	100J2	0.214	0.718	1.353	0.048	21.9	0.70	0.10	3.03	0.50	0.0018	0.00	0.44	0.14	19.76
441	100J2	0.682	0.900	1.899	0.060	3.3	0.70	0.10	3.28	0.52	0.0018	0.00	0.07	0.03	2.70
442	100J2	0.120	0.582	0.881	0.059	3.7	0.70	0.10	3.91	0.56	0.0018	0.00	0.07	0.04	3.08
443	100J2	0.987	1.435	2.169	0.058	2.9	0.70	0.10	3.34	0.52	0.0018	0.00	0.06	0.03	2.42
444	100J2	0.491	0.621	1.402	0.060	10.0	0.70	0.10	3.00	0.50	0.0018	0.00	0.20	0.10	8.45
450	100J2	0.681	0.935	1.736	0.060	2.0	0.70	0.10	3.15	0.51	0.0018	0.00	0.04	0.02	1.64
451	100J2	0.369	0.918	1.464	0.060	2.0	0.70	0.10	3.00	0.50	0.0018	0.00	0.04	0.02	1.61
452	100J2	1.040	0.419	1.542	0.060	1.9	0.70	0.10	3.02	0.50	0.0018	0.00	0.04	0.02	1.57

CUHP OUTPUT - 100 YEAR RETURN PERIOD - AREA CORRECTION OF 0 - 10 SQAURE MILES

Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 1.3.3)

		Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph		
Catchment Name/ID	2006 Basin ID	Ct	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)
311	37	0.136	0.275	87.6	19.98	45.6	14.12	33.3	190	1,288,040	1.00	1,282,640	75.0	175	1,282,326
320	32	0.152	0.308	101.3	25.48	52.7	18.01	42.5	204	1,598,101	1.16	1,853,397	85.0	223	1,853,385
321	38	0.145	0.277	77.6	18.01	40.4	12.73	30.0	172	1,034,258	1.17	1,214,307	70.0	182	1,214,309
322	33	0.156	0.279	54.9	13.28	28.6	9.39	22.1	161	686,717	1.13	774,353	60.0	152	774,317
323	34	0.157	0.316	85.2	22.20	44.3	15.69	37.0	225	1,486,267	1.15	1,705,145	75.0	239	1,704,823
324	31	0.138	0.322	120.0	31.14	62.4	22.01	51.9	383	3,562,929	1.24	4,413,279	95.0	453	4,413,027
325	30	0.154	0.313	58.0	15.46	30.2	10.93	25.8	357	1,602,425	1.15	1,842,222	65.0	350	1,840,971
326	26	0.136	0.280	42.9	10.72	22.3	7.57	17.9	441	1,464,429	1.17	1,720,279	55.0	392	1,719,820
327	27	0.153	0.315	48.9	13.31	25.4	9.41	22.2	458	1,731,846	1.25	2,159,901	60.0	457	2,159,502
328	23	0.157	0.308	50.1	13.35	26.1	9.43	22.2	334	1,294,889	0.91	1,181,058	60.0	247	1,180,744
329	25	0.137	0.265	68.0	15.35	35.4	10.85	25.6	193	1,015,489	0.98	996,098	70.0	165	995,706
330	24	0.143	0.282	86.7	20.26	45.1	14.32	33.8	184	1,233,559	0.96	1,187,716	75.0	162	1,187,379
340	22	0.156	0.315	46.7	12.80	24.3	9.05	21.3	420	1,519,693	0.87	1,325,937	60.0	294	1,325,725
341	20	0.151	0.297	66.5	16.65	34.6	11.77	27.8	255	1,310,963	0.94	1,238,300	70.0	211	1,238,015
342	21	0.146	0.281	34.3	8.92	17.9	6.30	14.9	413	1,099,129	0.97	1,063,254	50.0	283	1,061,807
343	17	0.138	0.278	44.5	11.00	23.1	7.78	18.3	381	1,313,667	0.99	1,295,895	55.0	288	1,295,459
344	18	0.154	0.294	33.1	8.97	17.2	6.34	14.9	420	1,077,247	0.93	998,365	50.0	275	997,167
345	14	0.142	0.277	47.7	11.66	24.8	8.24	19.4	304	1,124,048	0.94	1,060,345	60.0	226	1,059,978
346	12	0.140	0.288	44.8	11.42	23.3	8.07	19.0	451	1,567,335	0.92	1,438,860	55.0	322	1,438,131
350	16	0.157	0.277	47.9	11.71	24.9	8.27	19.5	170	633,012	0.92	581,915	60.0	125	581,808
351	9	0.157	0.294	63.7	15.87	33.1	11.22	26.5	189	930,651	0.92	852,558	70.0	151	852,369
352	4	0.157	0.317	57.5	15.49	29.9	10.94	25.8	346	1,540,486	0.91	1,395,210	65.0	267	1,394,534
353	2	0.157	0.316	48.9	13.36	25.4	9.44	22.3	401	1,516,975	0.79	1,204,358	60.0	262	1,204,119
354	3	0.158	0.305	54.2	14.21	28.2	10.04	23.7	277	1,164,794	0.91	1,059,767	65.0	211	1,059,540
355	1	0.157	0.295	32.4	8.82	16.8	6.24	14.7	381	953,548	0.65	623,617	50.0	184	622,527
411	36	0.159	0.301	68.0	17.24	35.4	12.18	28.7	194	1,023,997	0.97	994,505	70.0	169	994,472
420	28	0.152	0.282	44.7	11.18	23.2	7.90	18.6	256	885,358	1.25	1,109,058	55.0	248	1,108,630
421	29	0.147	0.278	55.3	13.33	28.8	9.42	22.2	230	986,563	1.28	1,263,093	60.0	241	1,262,991
430	19	0.157	0.316	38.4	10.81	20.0	7.64	18.0	501	1,490,509	0.89	1,327,825	55.0	335	1,325,956
440	13	0.116	0.253	43.9	10.04	22.8	7.09	16.7	146	496,623	1.20	596,068	55.0	128	595,860
441	8	0.153	0.310	58.8	15.49	30.6	10.95	25.8	348	1,584,492	0.90	1,433,161	65.0	269	1,432,351
442	7	0.190	0.237	53.9	11.30	28.0	7.98	18.8	67	278,508	0.85	237,993	60.0	47	237,922
443	5	0.154	0.330	74.8	20.43	38.9	14.44	34.1	396	2,293,681	0.89	2,050,627	75.0	323	2,050,467
444	6	0.132	0.264	42.9	10.20	22.3	7.21	17.0	344	1,141,418	1.03	1,174,464	55.0	266	1,174,124
450	15	0.157	0.318	57.4	15.50	29.8	10.96	25.8	356	1,581,012	0.90	1,424,984	65.0	273	1,424,320
451	11	0.157	0.290	57.4	14.30	29.9	10.11	23.8	193	858,041	0.92	788,283	65.0	150	788,174
452	10	0.157	0.339	34.6	10.51	18.0	7.43	17.5	902	2,416,058	0.92	2,213,682	55.0	600	2,213,237

CUHP OUTPUT - 100 YEAR RETURN PERIOD - AREA CORRECTION OF 10 - 20 SQAURE MILES

Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 1.3.3)

		Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph		
Catchment Name/ID	2006 Basin ID	Ct	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)
311	37	0.136	0.275	87.6	19.98	45.6	14.12	33.3	190	1,288,040	0.92	1,179,240	75.0	160	1,178,952
320	32	0.152	0.308	101.3	25.48	52.7	18.01	42.5	204	1,598,101	1.07	1,714,872	85.0	207	1,714,862
321	38	0.145	0.277	77.6	18.01	40.4	12.73	30.0	172	1,034,258	1.09	1,125,863	70.0	169	1,125,865
322	33	0.156	0.279	54.9	13.28	28.6	9.39	22.1	161	686,717	1.04	715,019	60.0	141	714,985
323	34	0.157	0.316	85.2	22.20	44.3	15.69	37.0	225	1,486,267	1.06	1,576,096	75.0	221	1,575,798
324	31	0.138	0.322	120.0	31.14	62.4	22.01	51.9	383	3,562,929	1.15	4,110,738	95.0	421	4,110,504
325	30	0.154	0.313	58.0	15.46	30.2	10.93	25.8	357	1,602,425	1.06	1,703,196	65.0	325	1,702,039
326	26	0.136	0.280	42.9	10.72	22.3	7.57	17.9	441	1,464,429	1.09	1,592,492	55.0	362	1,592,067
327	27	0.153	0.315	48.9	13.31	25.4	9.41	22.2	458	1,731,846	1.16	2,005,731	60.0	425	2,005,360
328	23	0.157	0.308	50.1	13.35	26.1	9.43	22.2	334	1,294,889	0.81	1,051,694	65.0	221	1,051,415
329	25	0.137	0.265	68.0	15.35	35.4	10.85	25.6	193	1,015,489	0.89	907,246	70.0	148	906,888
330	24	0.143	0.282	86.7	20.26	45.1	14.32	33.8	184	1,233,559	0.87	1,074,355	80.0	145	1,074,050
340	22	0.156	0.315	46.7	12.80	24.3	9.05	21.3	420	1,519,693	0.78	1,181,975	60.0	262	1,181,786
341	20	0.151	0.297	66.5	16.65	34.6	11.77	27.8	255	1,310,963	0.85	1,111,299	70.0	189	1,111,043
342	21	0.146	0.281	34.3	8.92	17.9	6.30	14.9	413	1,099,129	0.87	959,442	50.0	252	958,136
343	17	0.138	0.278	44.5	11.00	23.1	7.78	18.3	381	1,313,667	0.90	1,177,242	60.0	258	1,176,845
344	18	0.154	0.294	33.1	8.97	17.2	6.34	14.9	420	1,077,247	0.83	892,280	50.0	244	891,209
345	14	0.142	0.277	47.7	11.66	24.8	8.24	19.4	304	1,124,048	0.85	959,221	60.0	203	958,890
346	12	0.140	0.288	44.8	11.42	23.3	8.07	19.0	451	1,567,335	0.83	1,299,839	60.0	289	1,299,181
350	16	0.157	0.277	47.9	11.71	24.9	8.27	19.5	170	633,012	0.82	518,623	60.0	111	518,528
351	9	0.157	0.294	63.7	15.87	33.1	11.22	26.5	189	930,651	0.82	759,428	70.0	135	759,260
352	4	0.157	0.317	57.5	15.49	29.9	10.94	25.8	346	1,540,486	0.81	1,242,300	65.0	238	1,241,698
353	2	0.157	0.316	48.9	13.36	25.4	9.44	22.3	401	1,516,975	0.70	1,060,446	65.0	230	1,060,235
354	3	0.158	0.305	54.2	14.21	28.2	10.04	23.7	277	1,164,794	0.81	942,825	65.0	188	942,622
355	1	0.157	0.295	32.4	8.82	16.8	6.24	14.7	381	953,548	0.56	532,536	50.0	157	531,605
411	36	0.159	0.301	68.0	17.24	35.4	12.18	28.7	194	1,023,997	0.89	909,397	70.0	155	909,368
420	28	0.152	0.282	44.7	11.18	23.2	7.90	18.6	256	885,358	1.16	1,030,485	55.0	231	1,030,086
421	29	0.147	0.278	55.3	13.33	28.8	9.42	22.2	230	986,563	1.19	1,176,693	60.0	225	1,176,598
430	19	0.157	0.316	38.4	10.81	20.0	7.64	18.0	501	1,490,509	0.79	1,183,694	55.0	299	1,182,027
440	13	0.116	0.253	43.9	10.04	22.8	7.09	16.7	146	496,623	1.15	569,975	55.0	116	569,776
441	8	0.153	0.310	58.8	15.49	30.6	10.95	25.8	348	1,584,492	0.81	1,282,679	65.0	240	1,281,953
442	7	0.190	0.237	53.9	11.30	28.0	7.98	18.8	67	278,508	0.76	212,138	65.0	42	212,074
443	5	0.154	0.330	74.8	20.43	38.9	14.44	34.1	396	2,293,681	0.80	1,833,001	75.0	288	1,832,858
444	6	0.132	0.264	42.9	10.20	22.3	7.21	17.0	344	1,141,418	0.94	1,075,406	55.0	239	1,075,095
450	15	0.157	0.318	57.4	15.50	29.8	10.96	25.8	356	1,581,012	0.80	1,269,557	65.0	244	1,268,965
451	11	0.157	0.290	57.4	14.30	29.9	10.11	23.8	193	858,041	0.82	702,444	65.0	134	702,347
452	10	0.157	0.339	34.6	10.51	18.0	7.43	17.5	902	2,416,058	0.82	1,971,788	55.0	535	1,971,392

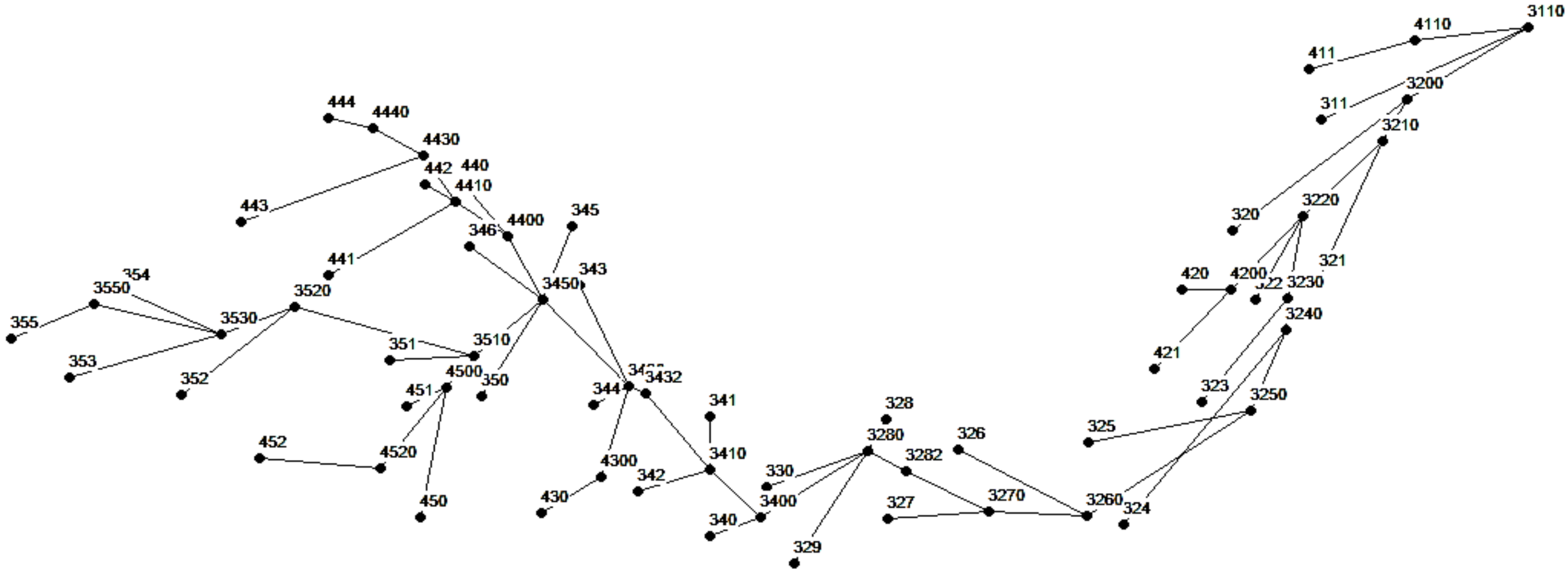
CUHP OUTPUT - 100 YEAR RETURN PERIOD - AREA CORRECTION OF 20 - 30 SQAURE MILES

Summary of Unit Hydrograph Parameters Used By Program and Calculated Results (Version 1.3.3)

		Unit Hydrograph Parameters and Results									Excess Precip.		Storm Hydrograph		
Catchment Name/ID	2006 Basin ID	Ct	Cp	W50 (min.)	W50 Before Peak	W75 (min.)	W75 Before Peak	Time to Peak (min.)	Peak (cfs)	Volume (c.f)	Excess (inches)	Excess (c.f.)	Time to Peak (min.)	Peak Flow (cfs)	Total Volume (c.f.)
311	37	0.136	0.275	87.6	19.98	45.6	14.12	33.3	190	1,288,040	0.91	1,171,365	75.0	158	1,171,078
320	32	0.152	0.308	101.3	25.48	52.7	18.01	42.5	204	1,598,101	1.06	1,696,628	85.0	204	1,696,618
321	38	0.145	0.277	77.6	18.01	40.4	12.73	30.0	172	1,034,258	1.08	1,116,266	70.0	167	1,116,268
322	33	0.156	0.279	54.9	13.28	28.6	9.39	22.1	161	686,717	1.03	707,087	60.0	139	707,054
323	34	0.157	0.316	85.2	22.20	44.3	15.69	37.0	225	1,486,267	1.05	1,557,838	75.0	219	1,557,544
324	31	0.138	0.322	120.0	31.14	62.4	22.01	51.9	383	3,562,929	1.15	4,085,059	95.0	416	4,084,826
325	30	0.154	0.313	58.0	15.46	30.2	10.93	25.8	357	1,602,425	1.05	1,684,247	65.0	321	1,683,103
326	26	0.136	0.280	42.9	10.72	22.3	7.57	17.9	441	1,464,429	1.08	1,581,993	55.0	358	1,581,571
327	27	0.153	0.315	48.9	13.31	25.4	9.41	22.2	458	1,731,846	1.15	1,983,654	60.0	421	1,983,287
328	23	0.157	0.308	50.1	13.35	26.1	9.43	22.2	334	1,294,889	0.82	1,060,618	65.0	223	1,060,336
329	25	0.137	0.265	68.0	15.35	35.4	10.85	25.6	193	1,015,489	0.90	913,175	70.0	150	912,815
330	24	0.143	0.282	86.7	20.26	45.1	14.32	33.8	184	1,233,559	0.88	1,080,948	75.0	147	1,080,641
340	22	0.156	0.315	46.7	12.80	24.3	9.05	21.3	420	1,519,693	0.79	1,193,052	60.0	266	1,192,861
341	20	0.151	0.297	66.5	16.65	34.6	11.77	27.8	255	1,310,963	0.85	1,118,329	70.0	191	1,118,072
342	21	0.146	0.281	34.3	8.92	17.9	6.30	14.9	413	1,099,129	0.88	964,905	50.0	256	963,592
343	17	0.138	0.278	44.5	11.00	23.1	7.78	18.3	381	1,313,667	0.90	1,184,606	55.0	261	1,184,206
344	18	0.154	0.294	33.1	8.97	17.2	6.34	14.9	420	1,077,247	0.83	898,593	50.0	248	897,515
345	14	0.142	0.277	47.7	11.66	24.8	8.24	19.4	304	1,124,048	0.86	965,635	60.0	206	965,301
346	12	0.140	0.288	44.8	11.42	23.3	8.07	19.0	451	1,567,335	0.84	1,311,876	60.0	292	1,311,212
350	16	0.157	0.277	47.9	11.71	24.9	8.27	19.5	170	633,012	0.83	522,806	60.0	113	522,710
351	9	0.157	0.294	63.7	15.87	33.1	11.22	26.5	189	930,651	0.82	765,606	70.0	136	765,436
352	4	0.157	0.317	57.5	15.49	29.9	10.94	25.8	346	1,540,486	0.81	1,253,182	65.0	241	1,252,574
353	2	0.157	0.316	48.9	13.36	25.4	9.44	22.3	401	1,516,975	0.71	1,073,302	60.0	234	1,073,089
354	3	0.158	0.305	54.2	14.21	28.2	10.04	23.7	277	1,164,794	0.82	950,745	65.0	190	950,541
355	1	0.157	0.295	32.4	8.82	16.8	6.24	14.7	381	953,548	0.57	541,602	50.0	161	540,654
411	36	0.159	0.301	68.0	17.24	35.4	12.18	28.7	194	1,023,997	0.88	897,423	70.0	153	897,394
420	28	0.152	0.282	44.7	11.18	23.2	7.90	18.6	256	885,358	1.15	1,019,361	55.0	228	1,018,967
421	29	0.147	0.278	55.3	13.33	28.8	9.42	22.2	230	986,563	1.18	1,165,121	60.0	222	1,165,027
430	19	0.157	0.316	38.4	10.81	20.0	7.64	18.0	501	1,490,509	0.80	1,194,308	55.0	303	1,192,627
440	13	0.116	0.253	43.9	10.04	22.8	7.09	16.7	146	496,623	1.18	586,273	55.0	118	586,069
441	8	0.153	0.310	58.8	15.49	30.6	10.95	25.8	348	1,584,492	0.82	1,293,032	65.0	243	1,292,301
442	7	0.190	0.237	53.9	11.30	28.0	7.98	18.8	67	278,508	0.77	214,169	60.0	42	214,105
443	5	0.154	0.330	74.8	20.43	38.9	14.44	34.1	396	2,293,681	0.81	1,848,476	75.0	292	1,848,332
444	6	0.132	0.264	42.9	10.20	22.3	7.21	17.0	344	1,141,418	0.95	1,082,688	55.0	242	1,082,374
450	15	0.157	0.318	57.4	15.50	29.8	10.96	25.8	356	1,581,012	0.81	1,280,701	65.0	247	1,280,104
451	11	0.157	0.290	57.4	14.30	29.9	10.11	23.8	193	858,041	0.83	708,139	65.0	135	708,041
452	10	0.157	0.339	34.6	10.51	18.0	7.43	17.5	902	2,416,058	0.82	1,987,900	55.0	542	1,987,500

SWMM SCHEMATIC - NODE ID

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)



SWMM - INPUT

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

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FLOW_UNITS           CFS
INFILTRATION         HORTON
FLOW_ROUTING         KINWAVE
START_DATE           01/01/2005
START_TIME           00:00:00
REPORT_START_DATE    01/01/2005
REPORT_START_TIME    00:00:00
END_DATE             01/02/2005
END_TIME             00:00:00
SWEEP_START          01/01
SWEEP_END            12/31
DRY_DAYS             0
REPORT_STEP          00:01:00
WET_STEP             00:15:00
DRY_STEP             01:00:00
ROUTING_STEP         0:01:00
ALLOW_PONDING        NO
INERTIAL_DAMPING     PARTIAL
VARIABLE_STEP        0.75
LENGTHENING_STEP     0
MIN_SURFAREA         0
NORMAL_FLOW_LIMITED  SLOPE
SKIP_STEADY_STATE    NO
FORCE_MAIN_EQUATION  H-W
LINK_OFFSETS         DEPTH
MIN_SLOPE            0
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[EVAPORATION]
;;Type Parameters
;;---------- ----------
CONSTANT 0.0
DRY_ONLY NO

[JUNCTIONS]

Name	Invert Elev.	Max. Depth	Init. Depth	Surcharge Depth	Ponded Area	Name	Invert Elev.	Max. Depth	Init. Depth	Surcharge Depth	Ponded Area
311	10000	300	0	0	0	444	10000	300	0	0	0
320	10000	300	0	0	0	450	10000	300	0	0	0
321	10000	300	0	0	0	451	10000	300	0	0	0
322	10000	300	0	0	0	452	10000	300	0	0	0
323	10000	300	0	0	0	3110	5760	300	0	0	0
324	10000	300	0	0	0	3200	5860	300	0	0	0
325	10000	300	0	0	0	3210	5910	300	0	0	0
326	10000	300	0	0	0	3220	6000	300	0	0	0
327	10000	300	0	0	0	3230	6100	300	0	0	0
328	10000	300	0	0	0	3240	6160	300	0	0	0
329	10000	300	0	0	0	3250	6240	300	0	0	0
330	10000	300	0	0	0	3260	6490	300	0	0	0
340	10000	300	0	0	0	3270	6640	300	0	0	0
341	10000	300	0	0	0	3280	6920	300	0	0	0
342	10000	300	0	0	0	3282	6840	300	0	0	0
343	10000	300	0	0	0	3400	7160	300	0	0	0
344	10000	300	0	0	0	3410	7280	300	0	0	0
345	10000	300	0	0	0	3430	7480	300	0	0	0
346	10000	300	0	0	0	3432	7450	300	0	0	0
350	10000	300	0	0	0	3450	7640	300	0	0	0
351	10000	300	0	0	0	3510	7760	300	0	0	0
352	10000	300	0	0	0	3520	8360	300	0	0	0
353	10000	300	0	0	0	3530	8640	300	0	0	0
354	10000	300	0	0	0	3550	9000	300	0	0	0
355	10000	300	0	0	0	4110	5920	300	0	0	0
411	10000	300	0	0	0	4200	6160	300	0	0	0
420	10000	300	0	0	0	4300	7760	300	0	0	0
421	10000	300	0	0	0	4400	7740	300	0	0	0
430	10000	300	0	0	0	4410	7790	300	0	0	0
440	10000	300	0	0	0	4430	7850	300	0	0	0
441	10000	300	0	0	0	4440	7940	300	0	0	0
442	10000	300	0	0	0	4500	7840	300	0	0	0
443	10000	300	0	0	0	4520	8080	300	0	0	0

[CONDUITS]

Name	Inlet Node	Outlet Node	Length	Manning N	Inlet Offset	Outlet Offset	Init. Flow	Max. Flow
311in	311	3110	1	0.05	0	0	0	0
3201	3200	3110	5306	0.08	0	0	0	0
320in	320	3200	1	0.05	0	0	0	0
3211	3210	3200	2171	0.08	0	0	0	0
321in	321	3210	1	0.05	0	0	0	0
3221	3220	3210	4361	0.08	0	0	0	0
322in	322	3220	1	0.05	0	0	0	0
3231	3230	3220	3370	0.08	0	0	0	0
323in	323	3230	1	0.05	0	0	0	0
3241	3240	3230	1158	0.08	0	20	0	0
324in	324	3240	1	0.05	0	0	0	0
3251	3250	3240	3231	0.08	0	0	0	0
325in	325	3250	1	0.05	0	0	0	0
3261	3260	3250	7354	0.08	0	0	0	0
326in	326	3260	1	0.05	0	0	0	0
3271	3270	3260	3905	0.08	0	30	0	0
327in	327	3270	1	0.05	0	0	0	0
3281	3280	3282	1691	0.08	0	30	0	0
3283	3282	3270	3867	0.08	0	80	0	0
328in	328	3280	1	0.05	0	0	0	0
329in	329	3280	1	0.05	0	0	0	0
330in	330	3280	1	0.05	0	0	0	0
3401	3400	3280	5309	0.08	0	50	0	0
340in	340	3400	1	0.05	0	0	0	0
3411	3410	3400	2942.5	0.08	0	30	0	0
341in	341	3410	1	0.05	0	0	0	0
342in	342	3410	1	0.05	0	0	0	0
3431	3430	3432	642	0.08	0	10	0	0
3433	3432	3410	4243	0.08	0	40	0	0
343in	343	3430	1	0.05	0	0	0	0
344in	344	3430	1	0.05	0	0	0	0
3451	3450	3430	5197.5	0.08	0	0	0	0
345in	345	3450	1	0.05	0	0	0	0
346in	346	3450	1	0.05	0	0	0	0
350in	350	3450	1	0.05	0	0	0	0
3511	3510	3450	3511	0.08	0	0	0	0
351in	351	3510	1	0.05	0	0	0	0
3521	3520	3510	5660	0.08	0	400	0	0
352in	352	3520	1	0.05	0	0	0	0
3531	3530	3520	3032	0.08	0	200	0	0
353in	353	3530	1	0.05	0	0	0	0
354in	354	3530	1	0.05	0	0	0	0
3551	3550	3530	5116	0.08	0	200	0	0
355in	355	3550	1	0.05	0	0	0	0
4111	4110	3110	4691	0.08	0	0	0	0
411in	411	4110	1	0.05	0	0	0	0
4201	4200	3220	4562	0.08	0	0	0	0
420in	420	4200	1	0.05	0	0	0	0
421in	421	4200	1	0.05	0	0	0	0
4301	4300	3430	2610	0.08	0	200	0	0
430in	430	4300	1	0.05	0	0	0	0
4401	4400	3450	2825	0.08	0	0	0	0
440in	440	4400	1	0.05	0	0	0	0
4411	4410	4400	2617	0.08	0	0	0	0
441in	441	4410	1	0.05	0	0	0	0
442in	442	4410	1	0.05	0	0	0	0
4431	4430	4410	2489.3	0.08	0	0	0	0
443in	443	4430	1	0.05	0	0	0	0
4441	4440	4430	2243	0.08	0	20	0	0
444in	444	4440	1	0.05	0	0	0	0
4501	4500	3510	1160	0.08	0	50	0	0
450in	450	4500	1	0.05	0	0	0	0
451in	451	4500	1	0.05	0	0	0	0
4521	4520	4500	7840	0.08	0	20	0	0
452in	452	4520	1	0.05	0	0	0	0

[XSECTIONS]

Link	Shape	Geom1	Geom2	Geom3	Geom4	Barrels
311in	DUMMY	1	1	1	1	1
3201	IRREGULAR	4	0	0	0	1
320in	DUMMY	1	1	1	1	1
3211	IRREGULAR	4	0	0	0	1
321in	DUMMY	1	1	1	1	1
3221	IRREGULAR	4	0	0	0	1
322in	DUMMY	1	1	1	1	1
3231	IRREGULAR	4	0	0	0	1
323in	DUMMY	1	1	1	1	1
3241	IRREGULAR	4	0	0	0	1
324in	DUMMY	1	1	1	1	1
3251	IRREGULAR	4	0	0	0	1
325in	DUMMY	1	1	1	1	1
3261	IRREGULAR	4	0	0	0	1
326in	DUMMY	1	1	1	1	1
3271	IRREGULAR	2	0	0	0	1
327in	DUMMY	1	1	1	1	1
3281	IRREGULAR	3	0	0	0	1
3283	IRREGULAR	2	0	0	0	1
328in	DUMMY	1	1	1	1	1
329in	DUMMY	1	1	1	1	1
330in	DUMMY	1	1	1	1	1
3401	IRREGULAR	2	0	0	0	1
340in	DUMMY	1	1	1	1	1
3411	IRREGULAR	2	0	0	0	1
341in	DUMMY	1	1	1	1	1
342in	DUMMY	1	1	1	1	1
3431	IRREGULAR	3	0	0	0	1
3433	IRREGULAR	2	0	0	0	1
343in	DUMMY	1	1	1	1	1
344in	DUMMY	1	1	1	1	1
3451	IRREGULAR	3	0	0	0	1
345in	DUMMY	1	1	1	1	1
346in	DUMMY	1	1	1	1	1
350in	DUMMY	1	1	1	1	1
3511	IRREGULAR	1	0	0	0	1
351in	DUMMY	1	1	1	1	1
3521	IRREGULAR	1	0	0	0	1
352in	DUMMY	1	1	1	1	1
3531	IRREGULAR	1	0	0	0	1
353in	DUMMY	1	1	1	1	1
354in	DUMMY	1	1	1	1	1
3551	IRREGULAR	1	0	0	0	1
355in	DUMMY	1	1	1	1	1
4111	IRREGULAR	1	0	0	0	1
411in	DUMMY	1	1	1	1	1
4201	IRREGULAR	1	0	0	0	1
420in	DUMMY	1	1	1	1	1
421in	DUMMY	1	1	1	1	1
4301	IRREGULAR	1	0	0	0	1
430in	DUMMY	1	1	1	1	1
4401	IRREGULAR	3	0	0	0	1
440in	DUMMY	1	1	1	1	1
4411	IRREGULAR	3	0	0	0	1
441in	DUMMY	1	1	1	1	1
442in	DUMMY	1	1	1	1	1
4431	IRREGULAR	3	0	0	0	1
443in	DUMMY	1	1	1	1	1
4441	IRREGULAR	3	0	0	0	1
444in	DUMMY	1	1	1	1	1
4501	IRREGULAR	1	0	0	0	1
450in	DUMMY	1	1	1	1	1
451in	DUMMY	1	1	1	1	1
4521	IRREGULAR	1	0	0	0	1
452in	DUMMY	1	1	1	1	1

[TRANSECTS]

NC	0.114	0.114	0.114							
X1	1		6	20	125	0	0	0	0	0
GR	50	1	20	20	15	65	15	90	17	125
GR	50	175								
NC	0.098	0.098	0.098							
X1	2		6	75	265	0	0	0	0	0
GR	60	0	25	75	24	175	24	215	25	265
GR	60	310								
NC	0.093	0.093	0.093							
X1	3		6	75	315	0	0	0	0	0
GR	50	0	25	75	24	185	24	215	25	315
GR	50	400								
NC	0.06	0.06	0.086							
X1	4		6	100	450	0	0	0	0	0
GR	40	0	25	100	24	300	24	350	25	450
GR	40	550								
NC	0.07	0.07	0.078							
X1	5		6	500	550	0	0	0	0	0
GR	40	0	25	100	24	500	24	550	25	750
GR	40	850								

[LOSSES]

Link	Inlet	Outlet	Average	Flap Gate

[REPORT]
INPUT NO
CONTROLS NO
SUBCATCHMENTS ALL
NODES ALL
LINKS ALL

[MAP]
DIMENSIONS 3016850.000 1724155.000 3144939.000 1835983.000
Units None

[COORDINATES]

Node	X-Coord	Y-Coord	Node	X-Coord	Y-Coord
311	3071090	1759390	3260	3062870	1744670
320	3068010	1755260	3270	3059430	1744790
321	3071050	1753540	3280	3055230	1747060
322	3068810	1752680	3282	3056570	1746300
323	3066920	1748890	3400	3051450	1744580
324	3064160	1744350	3410	3049690	1746350
325	3062960	1747390	3430	3046850	1749460
326	3058360	1747110	3432	3047440	1749210
327	3055900	1744520	3450	3043830	1752730
328	3055840	1748250	3510	3041440	1750630
329	3052620	1742860	3520	3035140	1752440
330	3051650	1745730	3530	3032580	1751430
340	3049690	1743890	3550	3028130	1752560
341	3049690	1748370	4110	3074370	1762370
342	3047170	1745560	4200	3067950	1753080
343	3045100	1753250	4300	3045880	1746100
344	3045620	1748770	4400	3042610	1755040
345	3044870	1755430	4410	3040760	1756340
346	3041250	1754680	4430	3039620	1758060
350	3041710	1749120	4440	3037890	1759110
351	3038440	1750440	4500	3040430	1749420
352	3031150	1749170	4520	3038160	1746440
353	3027250	1749800			
354	3029140	1753020			
355	3025180	1751240			
411	3070690	1761290			
420	3066230	1753080			
421	3065250	1750150			
430	3043780	1744750			
440	3040970	1757100			
441	3036320	1753590			
442	3039700	1756980			
443	3033270	1755600			
444	3036320	1759450			
450	3039530	1744580			
451	3039070	1748710			
452	3033910	1746820			
3110	3078330	1762870			
3200	3074120	1760180			
3210	3073250	1758620			
3220	3070470	1755800			
3230	3069920	1752780			
3240	3069860	1751550			
3250	3068650	1748570			

SWMM - OUTPUT - 100-YEAR RETURN PERIOD - 0-10 SQUARE MILES AREA CORRECTION

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... YES
  Ponding Allowed ..... NO
  Water Quality ..... NO
Flow Routing Method ..... KINWAVE
Starting Date JAN-01-2005 00:00:00
Ending Date JAN-02-2005 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Routing Time Step ..... 60.00 sec

WARNING 08: elevation drop exceeds length for Conduit 311in

WARNING 08: elevation drop exceeds length for Conduit 320in

WARNING 08: elevation drop exceeds length for Conduit 321in

WARNING 08: elevation drop exceeds length for Conduit 322in

WARNING 08: elevation drop exceeds length for Conduit 323in

WARNING 08: elevation drop exceeds length for Conduit 324in

WARNING 08: elevation drop exceeds length for Conduit 325in

WARNING 08: elevation drop exceeds length for Conduit 326in

WARNING 08: elevation drop exceeds length for Conduit 327in

WARNING 08: elevation drop exceeds length for Conduit 328in

WARNING 08: elevation drop exceeds length for Conduit 329in

WARNING 08: elevation drop exceeds length for Conduit 330in

WARNING 08: elevation drop exceeds length for Conduit 340in

WARNING 08: elevation drop exceeds length for Conduit 341in

WARNING 08: elevation drop exceeds length for Conduit 342in

WARNING 08: elevation drop exceeds length for Conduit 343in

WARNING 08: elevation drop exceeds length for Conduit 344in

WARNING 08: elevation drop exceeds length for Conduit 345in

WARNING 08: elevation drop exceeds length for Conduit 346in

WARNING 08: elevation drop exceeds length for Conduit 350in

WARNING 08: elevation drop exceeds length for Conduit 351in

WARNING 08: elevation drop exceeds length for Conduit 352in

WARNING 08: elevation drop exceeds length for Conduit 353in

WARNING 08: elevation drop exceeds length for Conduit 354in

WARNING 08: elevation drop exceeds length for Conduit 355in

WARNING 08: elevation drop exceeds length for Conduit 411in

WARNING 08: elevation drop exceeds length for Conduit 420in

WARNING 08: elevation drop exceeds length for Conduit 421in

WARNING 08: elevation drop exceeds length for Conduit 430in

WARNING 08: elevation drop exceeds length for Conduit 440in

WARNING 08: elevation drop exceeds length for Conduit 441in

WARNING 08: elevation drop exceeds length for Conduit 442in

WARNING 08: elevation drop exceeds length for Conduit 443in

WARNING 08: elevation drop exceeds length for Conduit 444in

WARNING 08: elevation drop exceeds length for Conduit 450in

WARNING 08: elevation drop exceeds length for Conduit 451in

WARNING 08: elevation drop exceeds length for Conduit 452in

WARNING 02: maximum depth increased for Node 3510

**********	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
**********	---------	---------
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	1126.359	367.041
External Outflow	1173.400	382.370
Internal Outflow	0.000	0.000
Storage Losses	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	9.418	3.069
Continuity Error (%)	-5.013	

****
Highest Flow Instability Indexes
****
Link 3201 (3)
Link 3431 (3)
Link 3211 (3)
Link 3433 (3)
Link 3451 (3)

****
Routing Time Step Summary
****
Minimum Time Step : 60.00 sec
Average Time Step : 60.00 sec
Maximum Time Step : 60.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 1.00

****
Node Depth Summary
****

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time Occu days	of Max rrence hr:min
311	JUNCTION	0	0	10000	0	0:00
320	JUNCTION	0	0	10000	0	0:00
321	JUNCTION	0	0	10000	0	0:00
322	JUNCTION	0	0	10000	0	0:00
323	JUNCTION	0	0	10000	0	0:00
324	JUNCTION	0	0	10000	0	0:00
325	JUNCTION	0	0	10000	0	0:00
326	JUNCTION	0	0	10000	0	0:00
327	JUNCTION	0	0	10000	0	0:00
328	JUNCTION	0	0	10000	0	0:00
329	JUNCTION	0	0	10000	0	0:00
330	JUNCTION	0	0	10000	0	0:00
340	JUNCTION	0	0	10000	0	0:00
341	JUNCTION	0	0	10000	0	0:00
342	JUNCTION	0	0	10000	0	0:00
343	JUNCTION	0	0	10000	0	0:00
344	JUNCTION	0	0	10000	0	0:00
345	JUNCTION	0	0	10000	0	0:00
346	JUNCTION	0	0	10000	0	0:00
350	JUNCTION	0	0	10000	0	0:00
351	JUNCTION	0	0	10000	0	0:00
352	JUNCTION	0	0	10000	0	0:00
353	JUNCTION	0	0	10000	0	0:00
354	JUNCTION	0	0	10000	0	0:00
355	JUNCTION	0	0	10000	0	0:00
411	JUNCTION	0	0	10000	0	0:00
420	JUNCTION	0	0	10000	0	0:00
421	JUNCTION	0	0	10000	0	0:00
430	JUNCTION	0	0	10000	0	0:00
440	JUNCTION	0	0	10000	0	0:00
441	JUNCTION	0	0	10000	0	0:00
442	JUNCTION	0	0	10000	0	0:00
443	JUNCTION	0	0	10000	0	0:00
444	JUNCTION	0	0	10000	0	0:00
450	JUNCTION	0	0	10000	0	0:00
451	JUNCTION	0	0	10000	0	0:00
452	JUNCTION	0	0	10000	0	0:00
3110	JUNCTION	297.92	300	6060	0	0:11
3200	JUNCTION	0.85	3.09	5863.09	0	3:10
3210	JUNCTION	0.8	2.98	5912.98	0	3:05
3220	JUNCTION	0.81	2.99	6002.99	0	2:55
3230	JUNCTION	20.64	22.57	6122.57	0	2:49
3240	JUNCTION	0.67	2.7	6162.7	0	2:48
3250	JUNCTION	0.65	2.71	6242.71	0	2:40
3260	JUNCTION	30.74	33.75	6523.75	0	2:25
3270	JUNCTION	80.68	83.69	6723.69	0	2:19
3280	JUNCTION	50.6	53.43	6973.43	0	2:10
3282	JUNCTION	30.62	33.26	6873.26	0	2:12
3400	JUNCTION	30.58	33.54	7193.54	0	2:00
3410	JUNCTION	40.54	43.44	7323.44	0	1:56
3430	JUNCTION	200.16	202.26	7682.26	0	1:08
3432	JUNCTION	10.47	13.01	7463.01	0	1:47
3450	JUNCTION	0.56	4.47	7644.47	0	1:38
3510	JUNCTION	400.35	403.03	8163.03	0	1:35
3520	JUNCTION	200.28	202.84	8562.84	0	1:21
3530	JUNCTION	200.12	201.45	8841.45	0	1:22
3550	JUNCTION	0.09	1.64	9001.64	0	0:50
4110	JUNCTION	0.15	1.53	5921.53	0	1:10
4200	JUNCTION	0.21	2.46	6162.46	0	1:00
4300	JUNCTION	0.14	2.32	7762.32	0	0:55
4400	JUNCTION	0.25	1.72	7741.72	0	1:34
4410	JUNCTION	0.22	1.75	7791.75	0	1:22
4430	JUNCTION	20.09	20.97	7870.97	0	1:14
4440	JUNCTION	0.08	1	7941	0	0:55
4500	JUNCTION	20.26	22.62	7862.62	0	1:30
4520	JUNCTION	0.18	2.86	8082.86	0	0:55

****
Node Inflow Summary
****

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time Occ days	of Max urrence hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal
311	JUNCTION	175.08	175.08	0	1:15	9.592	9.592
320	JUNCTION	223.04	223.04	0	1:25	13.863	13.863
321	JUNCTION	182.11	182.11	0	1:10	9.083	9.083
322	JUNCTION	152	152	0	1:00	5.792	5.792
323	JUNCTION	238.86	238.86	0	1:15	12.752	12.752
324	JUNCTION	452.51	452.51	0	1:35	33.009	33.009
325	JUNCTION	349.81	349.81	0	1:05	13.77	13.77
326	JUNCTION	391.54	391.54	0	0:55	12.864	12.864
327	JUNCTION	457.25	457.25	0	1:00	16.153	16.153
328	JUNCTION	247	247	0	1:00	8.832	8.832
329	JUNCTION	164.52	164.52	0	1:10	7.448	7.448
330	JUNCTION	162.21	162.21	0	1:15	8.882	8.882
340	JUNCTION	294.31	294.31	0	1:00	9.916	9.916
341	JUNCTION	210.99	210.99	0	1:10	9.26	9.26
342	JUNCTION	282.86	282.86	0	0:50	7.942	7.942
343	JUNCTION	287.92	287.92	0	0:55	9.69	9.69
344	JUNCTION	274.72	274.72	0	0:50	7.459	7.459
345	JUNCTION	226.3	226.3	0	1:00	7.929	7.929
346	JUNCTION	321.71	321.71	0	0:55	10.757	10.757
350	JUNCTION	124.62	124.62	0	1:00	4.352	4.352
351	JUNCTION	150.57	150.57	0	1:10	6.376	6.376
352	JUNCTION	266.9	266.9	0	1:05	10.431	10.431
353	JUNCTION	261.74	261.74	0	1:00	9.007	9.007
354	JUNCTION	210.68	210.68	0	1:05	7.925	7.925
355	JUNCTION	183.83	183.83	0	0:50	4.656	4.656
411	JUNCTION	169.39	169.39	0	1:10	7.439	7.439
420	JUNCTION	248.42	248.42	0	0:55	8.293	8.293
421	JUNCTION	241.32	241.32	0	1:00	9.447	9.447
430	JUNCTION	335.12	335.12	0	0:55	9.918	9.918
440	JUNCTION	127.53	127.53	0	0:55	4.457	4.457
441	JUNCTION	268.97	268.97	0	1:05	10.714	10.714
442	JUNCTION	46.96	46.96	0	1:00	1.78	1.78
443	JUNCTION	322.65	322.65	0	1:15	15.337	15.337
444	JUNCTION	265.52	265.52	0	0:55	8.782	8.782
450	JUNCTION	273.3	273.3	0	1:05	10.654	10.654
451	JUNCTION	149.99	149.99	0	1:05	5.896	5.896
452	JUNCTION	599.59	599.59	0	0:55	16.555	16.555
3110	JUNCTION	0	4369.65	0	3:23	0	382.342
3200	JUNCTION	0	4344.39	0	3:10	0	364.426
3210	JUNCTION	0	4264.86	0	3:05	0	350.561
3220	JUNCTION	0	4261.49	0	2:55	0	340.684
3230	JUNCTION	0	4149	0	2:49	0	316.306
3240	JUNCTION	0	4057.65	0	2:47	0	303.573
3250	JUNCTION	0	3819.39	0	2:40	0	270.193
3260	JUNCTION	0	3850.33	0	2:25	0	254.686
3270	JUNCTION	0	3797.83	0	2:18	0	241.273
3280	JUNCTION	0	3707.62	0	2:09	0	224.371
3282	JUNCTION	0	3703.02	0	2:12	0	224.488
3400	JUNCTION	0	3492.28	0	2:00	0	198.315
3410	JUNCTION	0	3400.39	0	1:55	0	187.991
3430	JUNCTION	0	3252.18	0	1:46	0	169.624
3432	JUNCTION	0	3248.3	0	1:47	0	169.666
3450	JUNCTION	0	2929.4	0	1:37	0	140.785
3510	JUNCTION	0	1702.58	0	1:32	0	75.057
3520	JUNCTION	0	817.9	0	1:17	0	32.878
3530	JUNCTION	0	587.38	0	1:10	0	22.135
3550	JUNCTION	0	183.83	0	0:50	0	4.656
4110	JUNCTION	0	169.39	0	1:10	0	7.439
4200	JUNCTION	0	484.59	0	1:00	0	17.74
4300	JUNCTION	0	335.12	0	0:55	0	9.918
4400	JUNCTION	0	877.35	0	1:32	0	42.132
4410	JUNCTION	0	826.72	0	1:22	0	37.23
4430	JUNCTION	0	571.34	0	1:15	0	24.376
4440	JUNCTION	0	265.52	0	0:55	0	8.782
4500	JUNCTION	0	848.82	0	1:20	0	35.105
4520	JUNCTION	0	599.59	0	0:55	0	16.555

****
Node Surcharge Summary
****

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
311	JUNCTION	24.02	0	300
320	JUNCTION	24.02	0	300
321	JUNCTION	24.02	0	300
322	JUNCTION	24.02	0	300
323	JUNCTION	24.02	0	300
324	JUNCTION	24.02	0	300
325	JUNCTION	24.02	0	300
326	JUNCTION	24.02	0	300
327	JUNCTION	24.02	0	300
328	JUNCTION	24.02	0	300
329	JUNCTION	24.02	0	300
330	JUNCTION	24.02	0	300
340	JUNCTION	24.02	0	300
341	JUNCTION	24.02	0	300
342	JUNCTION	24.02	0	300
343	JUNCTION	24.02	0	300
344	JUNCTION	24.02	0	300
345	JUNCTION	24.02	0	300
346	JUNCTION	24.02	0	300
350	JUNCTION	24.02	0	300
351	JUNCTION	24.02	0	300
352	JUNCTION	24.02	0	300
353	JUNCTION	24.02	0	300
354	JUNCTION	24.02	0	300
355	JUNCTION	24.02	0	300
411	JUNCTION	24.02	0	300
420	JUNCTION	24.02	0	300
421	JUNCTION	24.02	0	300
430	JUNCTION	24.02	0	300
440	JUNCTION	24.02	0	300
441	JUNCTION	24.02	0	300
442	JUNCTION	24.02	0	300
443	JUNCTION	24.02	0	300
444	JUNCTION	24.02	0	300
450	JUNCTION	24.02	0	300
451	JUNCTION	24.02	0	300
452	JUNCTION	24.02	0	300

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
3110				

****
Node Flooding Summary
****

No nodes were flooded.

****
Conduit Surcharge Summary
****

Conduit	Hours Both Ends	Hours Full Upstream	Hours Full Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
311in	0.01	0.01	0.01	24.02	0.01
320in	0.01	0.01	0.01	24.02	0.01
321in	0.01	0.01	0.01	24.02	0.01
322in	0.01	0.01	0.01	24.02	0.01
323in	0.01	0.01	0.01	24.02	0.01
324in	0.01	0.01	0.01	24.02	0.01
325in	0.01	0.01	0.01	24.02	0.01
326in	0.01	0.01	0.01	24.02	0.01
327in	0.01	0.01	0.01	24.02	0.01
328in	0.01	0.01	0.01	24.02	0.01
329in	0.01	0.01	0.01	24.02	0.01
330in	0.01	0.01	0.01	24.02	0.01
340in	0.01	0.01	0.01	24.02	0.01
341in	0.01	0.01	0.01	24.02	0.01
342in	0.01	0.01	0.01	24.02	0.01
343in	0.01	0.01	0.01	24.02	0.01
344in	0.01	0.01	0.01	24.02	0.01
345in	0.01	0.01	0.01	24.02	0.01
346in	0.01	0.01	0.01	24.02	0.01
350in	0.01	0.01	0.01	24.02	0.01
351in	0.01	0.01	0.01	24.02	0.01
352in	0.01	0.01	0.01	24.02	0.01
353in	0.01	0.01	0.01	24.02	0.01
354in	0.01	0.01	0.01	24.02	0.01
355in	0.01	0.01	0.01	24.02	0.01
411in	0.01	0.01	0.01	24.02	0.01
420in	0.01	0.01	0.01	24.02	0.01
421in	0.01	0.01	0.01	24.02	0.01
430in	0.01	0.01	0.01	24.02	0.01
440in	0.01	0.01	0.01	24.02	0.01
441in	0.01	0.01	0.01	24.02	0.01
442in	0.01	0.01	0.01	24.02	0.01
443in	0.01	0.01	0.01	24.02	0.01
444in	0.01	0.01	0.01	24.02	0.01
450in	0.01	0.01	0.01	24.02	0.01
451in	0.01	0.01	0.01	24.02	0.01
452in	0.01	0.01	0.01	24.02	0.01

Analysis begun on: Mon Jan 27 11:22:21 2014
Analysis ended on: Mon Jan 27 11:22:21 2014
Total elapsed time: < 1 sec

****
Link Flow Summary
****

Link	Type	Maximum |Flow| CFS	Time Occ days	of Max urrence hr:min	Maximum |Veloc| ft/sec	Max/ Full Flow	Max/ Full Depth
311in	DUMMY	175.08	0	1:15			
3201	CHANNEL	4281.24	0	3:23	4.55	0.04	0.19
320in	DUMMY	223.04	0	1:25			
3211	CHANNEL	4255.88	0	3:10	4.78	0.04	0.18
321in	DUMMY	182.11	0	1:10			
3221	CHANNEL	4217.34	0	3:05	4.64	0.04	0.19
322in	DUMMY	152	0	1:00			
3231	CHANNEL	4128.99	0	2:56	5.11	0.03	0.17
323in	DUMMY	238.86	0	1:15			
3241	CHANNEL	4055.55	0	2:49	5.3	0.03	0.16
324in	DUMMY	452.51	0	1:35			
3251	CHANNEL	3798.04	0	2:48	4.69	0.03	0.17
325in	DUMMY	349.81	0	1:05			
3261	CHANNEL	3739.1	0	2:41	5.22	0.03	0.15
326in	DUMMY	391.54	0	0:55			
3271	CHANNEL	3774.94	0	2:25	5.84	0.02	0.1
327in	DUMMY	457.25	0	1:00			
3281	CHANNEL	3703.02	0	2:12	5.35	0.02	0.13
3283	CHANNEL	3679.36	0	2:19	5.81	0.02	0.1
328in	DUMMY	247	0	1:00			
329in	DUMMY	164.52	0	1:10			
330in	DUMMY	162.21	0	1:15			
3401	CHANNEL	3446.66	0	2:10	5.96	0.02	0.1
340in	DUMMY	294.31	0	1:00			
3411	CHANNEL	3386.45	0	2:00	5.59	0.02	0.1
341in	DUMMY	210.99	0	1:10			
342in	DUMMY	282.86	0	0:50			
3431	CHANNEL	3248.3	0	1:47	5.16	0.02	0.12
3433	CHANNEL	3204.01	0	1:56	5.51	0.02	0.1
343in	DUMMY	287.92	0	0:55			
344in	DUMMY	274.72	0	0:50			
3451	CHANNEL	2853.6	0	1:47	5.02	0.02	0.11
345in	DUMMY	226.3	0	1:00			
346in	DUMMY	321.71	0	0:55			
350in	DUMMY	124.62	0	1:00			
3511	CHANNEL	1686.91	0	1:38	5.22	0.02	0.13
351in	DUMMY	150.57	0	1:10			
3521	CHANNEL	764.47	0	1:35	4.22	0.01	0.09
352in	DUMMY	266.9	0	1:05			
3531	CHANNEL	573.43	0	1:21	3.41	0.01	0.08
353in	DUMMY	261.74	0	1:00			
354in	DUMMY	210.68	0	1:05			
3551	CHANNEL	146.74	0	1:22	2.83	0	0.04
355in	DUMMY	183.83	0	0:50			
4111	CHANNEL	149.49	0	1:33	2.6	0	0.04
411in	DUMMY	169.39	0	1:10			
4201	CHANNEL	455.81	0	1:26	3.51	0	0.07
420in	DUMMY	248.42	0	0:55			
421in	DUMMY	241.32	0	1:00			
4301	CHANNEL	319.84	0	1:08	2.71	0	0.06
430in	DUMMY	335.12	0	0:55			
4401	CHANNEL	862.18	0	1:41	3.05	0	0.06
440in	DUMMY	127.53	0	0:55			
4411	CHANNEL	798.14	0	1:34	2.63	0.01	0.07
441in	DUMMY	268.97	0	1:05			
442in	DUMMY	46.96	0	1:00			
4431	CHANNEL	555.07	0	1:26	2.33	0	0.06
443in	DUMMY	322.65	0	1:15			
4441	CHANNEL	248.92	0	1:14	2.33	0	0.04
444in	DUMMY	265.52	0	0:55			
4501	CHANNEL	847.01	0	1:23	3.77	0.01	0.1
450in	DUMMY	273.3	0	1:05			
451in	DUMMY	149.99	0	1:05			
4521	CHANNEL	497.57	0	1:30	4.2	0.01	0.07
452in	DUMMY	599.59	0	0:55			

SWMM - OUTPUT - 100-YEAR RETURN PERIOD - 10-20 SQUARE MILES AREA CORRECTION

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... YES
  Ponding Allowed ..... NO
  Water Quality ..... NO
Flow Routing Method ..... KINWAVE
Starting Date JAN-01-2005 00:00:00
Ending Date JAN-02-2005 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Routing Time Step ..... 60.00 sec

WARNING 08: elevation drop exceeds length for Conduit 311in

WARNING 08: elevation drop exceeds length for Conduit 320in

WARNING 08: elevation drop exceeds length for Conduit 321in

WARNING 08: elevation drop exceeds length for Conduit 322in

WARNING 08: elevation drop exceeds length for Conduit 323in

WARNING 08: elevation drop exceeds length for Conduit 324in

WARNING 08: elevation drop exceeds length for Conduit 325in

WARNING 08: elevation drop exceeds length for Conduit 326in

WARNING 08: elevation drop exceeds length for Conduit 327in

WARNING 08: elevation drop exceeds length for Conduit 328in

WARNING 08: elevation drop exceeds length for Conduit 329in

WARNING 08: elevation drop exceeds length for Conduit 330in

WARNING 08: elevation drop exceeds length for Conduit 340in

WARNING 08: elevation drop exceeds length for Conduit 341in

WARNING 08: elevation drop exceeds length for Conduit 342in

WARNING 08: elevation drop exceeds length for Conduit 343in

WARNING 08: elevation drop exceeds length for Conduit 344in

WARNING 08: elevation drop exceeds length for Conduit 345in

WARNING 08: elevation drop exceeds length for Conduit 346in

WARNING 08: elevation drop exceeds length for Conduit 350in

WARNING 08: elevation drop exceeds length for Conduit 351in

WARNING 08: elevation drop exceeds length for Conduit 352in

WARNING 08: elevation drop exceeds length for Conduit 353in

WARNING 08: elevation drop exceeds length for Conduit 354in

WARNING 08: elevation drop exceeds length for Conduit 355in

WARNING 08: elevation drop exceeds length for Conduit 411in

WARNING 08: elevation drop exceeds length for Conduit 420in

WARNING 08: elevation drop exceeds length for Conduit 421in

WARNING 08: elevation drop exceeds length for Conduit 430in

WARNING 08: elevation drop exceeds length for Conduit 440in

WARNING 08: elevation drop exceeds length for Conduit 441in

WARNING 08: elevation drop exceeds length for Conduit 442in

WARNING 08: elevation drop exceeds length for Conduit 443in

WARNING 08: elevation drop exceeds length for Conduit 444in

WARNING 08: elevation drop exceeds length for Conduit 450in

WARNING 08: elevation drop exceeds length for Conduit 451in

WARNING 08: elevation drop exceeds length for Conduit 452in

WARNING 02: maximum depth increased for Node 3510

**********	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
**********	---------	---------
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	1126.359	367.041
External Outflow	1173.400	382.370
Internal Outflow	0.000	0.000
Storage Losses	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	9.418	3.069
Continuity Error (%)	-5.013	

****
Highest Flow Instability Indexes
****
Link 3201 (3)
Link 3431 (3)
Link 3211 (3)
Link 3433 (3)
Link 3451 (3)

****
Routing Time Step Summary
****
Minimum Time Step : 60.00 sec
Average Time Step : 60.00 sec
Maximum Time Step : 60.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 1.00

****
Node Depth Summary
****

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time Occu days	of Max rrence hr:min
311	JUNCTION	0	0	10000	0	0:00
320	JUNCTION	0	0	10000	0	0:00
321	JUNCTION	0	0	10000	0	0:00
322	JUNCTION	0	0	10000	0	0:00
323	JUNCTION	0	0	10000	0	0:00
324	JUNCTION	0	0	10000	0	0:00
325	JUNCTION	0	0	10000	0	0:00
326	JUNCTION	0	0	10000	0	0:00
327	JUNCTION	0	0	10000	0	0:00
328	JUNCTION	0	0	10000	0	0:00
329	JUNCTION	0	0	10000	0	0:00
330	JUNCTION	0	0	10000	0	0:00
340	JUNCTION	0	0	10000	0	0:00
341	JUNCTION	0	0	10000	0	0:00
342	JUNCTION	0	0	10000	0	0:00
343	JUNCTION	0	0	10000	0	0:00
344	JUNCTION	0	0	10000	0	0:00
345	JUNCTION	0	0	10000	0	0:00
346	JUNCTION	0	0	10000	0	0:00
350	JUNCTION	0	0	10000	0	0:00
351	JUNCTION	0	0	10000	0	0:00
352	JUNCTION	0	0	10000	0	0:00
353	JUNCTION	0	0	10000	0	0:00
354	JUNCTION	0	0	10000	0	0:00
355	JUNCTION	0	0	10000	0	0:00
411	JUNCTION	0	0	10000	0	0:00
420	JUNCTION	0	0	10000	0	0:00
421	JUNCTION	0	0	10000	0	0:00
430	JUNCTION	0	0	10000	0	0:00
440	JUNCTION	0	0	10000	0	0:00
441	JUNCTION	0	0	10000	0	0:00
442	JUNCTION	0	0	10000	0	0:00
443	JUNCTION	0	0	10000	0	0:00
444	JUNCTION	0	0	10000	0	0:00
450	JUNCTION	0	0	10000	0	0:00
451	JUNCTION	0	0	10000	0	0:00
452	JUNCTION	0	0	10000	0	0:00
3110	JUNCTION	297.92	300	6060	0	0:11
3200	JUNCTION	0.85	3.09	5863.09	0	3:10
3210	JUNCTION	0.8	2.98	5912.98	0	3:05
3220	JUNCTION	0.81	2.99	6002.99	0	2:55
3230	JUNCTION	20.64	22.57	6122.57	0	2:49
3240	JUNCTION	0.67	2.7	6162.7	0	2:48
3250	JUNCTION	0.65	2.71	6242.71	0	2:40
3260	JUNCTION	30.74	33.75	6523.75	0	2:25
3270	JUNCTION	80.68	83.69	6723.69	0	2:19
3280	JUNCTION	50.6	53.43	6973.43	0	2:10
3282	JUNCTION	30.62	33.26	6873.26	0	2:12
3400	JUNCTION	30.58	33.54	7193.54	0	2:00
3410	JUNCTION	40.54	43.44	7323.44	0	1:56
3430	JUNCTION	200.16	202.26	7682.26	0	1:08
3432	JUNCTION	10.47	13.01	7463.01	0	1:47
3450	JUNCTION	0.56	4.47	7644.47	0	1:38
3510	JUNCTION	400.35	403.03	8163.03	0	1:35
3520	JUNCTION	200.28	202.84	8562.84	0	1:21
3530	JUNCTION	200.12	201.45	8841.45	0	1:22
3550	JUNCTION	0.09	1.64	9001.64	0	0:50
4110	JUNCTION	0.15	1.53	5921.53	0	1:10
4200	JUNCTION	0.21	2.46	6162.46	0	1:00
4300	JUNCTION	0.14	2.32	7762.32	0	0:55
4400	JUNCTION	0.25	1.72	7741.72	0	1:34
4410	JUNCTION	0.22	1.75	7791.75	0	1:22
4430	JUNCTION	20.09	20.97	7870.97	0	1:14
4440	JUNCTION	0.08	1	7941	0	0:55
4500	JUNCTION	20.26	22.62	7862.62	0	1:30
4520	JUNCTION	0.18	2.86	8082.86	0	0:55

****
Node Inflow Summary
****

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time Occ days	of Max urrence hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal
311	JUNCTION	175.08	175.08	0	1:15	9.592	9.592
320	JUNCTION	223.04	223.04	0	1:25	13.863	13.863
321	JUNCTION	182.11	182.11	0	1:10	9.083	9.083
322	JUNCTION	152	152	0	1:00	5.792	5.792
323	JUNCTION	238.86	238.86	0	1:15	12.752	12.752
324	JUNCTION	452.51	452.51	0	1:35	33.009	33.009
325	JUNCTION	349.81	349.81	0	1:05	13.77	13.77
326	JUNCTION	391.54	391.54	0	0:55	12.864	12.864
327	JUNCTION	457.25	457.25	0	1:00	16.153	16.153
328	JUNCTION	247	247	0	1:00	8.832	8.832
329	JUNCTION	164.52	164.52	0	1:10	7.448	7.448
330	JUNCTION	162.21	162.21	0	1:15	8.882	8.882
340	JUNCTION	294.31	294.31	0	1:00	9.916	9.916
341	JUNCTION	210.99	210.99	0	1:10	9.26	9.26
342	JUNCTION	282.86	282.86	0	0:50	7.942	7.942
343	JUNCTION	287.92	287.92	0	0:55	9.69	9.69
344	JUNCTION	274.72	274.72	0	0:50	7.459	7.459
345	JUNCTION	226.3	226.3	0	1:00	7.929	7.929
346	JUNCTION	321.71	321.71	0	0:55	10.757	10.757
350	JUNCTION	124.62	124.62	0	1:00	4.352	4.352
351	JUNCTION	150.57	150.57	0	1:10	6.376	6.376
352	JUNCTION	266.9	266.9	0	1:05	10.431	10.431
353	JUNCTION	261.74	261.74	0	1:00	9.007	9.007
354	JUNCTION	210.68	210.68	0	1:05	7.925	7.925
355	JUNCTION	183.83	183.83	0	0:50	4.656	4.656
411	JUNCTION	169.39	169.39	0	1:10	7.439	7.439
420	JUNCTION	248.42	248.42	0	0:55	8.293	8.293
421	JUNCTION	241.32	241.32	0	1:00	9.447	9.447
430	JUNCTION	335.12	335.12	0	0:55	9.918	9.918
440	JUNCTION	127.53	127.53	0	0:55	4.457	4.457
441	JUNCTION	268.97	268.97	0	1:05	10.714	10.714
442	JUNCTION	46.96	46.96	0	1:00	1.78	1.78
443	JUNCTION	322.65	322.65	0	1:15	15.337	15.337
444	JUNCTION	265.52	265.52	0	0:55	8.782	8.782
450	JUNCTION	273.3	273.3	0	1:05	10.654	10.654
451	JUNCTION	149.99	149.99	0	1:05	5.896	5.896
452	JUNCTION	599.59	599.59	0	0:55	16.555	16.555
3110	JUNCTION	0	4369.65	0	3:23	0	382.342
3200	JUNCTION	0	4344.39	0	3:10	0	364.426
3210	JUNCTION	0	4264.86	0	3:05	0	350.561
3220	JUNCTION	0	4261.49	0	2:55	0	340.684
3230	JUNCTION	0	4149	0	2:49	0	316.306
3240	JUNCTION	0	4057.65	0	2:47	0	303.573
3250	JUNCTION	0	3819.39	0	2:40	0	270.193
3260	JUNCTION	0	3850.33	0	2:25	0	254.686
3270	JUNCTION	0	3797.83	0	2:18	0	241.273
3280	JUNCTION	0	3707.62	0	2:09	0	224.371
3282	JUNCTION	0	3703.02	0	2:12	0	224.488
3400	JUNCTION	0	3492.28	0	2:00	0	198.315
3410	JUNCTION	0	3400.39	0	1:55	0	187.991
3430	JUNCTION	0	3252.18	0	1:46	0	169.624
3432	JUNCTION	0	3248.3	0	1:47	0	169.666
3450	JUNCTION	0	2929.4	0	1:37	0	140.785
3510	JUNCTION	0	1702.58	0	1:32	0	75.057
3520	JUNCTION	0	817.9	0	1:17	0	32.878
3530	JUNCTION	0	587.38	0	1:10	0	22.135
3550	JUNCTION	0	183.83	0	0:50	0	4.656
4110	JUNCTION	0	169.39	0	1:10	0	7.439
4200	JUNCTION	0	484.59	0	1:00	0	17.74
4300	JUNCTION	0	335.12	0	0:55	0	9.918
4400	JUNCTION	0	877.35	0	1:32	0	42.132
4410	JUNCTION	0	826.72	0	1:22	0	37.23
4430	JUNCTION	0	571.34	0	1:15	0	24.376
4440	JUNCTION	0	265.52	0	0:55	0	8.782
4500	JUNCTION	0	848.82	0	1:20	0	35.105
4520	JUNCTION	0	599.59	0	0:55	0	16.555

****
Node Surcharge Summary
****

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
311	JUNCTION	24.02	0	300
320	JUNCTION	24.02	0	300
321	JUNCTION	24.02	0	300
322	JUNCTION	24.02	0	300
323	JUNCTION	24.02	0	300
324	JUNCTION	24.02	0	300
325	JUNCTION	24.02	0	300
326	JUNCTION	24.02	0	300
327	JUNCTION	24.02	0	300
328	JUNCTION	24.02	0	300
329	JUNCTION	24.02	0	300
330	JUNCTION	24.02	0	300
340	JUNCTION	24.02	0	300
341	JUNCTION	24.02	0	300
342	JUNCTION	24.02	0	300
343	JUNCTION	24.02	0	300
344	JUNCTION	24.02	0	300
345	JUNCTION	24.02	0	300
346	JUNCTION	24.02	0	300
350	JUNCTION	24.02	0	300
351	JUNCTION	24.02	0	300
352	JUNCTION	24.02	0	300
353	JUNCTION	24.02	0	300
354	JUNCTION	24.02	0	300
355	JUNCTION	24.02	0	300
411	JUNCTION	24.02	0	300
420	JUNCTION	24.02	0	300
421	JUNCTION	24.02	0	300
430	JUNCTION	24.02	0	300
440	JUNCTION	24.02	0	300
441	JUNCTION	24.02	0	300
442	JUNCTION	24.02	0	300
443	JUNCTION	24.02	0	300
444	JUNCTION	24.02	0	300
450	JUNCTION	24.02	0	300
451	JUNCTION	24.02	0	300
452	JUNCTION	24.02	0	300
3110	JUNCTION	23.85	265	0

****
Node Flooding Summary
****

No nodes were flooded.

****
Conduit Surcharge Summary
****

Conduit	Both Ends	Hours Full Upstream	Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
311in	0.01	0.01	0.01	24.02	0.01
320in	0.01	0.01	0.01	24.02	0.01
321in	0.01	0.01	0.01	24.02	0.01
322in	0.01	0.01	0.01	24.02	0.01
323in	0.01	0.01	0.01	24.02	0.01
324in	0.01	0.01	0.01	24.02	0.01
325in	0.01	0.01	0.01	24.02	0.01
326in	0.01	0.01	0.01	24.02	0.01
327in	0.01	0.01	0.01	24.02	0.01
328in	0.01	0.01	0.01	24.02	0.01
329in	0.01	0.01	0.01	24.02	0.01
330in	0.01	0.01	0.01	24.02	0.01
340in	0.01	0.01	0.01	24.02	0.01
341in	0.01	0.01	0.01	24.02	0.01
342in	0.01	0.01	0.01	24.02	0.01
343in	0.01	0.01	0.01	24.02	0.01
344in	0.01	0.01	0.01	24.02	0.01
345in	0.01	0.01	0.01	24.02	0.01
346in	0.01	0.01	0.01	24.02	0.01
350in	0.01	0.01	0.01	24.02	0.01
351in	0.01	0.01	0.01	24.02	0.01
352in	0.01	0.01	0.01	24.02	0.01
353in	0.01	0.01	0.01	24.02	0.01
354in	0.01	0.01	0.01	24.02	0.01
355in	0.01	0.01	0.01	24.02	0.01
411in	0.01	0.01	0.01	24.02	0.01
420in	0.01	0.01	0.01	24.02	0.01
421in	0.01	0.01	0.01	24.02	0.01
430in	0.01	0.01	0.01	24.02	0.01
440in	0.01	0.01	0.01	24.02	0.01
441in	0.01	0.01	0.01	24.02	0.01
442in	0.01	0.01	0.01	24.02	0.01
443in	0.01	0.01	0.01	24.02	0.01
444in	0.01	0.01	0.01	24.02	0.01
450in	0.01	0.01	0.01	24.02	0.01
451in	0.01	0.01	0.01	24.02	0.01
452in	0.01	0.01	0.01	24.02	0.01

****
Link Flow Summary
****

Link	Type	Maximum |Flow| CFS	Time Occ days	of Max urrence hr:min	Maximum |Veloc| ft/sec	Max/ Full Flow	Max/ Full Depth
311in	DUMMY	175.08	0	1:15			
3201	CHANNEL	4281.24	0	3:23	4.55	0.04	0.19
320in	DUMMY	223.04	0	1:25			
3211	CHANNEL	4255.88	0	3:10	4.78	0.04	0.18
321in	DUMMY	182.11	0	1:10			
3221	CHANNEL	4217.34	0	3:05	4.64	0.04	0.19
322in	DUMMY	152	0	1:00			
3231	CHANNEL	4128.99	0	2:56	5.11	0.03	0.17
323in	DUMMY	238.86	0	1:15			
3241	CHANNEL	4055.55	0	2:49	5.3	0.03	0.16
324in	DUMMY	452.51	0	1:35			
3251	CHANNEL	3798.04	0	2:48	4.69	0.03	0.17
325in	DUMMY	349.81	0	1:05			
3261	CHANNEL	3739.1	0	2:41	5.22	0.03	0.15
326in	DUMMY	391.54	0	0:55			
3271	CHANNEL	3774.94	0	2:25	5.84	0.02	0.1
327in	DUMMY	457.25	0	1:00			
3281	CHANNEL	3703.02	0	2:12	5.35	0.02	0.13
3283	CHANNEL	3679.36	0	2:19	5.81	0.02	0.1
328in	DUMMY	247	0	1:00			
329in	DUMMY	164.52	0	1:10			
330in	DUMMY	162.21	0	1:15			
3401	CHANNEL	3446.66	0	2:10	5.96	0.02	0.1
340in	DUMMY	294.31	0	1:00			
3411	CHANNEL	3386.45	0	2:00	5.59	0.02	0.1
341in	DUMMY	210.99	0	1:10			
342in	DUMMY	282.86	0	0:50			
3431	CHANNEL	3248.3	0	1:47	5.16	0.02	0.12
3433	CHANNEL	3204.01	0	1:56	5.51	0.02	0.1
343in	DUMMY	287.92	0	0:55			
344in	DUMMY	274.72	0	0:50			
3451	CHANNEL	2853.6	0	1:47	5.02	0.02	0.11
345in	DUMMY	226.3	0	1:00			
346in	DUMMY	321.71	0	0:55			
350in	DUMMY	124.62	0	1:00			
3511	CHANNEL	1686.91	0	1:38	5.22	0.02	0.13
351in	DUMMY	150.57	0	1:10			
3521	CHANNEL	764.47	0	1:35	4.22	0.01	0.09
352in	DUMMY	266.9	0	1:05			
3531	CHANNEL	573.43	0	1:21	3.41	0.01	0.08
353in	DUMMY	261.74	0	1:00			
354in	DUMMY	210.68	0	1:05			
3551	CHANNEL	146.74	0	1:22	2.83	0	0.04
355in	DUMMY	183.83	0	0:50			
4111	CHANNEL	149.49	0	1:33	2.6	0	0.04
411in	DUMMY	169.39	0	1:10			
4201	CHANNEL	455.81	0	1:26	3.51	0	0.07
420in	DUMMY	248.42	0	0:55			
421in	DUMMY	241.32	0	1:00			
4301	CHANNEL	319.84	0	1:08	2.71	0	0.06
430in	DUMMY	335.12	0	0:55			
4401	CHANNEL	862.18	0	1:41	3.05	0	0.06
440in	DUMMY	127.53	0	0:55			
4411	CHANNEL	798.14	0	1:34	2.63	0.01	0.07
441in	DUMMY	268.97	0	1:05			
442in	DUMMY	46.96	0	1:00			
4431	CHANNEL	555.07	0	1:26	2.33	0	0.06
443in	DUMMY	322.65	0	1:15			
4441	CHANNEL	248.92	0	1:14	2.33	0	0.04
444in	DUMMY	265.52	0	0:55			
4501	CHANNEL	847.01	0	1:23	3.77	0.01	0.1
450in	DUMMY	273.3	0	1:05			
451in	DUMMY	149.99	0	1:05			
4521	CHANNEL	497.57	0	1:30	4.2	0.01	0.07
452in	DUMMY	599.59	0	0:55			

SWMM - OUTPUT - 100-YEAR RETURN PERIOD - 20-30 SQUARE MILES AREA CORRECTION

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.0 (Build 5.0.022)

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... YES
  Ponding Allowed ..... NO
  Water Quality ..... NO
Flow Routing Method ..... KINWAVE
Starting Date JAN-01-2005 00:00:00
Ending Date JAN-02-2005 00:00:00
Antecedent Dry Days 0.0
Report Time Step 00:01:00
Routing Time Step ..... 60.00 sec

WARNING 08: elevation drop exceeds length for Conduit 311in

WARNING 08: elevation drop exceeds length for Conduit 320in

WARNING 08: elevation drop exceeds length for Conduit 321in

WARNING 08: elevation drop exceeds length for Conduit 322in

WARNING 08: elevation drop exceeds length for Conduit 323in

WARNING 08: elevation drop exceeds length for Conduit 324in

WARNING 08: elevation drop exceeds length for Conduit 325in

WARNING 08: elevation drop exceeds length for Conduit 326in

WARNING 08: elevation drop exceeds length for Conduit 327in

WARNING 08: elevation drop exceeds length for Conduit 328in

WARNING 08: elevation drop exceeds length for Conduit 329in

WARNING 08: elevation drop exceeds length for Conduit 330in

WARNING 08: elevation drop exceeds length for Conduit 340in

WARNING 08: elevation drop exceeds length for Conduit 341in

WARNING 08: elevation drop exceeds length for Conduit 342in

WARNING 08: elevation drop exceeds length for Conduit 343in

WARNING 08: elevation drop exceeds length for Conduit 344in

WARNING 08: elevation drop exceeds length for Conduit 345in

WARNING 08: elevation drop exceeds length for Conduit 346in

WARNING 08: elevation drop exceeds length for Conduit 350in

WARNING 08: elevation drop exceeds length for Conduit 351in

WARNING 08: elevation drop exceeds length for Conduit 352in

WARNING 08: elevation drop exceeds length for Conduit 353in

WARNING 08: elevation drop exceeds length for Conduit 354in

WARNING 08: elevation drop exceeds length for Conduit 355in

WARNING 08: elevation drop exceeds length for Conduit 411in

WARNING 08: elevation drop exceeds length for Conduit 420in

WARNING 08: elevation drop exceeds length for Conduit 421in

WARNING 08: elevation drop exceeds length for Conduit 430in

WARNING 08: elevation drop exceeds length for Conduit 440in

WARNING 08: elevation drop exceeds length for Conduit 441in

WARNING 08: elevation drop exceeds length for Conduit 442in

WARNING 08: elevation drop exceeds length for Conduit 443in

WARNING 08: elevation drop exceeds length for Conduit 444in

WARNING 08: elevation drop exceeds length for Conduit 450in

WARNING 08: elevation drop exceeds length for Conduit 451in

WARNING 08: elevation drop exceeds length for Conduit 452in

WARNING 02: maximum depth increased for Node 3510

**********	Volume	Volume
Flow Routing Continuity	acre-feet	10^6 gal
**********	---------	---------
Dry Weather Inflow	0.000	0.000
Wet Weather Inflow	0.000	0.000
Groundwater Inflow	0.000	0.000
RDII Inflow	0.000	0.000
External Inflow	1024.888	333.975
External Outflow	1068.629	348.229
Internal Outflow	0.000	0.000
Storage Losses	0.000	0.000
Initial Stored Volume	0.000	0.000
Final Stored Volume	9.790	3.190
Continuity Error (%)	-5.223	

****
Highest Flow Instability Indexes
****
Link 3431 (4)
Link 3201 (3)
Link 3433 (3)
Link 3211 (3)
Link 3451 (3)

****
Routing Time Step Summary
****
Minimum Time Step : 60.00 sec
Average Time Step : 60.00 sec
Maximum Time Step : 60.00 sec
Percent in Steady State : 0.00
Average Iterations per Step : 1.00

****
Node Depth Summary
****

Node	Type	Average Depth Feet	Maximum Depth Feet	Maximum HGL Feet	Time Occu days	of Max rrence hr:min
311	JUNCTION	0	0	10000	0	0:00
320	JUNCTION	0	0	10000	0	0:00
321	JUNCTION	0	0	10000	0	0:00
322	JUNCTION	0	0	10000	0	0:00
323	JUNCTION	0	0	10000	0	0:00
324	JUNCTION	0	0	10000	0	0:00
325	JUNCTION	0	0	10000	0	0:00
326	JUNCTION	0	0	10000	0	0:00
327	JUNCTION	0	0	10000	0	0:00
328	JUNCTION	0	0	10000	0	0:00
329	JUNCTION	0	0	10000	0	0:00
330	JUNCTION	0	0	10000	0	0:00
340	JUNCTION	0	0	10000	0	0:00
341	JUNCTION	0	0	10000	0	0:00
342	JUNCTION	0	0	10000	0	0:00
343	JUNCTION	0	0	10000	0	0:00
344	JUNCTION	0	0	10000	0	0:00
345	JUNCTION	0	0	10000	0	0:00
346	JUNCTION	0	0	10000	0	0:00
350	JUNCTION	0	0	10000	0	0:00
351	JUNCTION	0	0	10000	0	0:00
352	JUNCTION	0	0	10000	0	0:00
353	JUNCTION	0	0	10000	0	0:00
354	JUNCTION	0	0	10000	0	0:00
355	JUNCTION	0	0	10000	0	0:00
411	JUNCTION	0	0	10000	0	0:00
420	JUNCTION	0	0	10000	0	0:00
421	JUNCTION	0	0	10000	0	0:00
430	JUNCTION	0	0	10000	0	0:00
440	JUNCTION	0	0	10000	0	0:00
441	JUNCTION	0	0	10000	0	0:00
442	JUNCTION	0	0	10000	0	0:00
443	JUNCTION	0	0	10000	0	0:00
444	JUNCTION	0	0	10000	0	0:00
450	JUNCTION	0	0	10000	0	0:00
451	JUNCTION	0	0	10000	0	0:00
452	JUNCTION	0	0	10000	0	0:00
3110	JUNCTION	297.92	300	6060	0	0:11
3200	JUNCTION	0.83	2.89	5862.89	0	3:16
3210	JUNCTION	0.78	2.79	5912.79	0	3:12
3220	JUNCTION	0.79	2.8	6002.8	0	3:01
3230	JUNCTION	20.62	22.41	6122.41	0	2:55
3240	JUNCTION	0.66	2.53	6162.53	0	2:53
3250	JUNCTION	0.63	2.54	6242.54	0	2:45
3260	JUNCTION	30.71	33.49	6523.49	0	2:30
3270	JUNCTION	80.66	83.44	6723.44	0	2:22
3280	JUNCTION	50.58	53.21	6973.21	0	2:13
3282	JUNCTION	30.61	33.05	6873.05	0	2:15
3400	JUNCTION	30.57	33.32	7193.32	0	2:03
3410	JUNCTION	40.52	43.22	7323.22	0	1:57
3430	JUNCTION	200.15	202.14	7682.14	0	1:11
3432	JUNCTION	10.46	12.82	7462.82	0	1:50
3450	JUNCTION	0.55	4.26	7644.26	0	1:43
3510	JUNCTION	400.34	402.86	8162.86	0	1:36
3520	JUNCTION	200.27	202.68	8562.68	0	1:21
3530	JUNCTION	200.12	201.33	8841.33	0	1:23
3550	JUNCTION	0.08	1.52	9001.52	0	0:50
4110	JUNCTION	0.14	1.45	5921.45	0	1:10
4200	JUNCTION	0.21	2.37	6162.37	0	1:00
4300	JUNCTION	0.14	2.2	7762.2	0	0:55
4400	JUNCTION	0.24	1.69	7741.69	0	1:26
4410	JUNCTION	0.22	1.67	7791.67	0	1:23
4430	JUNCTION	20.09	20.93	7870.93	0	1:16
4440	JUNCTION	0.08	0.96	7940.96	0	0:55
4500	JUNCTION	20.25	22.5	7862.5	0	1:26
4520	JUNCTION	0.17	2.73	8082.73	0	0:55

****
Node Inflow Summary
****

Node	Type	Maximum Lateral Inflow CFS	Maximum Total Inflow CFS	Time Occ days	of Max urrence hr:min	Lateral Inflow Volume 10^6 gal	Total Inflow Volume 10^6 gal
311	JUNCTION	158.34	158.34	0	1:15	8.76	8.76
320	JUNCTION	204.36	204.36	0	1:25	12.691	12.691
321	JUNCTION	167.26	167.26	0	1:10	8.35	8.35
322	JUNCTION	139.27	139.27	0	1:00	5.289	5.289
323	JUNCTION	218.85	218.85	0	1:15	11.65	11.65
324	JUNCTION	416.37	416.37	0	1:35	30.554	30.554
325	JUNCTION	321.17	321.17	0	1:05	12.59	12.59
326	JUNCTION	358.24	358.24	0	0:55	11.83	11.83
327	JUNCTION	420.68	420.68	0	1:00	14.835	14.835
328	JUNCTION	223.01	223.01	0	1:05	7.931	7.931
329	JUNCTION	150	150	0	1:10	6.828	6.828
330	JUNCTION	147.05	147.05	0	1:15	8.083	8.083
340	JUNCTION	265.92	265.92	0	1:00	8.923	8.923
341	JUNCTION	190.9	190.9	0	1:10	8.363	8.363
342	JUNCTION	255.85	255.85	0	0:50	7.208	7.208
343	JUNCTION	261.35	261.35	0	0:55	8.858	8.858
344	JUNCTION	247.66	247.66	0	0:50	6.713	6.713
345	JUNCTION	205.9	205.9	0	1:00	7.22	7.22
346	JUNCTION	292.1	292.1	0	1:00	9.808	9.808
350	JUNCTION	112.6	112.6	0	1:00	3.91	3.91
351	JUNCTION	135.99	135.99	0	1:10	5.725	5.725
352	JUNCTION	240.82	240.82	0	1:05	9.369	9.369
353	JUNCTION	233.9	233.9	0	1:00	8.027	8.027
354	JUNCTION	190.26	190.26	0	1:05	7.11	7.11
355	JUNCTION	160.92	160.92	0	0:50	4.044	4.044
411	JUNCTION	153.17	153.17	0	1:10	6.713	6.713
420	JUNCTION	228.42	228.42	0	0:55	7.622	7.622
421	JUNCTION	222.25	222.25	0	1:00	8.714	8.714
430	JUNCTION	303.44	303.44	0	0:55	8.921	8.921
440	JUNCTION	117.5	117.5	0	0:55	4.384	4.384
441	JUNCTION	243.41	243.41	0	1:05	9.666	9.666
442	JUNCTION	42.28	42.28	0	1:00	1.602	1.602
443	JUNCTION	291.56	291.56	0	1:15	13.826	13.826
444	JUNCTION	241.88	241.88	0	0:55	8.096	8.096
450	JUNCTION	246.79	246.79	0	1:05	9.575	9.575
451	JUNCTION	135.42	135.42	0	1:05	5.296	5.296
452	JUNCTION	542.3	542.3	0	0:55	14.867	14.867
3110	JUNCTION	0	3807.86	0	3:29	0	348.203
3200	JUNCTION	0	3791.37	0	3:16	0	331.919
3210	JUNCTION	0	3723.02	0	3:11	0	319.238
3220	JUNCTION	0	3722.22	0	3:01	0	310.204
3230	JUNCTION	0	3627.52	0	2:54	0	287.785
3240	JUNCTION	0	3549.21	0	2:52	0	276.171
3250	JUNCTION	0	3339.36	0	2:45	0	245.282
3260	JUNCTION	0	3370	0	2:29	0	231.088
3270	JUNCTION	0	3329.45	0	2:22	0	218.747
3280	JUNCTION	0	3257.04	0	2:11	0	203.223
3282	JUNCTION	0	3252.15	0	2:15	0	203.329
3400	JUNCTION	0	3075.85	0	2:02	0	179.564
3410	JUNCTION	0	3006.89	0	1:57	0	170.267
3430	JUNCTION	0	2868.72	0	1:49	0	153.622
3432	JUNCTION	0	2867.12	0	1:50	0	153.652
3450	JUNCTION	0	2590.67	0	1:38	0	127.434
3510	JUNCTION	0	1518.26	0	1:30	0	67.395
3520	JUNCTION	0	725.2	0	1:18	0	29.363
3530	JUNCTION	0	520.97	0	1:10	0	19.696
3550	JUNCTION	0	160.92	0	0:50	0	4.044
4110	JUNCTION	0	153.17	0	1:10	0	6.713
4200	JUNCTION	0	446.51	0	1:00	0	16.336
4300	JUNCTION	0	303.44	0	0:55	0	8.921
4400	JUNCTION	0	797.21	0	1:39	0	38.575
4410	JUNCTION	0	742.65	0	1:23	0	33.771
4430	JUNCTION	0	517.43	0	1:15	0	22.162
4440	JUNCTION	0	241.88	0	0:55	0	8.096
4500	JUNCTION	0	763.71	0	1:26	0	31.629
4520	JUNCTION	0	542.3	0	0:55	0	14.867

****
Node Surcharge Summary
****

Surcharging occurs when water rises above the top of the highest conduit.

Node	Type	Hours Surcharged	Max. Height Above Crown Feet	Min. Depth Below Rim Feet
311	JUNCTION	24.02	0	300
320	JUNCTION	24.02	0	300
321	JUNCTION	24.02	0	300
322	JUNCTION	24.02	0	300
323	JUNCTION	24.02	0	300
324	JUNCTION	24.02	0	300
325	JUNCTION	24.02	0	300
326	JUNCTION	24.02	0	300
327	JUNCTION	24.02	0	300
328	JUNCTION	24.02	0	300
329	JUNCTION	24.02	0	300
330	JUNCTION	24.02	0	300
340	JUNCTION	24.02	0	300
341	JUNCTION	24.02	0	300
342	JUNCTION	24.02	0	300
343	JUNCTION	24.02	0	300
344	JUNCTION	24.02	0	300
345	JUNCTION	24.02	0	300
346	JUNCTION	24.02	0	300
350	JUNCTION	24.02	0	300
351	JUNCTION	24.02	0	300
352	JUNCTION	24.02	0	300
353	JUNCTION	24.02	0	300
354	JUNCTION	24.02	0	300
355	JUNCTION	24.02	0	300
411	JUNCTION	24.02	0	300
420	JUNCTION	24.02	0	300
421	JUNCTION	24.02	0	300
430	JUNCTION	24.02	0	300
440	JUNCTION	24.02	0	300
441	JUNCTION	24.02	0	300
442	JUNCTION	24.02	0	300
443	JUNCTION	24.02	0	300
444	JUNCTION	24.02	0	300
450	JUNCTION	24.02	0	300
451	JUNCTION	24.02	0	300
452	JUNCTION	24.02	0	300
3110	JUNCTION	23.85	265	0

****
Node Flooding Summary
****

No nodes were flooded.

****
Conduit Surcharge Summary
****

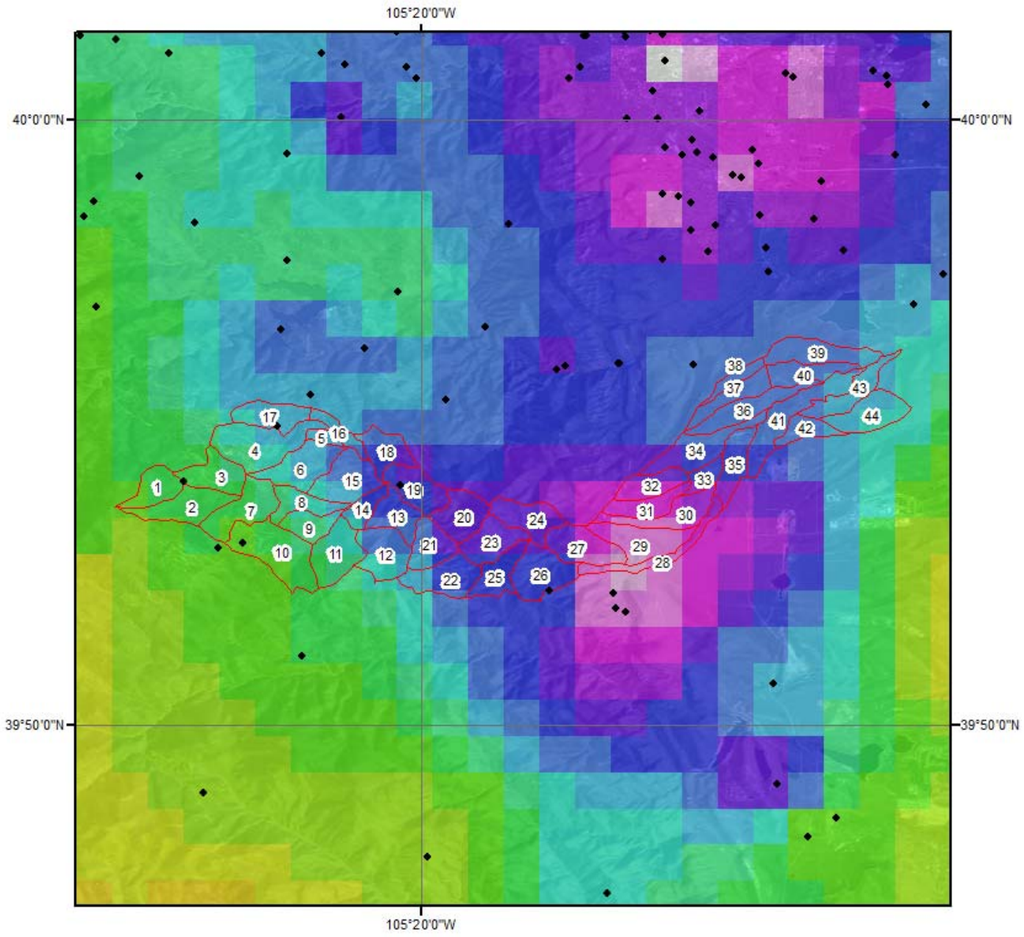
Conduit	Both Ends	Hours Full Upstream	Dnstream	Hours Above Full Normal Flow	Hours Capacity Limited
311in	0.01	0.01	0.01	24.02	0.01
320in	0.01	0.01	0.01	24.02	0.01
321in	0.01	0.01	0.01	24.02	0.01
322in	0.01	0.01	0.01	24.02	0.01
323in	0.01	0.01	0.01	24.02	0.01
324in	0.01	0.01	0.01	24.02	0.01
325in	0.01	0.01	0.01	24.02	0.01
326in	0.01	0.01	0.01	24.02	0.01
327in	0.01	0.01	0.01	24.02	0.01
328in	0.01	0.01	0.01	24.02	0.01
329in	0.01	0.01	0.01	24.02	0.01
330in	0.01	0.01	0.01	24.02	0.01
340in	0.01	0.01	0.01	24.02	0.01
341in	0.01	0.01	0.01	24.02	0.01
342in	0.01	0.01	0.01	24.02	0.01
343in	0.01	0.01	0.01	24.02	0.01
344in	0.01	0.01	0.01	24.02	0.01
345in	0.01	0.01	0.01	24.02	0.01
346in	0.01	0.01	0.01	24.02	0.01
350in	0.01	0.01	0.01	24.02	0.01
351in	0.01	0.01	0.01	24.02	0.01
352in	0.01	0.01	0.01	24.02	0.01
353in	0.01	0.01	0.01	24.02	0.01
354in	0.01	0.01	0.01	24.02	0.01
355in	0.01	0.01	0.01	24.02	0.01
411in	0.01	0.01	0.01	24.02	0.01
420in	0.01	0.01	0.01	24.02	0.01
421in	0.01	0.01	0.01	24.02	0.01
430in	0.01	0.01	0.01	24.02	0.01
440in	0.01	0.01	0.01	24.02	0.01
441in	0.01	0.01	0.01	24.02	0.01
442in	0.01	0.01	0.01	24.02	0.01
443in	0.01	0.01	0.01	24.02	0.01
444in	0.01	0.01	0.01	24.02	0.01
450in	0.01	0.01	0.01	24.02	0.01
451in	0.01	0.01	0.01	24.02	0.01
452in	0.01	0.01	0.01	24.02	0.01

Analysis begun on: Mon Jan 27 11:23:11 2014
Analysis ended on: Mon Jan 27 11:23:12 2014
Total elapsed time: 00:00:01

****
Link Flow Summary
****

Link	Type	Maximum |Flow| CFS	Time Occ days	of Max urrence hr:min	Maximum |Veloc| ft/sec	Max/ Full Flow	Max/ Full Depth
311in	DUMMY	158.34	0	1:15			
3201	CHANNEL	3733.3	0	3:30	4.31	0.04	0.18
320in	DUMMY	204.36	0	1:25			
3211	CHANNEL	3714.99	0	3:17	4.53	0.03	0.17
321in	DUMMY	167.26	0	1:10			
3221	CHANNEL	3682.87	0	3:12	4.4	0.04	0.17
322in	DUMMY	139.27	0	1:00			
3231	CHANNEL	3609.37	0	3:02	4.86	0.03	0.16
323in	DUMMY	218.85	0	1:15			
3241	CHANNEL	3547.05	0	2:55	5.03	0.03	0.15
324in	DUMMY	416.37	0	1:35			
3251	CHANNEL	3320.34	0	2:53	4.45	0.03	0.16
325in	DUMMY	321.17	0	1:05			
3261	CHANNEL	3271.02	0	2:46	4.96	0.02	0.14
326in	DUMMY	358.24	0	0:55			
3271	CHANNEL	3306.47	0	2:30	5.56	0.02	0.1
327in	DUMMY	420.68	0	1:00			
3281	CHANNEL	3252.15	0	2:15	5.08	0.02	0.12
3283	CHANNEL	3226.73	0	2:22	5.52	0.02	0.1
328in	DUMMY	223.01	0	1:05			
329in	DUMMY	150	0	1:10			
330in	DUMMY	147.05	0	1:15			
3401	CHANNEL	3030.24	0	2:13	5.66	0.01	0.09
340in	DUMMY	265.92	0	1:00			
3411	CHANNEL	2986.06	0	2:03	5.33	0.01	0.09
341in	DUMMY	190.9	0	1:10			
342in	DUMMY	255.85	0	0:50			
3431	CHANNEL	2867.12	0	1:50	4.92	0.02	0.11
3433	CHANNEL	2835.37	0	1:57	5.25	0.01	0.09
343in	DUMMY	261.35	0	0:55			
344in	DUMMY	247.66	0	0:50			
3451	CHANNEL	2550.33	0	1:52	4.79	0.02	0.1
345in	DUMMY	205.9	0	1:00			
346in	DUMMY	292.1	0	1:00			
350in	DUMMY	112.6	0	1:00			
3511	CHANNEL	1493.4	0	1:39	4.99	0.02	0.12
351in	DUMMY	135.99	0	1:10			
3521	CHANNEL	673.75	0	1:36	4.04	0.01	0.08
352in	DUMMY	240.82	0	1:05			
3531	CHANNEL	506.55	0	1:21	3.27	0.01	0.08
353in	DUMMY	233.9	0	1:00			
354in	DUMMY	190.26	0	1:05			
3551	CHANNEL	126.76	0	1:23	2.76	0	0.04
355in	DUMMY	160.92	0	0:50			
4111	CHANNEL	134.1	0	1:34	2.54	0	0.04
411in	DUMMY	153.17	0	1:10			
4201	CHANNEL	427.92	0	1:22	3.37	0	0.07
420in	DUMMY	228.42	0	0:55			
421in	DUMMY	222.25	0	1:00			
4301	CHANNEL	288.35	0	1:11	2.67	0	0.06
430in	DUMMY	303.44	0	0:55			
4401	CHANNEL	777.53	0	1:45	2.96	0	0.06
440in	DUMMY	117.5	0	0:55			
4411	CHANNEL	732.12	0	1:39	2.51	0.01	0.06
441in	DUMMY	243.41	0	1:05			
442in	DUMMY	42.28	0	1:00			
4431	CHANNEL	500.83	0	1:27	2.25	0	0.05
443in	DUMMY	291.56	0	1:15			
4441	CHANNEL	225.88	0	1:16	2.07	0	0.04
444in	DUMMY	241.88	0	0:55			
4501	CHANNEL	758.68	0	1:28	3.64	0.01	0.09
450in	DUMMY	246.79	0	1:05			
451in	DUMMY	135.42	0	1:05			
4521	CHANNEL	448.1	0	1:26	4.05	0.01	0.07
452in	DUMMY	542.3	0	0:55			

SPAS - Provided to URS from AWA



Total 10-day Precipitation (in)
Sept 8, 2013 - Sept 17, 2013
SPAS #1302

Gauges

- 1302 Stations

Miles
0 0.5 1 2 3 4
Kilometers
0 1 2 4 6 8

Precipitation (inches)

0.13 - 1.00	5.01 - 6.00	10.01 - 11.00	15.01 - 16.00	20.01 - 21.00
1.01 - 2.00	6.01 - 7.00	11.01 - 12.00	16.01 - 17.00	
2.01 - 3.00	7.01 - 8.00	12.01 - 13.00	17.01 - 18.00	
3.01 - 4.00	8.01 - 9.00	13.01 - 14.00	18.01 - 19.00	
4.01 - 5.00	9.01 - 10.00	14.01 - 15.00	19.01 - 20.00	

01/22/2013

Basin Identification between Studies

Basin ID's Within Scope of Study

2013/ 2014 ID	2006 ID	SPAS ID	Area Correction
311	37	36	30
320	32	34	30
321	38	35	20
322	33	33	20
323	34	30	20
324	31	28	20
325	30	29	20
326	26	27	20
327	27	26	20
328	23	24	20
329	25	25	20
330	24	23	20
340	22	22	20
341	20	20	20
342	21	21	20
343	17	19	20
344	18	13	20
345	14	18	10
346	12	15	10
350	16	14	10
351	9	8	10
352	4	7	10
353	2	2	10
354	3	3	10
355	1	1	10
411	36	37	10
420	28	32	10
421	29	31	10
430	19	12	10
440	13	16	10
441	8	6	10
442	7	5	10
443	5	4	10
444	6	17	10
450	15	11	10
451	11	9	10
452	10	10	10

Basin ID's Out of Scope of Study

2013/ 2014 ID	2006 ID	SPAS ID
410	35	38
307	39	39
308	40	40
309	41	41
401	42	42
310	43	43
400	44	44

September 2013 Peak 24-hour Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
0:15	0.003	0.001	0.003	0.001	0.003	0.006	0.003	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.003
0:30	0.003	0.001	0.003	0.000	0.003	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.003
0:45	0.003	0.000	0.003	0.000	0.003	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.003
1:00	0.003	0.002	0.003	0.000	0.003	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.003
1:15	0.004	0.003	0.003	0.000	0.003	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.006
1:30	0.006	0.003	0.008	0.000	0.003	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.006
1:45	0.006	0.003	0.004	0.000	0.003	0.006	0.028	0.003	0.001	0.000	0.000	0.003	0.003	0.000	0.000	0.002	0.003	0.003	0.000	0.006
2:00	0.006	0.003	0.012	0.000	0.003	0.006	0.061	0.003	0.001	0.000	0.000	0.003	0.003	0.003	0.000	0.002	0.003	0.003	0.000	0.006
2:15	0.006	0.003	0.038	0.003	0.006	0.009	0.017	0.006	0.005	0.003	0.003	0.006	0.006	0.003	0.006	0.003	0.009	0.003	0.006	0.013
2:30	0.005	0.003	0.004	0.003	0.006	0.009	0.020	0.006	0.004	0.003	0.003	0.006	0.006	0.010	0.007	0.004	0.009	0.003	0.006	0.015
2:45	0.006	0.003	0.039	0.003	0.006	0.009	0.038	0.006	0.006	0.004	0.005	0.008	0.006	0.009	0.008	0.011	0.021	0.028	0.029	0.046
3:00	0.006	0.003	0.044	0.005	0.012	0.014	0.028	0.026	0.024	0.006	0.023	0.040	0.029	0.012	0.021	0.049	0.041	0.042	0.026	0.017
3:15	0.001	0.003	0.017	0.004	0.002	0.001	0.054	0.002	0.002	0.006	0.006	0.001	0.001	0.035	0.006	0.001	0.002	0.001	0.000	0.020
3:30	0.002	0.012	0.051	0.038	0.045	0.044	0.091	0.063	0.060	0.049	0.059	0.075	0.063	0.001	0.073	0.081	0.110	0.102	0.097	0.139
3:45	0.097	0.097	0.074	0.091	0.114	0.120	0.062	0.090	0.082	0.083	0.076	0.082	0.082	0.085	0.080	0.078	0.072	0.065	0.058	0.067
4:00	0.053	0.058	0.041	0.058	0.031	0.028	0.048	0.053	0.066	0.074	0.078	0.068	0.067	0.084	0.092	0.076	0.056	0.074	0.096	0.023
4:15	0.048	0.063	0.043	0.091	0.081	0.078	0.040	0.093	0.111	0.119	0.124	0.122	0.064	0.063	0.162	0.161	0.202	0.205	0.209	0.238
4:30	0.160	0.164	0.046	0.153	0.162	0.150	0.045	0.143	0.132	0.109	0.113	0.119	0.126	0.111	0.104	0.099	0.037	0.056	0.066	0.004
4:45	0.052	0.039	0.032	0.015	0.009	0.005	0.038	0.002	0.002	0.013	0.004	0.000	0.001	0.104	0.007	0.001	0.002	0.000	0.001	0.003
5:00	0.032	0.030	0.006	0.010	0.003	0.002	0.008	0.008	0.006	0.004	0.004	0.010	0.010	0.003	0.002	0.010	0.020	0.011	0.004	0.008
5:15	0.008	0.008	0.006	0.009	0.033	0.038	0.011	0.027	0.011	0.007	0.010	0.022	0.024	0.014	0.015	0.014	0.016	0.009	0.015	0.026
5:30	0.003	0.003	0.037	0.007	0.017	0.019	0.038	0.020	0.023	0.004	0.019	0.040	0.015	0.022	0.026	0.064	0.062	0.082	0.071	0.073
5:45	0.006	0.018	0.065	0.070	0.057	0.034	0.041	0.067	0.084	0.093	0.090	0.034	0.014	0.029	0.065	0.018	0.015	0.009	0.020	0.015
6:00	0.111	0.104	0.038	0.054	0.030	0.044	0.037	0.021	0.012	0.041	0.014	0.022	0.069	0.023	0.042	0.016	0.016	0.009	0.019	0.014
6:15	0.011	0.007	0.021	0.003	0.003	0.006	0.063	0.003	0.003	0.003	0.003	0.003	0.004	0.039	0.003	0.003	0.003	0.003	0.003	0.003
6:30	0.039	0.046	0.006	0.058	0.033	0.031	0.023	0.022	0.031	0.074	0.042	0.006	0.007	0.003	0.050	0.004	0.001	0.003	0.008	0.001
6:45	0.048	0.053	0.006	0.067	0.041	0.034	0.009	0.023	0.047	0.078	0.060	0.014	0.006	0.001	0.080	0.023	0.014	0.027	0.064	0.027
7:00	0.066	0.078	0.004	0.116	0.131	0.136	0.009	0.152	0.132	0.124	0.127	0.141	0.171	0.002	0.137	0.118	0.104	0.101	0.111	0.090
7:15	0.072	0.070	0.000	0.050	0.055	0.054	0.000	0.051	0.044	0.034	0.038	0.044	0.049	0.136	0.036	0.040	0.037	0.037	0.036	0.033
7:30	0.051	0.050	0.001	0.036	0.049	0.050	0.001	0.043	0.036	0.024	0.029	0.038	0.044	0.042	0.029	0.034	0.026	0.030	0.031	0.012
7:45	0.034	0.043	0.000	0.037	0.040	0.039	0.000	0.040	0.037	0.028	0.033	0.034	0.035	0.037	0.031	0.028	0.012	0.017	0.020	0.006
8:00	0.011	0.014	0.000	0.013	0.021	0.022	0.000	0.018	0.011	0.006	0.007	0.010	0.017	0.021	0.006	0.007	0.006	0.006	0.006	0.006
8:15	0.001	0.001	0.000	0.001	0.001	0.003	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.009	0.001	0.001	0.001	0.001	0.001	0.003
8:30	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.003
8:45	0.002	0.002	0.000	0.002	0.002	0.003	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.002	0.002	0.002	0.002	0.002	0.003
9:00	0.003	0.003	0.000	0.003	0.003	0.003	0.000	0.003	0.003	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003	0.004
9:15	0.003	0.003	0.006	0.000	0.003	0.003	0.006	0.000	0.000	0.003	0.001	0.000	0.000	0.003	0.003	0.001	0.003	0.003	0.003	0.012
9:30	0.003	0.003	0.006	0.000	0.003	0.003	0.006	0.000	0.000	0.003	0.002	0.000	0.000	0.001	0.003	0.003	0.003	0.003	0.003	0.012
9:45	0.003	0.003	0.006	0.001	0.000	0.003	0.006	0.000	0.002	0.003	0.003	0.000	0.000	0.001	0.003	0.003	0.003	0.003	0.003	0.012
10:00	0.003	0.000	0.010	0.000	0.001	0.003	0.051	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.012
10:15	0.030	0.030	0.040	0.028	0.030	0.027	0.075	0.030	0.030	0.023	0.027	0.036	0.027	0.003	0.027	0.042	0.036	0.039	0.030	0.028
10:30	0.030	0.030	0.021	0.025	0.030	0.030	0.016	0.030	0.030	0.021	0.027	0.038	0.027	0.033	0.025	0.041	0.037	0.039	0.031	0.025
10:45	0.031	0.036	0.020	0.031	0.043	0.043	0.018	0.044	0.034	0.021	0.028	0.041	0.039	0.035	0.026	0.042	0.037	0.039	0.031	0.025
11:00	0.046	0.040	0.067	0.029	0.034	0.035	0.117	0.034	0.035	0.028	0.038	0.055	0.050	0.041	0.055	0.069	0.119	0.101	0.091	0.128
11:15	0.031	0.043	0.038	0.049	0.053	0.050	0.049	0.058	0.055	0.040	0.048	0.047	0.051	0.093	0.041	0.041	0.029	0.034	0.037	0.022

September 2013 Peak 24-hour Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
11:30	0.068	0.060	0.065	0.038	0.063	0.064	0.070	0.042	0.029	0.015	0.018	0.025	0.043	0.037	0.011	0.018	0.023	0.017	0.012	0.032
11:45	0.031	0.023	0.088	0.016	0.034	0.038	0.096	0.035	0.026	0.012	0.024	0.041	0.048	0.025	0.025	0.039	0.053	0.047	0.040	0.057
12:00	0.015	0.015	0.061	0.016	0.029	0.035	0.079	0.055	0.042	0.018	0.045	0.065	0.069	0.049	0.052	0.061	0.057	0.058	0.056	0.057
12:15	0.012	0.014	0.050	0.025	0.022	0.023	0.056	0.038	0.045	0.037	0.051	0.052	0.035	0.059	0.058	0.059	0.061	0.060	0.059	0.060
12:30	0.013	0.021	0.039	0.035	0.025	0.024	0.053	0.035	0.042	0.044	0.045	0.047	0.031	0.057	0.051	0.051	0.049	0.052	0.053	0.037
12:45	0.039	0.049	0.022	0.043	0.030	0.024	0.047	0.029	0.032	0.045	0.034	0.025	0.018	0.049	0.034	0.025	0.017	0.021	0.023	0.010
13:00	0.048	0.042	0.042	0.021	0.010	0.007	0.054	0.006	0.008	0.013	0.009	0.009	0.006	0.019	0.009	0.009	0.009	0.009	0.009	0.009
13:15	0.043	0.025	0.066	0.011	0.027	0.050	0.063	0.009	0.006	0.003	0.006	0.006	0.011	0.009	0.004	0.004	0.008	0.005	0.003	0.021
13:30	0.039	0.021	0.056	0.009	0.029	0.054	0.058	0.009	0.006	0.003	0.006	0.006	0.012	0.006	0.004	0.005	0.008	0.005	0.004	0.021
13:45	0.039	0.021	0.098	0.009	0.027	0.048	0.110	0.009	0.006	0.003	0.006	0.006	0.012	0.006	0.004	0.006	0.008	0.003	0.003	0.021
14:00	0.039	0.021	0.118	0.009	0.027	0.048	0.116	0.009	0.006	0.004	0.006	0.006	0.011	0.006	0.004	0.006	0.009	0.005	0.004	0.021
14:15	0.060	0.066	0.128	0.039	0.021	0.017	0.121	0.024	0.045	0.012	0.046	0.031	0.021	0.006	0.042	0.039	0.028	0.036	0.039	0.024
14:30	0.060	0.066	0.145	0.045	0.066	0.098	0.120	0.089	0.068	0.013	0.057	0.084	0.131	0.029	0.043	0.056	0.047	0.043	0.039	0.024
14:45	0.117	0.096	0.110	0.072	0.188	0.194	0.100	0.166	0.093	0.014	0.070	0.098	0.162	0.105	0.044	0.058	0.038	0.040	0.039	0.023
15:00	0.108	0.090	0.106	0.064	0.173	0.188	0.108	0.117	0.066	0.012	0.053	0.089	0.132	0.088	0.049	0.092	0.185	0.142	0.111	0.244
15:15	0.044	0.046	0.067	0.077	0.169	0.191	0.085	0.206	0.169	0.042	0.142	0.295	0.268	0.131	0.156	0.317	0.399	0.357	0.271	0.385
15:30	0.078	0.102	0.059	0.152	0.283	0.323	0.077	0.338	0.252	0.115	0.205	0.462	0.461	0.367	0.225	0.493	0.683	0.591	0.418	0.637
15:45	0.107	0.127	0.036	0.170	0.305	0.347	0.071	0.347	0.246	0.128	0.195	0.436	0.455	0.624	0.203	0.419	0.660	0.505	0.346	0.630
16:00	0.083	0.088	0.022	0.131	0.253	0.299	0.012	0.300	0.256	0.105	0.224	0.454	0.415	0.615	0.250	0.527	0.711	0.633	0.449	0.650
16:15	0.112	0.111	0.016	0.165	0.323	0.368	0.007	0.514	0.410	0.073	0.339	0.610	0.614	0.624	0.230	0.590	0.672	0.634	0.391	0.670
16:30	0.166	0.177	0.026	0.160	0.232	0.288	0.036	0.238	0.193	0.133	0.182	0.229	0.302	0.653	0.180	0.208	0.223	0.219	0.225	0.247
16:45	0.162	0.195	0.009	0.171	0.194	0.202	0.007	0.153	0.137	0.136	0.124	0.117	0.148	0.260	0.124	0.099	0.087	0.092	0.116	0.095
17:00	0.097	0.115	0.009	0.102	0.115	0.131	0.008	0.094	0.090	0.093	0.087	0.088	0.100	0.114	0.093	0.095	0.154	0.126	0.117	0.214
17:15	0.038	0.064	0.001	0.111	0.181	0.217	0.001	0.246	0.221	0.108	0.208	0.377	0.337	0.108	0.240	0.420	0.450	0.459	0.405	0.387
17:30	0.132	0.155	0.011	0.163	0.209	0.227	0.007	0.238	0.245	0.113	0.221	0.338	0.266	0.444	0.215	0.381	0.388	0.398	0.321	0.364
17:45	0.134	0.158	0.037	0.146	0.173	0.178	0.008	0.192	0.173	0.084	0.132	0.236	0.215	0.335	0.101	0.221	0.234	0.211	0.131	0.199
18:00	0.075	0.066	0.020	0.061	0.119	0.130	0.000	0.106	0.090	0.028	0.069	0.109	0.115	0.238	0.048	0.094	0.077	0.063	0.030	0.016
18:15	0.012	0.009	0.082	0.019	0.064	0.077	0.076	0.050	0.031	0.006	0.018	0.028	0.062	0.114	0.008	0.012	0.004	0.004	0.004	0.006
18:30	0.004	0.004	0.024	0.003	0.003	0.003	0.021	0.003	0.003	0.003	0.003	0.003	0.004	0.019	0.003	0.003	0.003	0.003	0.003	0.006
18:45	0.003	0.003	0.001	0.003	0.003	0.003	0.017	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.001	0.003	0.006
19:00	0.003	0.003	0.001	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.002	0.003	0.006
19:15	0.003	0.002	0.020	0.006	0.009	0.009	0.026	0.009	0.009	0.005	0.009	0.019	0.015	0.003	0.009	0.022	0.030	0.021	0.012	0.025
19:30	0.003	0.003	0.003	0.005	0.009	0.010	0.014	0.010	0.009	0.006	0.009	0.018	0.014	0.034	0.009	0.023	0.027	0.021	0.014	0.025
19:45	0.003	0.001	0.003	0.006	0.009	0.010	0.003	0.012	0.013	0.006	0.012	0.024	0.016	0.025	0.011	0.031	0.032	0.026	0.015	0.034
20:00	0.003	0.002	0.003	0.008	0.011	0.009	0.003	0.014	0.016	0.006	0.014	0.021	0.015	0.025	0.009	0.024	0.029	0.021	0.012	0.032
20:15	0.000	0.000	0.002	0.000	0.009	0.018	0.002	0.003	0.003	0.000	0.000	0.003	0.006	0.024	0.000	0.003	0.003	0.003	0.003	0.012
20:30	0.000	0.000	0.001	0.000	0.009	0.018	0.013	0.003	0.003	0.000	0.000	0.003	0.005	0.003	0.002	0.003	0.003	0.003	0.003	0.012
20:45	0.000	0.000	0.040	0.000	0.009	0.018	0.043	0.003	0.003	0.000	0.000	0.003	0.006	0.003	0.001	0.003	0.003	0.003	0.003	0.012
21:00	0.000	0.000	0.003	0.000	0.009	0.018	0.016	0.003	0.002	0.000	0.002	0.003	0.005	0.003	0.000	0.002	0.003	0.000	0.000	0.012
21:15	0.002	0.003	0.007	0.003	0.012	0.015	0.014	0.006	0.001	0.000	0.001	0.003	0.004	0.003	0.000	0.001	0.004	0.001	0.001	0.012
21:30	0.005	0.003	0.003	0.005	0.017	0.018	0.021	0.006	0.001	0.000	0.001	0.003	0.006	0.003	0.000	0.003	0.006	0.003	0.003	0.012
21:45	0.003	0.003	0.003	0.003	0.012	0.015	0.000	0.006	0.002	0.000	0.002	0.003	0.006	0.003	0.000	0.003	0.006	0.003	0.003	0.012
22:00	0.001	0.001	0.003	0.003	0.012	0.015	0.000	0.006	0.003	0.000	0.001	0.003	0.006	0.003	0.001	0.003	0.004	0.003	0.003	0.012
22:15	0.001	0.001	0.003	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.001	0.001	0.001
22:30	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.003

September 2013 Peak 24-hour Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
22:45	0.000	0.000	0.004	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
23:00	0.001	0.001	0.003	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001
23:15	0.000	0.000	0.003	0.003	0.009	0.012	0.001	0.009	0.006	0.002	0.003	0.006	0.012	0.001	0.003	0.005	0.007	0.007	0.007	0.012
23:30	0.000	0.000	0.003	0.003	0.012	0.014	0.002	0.019	0.010	0.002	0.005	0.017	0.029	0.006	0.003	0.008	0.016	0.008	0.004	0.006
23:45	0.001	0.001	0.003	0.003	0.010	0.012	0.003	0.009	0.006	0.001	0.003	0.006	0.012	0.026	0.003	0.003	0.003	0.003	0.003	0.003
0:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Peak 24-hour Incremental Precipitation

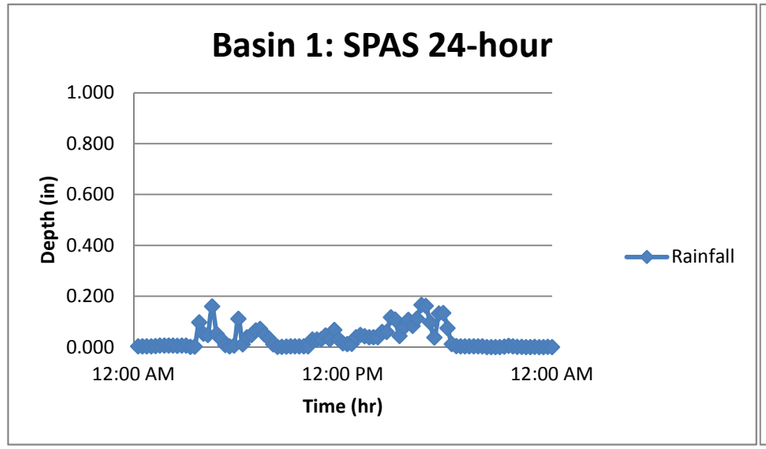
	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
0:15	0.001	0.001	0.003	0.003	0.001	0.003	0.001	0.003	0.002	0.001	0.003	0.003	0.004	0.002	0.001	0.003	0.003
0:30	0.000	0.000	0.003	0.003	0.000	0.003	0.000	0.003	0.001	0.000	0.002	0.003	0.005	0.002	0.000	0.002	0.003
0:45	0.000	0.000	0.003	0.003	0.000	0.006	0.000	0.018	0.023	0.018	0.019	0.009	0.020	0.024	0.002	0.002	0.021
1:00	0.001	0.000	0.003	0.003	0.000	0.003	0.000	0.012	0.002	0.000	0.002	0.026	0.009	0.002	0.039	0.040	0.013
1:15	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
1:30	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1:45	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:00	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:15	0.003	0.003	0.027	0.015	0.009	0.009	0.007	0.027	0.033	0.021	0.026	0.018	0.027	0.033	0.011	0.012	0.023
2:30	0.003	0.004	0.059	0.027	0.036	0.147	0.104	0.050	0.066	0.133	0.122	0.018	0.027	0.075	0.009	0.010	0.023
2:45	0.060	0.086	0.027	0.065	0.080	0.009	0.029	0.027	0.031	0.020	0.024	0.018	0.028	0.034	0.011	0.012	0.024
3:00	0.017	0.011	0.026	0.016	0.010	0.009	0.006	0.027	0.031	0.021	0.028	0.018	0.027	0.033	0.012	0.010	0.022
3:15	0.007	0.021	0.065	0.072	0.089	0.149	0.129	0.015	0.015	0.074	0.147	0.027	0.039	0.044	0.021	0.024	0.042
3:30	0.124	0.118	0.138	0.136	0.114	0.111	0.093	0.157	0.196	0.172	0.066	0.054	0.057	0.142	0.021	0.024	0.044
3:45	0.054	0.057	0.058	0.049	0.044	0.014	0.030	0.024	0.015	0.012	0.027	0.038	0.039	0.029	0.061	0.051	0.043
4:00	0.069	0.077	0.002	0.016	0.045	0.006	0.032	0.012	0.009	0.011	0.026	0.027	0.039	0.027	0.021	0.024	0.042
4:15	0.248	0.255	0.231	0.256	0.264	0.156	0.258	0.054	0.062	0.070	0.071	0.042	0.050	0.064	0.038	0.036	0.045
4:30	0.016	0.010	0.008	0.003	0.003	0.036	0.006	0.054	0.060	0.064	0.060	0.042	0.049	0.060	0.039	0.036	0.045
4:45	0.002	0.003	0.007	0.003	0.003	0.040	0.009	0.054	0.060	0.063	0.064	0.042	0.049	0.060	0.039	0.036	0.045
5:00	0.004	0.004	0.008	0.004	0.004	0.036	0.007	0.054	0.060	0.063	0.060	0.042	0.050	0.060	0.038	0.036	0.045
5:15	0.011	0.037	0.073	0.085	0.094	0.067	0.097	0.042	0.039	0.036	0.041	0.046	0.048	0.039	0.044	0.042	0.048
5:30	0.088	0.048	0.024	0.027	0.011	0.021	0.009	0.042	0.039	0.034	0.034	0.053	0.047	0.038	0.073	0.054	0.048
5:45	0.010	0.021	0.018	0.009	0.009	0.021	0.009	0.042	0.039	0.035	0.034	0.048	0.047	0.039	0.031	0.039	0.048
6:00	0.009	0.021	0.019	0.008	0.009	0.021	0.009	0.042	0.039	0.034	0.034	0.046	0.048	0.039	0.030	0.038	0.048
6:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.006	0.006	0.003	0.003	0.003	0.003	0.003	0.009	0.006	0.003
6:30	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.008	0.006	0.003	0.003	0.004	0.003	0.003	0.006	0.006	0.003
6:45	0.042	0.041	0.005	0.011	0.006	0.002	0.002	0.006	0.006	0.003	0.003	0.005	0.003	0.003	0.006	0.005	0.003
7:00	0.091	0.081	0.059	0.059	0.043	0.045	0.038	0.029	0.033	0.046	0.046	0.034	0.041	0.041	0.015	0.020	0.040
7:15	0.034	0.025	0.014	0.016	0.008	0.003	0.003	0.014	0.009	0.005	0.006	0.034	0.026	0.008	0.038	0.047	0.035
7:30	0.020	0.015	0.003	0.004	0.004	0.003	0.001	0.012	0.009	0.004	0.007	0.038	0.024	0.008	0.096	0.095	0.041
7:45	0.009	0.006	0.003	0.003	0.002	0.003	0.001	0.012	0.009	0.003	0.005	0.020	0.018	0.007	0.036	0.033	0.022
8:00	0.006	0.006	0.003	0.003	0.003	0.003	0.003	0.013	0.009	0.003	0.006	0.019	0.018	0.008	0.015	0.019	0.021
8:15	0.003	0.003	0.001	0.003	0.005	0.001	0.003	0.003	0.001	0.001	0.001	0.003	0.001	0.001	0.004	0.006	0.003
8:30	0.001	0.003	0.000	0.003	0.006	0.000	0.003	0.003	0.002	0.000	0.000	0.003	0.000	0.002	0.003	0.006	0.003
8:45	0.003	0.003	0.002	0.003	0.004	0.002	0.003	0.003	0.002	0.002	0.002	0.003	0.002	0.002	0.004	0.006	0.003
9:00	0.003	0.006	0.022	0.015	0.019	0.035	0.031	0.016	0.023	0.034	0.034	0.008	0.016	0.028	0.006	0.007	0.016
9:15	0.009	0.018	0.024	0.020	0.021	0.032	0.022	0.041	0.046	0.037	0.029	0.021	0.022	0.034	0.015	0.016	0.017
9:30	0.010	0.019	0.018	0.021	0.023	0.024	0.023	0.015	0.018	0.027	0.025	0.009	0.015	0.021	0.010	0.009	0.012
9:45	0.009	0.018	0.018	0.019	0.021	0.024	0.023	0.015	0.018	0.026	0.027	0.009	0.015	0.021	0.009	0.009	0.012
10:00	0.009	0.018	0.021	0.021	0.023	0.027	0.024	0.015	0.018	0.025	0.027	0.010	0.016	0.023	0.009	0.010	0.016
10:15	0.028	0.018	0.015	0.017	0.010	0.014	0.009	0.030	0.033	0.032	0.038	0.035	0.043	0.043	0.031	0.040	0.053
10:30	0.027	0.018	0.012	0.013	0.009	0.016	0.009	0.056	0.059	0.047	0.050	0.064	0.069	0.064	0.066	0.067	0.067
10:45	0.028	0.023	0.034	0.020	0.022	0.065	0.034	0.070	0.074	0.079	0.075	0.063	0.063	0.071	0.066	0.067	0.059
11:00	0.121	0.102	0.079	0.090	0.070	0.062	0.059	0.040	0.040	0.049	0.051	0.041	0.038	0.041	0.052	0.051	0.042
11:15	0.030	0.030	0.014	0.021	0.030	0.026	0.031	0.034	0.037	0.048	0.063	0.050	0.061	0.056	0.057	0.058	0.063

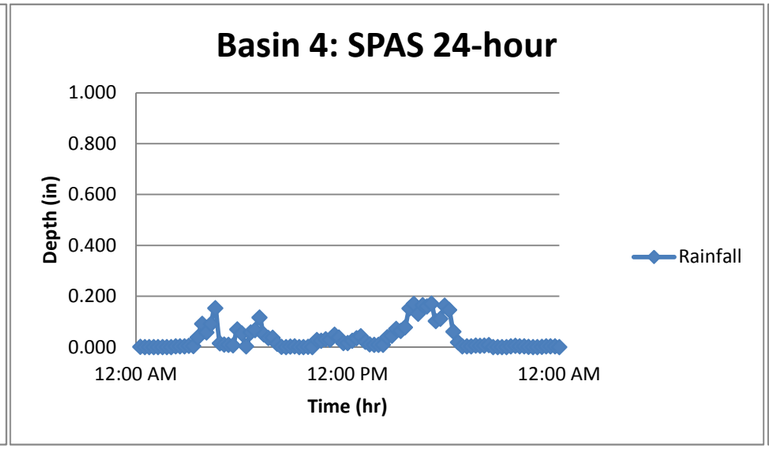
September 2013 Peak 24-hour Incremental Precipitation

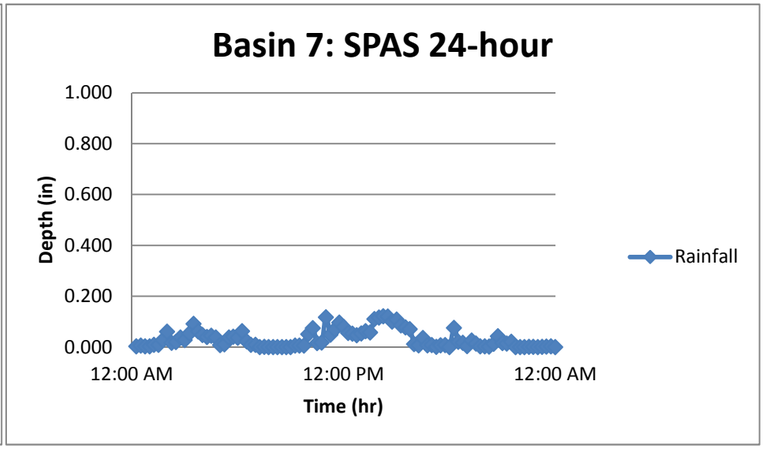
	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
11:30	0.021	0.027	0.045	0.045	0.047	0.066	0.052	0.066	0.071	0.076	0.079	0.057	0.063	0.074	0.055	0.056	0.062
11:45	0.054	0.057	0.061	0.059	0.058	0.073	0.056	0.067	0.075	0.081	0.079	0.056	0.061	0.075	0.052	0.053	0.060
12:00	0.056	0.055	0.063	0.058	0.055	0.063	0.050	0.032	0.035	0.044	0.038	0.022	0.017	0.030	0.028	0.024	0.016
12:15	0.059	0.055	0.052	0.053	0.044	0.041	0.039	0.023	0.026	0.028	0.028	0.024	0.023	0.026	0.025	0.028	0.024
12:30	0.047	0.043	0.026	0.029	0.026	0.023	0.024	0.021	0.023	0.024	0.025	0.024	0.024	0.024	0.025	0.028	0.025
12:45	0.015	0.013	0.012	0.009	0.009	0.018	0.012	0.021	0.022	0.024	0.024	0.024	0.024	0.024	0.024	0.027	0.024
13:00	0.009	0.010	0.012	0.010	0.011	0.018	0.012	0.021	0.023	0.024	0.024	0.024	0.024	0.024	0.024	0.027	0.027
13:15	0.009	0.009	0.012	0.009	0.003	0.009	0.000	0.030	0.024	0.015	0.018	0.028	0.033	0.024	0.018	0.023	0.022
13:30	0.009	0.009	0.012	0.009	0.003	0.009	0.000	0.030	0.024	0.015	0.018	0.046	0.041	0.024	0.068	0.069	0.051
13:45	0.009	0.009	0.012	0.009	0.003	0.009	0.001	0.030	0.024	0.015	0.018	0.051	0.043	0.024	0.085	0.079	0.055
14:00	0.009	0.009	0.012	0.009	0.003	0.009	0.003	0.034	0.024	0.015	0.018	0.071	0.048	0.024	0.112	0.109	0.061
14:15	0.030	0.027	0.018	0.018	0.018	0.018	0.012	0.022	0.021	0.021	0.033	0.074	0.057	0.032	0.201	0.182	0.119
14:30	0.030	0.027	0.018	0.020	0.018	0.026	0.013	0.125	0.108	0.100	0.130	0.184	0.189	0.144	0.176	0.178	0.189
14:45	0.030	0.027	0.059	0.028	0.042	0.173	0.094	0.211	0.212	0.223	0.220	0.206	0.200	0.208	0.204	0.210	0.198
15:00	0.178	0.182	0.287	0.251	0.224	0.277	0.209	0.271	0.269	0.270	0.255	0.250	0.247	0.255	0.221	0.219	0.228
15:15	0.352	0.321	0.369	0.360	0.349	0.420	0.362	0.349	0.397	0.451	0.438	0.238	0.281	0.398	0.186	0.185	0.245
15:30	0.569	0.488	0.559	0.571	0.525	0.554	0.518	0.443	0.504	0.535	0.516	0.275	0.339	0.492	0.192	0.185	0.261
15:45	0.502	0.450	0.562	0.541	0.481	0.573	0.478	0.487	0.572	0.637	0.596	0.280	0.364	0.577	0.181	0.172	0.280
16:00	0.592	0.482	0.536	0.561	0.504	0.584	0.511	0.431	0.508	0.623	0.608	0.241	0.320	0.532	0.121	0.118	0.236
16:15	0.554	0.394	0.763	0.697	0.582	0.861	0.620	0.649	0.785	0.981	0.907	0.297	0.425	0.809	0.093	0.103	0.280
16:30	0.259	0.320	0.300	0.300	0.333	0.320	0.305	0.457	0.475	0.383	0.377	0.375	0.451	0.470	0.231	0.235	0.422
16:45	0.117	0.189	0.119	0.151	0.239	0.154	0.254	0.093	0.090	0.095	0.120	0.126	0.127	0.096	0.151	0.151	0.159
17:00	0.168	0.199	0.260	0.231	0.226	0.182	0.213	0.091	0.092	0.080	0.057	0.044	0.028	0.052	0.047	0.039	0.012
17:15	0.425	0.371	0.318	0.312	0.297	0.374	0.309	0.213	0.244	0.258	0.204	0.064	0.078	0.184	0.018	0.025	0.056
17:30	0.364	0.299	0.242	0.289	0.251	0.093	0.192	0.064	0.081	0.099	0.108	0.042	0.078	0.108	0.012	0.021	0.057
17:45	0.157	0.094	0.147	0.160	0.120	0.121	0.142	0.068	0.089	0.118	0.139	0.043	0.078	0.113	0.012	0.021	0.057
18:00	0.013	0.007	0.007	0.006	0.005	0.022	0.006	0.065	0.080	0.096	0.105	0.043	0.078	0.105	0.012	0.024	0.057
18:15	0.003	0.006	0.012	0.010	0.011	0.012	0.012	0.024	0.019	0.013	0.015	0.030	0.034	0.018	0.006	0.012	0.033
18:30	0.003	0.006	0.012	0.009	0.009	0.012	0.010	0.024	0.020	0.014	0.015	0.030	0.033	0.018	0.007	0.012	0.033
18:45	0.003	0.006	0.012	0.009	0.010	0.012	0.010	0.024	0.020	0.014	0.015	0.048	0.033	0.018	0.088	0.114	0.047
19:00	0.003	0.006	0.012	0.009	0.009	0.012	0.010	0.026	0.021	0.015	0.015	0.037	0.034	0.018	0.052	0.042	0.037
19:15	0.013	0.015	0.015	0.017	0.015	0.018	0.015	0.031	0.027	0.024	0.024	0.038	0.034	0.027	0.037	0.039	0.036
19:30	0.013	0.017	0.015	0.018	0.016	0.018	0.015	0.030	0.027	0.022	0.024	0.038	0.034	0.027	0.034	0.038	0.036
19:45	0.014	0.021	0.035	0.040	0.038	0.028	0.038	0.032	0.029	0.023	0.025	0.039	0.036	0.027	0.024	0.033	0.036
20:00	0.012	0.015	0.036	0.023	0.016	0.029	0.017	0.032	0.030	0.026	0.025	0.038	0.034	0.028	0.024	0.032	0.036
20:15	0.006	0.009	0.014	0.012	0.011	0.012	0.011	0.018	0.018	0.015	0.015	0.023	0.021	0.018	0.024	0.024	0.023
20:30	0.006	0.009	0.012	0.012	0.011	0.012	0.009	0.018	0.016	0.015	0.015	0.024	0.021	0.016	0.024	0.024	0.024
20:45	0.006	0.007	0.012	0.012	0.011	0.012	0.009	0.018	0.016	0.015	0.015	0.022	0.021	0.017	0.024	0.024	0.022
21:00	0.006	0.006	0.014	0.012	0.009	0.012	0.009	0.018	0.015	0.015	0.015	0.023	0.021	0.017	0.024	0.025	0.022
21:15	0.006	0.004	0.006	0.005	0.000	0.001	0.000	0.012	0.006	0.003	0.004	0.024	0.018	0.006	0.030	0.030	0.024
21:30	0.006	0.003	0.004	0.005	0.000	0.003	0.000	0.012	0.006	0.003	0.006	0.024	0.018	0.006	0.030	0.030	0.024
21:45	0.006	0.003	0.006	0.004	0.000	0.003	0.000	0.012	0.006	0.003	0.006	0.024	0.018	0.006	0.030	0.030	0.024
22:00	0.006	0.005	0.005	0.005	0.002	0.003	0.000	0.012	0.006	0.003	0.004	0.024	0.018	0.006	0.030	0.030	0.024
22:15	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.001	0.003	0.003	0.001
22:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.003	0.000

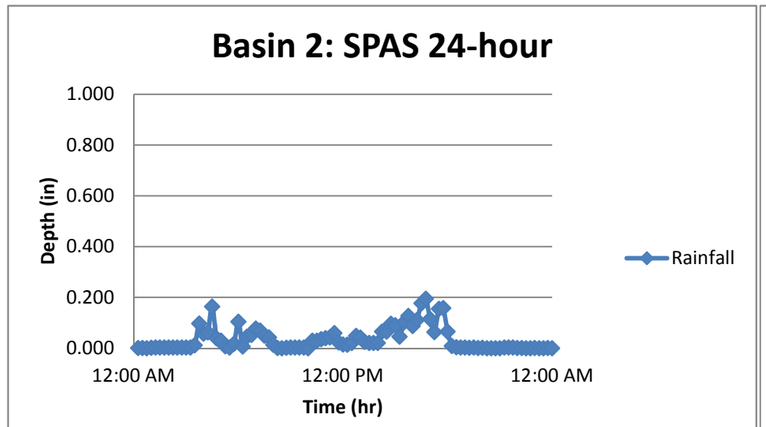
September 2013 Peak 24-hour Incremental Precipitation

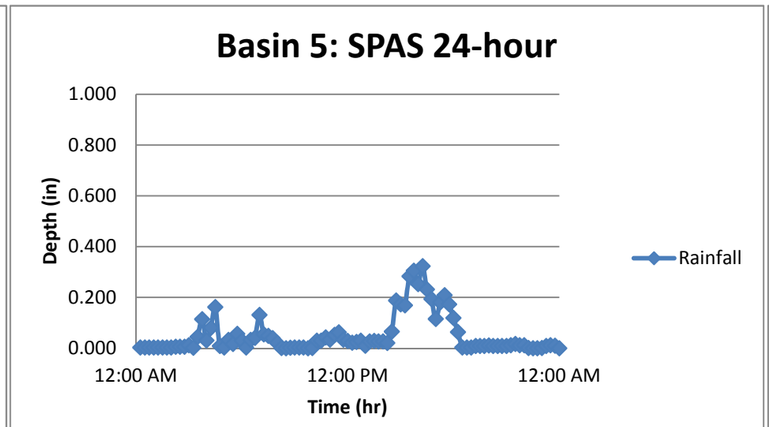
	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
22:45	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.000
23:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.002	0.001	0.002	0.005	0.006	0.003	0.003	0.003	0.006
23:15	0.010	0.013	0.014	0.015	0.015	0.019	0.018	0.016	0.021	0.021	0.015	0.007	0.010	0.019	0.003	0.003	0.005
23:30	0.004	0.003	0.004	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.002	0.003	0.003	0.001	0.001	0.001
23:45	0.004	0.005	0.004	0.003	0.003	0.005	0.004	0.003	0.003	0.003	0.004	0.000	0.002	0.003	0.000	0.002	0.001
0:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

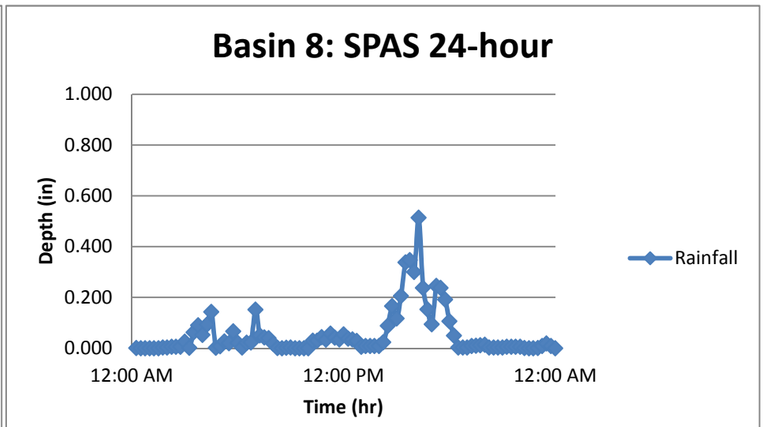

Basin 1: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

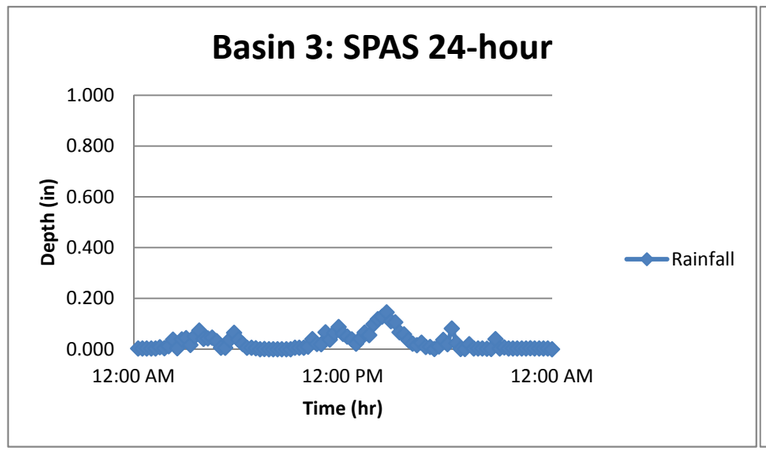

Basin 4: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

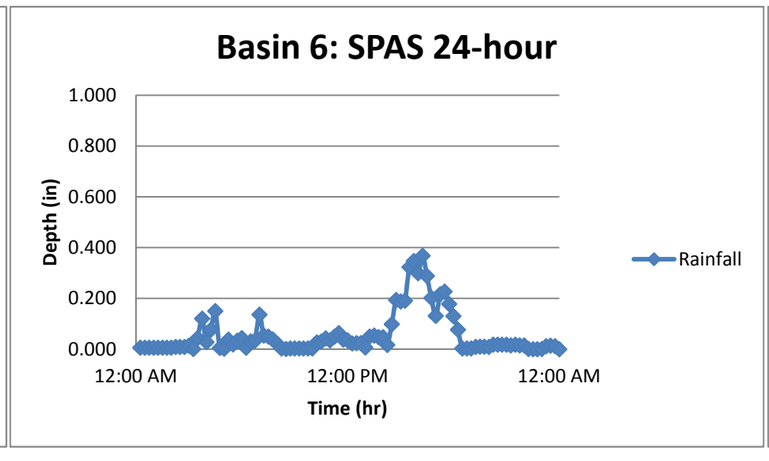

Basin 7: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

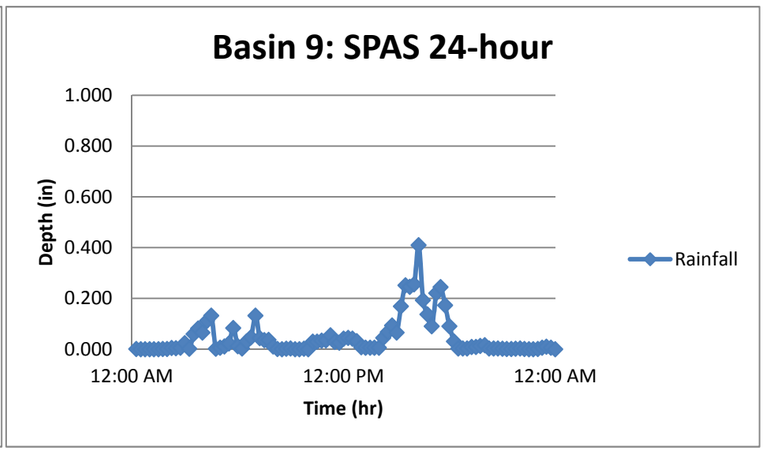

Basin 2: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

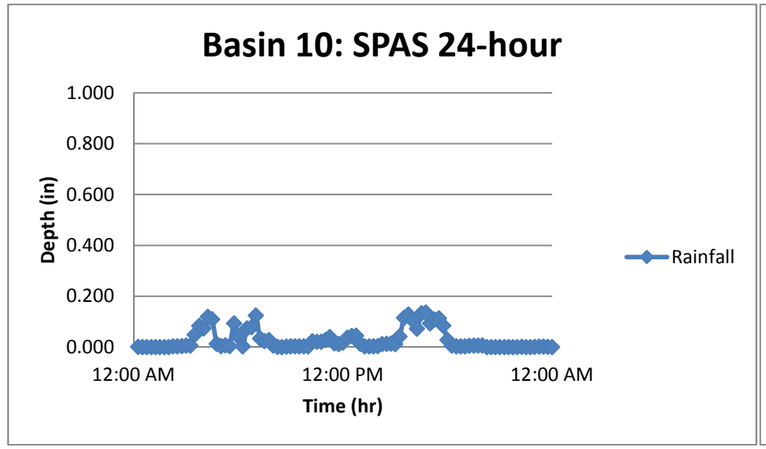

Basin 5: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

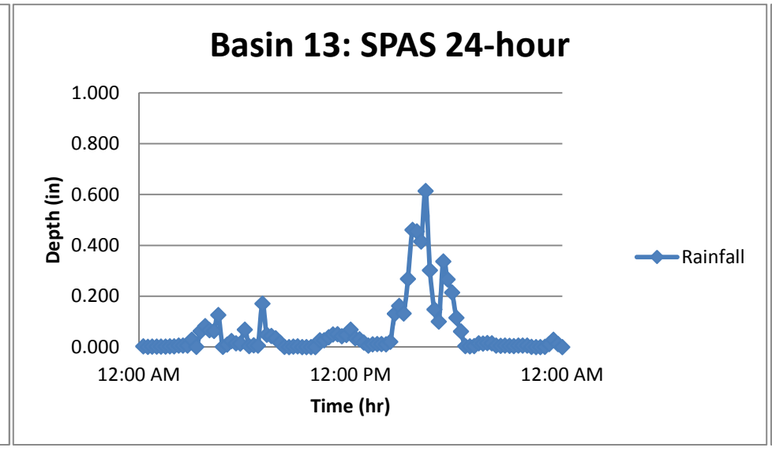

Basin 8: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

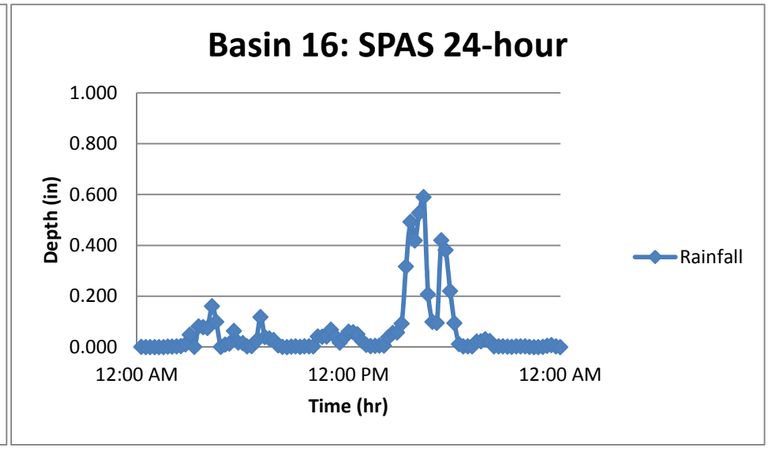

Basin 3: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

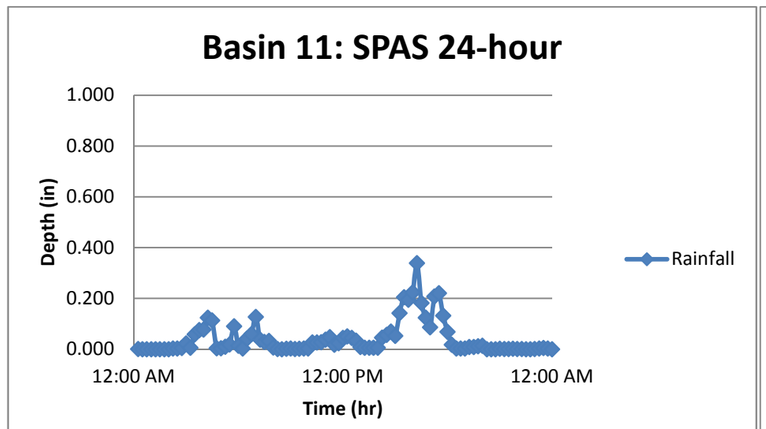

Basin 6: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

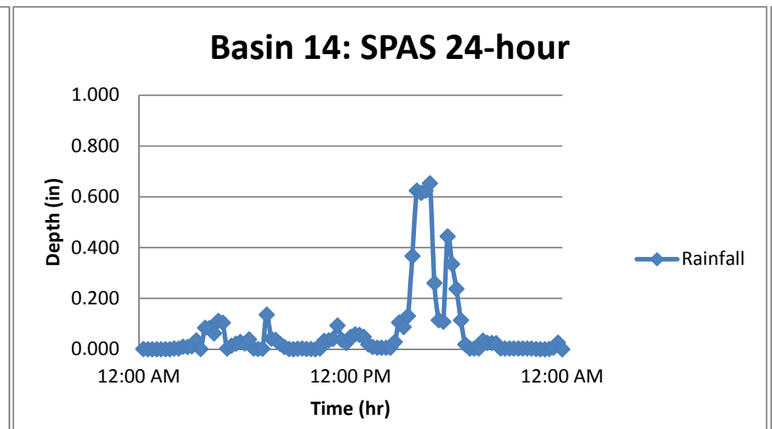

Basin 9: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

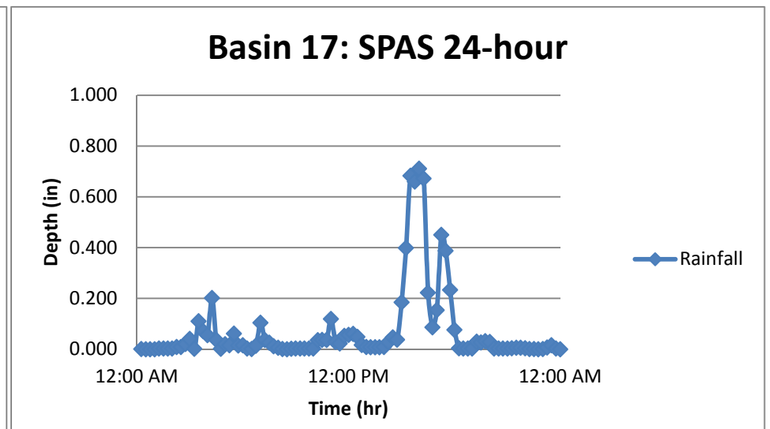

Basin 10: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

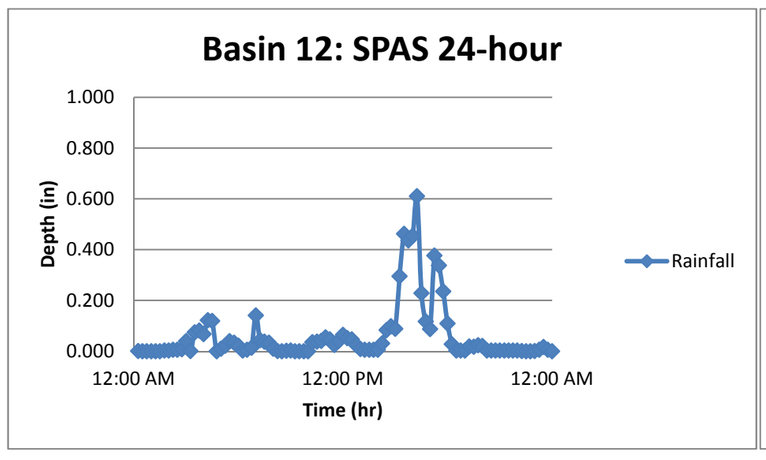

Basin 13: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

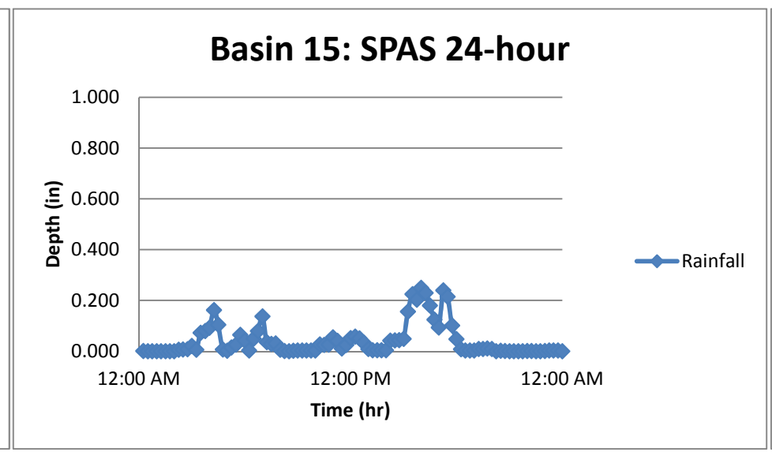

Basin 16: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

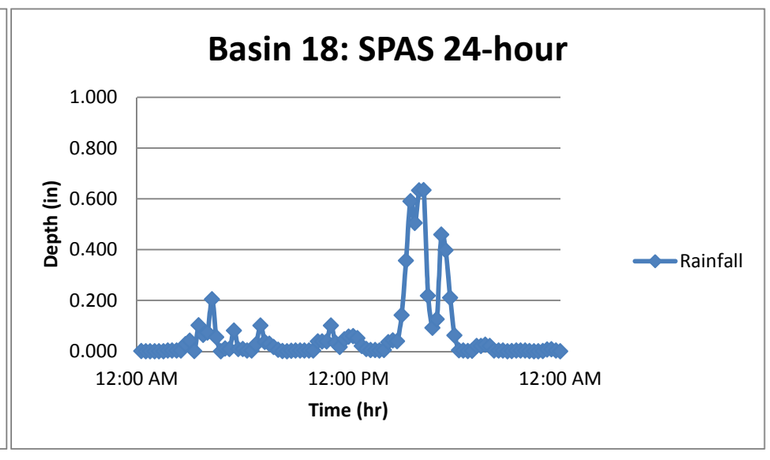

Basin 11: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall


Basin 14: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

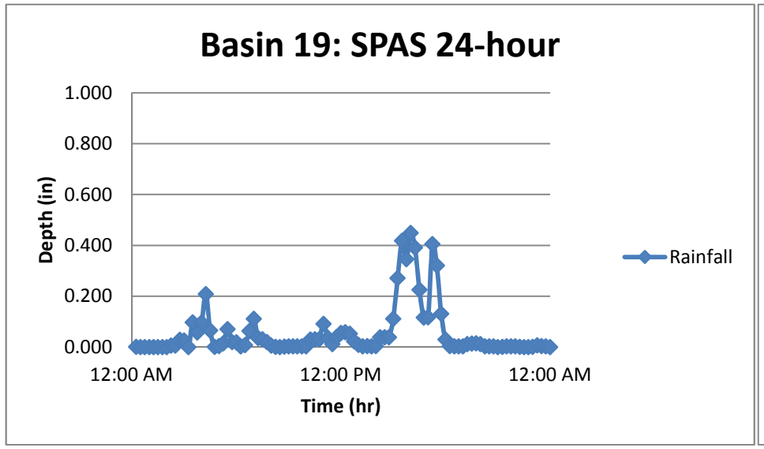

Basin 17: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

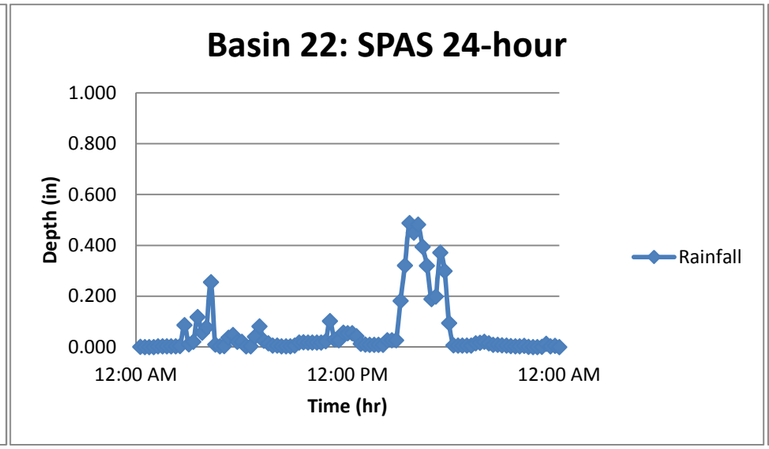

Basin 12: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

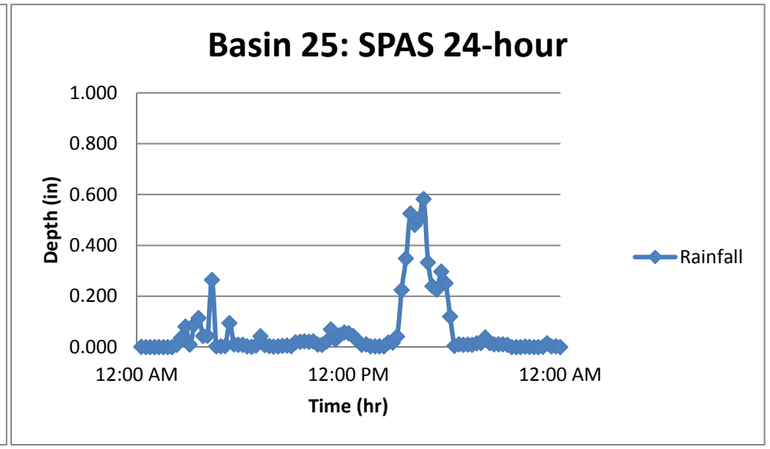

Basin 15: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

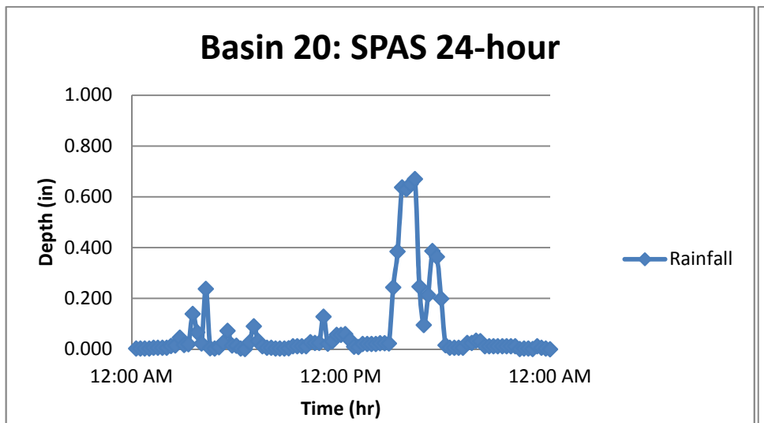

Basin 18: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

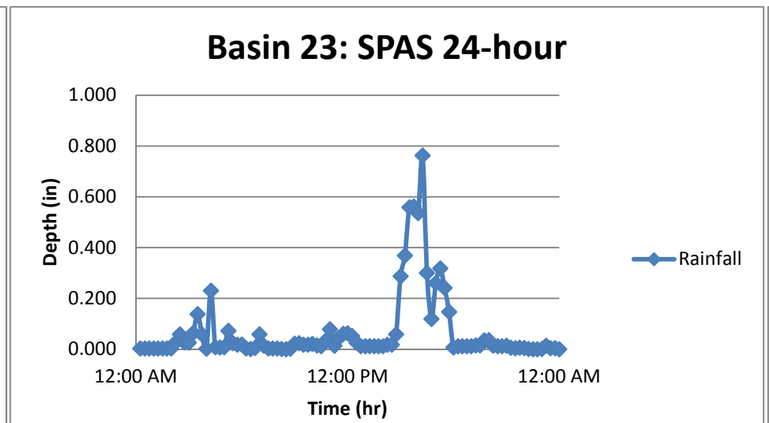
September 2013 Peak 24-hour Incremental Precipitation

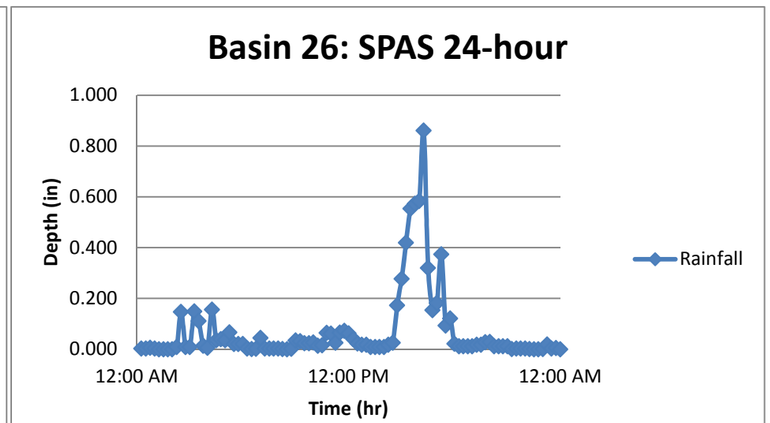


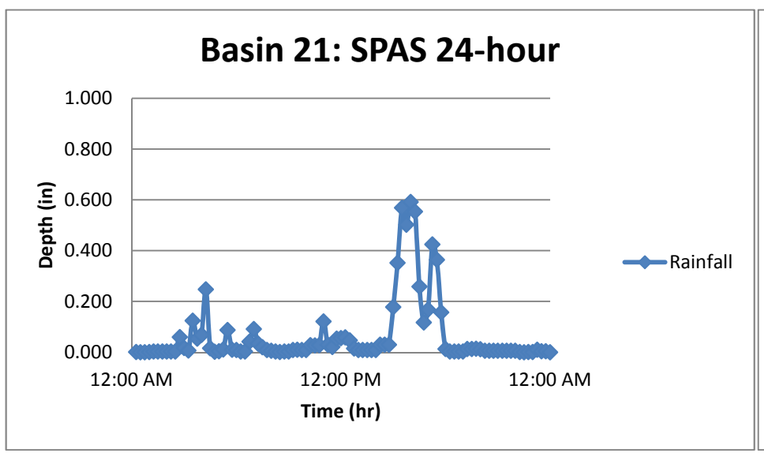


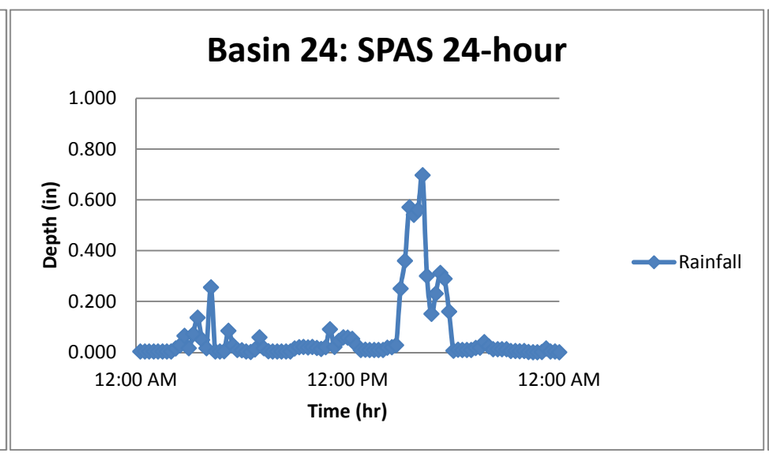


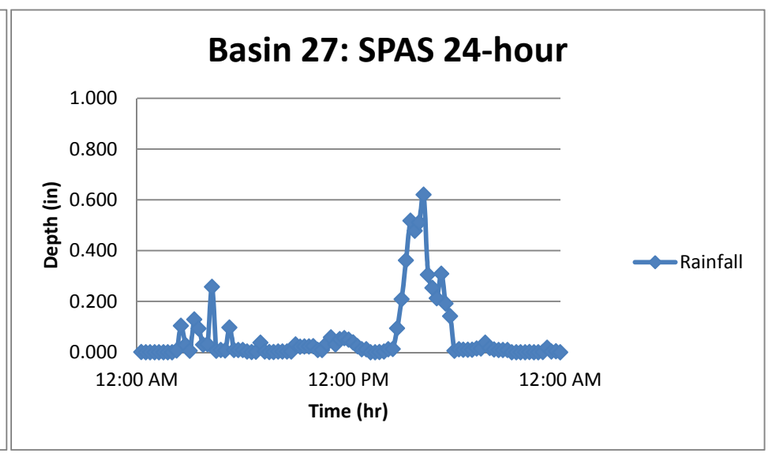




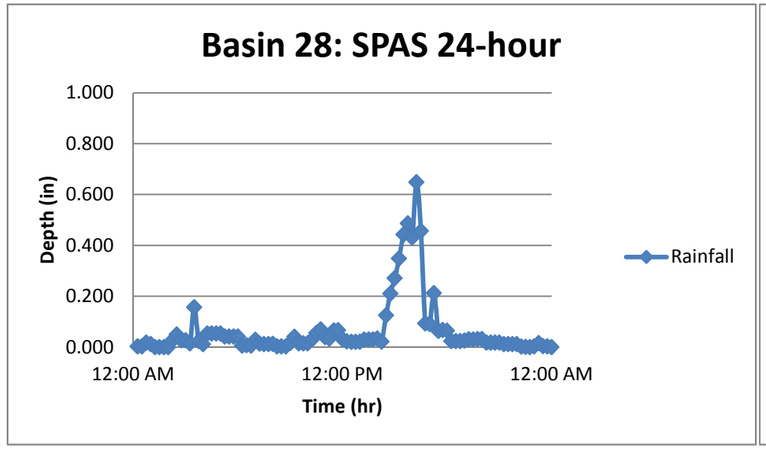


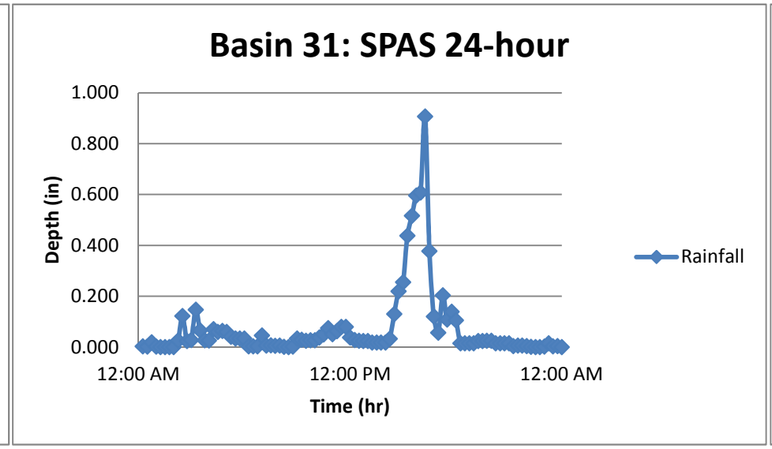


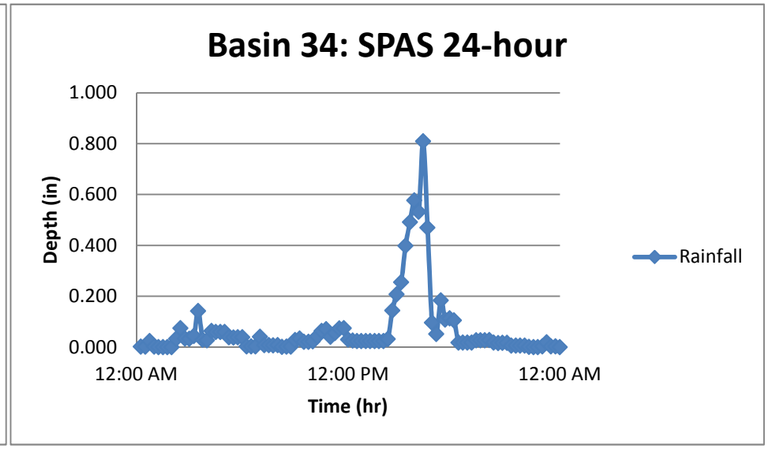


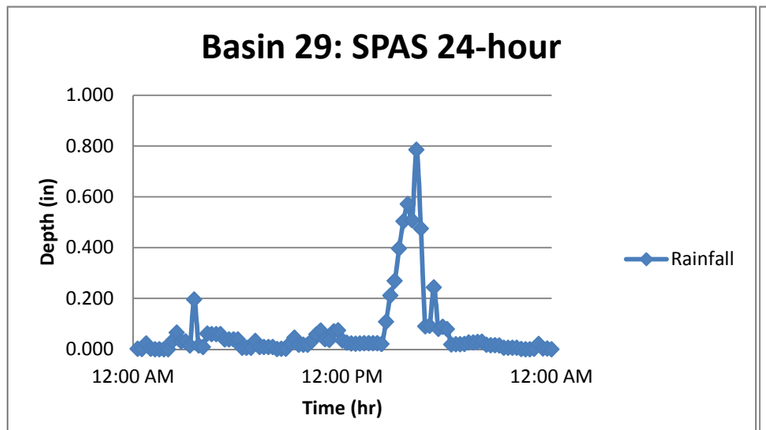


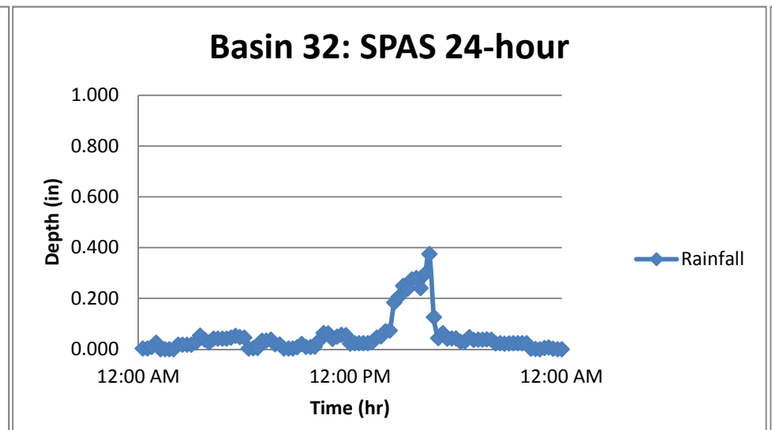
September 2013 Peak 24-hour Incremental Precipitation

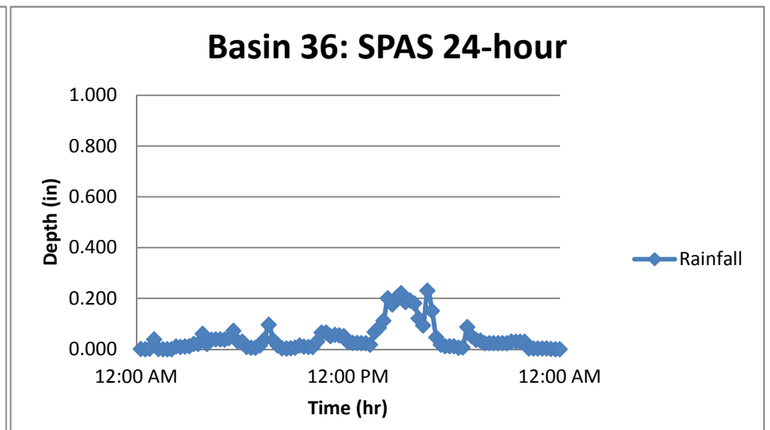


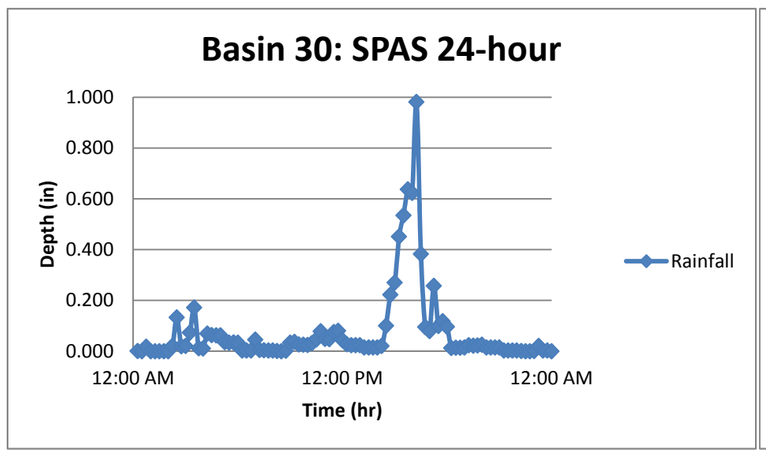


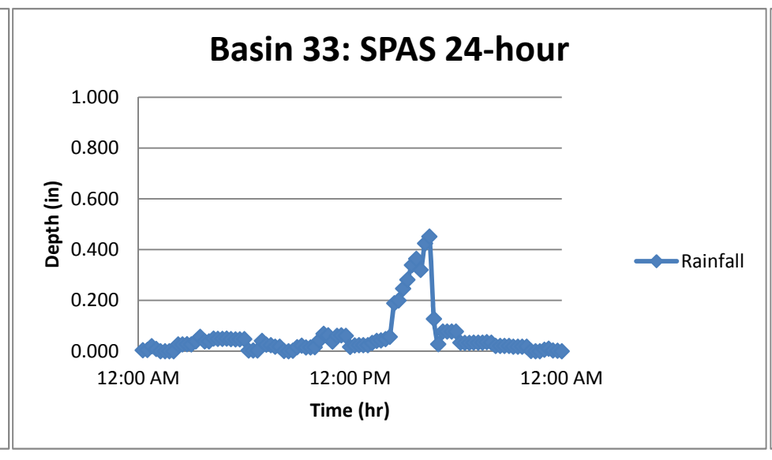


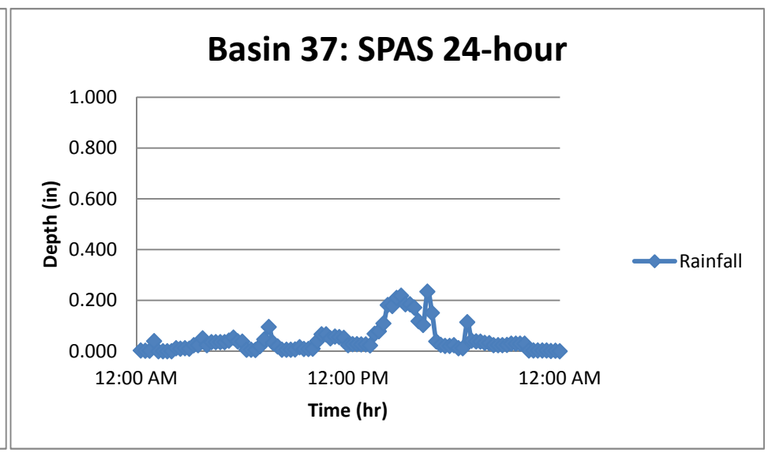


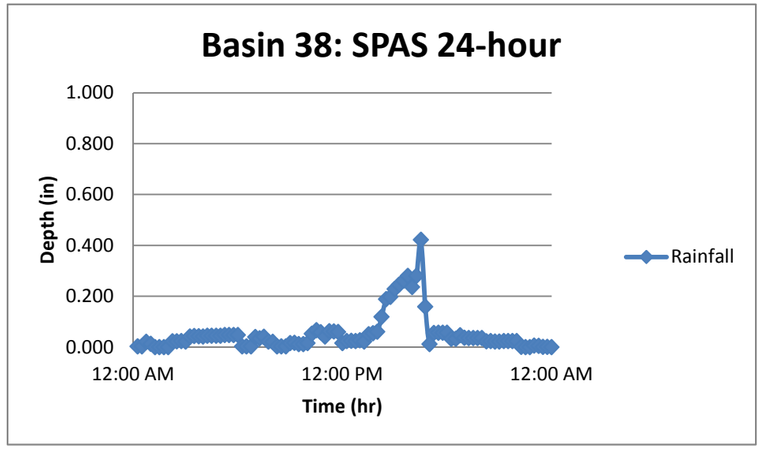











Basin 38: SPAS 24-hour
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
12:00 AM
12:00 PM
12:00 AM
Time (hr)
Rainfall

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
21:15	0.007	0.015	0.017	0.011	0.021	0.021	0.023	0.021	0.011	0.006	0.012	0.013	0.018	0.005	0.010	0.010	0.004	0.007	0.012	0.004
21:30	0.003	0.003	0.003	0.003	0.005	0.005	0.005	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.002	0.003	0.004	0.003
21:45	0.005	0.003	0.003	0.003	0.003	0.004	0.006	0.005	0.004	0.001	0.004	0.004	0.005	0.002	0.004	0.004	0.004	0.005	0.006	0.004
22:00	0.000	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.000	0.003	0.001	0.000	0.000	0.003	0.000
22:15	0.000	0.006	0.006	0.006	0.003	0.003	0.000	0.003	0.003	0.005	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.000
22:30	0.002	0.016	0.016	0.007	0.006	0.005	0.002	0.003	0.003	0.005	0.003	0.003	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002
22:45	0.000	0.046	0.054	0.028	0.039	0.034	0.010	0.019	0.017	0.017	0.015	0.005	0.004	0.000	0.010	0.003	0.000	0.000	0.004	0.000
23:00	0.003	0.043	0.036	0.035	0.023	0.017	0.007	0.016	0.021	0.032	0.023	0.007	0.003	0.003	0.019	0.006	0.001	0.003	0.008	0.003
23:15	0.082	0.066	0.064	0.073	0.060	0.059	0.053	0.055	0.065	0.092	0.078	0.064	0.054	0.064	0.100	0.076	0.073	0.082	0.100	0.073
23:30	0.157	0.093	0.093	0.117	0.096	0.092	0.097	0.108	0.122	0.133	0.128	0.132	0.105	0.145	0.138	0.145	0.170	0.157	0.145	0.167
23:45	0.163	0.057	0.064	0.102	0.085	0.084	0.099	0.112	0.133	0.142	0.152	0.143	0.108	0.136	0.183	0.165	0.144	0.163	0.179	0.120
0:00	0.090	0.008	0.013	0.014	0.031	0.036	0.057	0.046	0.035	0.015	0.033	0.066	0.064	0.094	0.036	0.070	0.106	0.090	0.071	0.114
0:15	0.009	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.012	0.009	0.009	0.029
0:30	0.003	0.020	0.015	0.011	0.016	0.015	0.017	0.014	0.008	0.004	0.004	0.007	0.015	0.005	0.003	0.003	0.003	0.003	0.003	0.003
0:45	0.003	0.012	0.017	0.010	0.015	0.016	0.012	0.012	0.005	0.003	0.003	0.005	0.010	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:00	0.003	0.019	0.020	0.016	0.016	0.017	0.011	0.012	0.014	0.008	0.010	0.005	0.009	0.004	0.003	0.003	0.003	0.003	0.003	0.003
1:15	0.095	0.101	0.101	0.097	0.104	0.104	0.098	0.100	0.095	0.086	0.090	0.096	0.095	0.090	0.092	0.095	0.091	0.095	0.095	0.083
1:30	0.095	0.071	0.072	0.073	0.083	0.090	0.099	0.090	0.083	0.078	0.084	0.093	0.099	0.099	0.093	0.094	0.094	0.095	0.097	0.090
1:45	0.071	0.046	0.050	0.049	0.062	0.068	0.072	0.064	0.056	0.043	0.052	0.066	0.071	0.076	0.053	0.065	0.079	0.071	0.062	0.085
2:00	0.054	0.039	0.043	0.039	0.048	0.051	0.051	0.048	0.043	0.034	0.041	0.049	0.051	0.054	0.043	0.049	0.058	0.054	0.050	0.066
2:15	0.004	0.005	0.005	0.005	0.005	0.006	0.004	0.004	0.004	0.006	0.004	0.003	0.003	0.005	0.004	0.003	0.006	0.004	0.005	0.012
2:30	0.003	0.006	0.005	0.006	0.003	0.003	0.002	0.003	0.003	0.006	0.004	0.002	0.002	0.002	0.004	0.002	0.003	0.003	0.003	0.010
2:45	0.003	0.019	0.015	0.015	0.009	0.006	0.002	0.007	0.008	0.015	0.009	0.003	0.002	0.003	0.011	0.003	0.004	0.003	0.006	0.007
3:00	0.006	0.021	0.021	0.019	0.014	0.012	0.006	0.012	0.013	0.021	0.015	0.006	0.006	0.006	0.015	0.006	0.007	0.006	0.010	0.015
3:15	0.022	0.024	0.025	0.023	0.027	0.028	0.027	0.026	0.022	0.019	0.021	0.023	0.026	0.023	0.020	0.022	0.023	0.022	0.021	0.025
3:30	0.022	0.024	0.025	0.022	0.029	0.030	0.028	0.028	0.024	0.019	0.021	0.024	0.027	0.024	0.021	0.022	0.022	0.022	0.021	0.024
3:45	0.027	0.030	0.031	0.028	0.032	0.032	0.032	0.033	0.029	0.024	0.028	0.029	0.031	0.028	0.026	0.028	0.027	0.027	0.026	0.027
4:00	0.029	0.030	0.031	0.028	0.035	0.036	0.035	0.035	0.030	0.026	0.029	0.031	0.034	0.030	0.028	0.029	0.029	0.029	0.030	0.029
4:15	0.046	0.034	0.035	0.036	0.041	0.044	0.045	0.045	0.043	0.044	0.046	0.044	0.045	0.044	0.053	0.045	0.045	0.046	0.052	0.045
4:30	0.041	0.043	0.041	0.039	0.036	0.036	0.030	0.033	0.036	0.040	0.038	0.034	0.030	0.033	0.044	0.037	0.040	0.041	0.047	0.048
4:45	0.071	0.053	0.054	0.063	0.059	0.058	0.065	0.070	0.071	0.066	0.070	0.073	0.067	0.074	0.072	0.072	0.073	0.071	0.070	0.070
5:00	0.038	0.042	0.043	0.039	0.043	0.045	0.043	0.040	0.038	0.035	0.038	0.039	0.043	0.044	0.038	0.037	0.042	0.038	0.038	0.041
5:15	0.010	0.015	0.017	0.018	0.022	0.023	0.025	0.022	0.018	0.015	0.016	0.015	0.023	0.012	0.012	0.011	0.010	0.010	0.009	0.007
5:30	0.003	0.007	0.007	0.006	0.008	0.009	0.007	0.007	0.007	0.003	0.004	0.005	0.007	0.004	0.003	0.003	0.003	0.003	0.003	0.003
5:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
6:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
6:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:15	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.003	0.003
7:30	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.003	0.003
7:45	0.016	0.020	0.021	0.022	0.027	0.030	0.036	0.031	0.026	0.018	0.024	0.029	0.036	0.030	0.016	0.023	0.019	0.016	0.009	0.007
8:00	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.002	0.001	0.001	0.000	0.001	0.001	0.003	0.003	0.003

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
8:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000
8:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000
8:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000
9:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.004	0.000
9:15	0.019	0.015	0.009	0.012	0.003	0.002	0.001	0.004	0.008	0.014	0.010	0.009	0.003	0.008	0.012	0.015	0.016	0.019	0.020	0.025
9:30	0.010	0.005	0.009	0.007	0.007	0.007	0.008	0.008	0.009	0.002	0.005	0.013	0.010	0.019	0.002	0.011	0.013	0.010	0.006	0.010
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:00	0.000	0.000	0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:15	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:30	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:45	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:00	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:15	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.005	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.000	0.001	0.005	0.001	0.003	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:15	0.000	0.003	0.003	0.003	0.003	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:30	0.000	0.003	0.003	0.003	0.003	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:45	0.000	0.009	0.010	0.025	0.010	0.011	0.010	0.010	0.013	0.031	0.016	0.004	0.007	0.001	0.013	0.002	0.000	0.000	0.002	0.000
15:00	0.031	0.008	0.009	0.024	0.015	0.016	0.031	0.030	0.040	0.048	0.051	0.035	0.034	0.031	0.050	0.034	0.028	0.031	0.040	0.026
15:15	0.027	0.014	0.010	0.037	0.007	0.002	0.005	0.021	0.037	0.074	0.050	0.024	0.008	0.013	0.057	0.029	0.020	0.027	0.039	0.027
15:30	0.071	0.073	0.071	0.105	0.068	0.066	0.072	0.077	0.096	0.126	0.106	0.080	0.072	0.064	0.094	0.081	0.061	0.071	0.078	0.058
15:45	0.076	0.024	0.043	0.047	0.058	0.066	0.075	0.062	0.056	0.037	0.052	0.070	0.079	0.096	0.044	0.064	0.097	0.076	0.058	0.081
16:00	0.000	0.031	0.022	0.007	0.014	0.020	0.013	0.004	0.001	0.001	0.000	0.002	0.011	0.006	0.000	0.000	0.002	0.000	0.000	0.001
16:15	0.003	0.026	0.040	0.005	0.021	0.022	0.005	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.009
16:30	0.003	0.012	0.006	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003	0.009
16:45	0.003	0.012	0.006	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.009
17:00	0.003	0.012	0.006	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.009
17:15	0.003	0.003	0.003	0.000	0.003	0.006	0.003	0.002	0.000	0.000	0.000	0.002	0.003	0.003	0.000	0.003	0.003	0.003	0.002	0.009
17:30	0.002	0.003	0.003	0.000	0.003	0.006	0.002	0.002	0.002	0.000	0.001	0.002	0.002	0.002	0.000	0.002	0.003	0.002	0.002	0.008
17:45	0.003	0.003	0.003	0.000	0.003	0.006	0.003	0.001	0.000	0.000	0.000	0.003	0.003	0.003	0.000	0.003	0.003	0.003	0.002	0.009
18:00	0.003	0.003	0.003	0.000	0.003	0.006	0.002	0.002	0.000	0.000	0.000	0.002	0.002	0.003	0.000	0.002	0.003	0.003	0.000	0.009
18:15	0.000	0.000	0.003	0.000	0.003	0.006	0.003	0.000	0.000	0.003	0.000	0.000	0.003	0.000	0.002	0.000	0.000	0.000	0.000	0.006
18:30	0.000	0.001	0.002	0.002	0.003	0.006	0.003	0.000	0.001	0.003	0.003	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.005
18:45	0.000	0.001	0.002	0.000	0.003	0.006	0.003	0.000	0.001	0.003	0.003	0.000	0.003	0.000	0.002	0.000	0.000	0.000	0.000	0.006
19:00	0.000	0.002	0.003	0.002	0.003	0.006	0.003	0.000	0.001	0.003	0.002	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.006
19:15	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
19:30	0.000	0.000	0.001	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:45	0.000	0.001	0.003	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:00	0.000	0.000	0.001	0.000	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:30	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
20:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:15	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:45	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:00	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:15	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:15	0.001	0.003	0.003	0.002	0.004	0.003	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
23:30	0.000	0.003	0.003	0.003	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:45	0.000	0.002	0.005	0.003	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0:00	0.000	0.000	0.003	0.003	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0:15	0.004	0.003	0.003	0.003	0.006	0.009	0.006	0.007	0.009	0.007	0.009	0.006	0.006	0.006	0.006	0.005	0.005	0.004	0.003	0.003
0:30	0.005	0.003	0.003	0.003	0.006	0.009	0.006	0.007	0.009	0.008	0.011	0.007	0.006	0.008	0.008	0.008	0.007	0.005	0.005	0.005
0:45	0.005	0.003	0.003	0.004	0.009	0.013	0.018	0.013	0.014	0.009	0.014	0.015	0.018	0.017	0.008	0.010	0.007	0.005	0.004	0.004
1:00	0.003	0.003	0.003	0.003	0.006	0.009	0.006	0.006	0.009	0.007	0.009	0.006	0.006	0.006	0.006	0.006	0.003	0.003	0.004	0.004
1:15	0.044	0.022	0.019	0.037	0.013	0.009	0.013	0.020	0.035	0.058	0.045	0.027	0.015	0.028	0.049	0.035	0.043	0.044	0.046	0.051
1:30	0.028	0.051	0.048	0.062	0.047	0.046	0.044	0.047	0.046	0.064	0.047	0.038	0.043	0.043	0.027	0.032	0.033	0.028	0.015	0.010
1:45	0.005	0.034	0.034	0.034	0.031	0.028	0.028	0.030	0.031	0.035	0.033	0.024	0.026	0.013	0.025	0.013	0.006	0.005	0.009	0.003
2:00	0.007	0.016	0.018	0.009	0.017	0.021	0.011	0.004	0.004	0.005	0.006	0.004	0.007	0.003	0.014	0.006	0.003	0.007	0.019	0.005
2:15	0.021	0.021	0.024	0.022	0.034	0.040	0.042	0.033	0.029	0.022	0.028	0.028	0.038	0.024	0.026	0.024	0.023	0.021	0.020	0.017
2:30	0.010	0.009	0.009	0.012	0.009	0.009	0.009	0.009	0.011	0.016	0.013	0.007	0.009	0.006	0.014	0.007	0.008	0.010	0.014	0.009
2:45	0.006	0.009	0.009	0.012	0.009	0.009	0.010	0.010	0.011	0.015	0.012	0.007	0.010	0.009	0.009	0.006	0.008	0.006	0.006	0.006
3:00	0.006	0.010	0.009	0.012	0.009	0.009	0.009	0.009	0.012	0.015	0.012	0.006	0.009	0.006	0.009	0.006	0.006	0.006	0.006	0.006
3:15	0.007	0.003	0.003	0.000	0.006	0.006	0.006	0.006	0.000	0.000	0.000	0.006	0.006	0.009	0.000	0.006	0.012	0.007	0.003	0.017
3:30	0.010	0.002	0.002	0.001	0.010	0.016	0.028	0.009	0.001	0.001	0.001	0.013	0.029	0.035	0.001	0.009	0.019	0.010	0.002	0.012
3:45	0.007	0.001	0.003	0.000	0.005	0.007	0.004	0.006	0.001	0.000	0.000	0.006	0.006	0.009	0.001	0.006	0.009	0.007	0.003	0.012
4:00	0.007	0.003	0.003	0.002	0.006	0.007	0.005	0.006	0.002	0.002	0.002	0.006	0.006	0.008	0.002	0.007	0.010	0.007	0.002	0.012
4:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
4:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
4:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
5:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
5:15	0.012	0.006	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.012	0.009	0.009	0.012	0.012	0.010	0.011
5:30	0.026	0.012	0.010	0.017	0.011	0.009	0.010	0.014	0.018	0.024	0.022	0.018	0.011	0.017	0.030	0.024	0.024	0.026	0.032	0.033
5:45	0.046	0.031	0.031	0.035	0.034	0.031	0.031	0.035	0.035	0.036	0.037	0.041	0.034	0.046	0.041	0.043	0.046	0.046	0.045	0.046
6:00	0.067	0.034	0.038	0.042	0.041	0.040	0.041	0.045	0.047	0.046	0.049	0.054	0.044	0.060	0.058	0.062	0.068	0.067	0.068	0.070
6:15	0.047	0.064	0.059	0.053	0.063	0.066	0.065	0.061	0.053	0.045	0.048	0.054	0.063	0.058	0.046	0.048	0.053	0.047	0.045	0.060
6:30	0.035	0.033	0.040	0.035	0.044	0.044	0.045	0.044	0.041	0.030	0.041	0.039	0.043	0.039	0.039	0.036	0.036	0.035	0.038	0.044

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
6:45	0.031	0.016	0.022	0.025	0.033	0.037	0.038	0.035	0.029	0.017	0.024	0.032	0.037	0.034	0.024	0.028	0.034	0.031	0.030	0.039
7:00	0.029	0.009	0.009	0.010	0.011	0.012	0.023	0.017	0.014	0.015	0.018	0.021	0.024	0.030	0.023	0.024	0.031	0.029	0.029	0.036
7:15	0.063	0.010	0.008	0.006	0.006	0.006	0.024	0.017	0.017	0.012	0.023	0.041	0.034	0.041	0.045	0.053	0.055	0.063	0.069	0.076
7:30	0.086	0.019	0.041	0.051	0.089	0.093	0.095	0.101	0.082	0.037	0.062	0.096	0.097	0.108	0.045	0.082	0.103	0.086	0.059	0.106
7:45	0.007	0.011	0.007	0.005	0.014	0.029	0.039	0.010	0.003	0.003	0.002	0.008	0.034	0.030	0.003	0.008	0.017	0.007	0.001	0.026
8:00	0.000	0.012	0.007	0.004	0.003	0.000	0.001	0.002	0.001	0.003	0.001	0.002	0.001	0.003	0.000	0.001	0.001	0.000	0.000	0.001
8:15	0.010	0.014	0.019	0.015	0.026	0.025	0.030	0.030	0.016	0.007	0.009	0.019	0.028	0.029	0.006	0.011	0.018	0.010	0.003	0.012
8:30	0.009	0.015	0.022	0.012	0.024	0.029	0.019	0.011	0.009	0.007	0.006	0.009	0.016	0.013	0.006	0.006	0.010	0.009	0.003	0.010
8:45	0.008	0.008	0.007	0.009	0.008	0.008	0.007	0.009	0.009	0.007	0.006	0.009	0.007	0.009	0.006	0.006	0.009	0.008	0.003	0.011
9:00	0.009	0.006	0.006	0.006	0.008	0.006	0.006	0.009	0.009	0.006	0.006	0.009	0.006	0.009	0.006	0.006	0.009	0.009	0.003	0.011
9:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
9:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
10:15	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
10:30	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:45	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:00	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:15	0.000	0.000	0.002	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
11:30	0.000	0.002	0.003	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
11:45	0.000	0.002	0.002	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
12:00	0.000	0.000	0.002	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
12:15	0.000	0.001	0.003	0.000	0.003	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.003
12:30	0.000	0.001	0.003	0.000	0.003	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.003
12:45	0.000	0.000	0.002	0.000	0.003	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.003
13:00	0.000	0.002	0.002	0.000	0.003	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.003
13:15	0.000	0.003	0.003	0.000	0.003	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.006
13:30	0.000	0.003	0.003	0.000	0.003	0.006	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.006
13:45	0.003	0.003	0.003	0.000	0.003	0.006	0.003	0.003	0.001	0.000	0.000	0.003	0.003	0.003	0.000	0.002	0.003	0.003	0.000	0.006
14:00	0.003	0.003	0.003	0.000	0.003	0.006	0.003	0.003	0.001	0.000	0.000	0.003	0.003	0.003	0.000	0.002	0.003	0.003	0.000	0.006
14:15	0.003	0.003	0.003	0.003	0.006	0.009	0.006	0.006	0.005	0.003	0.003	0.006	0.006	0.010	0.006	0.003	0.009	0.003	0.006	0.013
14:30	0.003	0.003	0.003	0.003	0.006	0.009	0.006	0.006	0.004	0.003	0.003	0.006	0.006	0.009	0.007	0.004	0.009	0.003	0.006	0.015
14:45	0.028	0.003	0.003	0.003	0.006	0.009	0.006	0.006	0.006	0.004	0.005	0.008	0.006	0.012	0.008	0.011	0.021	0.028	0.029	0.046
15:00	0.042	0.003	0.003	0.005	0.012	0.014	0.027	0.026	0.024	0.006	0.023	0.040	0.029	0.035	0.021	0.049	0.041	0.042	0.026	0.017
15:15	0.001	0.003	0.003	0.004	0.002	0.001	0.001	0.002	0.002	0.006	0.006	0.001	0.001	0.001	0.006	0.001	0.002	0.001	0.000	0.020
15:30	0.102	0.012	0.026	0.038	0.045	0.044	0.057	0.063	0.060	0.049	0.059	0.075	0.063	0.085	0.073	0.081	0.110	0.102	0.097	0.139
15:45	0.065	0.097	0.104	0.091	0.114	0.120	0.087	0.090	0.082	0.083	0.076	0.082	0.082	0.084	0.080	0.078	0.072	0.065	0.058	0.067
16:00	0.074	0.058	0.037	0.058	0.031	0.028	0.064	0.053	0.066	0.074	0.078	0.068	0.067	0.063	0.092	0.076	0.056	0.074	0.096	0.023
16:15	0.205	0.063	0.069	0.091	0.081	0.078	0.064	0.093	0.111	0.119	0.124	0.122	0.064	0.111	0.162	0.161	0.202	0.205	0.209	0.238
16:30	0.056	0.164	0.173	0.153	0.162	0.150	0.129	0.143	0.132	0.109	0.113	0.119	0.126	0.104	0.104	0.099	0.037	0.056	0.066	0.004
16:45	0.000	0.039	0.029	0.015	0.009	0.005	0.001	0.002	0.002	0.013	0.004	0.000	0.001	0.003	0.007	0.001	0.002	0.000	0.001	0.003
17:00	0.011	0.030	0.010	0.010	0.003	0.002	0.008	0.008	0.006	0.004	0.004	0.010	0.010	0.014	0.002	0.010	0.020	0.011	0.004	0.008
17:15	0.009	0.008	0.029	0.009	0.033	0.038	0.032	0.027	0.011	0.007	0.010	0.022	0.024	0.022	0.015	0.014	0.016	0.009	0.015	0.026
17:30	0.082	0.003	0.009	0.007	0.017	0.019	0.012	0.020	0.023	0.004	0.019	0.040	0.015	0.029	0.026	0.064	0.062	0.082	0.071	0.073
17:45	0.009	0.018	0.041	0.070	0.057	0.034	0.012	0.067	0.084	0.093	0.090	0.034	0.014	0.023	0.065	0.018	0.015	0.009	0.020	0.015

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
18:00	0.009	0.104	0.047	0.054	0.030	0.044	0.074	0.021	0.012	0.041	0.014	0.022	0.069	0.039	0.042	0.016	0.016	0.009	0.019	0.014
18:15	0.003	0.007	0.003	0.003	0.003	0.006	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003
18:30	0.003	0.046	0.036	0.058	0.033	0.031	0.012	0.022	0.031	0.074	0.042	0.006	0.007	0.001	0.050	0.004	0.001	0.003	0.008	0.001
18:45	0.027	0.053	0.059	0.067	0.041	0.034	0.011	0.023	0.047	0.078	0.060	0.014	0.006	0.002	0.080	0.023	0.014	0.027	0.064	0.027
19:00	0.101	0.078	0.089	0.116	0.131	0.136	0.171	0.152	0.132	0.124	0.127	0.141	0.171	0.136	0.137	0.118	0.104	0.101	0.111	0.090
19:15	0.037	0.070	0.062	0.050	0.055	0.054	0.050	0.051	0.044	0.034	0.038	0.044	0.049	0.042	0.036	0.040	0.037	0.037	0.036	0.033
19:30	0.030	0.050	0.051	0.036	0.049	0.050	0.047	0.043	0.036	0.024	0.029	0.038	0.044	0.037	0.029	0.034	0.026	0.030	0.031	0.012
19:45	0.017	0.043	0.042	0.037	0.040	0.039	0.038	0.040	0.037	0.028	0.033	0.034	0.035	0.021	0.031	0.028	0.012	0.017	0.020	0.006
20:00	0.006	0.014	0.019	0.013	0.021	0.022	0.020	0.018	0.011	0.006	0.007	0.010	0.017	0.009	0.006	0.007	0.006	0.006	0.006	0.006
20:15	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003
20:30	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
20:45	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
21:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004
21:15	0.003	0.003	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.003	0.001	0.000	0.000	0.001	0.003	0.001	0.003	0.003	0.003	0.012
21:30	0.003	0.003	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.003	0.002	0.000	0.000	0.001	0.003	0.003	0.003	0.003	0.003	0.012
21:45	0.003	0.003	0.003	0.001	0.000	0.003	0.000	0.000	0.002	0.003	0.003	0.000	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.012
22:00	0.003	0.000	0.001	0.000	0.001	0.003	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.003	0.012
22:15	0.039	0.030	0.031	0.028	0.030	0.027	0.024	0.030	0.030	0.023	0.027	0.036	0.027	0.033	0.027	0.042	0.036	0.039	0.030	0.028
22:30	0.039	0.030	0.030	0.025	0.030	0.030	0.024	0.030	0.030	0.021	0.027	0.038	0.027	0.035	0.025	0.041	0.037	0.039	0.031	0.025
22:45	0.039	0.036	0.037	0.031	0.043	0.043	0.042	0.044	0.034	0.021	0.028	0.041	0.039	0.041	0.026	0.042	0.037	0.039	0.031	0.025
23:00	0.101	0.040	0.036	0.029	0.034	0.035	0.043	0.034	0.035	0.028	0.038	0.055	0.050	0.093	0.055	0.069	0.119	0.101	0.091	0.128
23:15	0.034	0.043	0.040	0.049	0.053	0.050	0.055	0.058	0.055	0.040	0.048	0.047	0.051	0.037	0.041	0.041	0.029	0.034	0.037	0.022
23:30	0.017	0.060	0.066	0.038	0.063	0.064	0.050	0.042	0.029	0.015	0.018	0.025	0.043	0.025	0.011	0.018	0.023	0.017	0.012	0.032
23:45	0.047	0.023	0.031	0.016	0.034	0.038	0.046	0.035	0.026	0.012	0.024	0.041	0.048	0.049	0.025	0.039	0.053	0.047	0.040	0.057
0:00	0.058	0.015	0.015	0.016	0.029	0.035	0.068	0.055	0.042	0.018	0.045	0.065	0.069	0.059	0.052	0.061	0.057	0.058	0.056	0.057
0:15	0.060	0.014	0.013	0.025	0.022	0.023	0.032	0.038	0.045	0.037	0.051	0.052	0.035	0.057	0.058	0.059	0.061	0.060	0.059	0.060
0:30	0.052	0.021	0.022	0.035	0.025	0.024	0.029	0.035	0.042	0.044	0.045	0.047	0.031	0.049	0.051	0.051	0.049	0.052	0.053	0.037
0:45	0.021	0.049	0.046	0.043	0.030	0.024	0.019	0.029	0.032	0.045	0.034	0.025	0.018	0.019	0.034	0.025	0.017	0.021	0.023	0.010
1:00	0.009	0.042	0.030	0.021	0.010	0.007	0.006	0.006	0.008	0.013	0.009	0.009	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.009
1:15	0.005	0.025	0.024	0.011	0.027	0.050	0.012	0.009	0.006	0.003	0.006	0.006	0.011	0.006	0.004	0.004	0.008	0.005	0.003	0.021
1:30	0.005	0.021	0.024	0.009	0.029	0.054	0.012	0.009	0.006	0.003	0.006	0.006	0.012	0.006	0.004	0.005	0.008	0.005	0.004	0.021
1:45	0.003	0.021	0.024	0.009	0.027	0.048	0.012	0.009	0.006	0.003	0.006	0.006	0.012	0.006	0.004	0.006	0.008	0.003	0.003	0.021
2:00	0.005	0.021	0.024	0.009	0.027	0.048	0.012	0.009	0.006	0.004	0.006	0.006	0.011	0.006	0.004	0.006	0.009	0.005	0.004	0.021
2:15	0.036	0.066	0.036	0.039	0.021	0.017	0.019	0.024	0.045	0.012	0.046	0.031	0.021	0.029	0.042	0.039	0.028	0.036	0.039	0.024
2:30	0.043	0.066	0.039	0.045	0.066	0.098	0.134	0.089	0.068	0.013	0.057	0.084	0.131	0.105	0.043	0.056	0.047	0.043	0.039	0.024
2:45	0.040	0.096	0.153	0.072	0.188	0.194	0.177	0.166	0.093	0.014	0.070	0.098	0.162	0.088	0.044	0.058	0.038	0.040	0.039	0.023
3:00	0.142	0.090	0.138	0.064	0.173	0.188	0.150	0.117	0.066	0.012	0.053	0.089	0.132	0.131	0.049	0.092	0.185	0.142	0.111	0.244
3:15	0.357	0.046	0.082	0.077	0.169	0.191	0.247	0.206	0.169	0.042	0.142	0.295	0.268	0.367	0.156	0.317	0.399	0.357	0.271	0.385
3:30	0.591	0.102	0.145	0.152	0.283	0.323	0.423	0.338	0.252	0.115	0.205	0.462	0.461	0.624	0.225	0.493	0.683	0.591	0.418	0.637
3:45	0.505	0.127	0.160	0.170	0.305	0.347	0.425	0.347	0.246	0.128	0.195	0.436	0.455	0.615	0.203	0.419	0.660	0.505	0.346	0.630
4:00	0.633	0.088	0.125	0.131	0.253	0.299	0.369	0.300	0.256	0.105	0.224	0.454	0.415	0.624	0.250	0.527	0.711	0.633	0.449	0.650
4:15	0.634	0.111	0.164	0.165	0.323	0.368	0.585	0.514	0.410	0.073	0.339	0.610	0.614	0.653	0.230	0.590	0.672	0.634	0.391	0.670
4:30	0.219	0.177	0.177	0.160	0.232	0.288	0.315	0.238	0.193	0.133	0.182	0.229	0.302	0.260	0.180	0.208	0.223	0.219	0.225	0.247
4:45	0.092	0.195	0.210	0.171	0.194	0.202	0.160	0.153	0.137	0.136	0.124	0.117	0.148	0.114	0.124	0.099	0.087	0.092	0.116	0.095
5:00	0.126	0.115	0.117	0.102	0.115	0.131	0.106	0.094	0.090	0.093	0.087	0.088	0.100	0.108	0.093	0.095	0.154	0.126	0.117	0.214

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
5:15	0.459	0.064	0.101	0.111	0.181	0.217	0.303	0.246	0.221	0.108	0.208	0.377	0.337	0.444	0.240	0.420	0.450	0.459	0.405	0.387
5:30	0.398	0.155	0.172	0.163	0.209	0.227	0.244	0.238	0.245	0.113	0.221	0.338	0.266	0.335	0.215	0.381	0.388	0.398	0.321	0.364
5:45	0.211	0.158	0.171	0.146	0.173	0.178	0.203	0.192	0.173	0.084	0.132	0.236	0.215	0.238	0.101	0.221	0.234	0.211	0.131	0.199
6:00	0.063	0.066	0.100	0.061	0.119	0.130	0.117	0.106	0.090	0.028	0.069	0.109	0.115	0.114	0.048	0.094	0.077	0.063	0.030	0.016
6:15	0.004	0.009	0.030	0.019	0.064	0.077	0.072	0.050	0.031	0.006	0.018	0.028	0.062	0.019	0.008	0.012	0.004	0.004	0.004	0.006
6:30	0.003	0.004	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.006
6:45	0.001	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.001	0.003	0.006
7:00	0.002	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.002	0.003	0.006
7:15	0.021	0.002	0.006	0.006	0.009	0.009	0.013	0.009	0.009	0.005	0.009	0.019	0.015	0.034	0.009	0.022	0.030	0.021	0.012	0.025
7:30	0.021	0.003	0.006	0.005	0.009	0.010	0.012	0.010	0.009	0.006	0.009	0.018	0.014	0.025	0.009	0.023	0.027	0.021	0.014	0.025
7:45	0.026	0.001	0.006	0.006	0.009	0.010	0.014	0.012	0.013	0.006	0.012	0.024	0.016	0.025	0.011	0.031	0.032	0.026	0.015	0.034
8:00	0.021	0.002	0.008	0.008	0.011	0.009	0.012	0.014	0.016	0.006	0.014	0.021	0.015	0.024	0.009	0.024	0.029	0.021	0.012	0.032
8:15	0.003	0.000	0.000	0.000	0.009	0.018	0.006	0.003	0.003	0.000	0.000	0.003	0.006	0.003	0.000	0.003	0.003	0.003	0.003	0.012
8:30	0.003	0.000	0.000	0.000	0.009	0.018	0.005	0.003	0.003	0.000	0.000	0.003	0.005	0.003	0.002	0.003	0.003	0.003	0.003	0.012
8:45	0.003	0.000	0.000	0.000	0.009	0.018	0.006	0.003	0.003	0.000	0.000	0.003	0.006	0.003	0.001	0.003	0.003	0.003	0.003	0.012
9:00	0.000	0.000	0.002	0.000	0.009	0.018	0.005	0.003	0.002	0.000	0.002	0.003	0.005	0.003	0.000	0.002	0.003	0.000	0.000	0.012
9:15	0.001	0.003	0.006	0.003	0.012	0.015	0.004	0.006	0.001	0.000	0.001	0.003	0.004	0.003	0.000	0.001	0.004	0.001	0.001	0.012
9:30	0.003	0.003	0.009	0.005	0.017	0.018	0.004	0.006	0.001	0.000	0.001	0.003	0.006	0.003	0.000	0.003	0.006	0.003	0.003	0.012
9:45	0.003	0.003	0.005	0.003	0.012	0.015	0.006	0.006	0.002	0.000	0.002	0.003	0.006	0.003	0.000	0.003	0.006	0.003	0.003	0.012
10:00	0.003	0.001	0.005	0.003	0.012	0.015	0.005	0.006	0.003	0.000	0.001	0.003	0.006	0.003	0.001	0.003	0.004	0.003	0.003	0.012
10:15	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.003
10:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
11:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11:15	0.007	0.000	0.003	0.003	0.009	0.012	0.013	0.009	0.006	0.002	0.003	0.006	0.012	0.006	0.003	0.005	0.007	0.007	0.007	0.012
11:30	0.008	0.000	0.003	0.003	0.012	0.014	0.028	0.019	0.010	0.002	0.005	0.017	0.029	0.026	0.003	0.008	0.016	0.008	0.004	0.006
11:45	0.003	0.001	0.003	0.003	0.010	0.012	0.013	0.009	0.006	0.001	0.003	0.006	0.012	0.006	0.003	0.003	0.003	0.003	0.003	0.003
12:00	0.003	0.004	0.005	0.005	0.011	0.012	0.014	0.009	0.006	0.002	0.003	0.006	0.012	0.007	0.003	0.003	0.005	0.003	0.003	0.011
12:15	0.005	0.003	0.003	0.009	0.003	0.003	0.003	0.005	0.012	0.020	0.020	0.004	0.002	0.002	0.025	0.006	0.006	0.005	0.014	0.004
12:30	0.000	0.003	0.003	0.011	0.004	0.004	0.006	0.007	0.009	0.015	0.010	0.001	0.003	0.000	0.009	0.002	0.000	0.000	0.003	0.003
12:45	0.000	0.003	0.003	0.009	0.003	0.003	0.003	0.003	0.006	0.013	0.009	0.003	0.000	0.000	0.009	0.003	0.000	0.000	0.003	0.003
13:00	0.000	0.003	0.003	0.008	0.003	0.003	0.003	0.003	0.006	0.013	0.009	0.003	0.000	0.000	0.009	0.003	0.000	0.000	0.003	0.003
13:15	0.006	0.000	0.003	0.003	0.006	0.007	0.009	0.006	0.006	0.003	0.006	0.006	0.008	0.006	0.006	0.006	0.006	0.006	0.006	0.006
13:30	0.015	0.003	0.008	0.011	0.010	0.011	0.009	0.008	0.013	0.010	0.015	0.010	0.009	0.006	0.015	0.014	0.010	0.015	0.016	0.014
13:45	0.039	0.000	0.004	0.005	0.016	0.020	0.028	0.018	0.014	0.008	0.014	0.029	0.029	0.037	0.016	0.031	0.049	0.039	0.019	0.056
14:00	0.015	0.006	0.012	0.023	0.034	0.038	0.061	0.042	0.030	0.023	0.026	0.033	0.057	0.028	0.023	0.020	0.015	0.015	0.017	0.012
14:15	0.022	0.036	0.038	0.027	0.028	0.024	0.017	0.023	0.023	0.015	0.018	0.021	0.017	0.025	0.012	0.020	0.026	0.022	0.015	0.027
14:30	0.039	0.004	0.004	0.011	0.010	0.012	0.020	0.020	0.025	0.021	0.033	0.029	0.022	0.034	0.032	0.034	0.037	0.039	0.038	0.044
14:45	0.039	0.037	0.039	0.038	0.039	0.040	0.038	0.041	0.036	0.030	0.032	0.040	0.039	0.053	0.028	0.037	0.048	0.039	0.030	0.046
15:00	0.029	0.046	0.044	0.039	0.036	0.034	0.028	0.035	0.035	0.033	0.033	0.031	0.027	0.033	0.027	0.029	0.031	0.029	0.026	0.032
15:15	0.055	0.005	0.017	0.017	0.036	0.045	0.054	0.049	0.045	0.025	0.050	0.053	0.054	0.058	0.050	0.051	0.059	0.055	0.056	0.072
15:30	0.065	0.050	0.051	0.079	0.073	0.081	0.091	0.082	0.080	0.084	0.078	0.076	0.089	0.079	0.070	0.066	0.069	0.065	0.063	0.083
15:45	0.075	0.081	0.074	0.079	0.070	0.069	0.062	0.061	0.062	0.077	0.065	0.058	0.061	0.064	0.067	0.061	0.077	0.075	0.081	0.123
16:00	0.046	0.032	0.041	0.043	0.051	0.055	0.048	0.043	0.045	0.055	0.049	0.043	0.047	0.047	0.055	0.042	0.048	0.046	0.055	0.070
16:15	0.077	0.045	0.043	0.045	0.040	0.039	0.040	0.044	0.049	0.048	0.050	0.061	0.044	0.071	0.055	0.070	0.079	0.077	0.072	0.091

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
16:30	0.082	0.043	0.046	0.050	0.046	0.048	0.045	0.049	0.053	0.051	0.055	0.064	0.049	0.073	0.058	0.074	0.084	0.082	0.078	0.098
16:45	0.064	0.018	0.032	0.027	0.038	0.040	0.038	0.040	0.036	0.022	0.031	0.056	0.043	0.073	0.026	0.060	0.082	0.064	0.037	0.084
17:00	0.008	0.006	0.006	0.006	0.006	0.009	0.008	0.004	0.005	0.006	0.006	0.006	0.007	0.007	0.006	0.006	0.006	0.008	0.008	0.010
17:15	0.045	0.008	0.006	0.008	0.007	0.007	0.011	0.014	0.021	0.022	0.030	0.027	0.014	0.027	0.041	0.040	0.042	0.045	0.050	0.069
17:30	0.067	0.042	0.037	0.050	0.037	0.033	0.038	0.047	0.052	0.054	0.054	0.056	0.042	0.067	0.053	0.061	0.069	0.067	0.064	0.081
17:45	0.086	0.069	0.065	0.061	0.050	0.047	0.041	0.051	0.057	0.056	0.056	0.063	0.045	0.074	0.055	0.072	0.090	0.086	0.078	0.128
18:00	0.065	0.029	0.038	0.031	0.039	0.042	0.037	0.041	0.039	0.029	0.036	0.052	0.041	0.071	0.037	0.057	0.076	0.065	0.051	0.096
18:15	0.056	0.014	0.021	0.027	0.045	0.054	0.063	0.052	0.041	0.025	0.036	0.061	0.066	0.071	0.034	0.056	0.066	0.056	0.044	0.070
18:30	0.009	0.003	0.006	0.006	0.015	0.023	0.023	0.013	0.007	0.006	0.006	0.010	0.020	0.015	0.008	0.009	0.010	0.009	0.009	0.012
18:45	0.009	0.003	0.006	0.006	0.006	0.009	0.009	0.008	0.006	0.006	0.006	0.009	0.009	0.009	0.008	0.009	0.009	0.009	0.009	0.011
19:00	0.009	0.003	0.004	0.006	0.006	0.009	0.009	0.008	0.006	0.006	0.006	0.009	0.009	0.009	0.006	0.009	0.009	0.009	0.009	0.011
19:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
19:30	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003
19:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
20:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
20:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:15	0.005	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.005	0.006	0.006	0.006	0.006	0.003	0.006	0.005	0.005	0.004	0.009
21:30	0.005	0.007	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.004	0.006	0.005	0.005	0.003	0.009
21:45	0.008	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.004	0.006	0.009	0.008	0.008	0.031
22:00	0.031	0.008	0.010	0.013	0.026	0.035	0.051	0.045	0.030	0.008	0.023	0.047	0.051	0.053	0.017	0.037	0.039	0.031	0.018	0.065
22:15	0.024	0.029	0.040	0.026	0.063	0.084	0.075	0.043	0.019	0.018	0.016	0.029	0.067	0.047	0.014	0.016	0.042	0.024	0.024	0.067
22:30	0.033	0.026	0.021	0.019	0.018	0.018	0.016	0.016	0.015	0.018	0.015	0.015	0.015	0.018	0.013	0.017	0.037	0.033	0.026	0.074
22:45	0.062	0.026	0.020	0.019	0.018	0.018	0.018	0.020	0.025	0.026	0.032	0.029	0.020	0.035	0.046	0.046	0.058	0.062	0.072	0.098
23:00	0.144	0.038	0.067	0.071	0.101	0.101	0.117	0.129	0.130	0.083	0.127	0.143	0.122	0.133	0.113	0.145	0.141	0.144	0.128	0.134
23:15	0.068	0.039	0.038	0.040	0.041	0.044	0.049	0.047	0.045	0.043	0.045	0.052	0.050	0.062	0.051	0.057	0.073	0.068	0.069	0.105
23:30	0.081	0.063	0.065	0.062	0.070	0.073	0.070	0.066	0.064	0.058	0.062	0.072	0.072	0.084	0.061	0.075	0.085	0.081	0.074	0.093
23:45	0.101	0.080	0.088	0.093	0.098	0.099	0.096	0.101	0.100	0.090	0.097	0.107	0.098	0.108	0.092	0.105	0.102	0.101	0.093	0.097
0:00	0.089	0.057	0.061	0.067	0.072	0.076	0.079	0.077	0.075	0.067	0.074	0.086	0.082	0.100	0.073	0.086	0.097	0.089	0.079	0.104
0:15	0.081	0.057	0.050	0.067	0.050	0.051	0.056	0.059	0.068	0.076	0.072	0.076	0.060	0.078	0.076	0.083	0.080	0.081	0.078	0.068
0:30	0.031	0.037	0.039	0.038	0.045	0.052	0.053	0.045	0.035	0.029	0.030	0.043	0.053	0.053	0.027	0.032	0.041	0.031	0.026	0.044
0:45	0.068	0.019	0.022	0.028	0.035	0.042	0.047	0.044	0.044	0.031	0.044	0.058	0.050	0.064	0.041	0.063	0.069	0.068	0.056	0.072
1:00	0.079	0.026	0.042	0.035	0.050	0.051	0.054	0.054	0.053	0.027	0.047	0.069	0.058	0.078	0.048	0.074	0.085	0.079	0.063	0.083
1:15	0.105	0.063	0.066	0.067	0.068	0.068	0.063	0.072	0.075	0.065	0.074	0.087	0.067	0.089	0.077	0.097	0.104	0.105	0.095	0.104
1:30	0.121	0.059	0.056	0.062	0.059	0.058	0.058	0.067	0.072	0.066	0.073	0.090	0.064	0.098	0.082	0.107	0.122	0.121	0.110	0.132
1:45	0.159	0.098	0.098	0.100	0.106	0.107	0.110	0.111	0.109	0.099	0.108	0.135	0.117	0.156	0.119	0.146	0.163	0.159	0.150	0.154
2:00	0.143	0.111	0.118	0.108	0.126	0.128	0.116	0.119	0.113	0.097	0.107	0.136	0.120	0.144	0.105	0.142	0.147	0.143	0.125	0.135
2:15	0.216	0.124	0.128	0.130	0.131	0.132	0.121	0.135	0.144	0.133	0.147	0.171	0.130	0.183	0.161	0.199	0.213	0.216	0.196	0.199
2:30	0.183	0.145	0.145	0.147	0.138	0.132	0.120	0.138	0.147	0.133	0.142	0.163	0.126	0.164	0.144	0.179	0.178	0.183	0.165	0.162
2:45	0.155	0.106	0.110	0.111	0.111	0.110	0.100	0.112	0.115	0.105	0.111	0.135	0.107	0.143	0.117	0.148	0.157	0.155	0.140	0.145
3:00	0.152	0.102	0.106	0.104	0.112	0.114	0.108	0.113	0.112	0.101	0.109	0.136	0.115	0.151	0.116	0.146	0.159	0.152	0.138	0.139
3:15	0.100	0.062	0.067	0.067	0.084	0.090	0.085	0.082	0.075	0.063	0.072	0.090	0.086	0.098	0.074	0.095	0.101	0.100	0.089	0.087
3:30	0.075	0.055	0.059	0.058	0.073	0.079	0.077	0.070	0.063	0.051	0.058	0.078	0.079	0.092	0.058	0.078	0.081	0.075	0.069	0.066

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
3:45	0.086	0.024	0.036	0.038	0.059	0.070	0.071	0.067	0.060	0.043	0.056	0.077	0.072	0.083	0.059	0.080	0.084	0.086	0.079	0.088
4:00	0.018	0.027	0.022	0.026	0.015	0.013	0.012	0.013	0.014	0.020	0.013	0.015	0.012	0.016	0.016	0.015	0.018	0.018	0.017	0.018
4:15	0.020	0.020	0.016	0.012	0.010	0.011	0.007	0.009	0.010	0.021	0.015	0.010	0.006	0.009	0.028	0.014	0.015	0.020	0.030	0.019
4:30	0.032	0.028	0.026	0.054	0.028	0.024	0.036	0.044	0.056	0.074	0.062	0.046	0.038	0.041	0.058	0.042	0.031	0.032	0.035	0.018
4:45	0.009	0.009	0.009	0.009	0.009	0.010	0.007	0.009	0.009	0.009	0.009	0.009	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.006
5:00	0.013	0.009	0.009	0.009	0.009	0.009	0.008	0.009	0.009	0.009	0.009	0.009	0.008	0.009	0.009	0.009	0.015	0.013	0.012	0.026
5:15	0.010	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.002	0.002	0.003	0.007	0.005	0.008	0.010	0.011	0.018
5:30	0.051	0.007	0.011	0.023	0.010	0.008	0.007	0.017	0.030	0.048	0.043	0.033	0.011	0.041	0.047	0.044	0.055	0.051	0.049	0.060
5:45	0.014	0.038	0.037	0.041	0.027	0.023	0.008	0.018	0.025	0.039	0.025	0.022	0.010	0.029	0.022	0.020	0.018	0.014	0.010	0.008
6:00	0.005	0.028	0.020	0.022	0.009	0.006	0.000	0.006	0.011	0.027	0.015	0.005	0.002	0.002	0.014	0.007	0.002	0.005	0.007	0.001
6:15	0.066	0.081	0.082	0.108	0.078	0.078	0.076	0.074	0.086	0.115	0.086	0.065	0.074	0.065	0.069	0.065	0.058	0.066	0.062	0.033
6:30	0.006	0.023	0.024	0.018	0.022	0.026	0.021	0.014	0.009	0.007	0.004	0.006	0.019	0.013	0.005	0.002	0.009	0.006	0.017	0.017
6:45	0.016	0.001	0.001	0.003	0.011	0.012	0.017	0.023	0.025	0.025	0.040	0.031	0.014	0.012	0.045	0.029	0.016	0.016	0.017	0.017
7:00	0.004	0.001	0.001	0.001	0.002	0.003	0.004	0.005	0.003	0.001	0.002	0.007	0.006	0.007	0.001	0.003	0.007	0.004	0.002	0.015
7:15	0.044	0.018	0.020	0.028	0.026	0.028	0.026	0.032	0.033	0.032	0.035	0.038	0.028	0.032	0.038	0.042	0.042	0.044	0.042	0.030
7:30	0.003	0.003	0.003	0.003	0.006	0.010	0.014	0.005	0.003	0.003	0.003	0.005	0.012	0.012	0.003	0.003	0.006	0.003	0.003	0.010
7:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
8:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
8:15	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
8:30	0.012	0.002	0.001	0.006	0.003	0.003	0.013	0.007	0.008	0.010	0.009	0.009	0.015	0.010	0.010	0.009	0.008	0.012	0.014	0.011
8:45	0.026	0.036	0.040	0.031	0.046	0.050	0.043	0.042	0.034	0.018	0.027	0.034	0.040	0.029	0.021	0.030	0.029	0.026	0.021	0.028
9:00	0.003	0.002	0.003	0.003	0.010	0.017	0.016	0.011	0.004	0.002	0.003	0.007	0.014	0.007	0.002	0.004	0.003	0.003	0.002	0.002
9:15	0.009	0.003	0.007	0.010	0.016	0.015	0.014	0.016	0.018	0.020	0.022	0.011	0.012	0.008	0.025	0.011	0.008	0.009	0.016	0.015
9:30	0.010	0.003	0.003	0.006	0.009	0.014	0.021	0.014	0.008	0.003	0.007	0.013	0.022	0.019	0.002	0.010	0.013	0.010	0.005	0.010
9:45	0.000	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.003	0.003	0.003	0.003	0.003	0.000	0.000	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.003	0.003	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
10:30	0.001	0.003	0.003	0.001	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002
10:45	0.001	0.003	0.004	0.001	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003
11:00	0.000	0.003	0.003	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
11:15	0.001	0.003	0.003	0.001	0.003	0.006	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.006
11:30	0.000	0.003	0.003	0.000	0.003	0.006	0.002	0.001	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.006
11:45	0.000	0.003	0.003	0.000	0.003	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.006
12:00	0.000	0.003	0.003	0.000	0.003	0.006	0.001	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.005
12:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
13:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
14:00	0.010	0.014	0.013	0.019	0.009	0.007	0.003	0.008	0.014	0.026	0.017	0.009	0.003	0.006	0.019	0.011	0.008	0.010	0.014	0.006
14:15	0.020	0.011	0.008	0.009	0.012	0.016	0.015	0.016	0.011	0.010	0.011	0.019	0.017	0.023	0.010	0.018	0.024	0.020	0.013	0.021
14:30	0.002	0.002	0.003	0.003	0.004	0.006	0.006	0.004	0.003	0.001	0.003	0.003	0.006	0.004	0.002	0.003	0.002	0.002	0.000	0.001
14:45	0.006	0.017	0.013	0.012	0.009	0.006	0.002	0.005	0.007	0.012	0.008	0.004	0.002	0.003	0.008	0.005	0.004	0.006	0.007	0.005

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
15:00	0.021	0.021	0.022	0.027	0.024	0.020	0.018	0.023	0.025	0.028	0.025	0.021	0.017	0.021	0.022	0.021	0.021	0.021	0.020	0.020
15:15	0.007	0.003	0.004	0.009	0.007	0.008	0.012	0.007	0.006	0.011	0.008	0.006	0.012	0.008	0.009	0.006	0.007	0.007	0.007	0.007
15:30	0.010	0.003	0.005	0.009	0.010	0.011	0.013	0.011	0.012	0.016	0.013	0.010	0.012	0.008	0.014	0.010	0.009	0.010	0.010	0.007
15:45	0.003	0.000	0.000	0.001	0.003	0.003	0.005	0.003	0.002	0.001	0.003	0.003	0.005	0.004	0.002	0.003	0.003	0.003	0.003	0.002
16:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:15	0.001	0.002	0.001	0.003	0.001	0.001	0.001	0.003	0.003	0.003	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
21:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
21:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
22:00	0.001	0.028	0.031	0.017	0.020	0.013	0.004	0.010	0.007	0.004	0.003	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001
22:15	0.015	0.149	0.132	0.097	0.082	0.068	0.040	0.056	0.049	0.060	0.040	0.032	0.033	0.021	0.029	0.021	0.012	0.015	0.017	0.006
22:30	0.021	0.113	0.092	0.082	0.054	0.045	0.025	0.041	0.050	0.065	0.050	0.029	0.023	0.021	0.035	0.027	0.020	0.021	0.024	0.014
22:45	0.045	0.103	0.097	0.114	0.072	0.060	0.046	0.074	0.095	0.130	0.104	0.060	0.043	0.040	0.084	0.057	0.040	0.045	0.051	0.025
23:00	0.041	0.054	0.053	0.065	0.043	0.037	0.030	0.048	0.061	0.089	0.076	0.044	0.030	0.033	0.075	0.045	0.036	0.041	0.054	0.026
23:15	0.000	0.003	0.003	0.006	0.003	0.000	0.000	0.000	0.003	0.009	0.006	0.000	0.000	0.000	0.007	0.001	0.000	0.000	0.003	0.000
23:30	0.000	0.003	0.003	0.005	0.003	0.000	0.000	0.000	0.003	0.006	0.004	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.003	0.000
23:45	0.000	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.001	0.003	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000
0:00	0.000	0.003	0.003	0.005	0.003	0.000	0.000	0.001	0.003	0.006	0.004	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000
0:15	0.024	0.014	0.015	0.014	0.016	0.016	0.020	0.018	0.018	0.017	0.019	0.022	0.021	0.020	0.018	0.023	0.023	0.024	0.021	0.014
0:30	0.002	0.019	0.018	0.013	0.014	0.014	0.012	0.011	0.009	0.009	0.008	0.005	0.009	0.004	0.005	0.004	0.002	0.002	0.003	0.002
0:45	0.000	0.005	0.007	0.006	0.008	0.008	0.008	0.009	0.008	0.002	0.005	0.004	0.006	0.002	0.001	0.002	0.001	0.000	0.000	0.003
1:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
2:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:15	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
4:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
5:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:30	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
6:45	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
7:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:15	0.000	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:30	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:45	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:30	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
8:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
9:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
13:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:30	0.000	0.004	0.003	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:45	0.000	0.003	0.015	0.008	0.031	0.038	0.044	0.023	0.008	0.003	0.005	0.011	0.038	0.015	0.003	0.003	0.001	0.000	0.000	0.000
18:00	0.000	0.004	0.007	0.008	0.012	0.013	0.015	0.011	0.006	0.004	0.005	0.007	0.014	0.008	0.003	0.003	0.001	0.000	0.000	0.001
18:15	0.005	0.018	0.018	0.022	0.014	0.014	0.013	0.013	0.014	0.016	0.012	0.010	0.010	0.006	0.008	0.007	0.004	0.005	0.005	0.002
18:30	0.012	0.000	0.002	0.002	0.008	0.011	0.016	0.007	0.006	0.007	0.007	0.008	0.014	0.007	0.016	0.008	0.008	0.012	0.019	0.012
18:45	0.005	0.004	0.003	0.013	0.003	0.002	0.005	0.006	0.011	0.026	0.017	0.006	0.005	0.004	0.016	0.006	0.004	0.005	0.009	0.004
19:00	0.002	0.008	0.006	0.006	0.005	0.003	0.006	0.006	0.007	0.005	0.006	0.005	0.006	0.004	0.004	0.003	0.001	0.002	0.001	0.001
19:15	0.000	0.002	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:30	0.000	0.002	0.003	0.001	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:45	0.000	0.000	0.001	0.001	0.003	0.003	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:00	0.000	0.003	0.004	0.006	0.004	0.003	0.001	0.003	0.003	0.004	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000
20:15	0.003	0.005	0.006	0.009	0.009	0.010	0.010	0.008	0.008	0.009	0.007	0.005	0.008	0.003	0.004	0.004	0.002	0.003	0.003	0.001
20:30	0.004	0.003	0.003	0.005	0.004	0.005	0.005	0.003	0.005	0.011	0.008	0.003	0.005	0.001	0.010	0.005	0.002	0.004	0.008	0.003
20:45	0.009	0.004	0.004	0.011	0.007	0.007	0.010	0.012	0.015	0.020	0.018	0.011	0.011	0.005	0.018	0.011	0.006	0.009	0.016	0.010
21:00	0.013	0.004	0.005	0.012	0.007	0.008	0.011	0.011	0.016	0.022	0.021	0.011	0.010	0.005	0.024	0.013	0.006	0.013	0.022	0.014
21:15	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.003	0.003	0.005	0.002	0.001	0.002	0.005	0.002	0.002	0.001	0.002	0.004
21:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
22:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
22:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
23:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
23:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
23:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
23:45	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
0:00	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003
0:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
0:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
0:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2:15	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
2:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
3:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
3:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
3:30	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
3:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:00	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
4:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
4:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
4:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
6:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.003	0.002	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000
10:30	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.004	0.003	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.001	0.000
10:45	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.006	0.003	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.001	0.000
11:00	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.006	0.003	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.003	0.000
11:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.006	0.000	0.000	0.000	0.011	0.001	0.000	0.000	0.003	0.000
11:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.004	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.003	0.000
11:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.005	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.003	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006	0.004	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.003	0.000
12:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.000	0.008	0.003	0.003	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
13:30	0.000	0.008	0.005	0.003	0.000	0.003	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
13:45	0.000	0.007	0.003	0.003	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
14:00	0.000	0.007	0.004	0.003	0.001	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
14:15	0.000	0.002	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:30	0.000	0.002	0.002	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:45	0.000	0.001	0.001	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:00	0.000	0.003	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:15	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:30	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:45	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:00	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:15	0.037	0.048	0.036	0.034	0.034	0.037	0.050	0.037	0.032	0.033	0.033	0.045	0.052	0.069	0.033	0.036	0.053	0.037	0.033	0.038
16:30	0.095	0.059	0.084	0.075	0.110	0.109	0.096	0.117	0.099	0.055	0.081	0.107	0.095	0.105	0.057	0.097	0.104	0.095	0.069	0.088
16:45	0.141	0.171	0.167	0.146	0.120	0.107	0.096	0.116	0.134	0.138	0.139	0.129	0.100	0.122	0.133	0.140	0.138	0.141	0.134	0.113
17:00	0.156	0.188	0.157	0.152	0.122	0.115	0.106	0.122	0.137	0.152	0.143	0.133	0.109	0.136	0.138	0.147	0.160	0.156	0.141	0.146
17:15	0.171	0.088	0.095	0.100	0.098	0.095	0.094	0.107	0.113	0.103	0.113	0.149	0.107	0.171	0.118	0.166	0.183	0.171	0.142	0.159
17:30	0.168	0.109	0.098	0.100	0.095	0.097	0.100	0.105	0.105	0.097	0.100	0.147	0.111	0.175	0.104	0.159	0.188	0.168	0.134	0.162
17:45	0.225	0.105	0.107	0.110	0.111	0.110	0.111	0.128	0.135	0.107	0.130	0.187	0.127	0.208	0.135	0.212	0.238	0.225	0.179	0.210
18:00	0.228	0.111	0.117	0.117	0.109	0.102	0.095	0.118	0.132	0.119	0.136	0.174	0.112	0.196	0.148	0.209	0.232	0.228	0.198	0.210
18:15	0.140	0.106	0.101	0.110	0.100	0.093	0.097	0.105	0.117	0.113	0.123	0.109	0.098	0.103	0.129	0.126	0.130	0.140	0.143	0.125
18:30	0.187	0.093	0.110	0.116	0.161	0.179	0.215	0.180	0.147	0.097	0.127	0.181	0.216	0.208	0.110	0.169	0.213	0.187	0.139	0.182
18:45	0.047	0.024	0.036	0.035	0.075	0.103	0.114	0.076	0.051	0.027	0.043	0.064	0.103	0.060	0.034	0.050	0.050	0.047	0.037	0.045
19:00	0.030	0.009	0.015	0.014	0.031	0.042	0.051	0.034	0.024	0.013	0.021	0.032	0.048	0.034	0.018	0.029	0.034	0.030	0.021	0.028
19:15	0.011	0.005	0.004	0.005	0.003	0.003	0.002	0.004	0.006	0.005	0.007	0.008	0.003	0.011	0.008	0.012	0.010	0.011	0.012	0.011
19:30	0.007	0.003	0.004	0.003	0.005	0.003	0.000	0.003	0.006	0.003	0.004	0.008	0.002	0.007	0.003	0.008	0.006	0.007	0.006	0.007
19:45	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.003	0.001	0.003	0.003	0.003	0.003	0.003
20:00	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.003	0.001	0.003	0.003	0.003	0.003	0.003
20:15	0.003	0.001	0.003	0.000	0.003	0.006	0.003	0.002	0.002	0.000	0.001	0.003	0.003	0.003	0.001	0.003	0.006	0.003	0.003	0.021
20:30	0.003	0.000	0.003	0.000	0.003	0.006	0.003	0.002	0.001	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.006	0.003	0.003	0.021
20:45	0.003	0.000	0.003	0.000	0.003	0.006	0.002	0.003	0.002	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.007	0.003	0.003	0.021
21:00	0.003	0.000	0.003	0.000	0.003	0.006	0.003	0.000	0.003	0.000	0.000	0.003	0.003	0.003	0.003	0.003	0.006	0.003	0.003	0.021
21:15	0.001	0.001	0.001	0.001	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.003
21:30	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.003
21:45	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.003
22:00	0.000	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.003
22:15	0.000	0.003	0.003	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.007
22:30	0.000	0.003	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.008
22:45	0.000	0.003	0.003	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.007
23:00	0.000	0.003	0.003	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.008

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																			
Time	Basin 1	Basin 2	Basin 3	Basin 4	Basin 5	Basin 6	Basin 7	Basin 8	Basin 9	Basin 10	Basin 11	Basin 12	Basin 13	Basin 14	Basin 15	Basin 16	Basin 17	Basin 18	Basin 19	Basin 20
23:15	0.001	0.002	0.002	0.001	0.002	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.003
23:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004
23:45	0.000	0.002	0.002	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.003
0:00	0.000	0.003	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.003
0:15	0.000	0.003	0.003	0.000	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
0:30	0.000	0.003	0.003	0.000	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
0:45	0.000	0.003	0.003	0.000	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
1:00	0.000	0.003	0.003	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.006
1:15	0.002	0.002	0.002	0.002	0.003	0.006	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.003	0.002	0.002	0.006
1:30	0.000	0.000	0.000	0.000	0.003	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.003	0.000	0.000	0.006
1:45	0.000	0.003	0.003	0.000	0.003	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.006
2:00	0.001	0.002	0.002	0.001	0.003	0.006	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.006
2:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
2:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
2:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
3:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
3:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
21:15	0.007	0.006	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
21:30	0.004	0.003	0.002	0.003	0.002	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
21:45	0.005	0.004	0.000	0.000	0.000	0.003	0.000	0.003	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003
22:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.002	0.002	0.001
22:15	0.000	0.001	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000
22:30	0.002	0.003	0.002	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.002	0.002	0.003	0.002	0.002	0.002
22:45	0.001	0.003	0.003	0.003	0.004	0.003	0.000	0.000	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000
23:00	0.003	0.009	0.006	0.009	0.009	0.005	0.003	0.001	0.001	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.001
23:15	0.091	0.088	0.050	0.062	0.061	0.046	0.055	0.023	0.026	0.037	0.039	0.015	0.014	0.025	0.012	0.009	0.008
23:30	0.153	0.125	0.146	0.133	0.114	0.152	0.125	0.190	0.190	0.183	0.184	0.190	0.205	0.198	0.143	0.147	0.197
23:45	0.149	0.126	0.076	0.087	0.077	0.061	0.068	0.064	0.058	0.051	0.051	0.094	0.078	0.055	0.135	0.132	0.097
0:00	0.100	0.094	0.087	0.089	0.074	0.066	0.066	0.074	0.067	0.058	0.055	0.075	0.066	0.060	0.080	0.072	0.062
0:15	0.020	0.037	0.071	0.057	0.061	0.134	0.076	0.185	0.198	0.177	0.108	0.102	0.095	0.147	0.044	0.055	0.082
0:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.039	0.010	0.003	0.005	0.091	0.059	0.009	0.130	0.127	0.074
0:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003
1:15	0.089	0.077	0.066	0.066	0.055	0.060	0.048	0.081	0.077	0.067	0.066	0.087	0.083	0.075	0.097	0.095	0.081
1:30	0.093	0.088	0.079	0.078	0.072	0.075	0.067	0.061	0.064	0.069	0.069	0.050	0.050	0.061	0.062	0.055	0.048
1:45	0.073	0.070	0.096	0.083	0.080	0.121	0.089	0.110	0.120	0.146	0.151	0.079	0.095	0.130	0.058	0.061	0.086
2:00	0.060	0.061	0.074	0.068	0.066	0.098	0.071	0.107	0.117	0.130	0.139	0.091	0.111	0.133	0.078	0.085	0.109
2:15	0.009	0.013	0.025	0.018	0.019	0.038	0.020	0.038	0.041	0.048	0.048	0.035	0.039	0.044	0.037	0.038	0.039
2:30	0.007	0.011	0.018	0.015	0.017	0.029	0.017	0.034	0.036	0.041	0.043	0.033	0.037	0.040	0.033	0.034	0.037
2:45	0.006	0.010	0.013	0.010	0.011	0.025	0.013	0.028	0.030	0.033	0.034	0.028	0.029	0.032	0.029	0.029	0.030
3:00	0.013	0.022	0.031	0.025	0.027	0.048	0.029	0.040	0.046	0.053	0.049	0.030	0.032	0.045	0.028	0.028	0.030
3:15	0.024	0.026	0.031	0.030	0.031	0.033	0.034	0.038	0.034	0.031	0.030	0.052	0.045	0.033	0.060	0.056	0.048
3:30	0.024	0.024	0.027	0.027	0.027	0.030	0.027	0.041	0.036	0.032	0.033	0.057	0.052	0.036	0.065	0.063	0.056
3:45	0.026	0.026	0.029	0.028	0.028	0.029	0.029	0.036	0.032	0.029	0.030	0.053	0.046	0.032	0.068	0.065	0.053
4:00	0.029	0.029	0.031	0.029	0.029	0.032	0.029	0.041	0.037	0.032	0.034	0.057	0.050	0.036	0.069	0.066	0.056
4:15	0.047	0.048	0.045	0.044	0.045	0.048	0.044	0.040	0.045	0.050	0.052	0.036	0.039	0.048	0.038	0.039	0.039
4:30	0.050	0.054	0.051	0.053	0.057	0.059	0.056	0.061	0.066	0.073	0.074	0.050	0.057	0.071	0.039	0.041	0.054
4:45	0.069	0.066	0.071	0.069	0.065	0.073	0.064	0.064	0.067	0.072	0.071	0.058	0.059	0.068	0.051	0.051	0.056
5:00	0.037	0.035	0.046	0.040	0.037	0.044	0.038	0.049	0.049	0.043	0.040	0.039	0.042	0.044	0.034	0.033	0.036
5:15	0.008	0.004	0.003	0.003	0.001	0.003	0.001	0.007	0.007	0.005	0.006	0.006	0.006	0.005	0.003	0.005	0.006
5:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
6:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
6:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:15	0.003	0.002	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:30	0.003	0.002	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:45	0.006	0.001	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:00	0.003	0.003	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
8:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:00	0.003	0.006	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:15	0.025	0.027	0.035	0.031	0.031	0.042	0.031	0.040	0.042	0.048	0.049	0.034	0.037	0.045	0.027	0.027	0.036
9:30	0.008	0.008	0.011	0.010	0.010	0.014	0.010	0.018	0.020	0.018	0.018	0.015	0.018	0.020	0.016	0.017	0.017
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.003	0.003	0.006	0.006	0.003	0.009	0.009	0.006
14:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.003	0.003	0.006	0.006	0.003	0.009	0.009	0.006
14:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.003	0.003	0.006	0.006	0.003	0.009	0.009	0.006
15:00	0.031	0.028	0.012	0.016	0.014	0.003	0.005	0.003	0.003	0.003	0.003	0.006	0.006	0.003	0.009	0.009	0.006
15:15	0.034	0.042	0.036	0.035	0.043	0.048	0.047	0.013	0.010	0.019	0.023	0.009	0.004	0.007	0.004	0.004	0.002
15:30	0.067	0.068	0.062	0.056	0.055	0.091	0.063	0.123	0.136	0.153	0.154	0.093	0.120	0.155	0.052	0.056	0.103
15:45	0.071	0.054	0.055	0.058	0.035	0.034	0.016	0.051	0.045	0.024	0.012	0.069	0.050	0.026	0.091	0.088	0.063
16:00	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.021	0.015	0.001
16:15	0.003	0.003	0.003	0.003	0.002	0.003	0.000	0.006	0.006	0.006	0.006	0.013	0.007	0.006	0.032	0.033	0.016
16:30	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.003	0.003	0.006
16:45	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.003	0.003	0.006
17:00	0.003	0.003	0.003	0.003	0.001	0.003	0.000	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.003	0.003	0.006
17:15	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.006	0.006	0.006	0.006	0.009	0.009	0.006	0.009	0.009	0.009
17:30	0.003	0.003	0.003	0.003	0.001	0.003	0.000	0.006	0.006	0.006	0.006	0.009	0.009	0.006	0.009	0.009	0.009
17:45	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.006	0.006	0.006	0.006	0.009	0.009	0.006	0.009	0.009	0.009
18:00	0.003	0.003	0.003	0.003	0.001	0.003	0.000	0.006	0.006	0.006	0.006	0.009	0.009	0.006	0.009	0.009	0.009
18:15	0.003	0.006	0.009	0.009	0.009	0.009	0.009	0.006	0.008	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
18:30	0.003	0.006	0.009	0.009	0.009	0.009	0.009	0.006	0.009	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
18:45	0.003	0.006	0.009	0.009	0.009	0.009	0.009	0.006	0.009	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
19:00	0.003	0.006	0.009	0.009	0.009	0.009	0.009	0.006	0.009	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
19:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
19:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:30	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
20:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:15	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
23:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0:15	0.003	0.003	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000
0:30	0.004	0.003	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
0:45	0.003	0.003	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000
1:00	0.004	0.005	0.004	0.005	0.006	0.004	0.002	0.000	0.000	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000
1:15	0.047	0.028	0.021	0.021	0.009	0.005	0.004	0.005	0.004	0.003	0.003	0.003	0.002	0.003	0.002	0.002	0.002
1:30	0.011	0.005	0.003	0.003	0.003	0.003	0.003	0.005	0.005	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:45	0.003	0.003	0.003	0.003	0.003	0.004	0.003	0.007	0.007	0.012	0.010	0.003	0.006	0.011	0.003	0.003	0.005
2:00	0.015	0.023	0.003	0.005	0.003	0.003	0.003	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2:15	0.019	0.015	0.009	0.011	0.011	0.009	0.009	0.006	0.009	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
2:30	0.013	0.015	0.007	0.009	0.011	0.009	0.010	0.006	0.009	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
2:45	0.006	0.006	0.006	0.006	0.009	0.009	0.009	0.006	0.008	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
3:00	0.006	0.006	0.006	0.006	0.009	0.009	0.009	0.006	0.008	0.009	0.009	0.003	0.003	0.009	0.000	0.000	0.003
3:15	0.007	0.004	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:30	0.006	0.005	0.006	0.005	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
3:45	0.006	0.005	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:00	0.006	0.004	0.006	0.006	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
4:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:15	0.010	0.011	0.021	0.012	0.013	0.033	0.021	0.028	0.031	0.038	0.036	0.020	0.024	0.035	0.013	0.012	0.021
5:30	0.033	0.036	0.038	0.038	0.037	0.041	0.035	0.038	0.040	0.043	0.043	0.034	0.038	0.042	0.031	0.031	0.037
5:45	0.045	0.046	0.044	0.045	0.044	0.047	0.043	0.041	0.045	0.048	0.049	0.037	0.039	0.046	0.035	0.034	0.039
6:00	0.070	0.068	0.066	0.067	0.064	0.069	0.062	0.057	0.062	0.070	0.070	0.045	0.051	0.064	0.039	0.038	0.048
6:15	0.050	0.055	0.086	0.074	0.071	0.096	0.076	0.101	0.110	0.114	0.112	0.083	0.097	0.115	0.069	0.070	0.088
6:30	0.041	0.050	0.061	0.058	0.062	0.067	0.062	0.061	0.063	0.062	0.061	0.053	0.053	0.059	0.051	0.051	0.051

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
6:45	0.036	0.044	0.050	0.048	0.053	0.052	0.053	0.032	0.035	0.036	0.034	0.024	0.023	0.028	0.025	0.025	0.022
7:00	0.034	0.040	0.042	0.045	0.049	0.054	0.051	0.019	0.023	0.045	0.047	0.010	0.012	0.027	0.009	0.009	0.012
7:15	0.087	0.111	0.091	0.102	0.119	0.115	0.107	0.079	0.094	0.120	0.125	0.040	0.056	0.100	0.010	0.011	0.026
7:30	0.074	0.060	0.160	0.124	0.106	0.177	0.133	0.131	0.144	0.171	0.167	0.070	0.097	0.144	0.013	0.013	0.059
7:45	0.007	0.013	0.051	0.030	0.029	0.054	0.030	0.135	0.129	0.089	0.088	0.131	0.151	0.126	0.077	0.080	0.145
8:00	0.000	0.002	0.005	0.001	0.006	0.013	0.011	0.022	0.018	0.017	0.021	0.062	0.038	0.019	0.132	0.120	0.082
8:15	0.009	0.007	0.017	0.013	0.015	0.030	0.020	0.083	0.068	0.049	0.053	0.113	0.105	0.068	0.113	0.115	0.112
8:30	0.009	0.006	0.013	0.009	0.009	0.012	0.006	0.024	0.016	0.012	0.014	0.058	0.043	0.017	0.103	0.096	0.057
8:45	0.009	0.006	0.013	0.009	0.009	0.012	0.007	0.012	0.012	0.012	0.012	0.014	0.012	0.012	0.019	0.019	0.013
9:00	0.009	0.006	0.012	0.009	0.009	0.012	0.006	0.012	0.012	0.012	0.012	0.013	0.013	0.012	0.012	0.012	0.013
9:15	0.001	0.002	0.003	0.003	0.000	0.006	0.000	0.007	0.006	0.009	0.013	0.014	0.012	0.008	0.018	0.018	0.018
9:30	0.000	0.000	0.003	0.003	0.000	0.006	0.000	0.029	0.023	0.012	0.014	0.031	0.031	0.024	0.019	0.020	0.019
9:45	0.000	0.000	0.003	0.003	0.000	0.005	0.000	0.006	0.006	0.003	0.004	0.016	0.012	0.004	0.024	0.020	0.018
10:00	0.000	0.000	0.003	0.003	0.000	0.005	0.000	0.006	0.006	0.003	0.005	0.014	0.012	0.003	0.018	0.018	0.018
10:15	0.000	0.000	0.001	0.000	0.000	0.003	0.000	0.003	0.003	0.003	0.003	0.001	0.003	0.003	0.003	0.003	0.003
10:30	0.000	0.000	0.001	0.000	0.000	0.003	0.000	0.003	0.003	0.003	0.003	0.000	0.003	0.003	0.003	0.003	0.003
10:45	0.000	0.000	0.001	0.000	0.000	0.003	0.001	0.002	0.002	0.003	0.003	0.001	0.002	0.003	0.003	0.003	0.002
11:00	0.000	0.000	0.002	0.000	0.000	0.003	0.000	0.003	0.003	0.003	0.003	0.000	0.002	0.003	0.003	0.003	0.003
11:15	0.001	0.003	0.007	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.012	0.012	0.009
11:30	0.001	0.003	0.007	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.011	0.012	0.010
11:45	0.000	0.003	0.007	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.011	0.012	0.009
12:00	0.000	0.003	0.007	0.006	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.012	0.012	0.009
12:15	0.000	0.000	0.003	0.003	0.000	0.003	0.000	0.003	0.002	0.000	0.003	0.003	0.004	0.002	0.001	0.003	0.003
12:30	0.000	0.000	0.003	0.003	0.000	0.003	0.000	0.003	0.001	0.000	0.002	0.003	0.005	0.002	0.000	0.002	0.003
12:45	0.000	0.000	0.003	0.003	0.000	0.006	0.000	0.018	0.023	0.018	0.019	0.009	0.020	0.024	0.002	0.002	0.021
13:00	0.001	0.000	0.003	0.003	0.000	0.003	0.000	0.012	0.002	0.000	0.002	0.026	0.009	0.002	0.039	0.040	0.013
13:15	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
13:30	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:00	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:15	0.003	0.003	0.027	0.015	0.009	0.009	0.007	0.027	0.033	0.021	0.026	0.018	0.027	0.033	0.011	0.012	0.023
14:30	0.003	0.004	0.059	0.027	0.036	0.147	0.104	0.050	0.066	0.133	0.122	0.018	0.027	0.075	0.009	0.010	0.023
14:45	0.060	0.086	0.027	0.065	0.080	0.009	0.029	0.027	0.031	0.020	0.024	0.018	0.028	0.034	0.011	0.012	0.024
15:00	0.017	0.011	0.026	0.016	0.010	0.009	0.006	0.027	0.031	0.021	0.028	0.018	0.027	0.033	0.012	0.010	0.022
15:15	0.007	0.021	0.065	0.072	0.089	0.149	0.129	0.015	0.015	0.074	0.147	0.027	0.039	0.044	0.021	0.024	0.042
15:30	0.124	0.118	0.138	0.136	0.114	0.111	0.093	0.157	0.196	0.172	0.066	0.054	0.057	0.142	0.021	0.024	0.044
15:45	0.054	0.057	0.058	0.049	0.044	0.014	0.030	0.024	0.015	0.012	0.027	0.038	0.039	0.029	0.061	0.051	0.043
16:00	0.069	0.077	0.002	0.016	0.045	0.006	0.032	0.012	0.009	0.011	0.026	0.027	0.039	0.027	0.021	0.024	0.042
16:15	0.248	0.255	0.231	0.256	0.264	0.156	0.258	0.054	0.062	0.070	0.071	0.042	0.050	0.064	0.038	0.036	0.045
16:30	0.016	0.010	0.008	0.003	0.003	0.036	0.006	0.054	0.060	0.064	0.060	0.042	0.049	0.060	0.039	0.036	0.045
16:45	0.002	0.003	0.007	0.003	0.003	0.040	0.009	0.054	0.060	0.063	0.064	0.042	0.049	0.060	0.039	0.036	0.045
17:00	0.004	0.004	0.008	0.004	0.004	0.036	0.007	0.054	0.060	0.063	0.060	0.042	0.050	0.060	0.038	0.036	0.045
17:15	0.011	0.037	0.073	0.085	0.094	0.067	0.097	0.042	0.039	0.036	0.041	0.046	0.048	0.039	0.044	0.042	0.048
17:30	0.088	0.048	0.024	0.027	0.011	0.021	0.009	0.042	0.039	0.034	0.034	0.053	0.047	0.038	0.073	0.054	0.048
17:45	0.010	0.021	0.018	0.009	0.009	0.021	0.009	0.042	0.039	0.035	0.034	0.048	0.047	0.039	0.031	0.039	0.048

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
18:00	0.009	0.021	0.019	0.008	0.009	0.021	0.009	0.042	0.039	0.034	0.034	0.046	0.048	0.039	0.030	0.038	0.048
18:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.006	0.006	0.003	0.003	0.003	0.003	0.003	0.009	0.006	0.003
18:30	0.003	0.003	0.001	0.001	0.001	0.001	0.001	0.008	0.006	0.003	0.003	0.004	0.003	0.003	0.006	0.006	0.003
18:45	0.042	0.041	0.005	0.011	0.006	0.002	0.002	0.006	0.006	0.003	0.003	0.005	0.003	0.003	0.006	0.005	0.003
19:00	0.091	0.081	0.059	0.059	0.043	0.045	0.038	0.029	0.033	0.046	0.046	0.034	0.041	0.041	0.015	0.020	0.040
19:15	0.034	0.025	0.014	0.016	0.008	0.003	0.003	0.014	0.009	0.005	0.006	0.034	0.026	0.008	0.038	0.047	0.035
19:30	0.020	0.015	0.003	0.004	0.004	0.003	0.001	0.012	0.009	0.004	0.007	0.038	0.024	0.008	0.096	0.095	0.041
19:45	0.009	0.006	0.003	0.003	0.002	0.003	0.001	0.012	0.009	0.003	0.005	0.020	0.018	0.007	0.036	0.033	0.022
20:00	0.006	0.006	0.003	0.003	0.003	0.003	0.003	0.013	0.009	0.003	0.006	0.019	0.018	0.008	0.015	0.019	0.021
20:15	0.003	0.003	0.001	0.003	0.005	0.001	0.003	0.003	0.001	0.001	0.001	0.003	0.001	0.001	0.004	0.006	0.003
20:30	0.001	0.003	0.000	0.003	0.006	0.000	0.003	0.003	0.002	0.000	0.000	0.003	0.000	0.002	0.003	0.006	0.003
20:45	0.003	0.003	0.002	0.003	0.004	0.002	0.003	0.003	0.002	0.002	0.002	0.003	0.002	0.002	0.004	0.006	0.003
21:00	0.003	0.006	0.022	0.015	0.019	0.035	0.031	0.016	0.023	0.034	0.034	0.008	0.016	0.028	0.006	0.007	0.016
21:15	0.009	0.018	0.024	0.020	0.021	0.032	0.022	0.041	0.046	0.037	0.029	0.021	0.022	0.034	0.015	0.016	0.017
21:30	0.010	0.019	0.018	0.021	0.023	0.024	0.023	0.015	0.018	0.027	0.025	0.009	0.015	0.021	0.010	0.009	0.012
21:45	0.009	0.018	0.018	0.019	0.021	0.024	0.023	0.015	0.018	0.026	0.027	0.009	0.015	0.021	0.009	0.009	0.012
22:00	0.009	0.018	0.021	0.021	0.023	0.027	0.024	0.015	0.018	0.025	0.027	0.010	0.016	0.023	0.009	0.010	0.016
22:15	0.028	0.018	0.015	0.017	0.010	0.014	0.009	0.030	0.033	0.032	0.038	0.035	0.043	0.043	0.031	0.040	0.053
22:30	0.027	0.018	0.012	0.013	0.009	0.016	0.009	0.056	0.059	0.047	0.050	0.064	0.069	0.064	0.066	0.067	0.067
22:45	0.028	0.023	0.034	0.020	0.022	0.065	0.034	0.070	0.074	0.079	0.075	0.063	0.063	0.071	0.066	0.067	0.059
23:00	0.121	0.102	0.079	0.090	0.070	0.062	0.059	0.040	0.040	0.049	0.051	0.041	0.038	0.041	0.052	0.051	0.042
23:15	0.030	0.030	0.014	0.021	0.030	0.026	0.031	0.034	0.037	0.048	0.063	0.050	0.061	0.056	0.057	0.058	0.063
23:30	0.021	0.027	0.045	0.045	0.047	0.066	0.052	0.066	0.071	0.076	0.079	0.057	0.063	0.074	0.055	0.056	0.062
23:45	0.054	0.057	0.061	0.059	0.058	0.073	0.056	0.067	0.075	0.081	0.079	0.056	0.061	0.075	0.052	0.053	0.060
0:00	0.056	0.055	0.063	0.058	0.055	0.063	0.050	0.032	0.035	0.044	0.038	0.022	0.017	0.030	0.028	0.024	0.016
0:15	0.059	0.055	0.052	0.053	0.044	0.041	0.039	0.023	0.026	0.028	0.028	0.024	0.023	0.026	0.025	0.028	0.024
0:30	0.047	0.043	0.026	0.029	0.026	0.023	0.024	0.021	0.023	0.024	0.025	0.024	0.024	0.024	0.025	0.028	0.025
0:45	0.015	0.013	0.012	0.009	0.009	0.018	0.012	0.021	0.022	0.024	0.024	0.024	0.024	0.024	0.024	0.027	0.024
1:00	0.009	0.010	0.012	0.010	0.011	0.018	0.012	0.021	0.023	0.024	0.024	0.024	0.024	0.024	0.024	0.027	0.027
1:15	0.009	0.009	0.012	0.009	0.003	0.009	0.000	0.030	0.024	0.015	0.018	0.028	0.033	0.024	0.018	0.023	0.022
1:30	0.009	0.009	0.012	0.009	0.003	0.009	0.000	0.030	0.024	0.015	0.018	0.046	0.041	0.024	0.068	0.069	0.051
1:45	0.009	0.009	0.012	0.009	0.003	0.009	0.001	0.030	0.024	0.015	0.018	0.051	0.043	0.024	0.085	0.079	0.055
2:00	0.009	0.009	0.012	0.009	0.003	0.009	0.003	0.034	0.024	0.015	0.018	0.071	0.048	0.024	0.112	0.109	0.061
2:15	0.030	0.027	0.018	0.018	0.018	0.018	0.012	0.022	0.021	0.021	0.033	0.074	0.057	0.032	0.201	0.182	0.119
2:30	0.030	0.027	0.018	0.020	0.018	0.026	0.013	0.125	0.108	0.100	0.130	0.184	0.189	0.144	0.176	0.178	0.189
2:45	0.030	0.027	0.059	0.028	0.042	0.173	0.094	0.211	0.212	0.223	0.220	0.206	0.200	0.208	0.204	0.210	0.198
3:00	0.178	0.182	0.287	0.251	0.224	0.277	0.209	0.271	0.269	0.270	0.255	0.250	0.247	0.255	0.221	0.219	0.228
3:15	0.352	0.321	0.369	0.360	0.349	0.420	0.362	0.349	0.397	0.451	0.438	0.238	0.281	0.398	0.186	0.185	0.245
3:30	0.569	0.488	0.559	0.571	0.525	0.554	0.518	0.443	0.504	0.535	0.516	0.275	0.339	0.492	0.192	0.185	0.261
3:45	0.502	0.450	0.562	0.541	0.481	0.573	0.478	0.487	0.572	0.637	0.596	0.280	0.364	0.577	0.181	0.172	0.280
4:00	0.592	0.482	0.536	0.561	0.504	0.584	0.511	0.431	0.508	0.623	0.608	0.241	0.320	0.532	0.121	0.118	0.236
4:15	0.554	0.394	0.763	0.697	0.582	0.861	0.620	0.649	0.785	0.981	0.907	0.297	0.425	0.809	0.093	0.103	0.280
4:30	0.259	0.320	0.300	0.300	0.333	0.320	0.305	0.457	0.475	0.383	0.377	0.375	0.451	0.470	0.231	0.235	0.422
4:45	0.117	0.189	0.119	0.151	0.239	0.154	0.254	0.093	0.090	0.095	0.120	0.126	0.127	0.096	0.151	0.151	0.159
5:00	0.168	0.199	0.260	0.231	0.226	0.182	0.213	0.091	0.092	0.080	0.057	0.044	0.028	0.052	0.047	0.039	0.012

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
5:15	0.425	0.371	0.318	0.312	0.297	0.374	0.309	0.213	0.244	0.258	0.204	0.064	0.078	0.184	0.018	0.025	0.056
5:30	0.364	0.299	0.242	0.289	0.251	0.093	0.192	0.064	0.081	0.099	0.108	0.042	0.078	0.108	0.012	0.021	0.057
5:45	0.157	0.094	0.147	0.160	0.120	0.121	0.142	0.068	0.089	0.118	0.139	0.043	0.078	0.113	0.012	0.021	0.057
6:00	0.013	0.007	0.007	0.006	0.005	0.022	0.006	0.065	0.080	0.096	0.105	0.043	0.078	0.105	0.012	0.024	0.057
6:15	0.003	0.006	0.012	0.010	0.011	0.012	0.012	0.024	0.019	0.013	0.015	0.030	0.034	0.018	0.006	0.012	0.033
6:30	0.003	0.006	0.012	0.009	0.009	0.012	0.010	0.024	0.020	0.014	0.015	0.030	0.033	0.018	0.007	0.012	0.033
6:45	0.003	0.006	0.012	0.009	0.010	0.012	0.010	0.024	0.020	0.014	0.015	0.048	0.033	0.018	0.088	0.114	0.047
7:00	0.003	0.006	0.012	0.009	0.009	0.012	0.010	0.026	0.021	0.015	0.015	0.037	0.034	0.018	0.052	0.042	0.037
7:15	0.013	0.015	0.015	0.017	0.015	0.018	0.015	0.031	0.027	0.024	0.024	0.038	0.034	0.027	0.037	0.039	0.036
7:30	0.013	0.017	0.015	0.018	0.016	0.018	0.015	0.030	0.027	0.022	0.024	0.038	0.034	0.027	0.034	0.038	0.036
7:45	0.014	0.021	0.035	0.040	0.038	0.028	0.038	0.032	0.029	0.023	0.025	0.039	0.036	0.027	0.024	0.033	0.036
8:00	0.012	0.015	0.036	0.023	0.016	0.029	0.017	0.032	0.030	0.026	0.025	0.038	0.034	0.028	0.024	0.032	0.036
8:15	0.006	0.009	0.014	0.012	0.011	0.012	0.011	0.018	0.018	0.015	0.015	0.023	0.021	0.018	0.024	0.024	0.023
8:30	0.006	0.009	0.012	0.012	0.011	0.012	0.009	0.018	0.016	0.015	0.015	0.024	0.021	0.016	0.024	0.024	0.024
8:45	0.006	0.007	0.012	0.012	0.011	0.012	0.009	0.018	0.016	0.015	0.015	0.022	0.021	0.017	0.024	0.024	0.022
9:00	0.006	0.006	0.014	0.012	0.009	0.012	0.009	0.018	0.015	0.015	0.015	0.023	0.021	0.017	0.024	0.025	0.022
9:15	0.006	0.004	0.006	0.005	0.000	0.001	0.000	0.012	0.006	0.003	0.004	0.024	0.018	0.006	0.030	0.030	0.024
9:30	0.006	0.003	0.004	0.005	0.000	0.003	0.000	0.012	0.006	0.003	0.006	0.024	0.018	0.006	0.030	0.030	0.024
9:45	0.006	0.003	0.006	0.004	0.000	0.003	0.000	0.012	0.006	0.003	0.006	0.024	0.018	0.006	0.030	0.030	0.024
10:00	0.006	0.005	0.005	0.005	0.002	0.003	0.000	0.012	0.006	0.003	0.004	0.024	0.018	0.006	0.030	0.030	0.024
10:15	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.001	0.003	0.003	0.001
10:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.003	0.000
10:45	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.003	0.000
11:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.002	0.001	0.002	0.005	0.006	0.003	0.003	0.003	0.006
11:15	0.010	0.013	0.014	0.015	0.015	0.019	0.018	0.016	0.021	0.021	0.015	0.007	0.010	0.019	0.003	0.003	0.005
11:30	0.004	0.003	0.004	0.003	0.003	0.003	0.003	0.004	0.003	0.003	0.003	0.002	0.003	0.003	0.001	0.001	0.001
11:45	0.004	0.005	0.004	0.003	0.003	0.005	0.004	0.003	0.003	0.003	0.004	0.000	0.002	0.003	0.000	0.002	0.001
12:00	0.005	0.008	0.018	0.013	0.014	0.013	0.015	0.003	0.003	0.005	0.008	0.000	0.001	0.003	0.000	0.003	0.003
12:15	0.006	0.006	0.003	0.003	0.000	0.003	0.000	0.003	0.004	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003
12:30	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.004	0.004	0.004	0.005	0.003	0.003	0.004	0.003	0.003	0.003
12:45	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
13:00	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.003	0.003	0.004	0.004	0.003	0.003	0.004	0.003	0.003	0.003
13:15	0.006	0.006	0.006	0.006	0.007	0.009	0.007	0.006	0.006	0.007	0.006	0.003	0.003	0.006	0.001	0.003	0.003
13:30	0.020	0.025	0.012	0.020	0.032	0.017	0.036	0.006	0.006	0.010	0.015	0.003	0.003	0.007	0.000	0.003	0.003
13:45	0.039	0.032	0.056	0.063	0.054	0.060	0.050	0.036	0.048	0.065	0.054	0.010	0.019	0.051	0.003	0.003	0.009
14:00	0.015	0.019	0.018	0.017	0.020	0.027	0.023	0.031	0.040	0.047	0.050	0.021	0.034	0.051	0.010	0.014	0.026
14:15	0.024	0.033	0.039	0.036	0.045	0.073	0.047	0.075	0.083	0.101	0.113	0.065	0.073	0.093	0.069	0.067	0.072
14:30	0.045	0.054	0.060	0.056	0.055	0.078	0.049	0.082	0.087	0.091	0.083	0.066	0.071	0.084	0.067	0.065	0.068
14:45	0.036	0.034	0.052	0.045	0.037	0.027	0.027	0.013	0.012	0.011	0.010	0.021	0.011	0.009	0.052	0.045	0.024
15:00	0.029	0.032	0.042	0.038	0.037	0.056	0.036	0.065	0.068	0.084	0.101	0.085	0.101	0.094	0.084	0.087	0.108
15:15	0.064	0.082	0.114	0.103	0.117	0.144	0.129	0.153	0.160	0.159	0.154	0.118	0.135	0.158	0.083	0.084	0.120
15:30	0.073	0.097	0.139	0.126	0.141	0.166	0.155	0.146	0.153	0.165	0.163	0.114	0.128	0.155	0.083	0.083	0.117
15:45	0.109	0.147	0.202	0.189	0.201	0.212	0.205	0.172	0.181	0.185	0.167	0.106	0.113	0.159	0.061	0.059	0.087
16:00	0.064	0.093	0.118	0.111	0.130	0.128	0.136	0.085	0.089	0.107	0.095	0.045	0.041	0.076	0.030	0.021	0.012
16:15	0.088	0.108	0.118	0.120	0.140	0.127	0.141	0.107	0.114	0.129	0.145	0.114	0.132	0.137	0.112	0.114	0.150

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
16:30	0.094	0.110	0.130	0.127	0.138	0.143	0.142	0.131	0.138	0.143	0.133	0.106	0.115	0.128	0.065	0.058	0.084
16:45	0.055	0.054	0.103	0.098	0.088	0.094	0.091	0.083	0.079	0.076	0.060	0.073	0.055	0.061	0.086	0.070	0.050
17:00	0.011	0.019	0.043	0.023	0.035	0.076	0.056	0.065	0.064	0.070	0.054	0.038	0.025	0.046	0.035	0.025	0.022
17:15	0.062	0.092	0.127	0.119	0.133	0.145	0.137	0.097	0.101	0.113	0.101	0.047	0.037	0.075	0.033	0.028	0.027
17:30	0.076	0.102	0.115	0.117	0.138	0.139	0.139	0.041	0.052	0.091	0.092	0.019	0.021	0.052	0.018	0.018	0.024
17:45	0.111	0.152	0.192	0.198	0.224	0.210	0.223	0.094	0.122	0.172	0.174	0.049	0.071	0.135	0.050	0.047	0.064
18:00	0.072	0.088	0.175	0.139	0.145	0.229	0.168	0.243	0.283	0.302	0.307	0.159	0.226	0.312	0.072	0.080	0.182
18:15	0.051	0.048	0.109	0.075	0.061	0.113	0.058	0.140	0.136	0.129	0.124	0.130	0.139	0.133	0.091	0.091	0.133
18:30	0.009	0.012	0.016	0.012	0.012	0.018	0.012	0.058	0.048	0.035	0.042	0.077	0.070	0.049	0.096	0.099	0.081
18:45	0.009	0.012	0.015	0.012	0.013	0.033	0.015	0.091	0.085	0.068	0.069	0.095	0.099	0.084	0.082	0.082	0.092
19:00	0.009	0.012	0.012	0.012	0.012	0.014	0.011	0.018	0.013	0.012	0.015	0.024	0.020	0.013	0.032	0.032	0.018
19:15	0.001	0.003	0.006	0.006	0.006	0.010	0.006	0.008	0.009	0.012	0.012	0.003	0.006	0.010	0.003	0.003	0.005
19:30	0.003	0.003	0.006	0.006	0.007	0.012	0.008	0.008	0.009	0.012	0.014	0.006	0.006	0.009	0.009	0.010	0.006
19:45	0.002	0.005	0.012	0.010	0.010	0.022	0.012	0.024	0.032	0.037	0.041	0.018	0.027	0.038	0.018	0.021	0.029
20:00	0.000	0.003	0.006	0.006	0.006	0.009	0.006	0.009	0.010	0.012	0.012	0.012	0.010	0.011	0.020	0.023	0.017
20:15	0.000	0.003	0.006	0.003	0.003	0.012	0.000	0.012	0.015	0.016	0.015	0.009	0.009	0.015	0.011	0.013	0.009
20:30	0.000	0.003	0.006	0.003	0.003	0.014	0.001	0.013	0.016	0.026	0.036	0.015	0.022	0.026	0.010	0.015	0.027
20:45	0.000	0.003	0.006	0.003	0.003	0.012	0.000	0.013	0.015	0.016	0.016	0.013	0.012	0.016	0.017	0.026	0.017
21:00	0.000	0.003	0.006	0.003	0.003	0.012	0.001	0.012	0.015	0.015	0.015	0.013	0.009	0.015	0.034	0.042	0.016
21:15	0.006	0.012	0.015	0.015	0.015	0.017	0.012	0.018	0.023	0.034	0.057	0.042	0.060	0.052	0.069	0.075	0.091
21:30	0.006	0.013	0.026	0.018	0.025	0.072	0.038	0.105	0.123	0.143	0.149	0.099	0.122	0.145	0.090	0.096	0.119
21:45	0.020	0.052	0.104	0.076	0.103	0.166	0.110	0.188	0.204	0.209	0.207	0.150	0.170	0.205	0.125	0.131	0.154
22:00	0.034	0.053	0.140	0.113	0.103	0.199	0.115	0.185	0.208	0.234	0.213	0.130	0.147	0.203	0.120	0.121	0.130
22:15	0.042	0.062	0.128	0.101	0.107	0.161	0.127	0.158	0.166	0.179	0.182	0.168	0.173	0.176	0.189	0.189	0.189
22:30	0.068	0.094	0.117	0.112	0.131	0.174	0.145	0.186	0.194	0.214	0.214	0.197	0.199	0.206	0.221	0.210	0.202
22:45	0.096	0.135	0.184	0.164	0.186	0.244	0.207	0.219	0.229	0.247	0.238	0.202	0.199	0.223	0.222	0.201	0.185
23:00	0.139	0.156	0.186	0.179	0.196	0.223	0.204	0.178	0.188	0.213	0.217	0.170	0.172	0.193	0.183	0.175	0.178
23:15	0.092	0.120	0.166	0.145	0.157	0.194	0.160	0.222	0.205	0.194	0.188	0.227	0.208	0.190	0.223	0.206	0.195
23:30	0.085	0.095	0.123	0.112	0.114	0.152	0.118	0.205	0.192	0.184	0.188	0.234	0.223	0.195	0.245	0.229	0.226
23:45	0.094	0.098	0.124	0.109	0.109	0.149	0.111	0.206	0.198	0.193	0.205	0.255	0.251	0.212	0.279	0.276	0.272
0:00	0.089	0.099	0.137	0.124	0.127	0.150	0.129	0.174	0.167	0.162	0.171	0.193	0.195	0.173	0.191	0.191	0.203
0:15	0.073	0.071	0.070	0.067	0.068	0.087	0.067	0.094	0.095	0.101	0.104	0.102	0.102	0.101	0.110	0.108	0.108
0:30	0.033	0.038	0.052	0.051	0.053	0.067	0.053	0.079	0.080	0.083	0.090	0.089	0.093	0.088	0.093	0.090	0.098
0:45	0.065	0.056	0.081	0.071	0.059	0.097	0.064	0.108	0.109	0.110	0.106	0.112	0.108	0.108	0.121	0.117	0.113
1:00	0.075	0.069	0.083	0.079	0.071	0.087	0.067	0.103	0.101	0.093	0.091	0.100	0.100	0.095	0.095	0.091	0.095
1:15	0.104	0.096	0.098	0.099	0.096	0.114	0.096	0.104	0.114	0.131	0.136	0.088	0.104	0.125	0.073	0.082	0.102
1:30	0.126	0.124	0.137	0.135	0.134	0.160	0.141	0.130	0.143	0.165	0.162	0.101	0.115	0.147	0.098	0.100	0.110
1:45	0.160	0.149	0.137	0.141	0.132	0.139	0.123	0.122	0.129	0.138	0.134	0.097	0.105	0.127	0.087	0.087	0.094
2:00	0.129	0.117	0.125	0.123	0.114	0.136	0.115	0.114	0.126	0.141	0.134	0.083	0.095	0.126	0.074	0.077	0.086
2:15	0.203	0.168	0.150	0.157	0.135	0.141	0.132	0.139	0.142	0.145	0.144	0.124	0.133	0.145	0.105	0.109	0.129
2:30	0.167	0.137	0.122	0.126	0.108	0.117	0.106	0.110	0.115	0.123	0.124	0.095	0.099	0.116	0.092	0.091	0.097
2:45	0.146	0.127	0.115	0.118	0.109	0.118	0.110	0.115	0.119	0.119	0.113	0.088	0.098	0.110	0.051	0.049	0.068
3:00	0.140	0.121	0.104	0.108	0.096	0.082	0.090	0.059	0.063	0.064	0.052	0.030	0.028	0.051	0.018	0.019	0.022
3:15	0.091	0.077	0.048	0.064	0.053	0.031	0.044	0.020	0.023	0.023	0.024	0.010	0.015	0.024	0.003	0.003	0.012
3:30	0.065	0.063	0.065	0.056	0.059	0.078	0.068	0.057	0.064	0.078	0.069	0.020	0.026	0.061	0.004	0.004	0.015

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
3:45	0.087	0.078	0.085	0.082	0.073	0.078	0.073	0.071	0.077	0.077	0.074	0.036	0.049	0.072	0.008	0.010	0.031
4:00	0.018	0.016	0.019	0.018	0.017	0.018	0.018	0.018	0.019	0.021	0.021	0.009	0.012	0.021	0.003	0.003	0.012
4:15	0.027	0.030	0.010	0.019	0.022	0.009	0.019	0.006	0.006	0.006	0.006	0.003	0.003	0.006	0.000	0.000	0.003
4:30	0.022	0.019	0.009	0.015	0.011	0.007	0.007	0.006	0.006	0.006	0.006	0.003	0.003	0.006	0.000	0.000	0.003
4:45	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.007	0.003	0.003	0.006	0.000	0.000	0.003
5:00	0.022	0.027	0.041	0.035	0.041	0.051	0.047	0.033	0.039	0.049	0.046	0.015	0.020	0.039	0.003	0.004	0.012
5:15	0.018	0.023	0.027	0.026	0.030	0.043	0.033	0.040	0.042	0.054	0.061	0.033	0.040	0.051	0.025	0.024	0.038
5:30	0.053	0.051	0.058	0.056	0.048	0.055	0.043	0.043	0.045	0.049	0.043	0.032	0.033	0.040	0.032	0.030	0.032
5:45	0.006	0.007	0.011	0.007	0.007	0.013	0.008	0.035	0.034	0.020	0.016	0.028	0.029	0.025	0.016	0.016	0.023
6:00	0.004	0.003	0.000	0.001	0.000	0.000	0.000	0.004	0.002	0.000	0.001	0.007	0.006	0.002	0.003	0.003	0.003
6:15	0.055	0.033	0.015	0.017	0.011	0.013	0.010	0.006	0.006	0.009	0.007	0.003	0.003	0.004	0.004	0.006	0.005
6:30	0.020	0.027	0.014	0.013	0.011	0.014	0.012	0.034	0.041	0.038	0.048	0.050	0.066	0.054	0.049	0.054	0.068
6:45	0.007	0.006	0.014	0.012	0.009	0.012	0.011	0.018	0.008	0.007	0.006	0.023	0.008	0.003	0.032	0.024	0.010
7:00	0.006	0.010	0.014	0.013	0.013	0.012	0.011	0.005	0.006	0.008	0.006	0.001	0.001	0.004	0.001	0.001	0.001
7:15	0.040	0.028	0.009	0.014	0.006	0.012	0.004	0.011	0.010	0.011	0.012	0.026	0.020	0.010	0.038	0.039	0.034
7:30	0.003	0.003	0.012	0.005	0.003	0.003	0.003	0.007	0.005	0.003	0.003	0.005	0.004	0.004	0.004	0.003	0.003
7:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
8:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
8:15	0.002	0.002	0.009	0.003	0.004	0.021	0.009	0.034	0.037	0.039	0.037	0.020	0.025	0.033	0.004	0.007	0.018
8:30	0.017	0.021	0.004	0.016	0.017	0.001	0.010	0.015	0.005	0.001	0.007	0.038	0.035	0.014	0.045	0.049	0.039
8:45	0.019	0.016	0.030	0.023	0.017	0.022	0.017	0.022	0.023	0.019	0.014	0.020	0.018	0.017	0.020	0.020	0.017
9:00	0.002	0.003	0.007	0.004	0.005	0.009	0.009	0.002	0.002	0.003	0.007	0.008	0.004	0.003	0.020	0.021	0.014
9:15	0.016	0.027	0.020	0.027	0.030	0.019	0.024	0.031	0.026	0.016	0.016	0.046	0.041	0.024	0.052	0.052	0.047
9:30	0.006	0.001	0.017	0.008	0.006	0.021	0.014	0.020	0.019	0.025	0.026	0.024	0.024	0.022	0.024	0.024	0.024
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:30	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10:45	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:15	0.003	0.003	0.003	0.003	0.001	0.003	0.001	0.003	0.003	0.004	0.003	0.001	0.003	0.003	0.001	0.001	0.003
11:30	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.003	0.003	0.004	0.004	0.000	0.001	0.003	0.000	0.000	0.000
11:45	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.003	0.003	0.003	0.003	0.000	0.002	0.003	0.000	0.000	0.000
12:00	0.003	0.003	0.003	0.003	0.000	0.003	0.001	0.003	0.003	0.003	0.004	0.000	0.002	0.003	0.000	0.000	0.001
12:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
13:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
14:00	0.011	0.009	0.001	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001
14:15	0.018	0.016	0.026	0.018	0.016	0.029	0.018	0.023	0.025	0.026	0.024	0.014	0.016	0.023	0.008	0.010	0.014
14:30	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.013	0.013	0.015	0.020	0.016	0.021	0.021	0.016	0.018	0.023
14:45	0.006	0.006	0.003	0.004	0.005	0.006	0.006	0.010	0.011	0.012	0.014	0.013	0.017	0.016	0.016	0.017	0.019

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
15:00	0.020	0.018	0.021	0.019	0.018	0.023	0.017	0.018	0.019	0.022	0.021	0.011	0.013	0.020	0.011	0.013	0.012
15:15	0.007	0.005	0.004	0.003	0.000	0.004	0.000	0.006	0.004	0.004	0.003	0.004	0.004	0.004	0.002	0.003	0.002
15:30	0.009	0.005	0.003	0.003	0.000	0.003	0.000	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.005	0.005
15:45	0.003	0.002	0.001	0.001	0.000	0.001	0.000	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.002	0.002
16:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.006	0.006	0.003	0.009	0.007	0.006
16:30	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000	0.006	0.006	0.003	0.009	0.007	0.006
16:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.006	0.006	0.002	0.009	0.007	0.006
17:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.006	0.006	0.003	0.009	0.006	0.006
17:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:15	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
21:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
21:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
22:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
22:15	0.009	0.007	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:30	0.017	0.013	0.003	0.006	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:45	0.035	0.026	0.006	0.011	0.006	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:00	0.039	0.034	0.006	0.012	0.008	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0:15	0.020	0.011	0.003	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
0:30	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
0:45	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
1:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
2:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:15	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
4:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
5:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:30	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
6:45	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
7:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:30	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
8:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:00	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
9:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

September 2013 Total 6- day Incremental Precipitation

	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
13:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:00	0.000	0.000	0.003	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:15	0.003	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:30	0.019	0.018	0.006	0.011	0.010	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18:45	0.006	0.003	0.002	0.003	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:00	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20:15	0.002	0.001	0.001	0.001	0.000	0.001	0.000	0.001	0.001	0.002	0.002	0.000	0.001	0.002	0.000	0.001	0.001
20:30	0.006	0.009	0.002	0.004	0.008	0.005	0.006	0.002	0.002	0.004	0.006	0.000	0.002	0.004	0.000	0.000	0.001
20:45	0.015	0.018	0.015	0.015	0.016	0.020	0.016	0.009	0.013	0.018	0.018	0.002	0.005	0.014	0.002	0.002	0.004
21:00	0.020	0.024	0.017	0.019	0.019	0.020	0.018	0.009	0.012	0.015	0.016	0.004	0.004	0.012	0.003	0.003	0.004
21:15	0.002	0.002	0.008	0.003	0.002	0.008	0.003	0.006	0.009	0.009	0.005	0.000	0.000	0.006	0.000	0.000	0.000
21:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
22:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
22:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
23:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
23:15	0.003	0.004	0.006	0.006	0.009	0.009	0.011	0.004	0.006	0.008	0.008	0.003	0.003	0.006	0.003	0.003	0.003
23:30	0.003	0.003	0.006	0.006	0.009	0.009	0.011	0.003	0.006	0.009	0.007	0.003	0.003	0.006	0.003	0.003	0.003
23:45	0.003	0.003	0.006	0.007	0.009	0.009	0.010	0.003	0.006	0.008	0.006	0.002	0.003	0.006	0.002	0.002	0.003
0:00	0.003	0.003	0.006	0.006	0.009	0.009	0.011	0.003	0.006	0.008	0.006	0.002	0.003	0.006	0.002	0.002	0.003
0:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
0:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003

September 2013 Total 6- day Incremental Precipitation

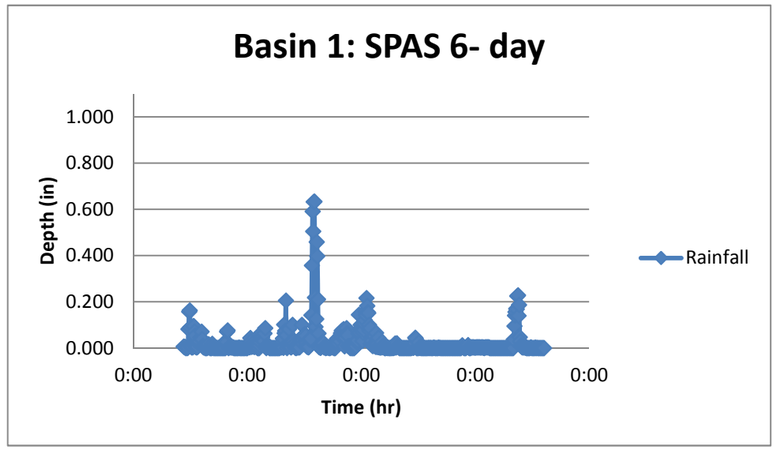
	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
0:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
1:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2:15	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
2:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
2:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.003
3:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
3:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.005	0.007	0.003
3:30	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.002	0.001	0.001
3:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000
4:00	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002
4:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
4:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
4:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:00	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
5:45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
6:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
7:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

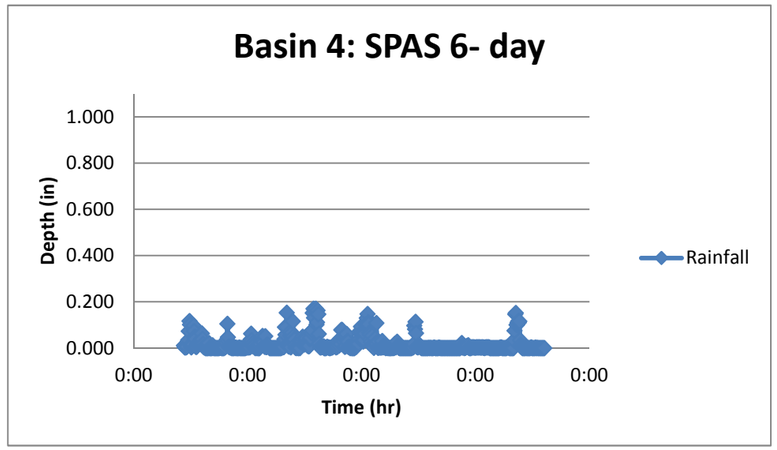
September 2013 Total 6- day Incremental Precipitation

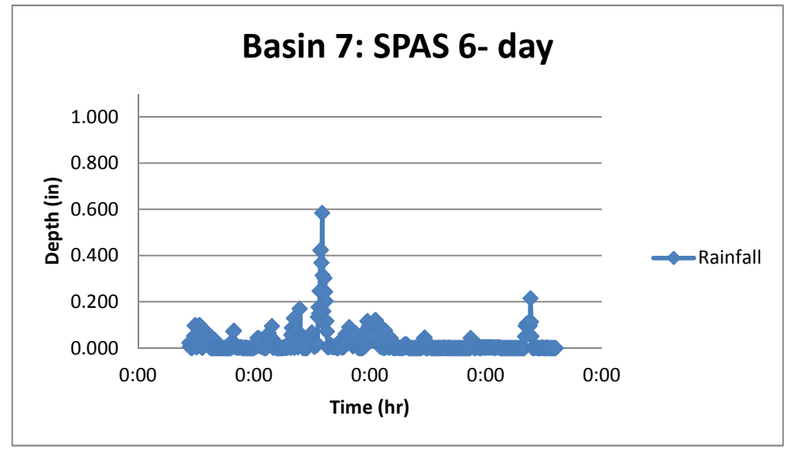
	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
14:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
15:15	0.000	0.000	0.003	0.000	0.000	0.001	0.000	0.006	0.006	0.003	0.003	0.009	0.009	0.006	0.003	0.009	0.013
15:30	0.000	0.000	0.003	0.001	0.000	0.002	0.000	0.006	0.006	0.003	0.003	0.009	0.009	0.006	0.004	0.008	0.012
15:45	0.000	0.000	0.003	0.000	0.000	0.003	0.000	0.006	0.006	0.003	0.003	0.011	0.009	0.006	0.030	0.033	0.014
16:00	0.000	0.000	0.003	0.000	0.000	0.003	0.000	0.007	0.006	0.003	0.003	0.015	0.011	0.006	0.019	0.021	0.016
16:15	0.033	0.030	0.034	0.027	0.024	0.031	0.027	0.056	0.047	0.032	0.036	0.066	0.054	0.037	0.070	0.069	0.059
16:30	0.082	0.068	0.066	0.066	0.060	0.053	0.056	0.057	0.053	0.044	0.046	0.064	0.057	0.048	0.073	0.066	0.060
16:45	0.125	0.105	0.072	0.078	0.066	0.068	0.058	0.097	0.090	0.075	0.070	0.107	0.101	0.082	0.103	0.100	0.088
17:00	0.146	0.114	0.093	0.102	0.070	0.085	0.066	0.098	0.096	0.102	0.101	0.105	0.110	0.106	0.096	0.103	0.115
17:15	0.152	0.136	0.157	0.155	0.147	0.168	0.153	0.128	0.145	0.166	0.151	0.087	0.098	0.143	0.084	0.080	0.088
17:30	0.151	0.145	0.153	0.161	0.168	0.171	0.179	0.124	0.138	0.160	0.156	0.098	0.108	0.138	0.090	0.090	0.100
17:45	0.200	0.179	0.190	0.200	0.191	0.195	0.192	0.146	0.164	0.185	0.176	0.111	0.124	0.165	0.097	0.098	0.114
18:00	0.209	0.196	0.188	0.198	0.194	0.196	0.192	0.165	0.185	0.203	0.195	0.128	0.145	0.187	0.111	0.110	0.131
18:15	0.142	0.129	0.094	0.099	0.094	0.104	0.087	0.092	0.103	0.107	0.095	0.064	0.072	0.098	0.047	0.048	0.056
18:30	0.174	0.139	0.126	0.140	0.118	0.122	0.110	0.083	0.093	0.117	0.120	0.059	0.067	0.098	0.054	0.054	0.063
18:45	0.040	0.033	0.041	0.040	0.032	0.049	0.037	0.036	0.039	0.053	0.057	0.037	0.040	0.045	0.040	0.042	0.044
19:00	0.026	0.018	0.015	0.020	0.012	0.012	0.011	0.011	0.010	0.011	0.014	0.024	0.020	0.013	0.046	0.046	0.034
19:15	0.009	0.007	0.009	0.006	0.003	0.003	0.000	0.023	0.013	0.004	0.007	0.047	0.034	0.012	0.065	0.063	0.044
19:30	0.005	0.002	0.007	0.003	0.001	0.003	0.001	0.026	0.017	0.005	0.008	0.037	0.035	0.015	0.029	0.031	0.034
19:45	0.003	0.002	0.003	0.003	0.000	0.000	0.000	0.006	0.003	0.000	0.003	0.011	0.009	0.003	0.018	0.018	0.014
20:00	0.003	0.001	0.003	0.003	0.000	0.000	0.000	0.006	0.003	0.000	0.003	0.006	0.006	0.003	0.006	0.006	0.006
20:15	0.012	0.018	0.024	0.027	0.027	0.030	0.030	0.018	0.024	0.030	0.027	0.006	0.012	0.024	0.000	0.000	0.006
20:30	0.012	0.018	0.024	0.027	0.027	0.030	0.030	0.018	0.024	0.030	0.027	0.006	0.012	0.024	0.000	0.000	0.006
20:45	0.012	0.018	0.024	0.027	0.029	0.030	0.030	0.018	0.024	0.030	0.027	0.006	0.012	0.024	0.000	0.000	0.006
21:00	0.012	0.018	0.024	0.027	0.027	0.030	0.030	0.018	0.024	0.030	0.027	0.006	0.012	0.024	0.000	0.000	0.006
21:15	0.003	0.003	0.003	0.003	0.001	0.003	0.001	0.005	0.005	0.004	0.006	0.006	0.007	0.006	0.009	0.007	0.009
21:30	0.003	0.003	0.003	0.003	0.000	0.003	0.000	0.006	0.005	0.004	0.006	0.006	0.006	0.006	0.009	0.008	0.008
21:45	0.003	0.003	0.002	0.000	0.000	0.003	0.000	0.005	0.004	0.006	0.006	0.006	0.006	0.006	0.009	0.007	0.009
22:00	0.003	0.003	0.002	0.000	0.000	0.003	0.000	0.005	0.004	0.005	0.006	0.007	0.006	0.006	0.009	0.007	0.009
22:15	0.003	0.006	0.010	0.009	0.009	0.011	0.010	0.012	0.012	0.011	0.010	0.012	0.012	0.011	0.011	0.012	0.012
22:30	0.003	0.006	0.010	0.009	0.009	0.010	0.010	0.012	0.010	0.010	0.010	0.012	0.012	0.010	0.010	0.009	0.012
22:45	0.003	0.006	0.009	0.009	0.009	0.009	0.009	0.012	0.012	0.009	0.009	0.012	0.012	0.010	0.012	0.012	0.012
23:00	0.003	0.006	0.009	0.009	0.009	0.010	0.009	0.012	0.012	0.010	0.009	0.012	0.012	0.012	0.012	0.012	0.012

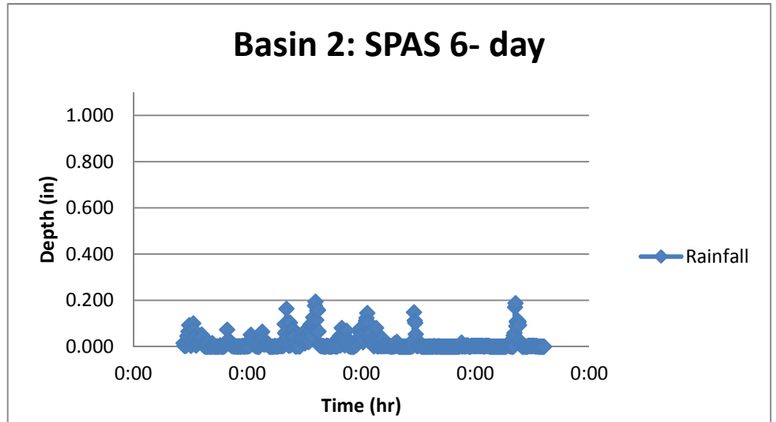
September 2013 Total 6- day Incremental Precipitation

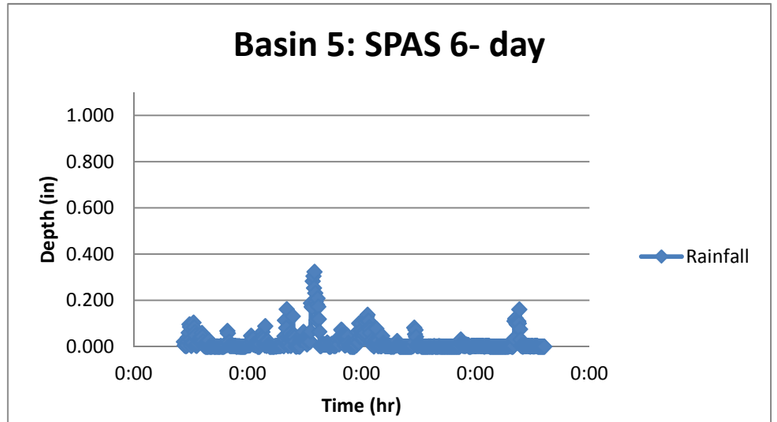
	Depth (in)																
Time	Basin 21	Basin 22	Basin 23	Basin 24	Basin 25	Basin 26	Basin 27	Basin 28	Basin 29	Basin 30	Basin 31	Basin 32	Basin 33	Basin 34	Basin 36	Basin 37	Basin 38
23:15	0.003	0.002	0.003	0.003	0.001	0.003	0.001	0.006	0.006	0.005	0.006	0.008	0.007	0.006	0.009	0.009	0.009
23:30	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.006	0.006	0.006	0.006	0.009	0.009	0.006	0.009	0.009	0.009
23:45	0.003	0.002	0.003	0.002	0.000	0.003	0.000	0.006	0.005	0.005	0.006	0.009	0.007	0.006	0.009	0.008	0.008
0:00	0.003	0.003	0.003	0.001	0.000	0.003	0.000	0.006	0.006	0.006	0.006	0.009	0.007	0.006	0.009	0.009	0.009
0:15	0.003	0.009	0.015	0.015	0.018	0.021	0.021	0.021	0.021	0.022	0.024	0.024	0.024	0.021	0.025	0.025	0.027
0:30	0.003	0.009	0.015	0.015	0.018	0.021	0.021	0.021	0.021	0.023	0.024	0.024	0.024	0.021	0.030	0.026	0.026
0:45	0.003	0.009	0.015	0.015	0.018	0.021	0.021	0.021	0.021	0.022	0.024	0.024	0.024	0.021	0.024	0.024	0.024
1:00	0.003	0.009	0.015	0.015	0.018	0.021	0.021	0.021	0.021	0.022	0.024	0.024	0.024	0.021	0.024	0.024	0.027
1:15	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.009	0.008	0.006	0.006	0.012	0.011	0.008	0.011	0.011	0.011
1:30	0.003	0.000	0.003	0.003	0.000	0.003	0.002	0.009	0.006	0.006	0.006	0.012	0.012	0.006	0.009	0.010	0.012
1:45	0.003	0.000	0.003	0.003	0.000	0.003	0.000	0.009	0.009	0.006	0.006	0.012	0.012	0.009	0.011	0.012	0.012
2:00	0.003	0.001	0.003	0.003	0.001	0.003	0.001	0.009	0.008	0.005	0.006	0.012	0.012	0.007	0.010	0.012	0.012
2:15	0.000	0.003	0.009	0.006	0.009	0.012	0.009	0.009	0.012	0.012	0.012	0.009	0.011	0.012	0.012	0.012	0.012
2:30	0.000	0.003	0.009	0.006	0.009	0.012	0.009	0.009	0.012	0.012	0.012	0.009	0.009	0.012	0.012	0.012	0.012
2:45	0.000	0.003	0.009	0.006	0.009	0.012	0.009	0.009	0.012	0.012	0.012	0.009	0.010	0.012	0.012	0.012	0.012
3:00	0.000	0.003	0.009	0.006	0.009	0.012	0.009	0.009	0.011	0.012	0.012	0.009	0.012	0.012	0.012	0.012	0.012
3:15	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.006	0.006	0.006	0.008	0.009	0.009	0.006	0.009	0.009	0.009
3:30	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.006	0.006	0.006	0.009	0.009	0.009	0.006	0.009	0.009	0.009
3:45	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.006	0.006	0.006	0.009	0.009	0.009	0.006	0.009	0.009	0.009
4:00	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.006	0.006	0.006	0.009	0.009	0.009	0.006	0.009	0.009	0.009
4:15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
4:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
4:45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000
5:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

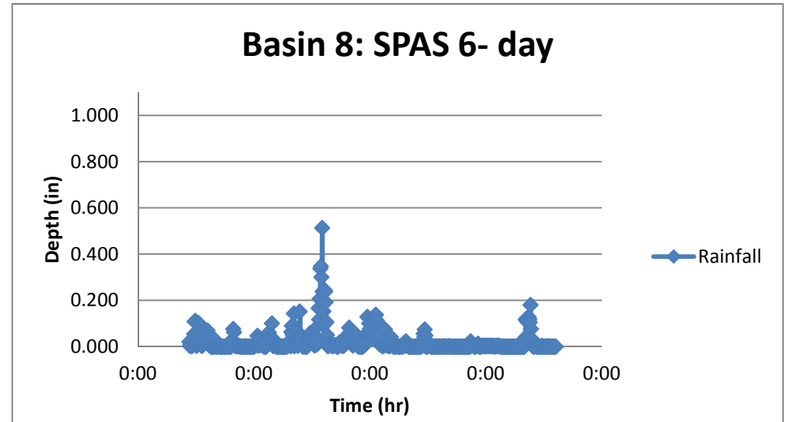

Basin 1: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

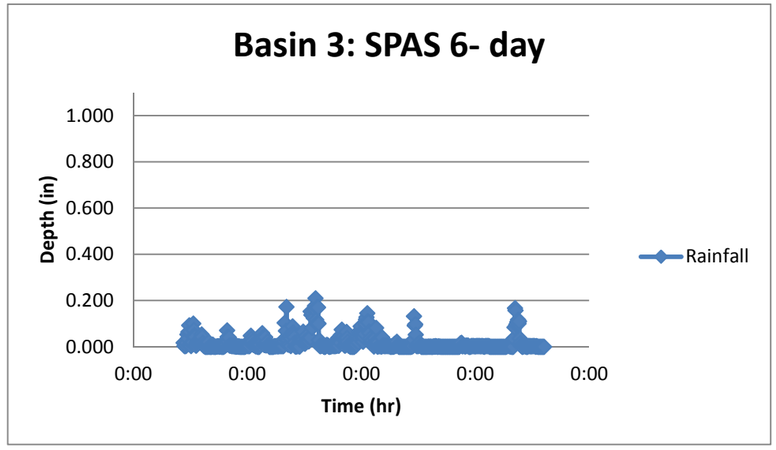

Basin 4: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

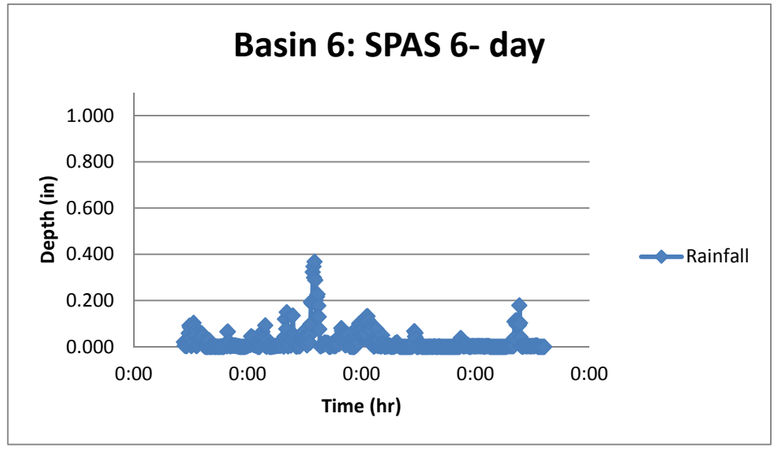

Basin 7: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

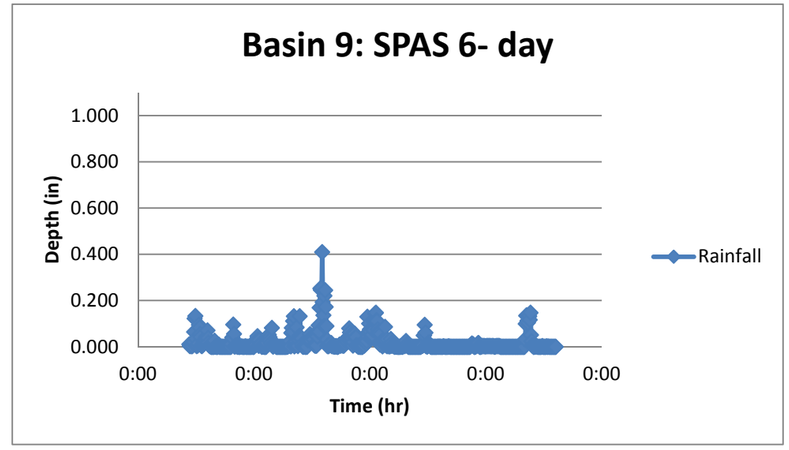

Basin 2: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

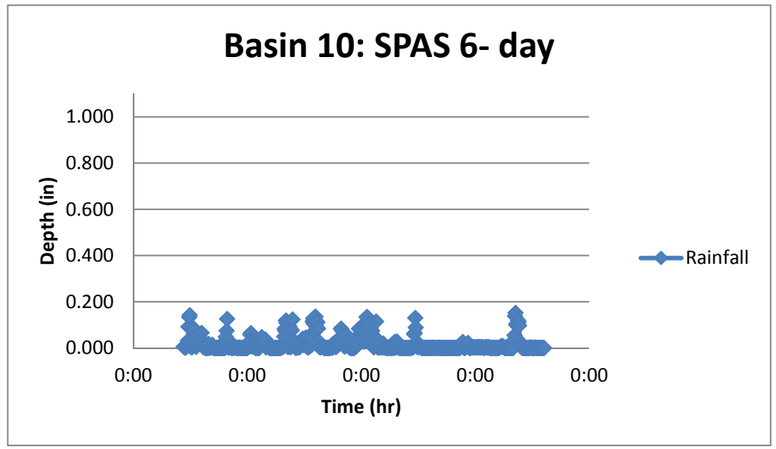

Basin 5: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

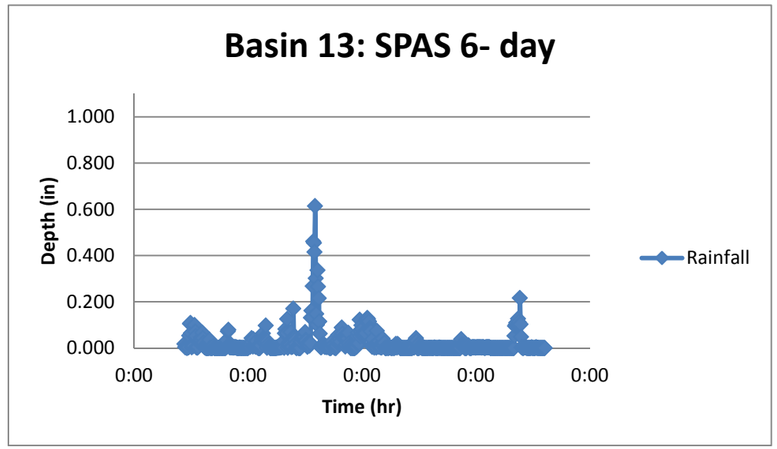

Basin 8: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

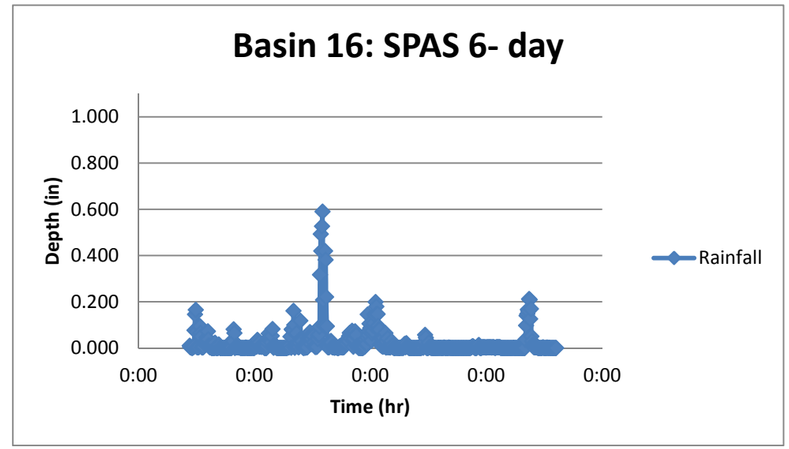

Basin 3: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

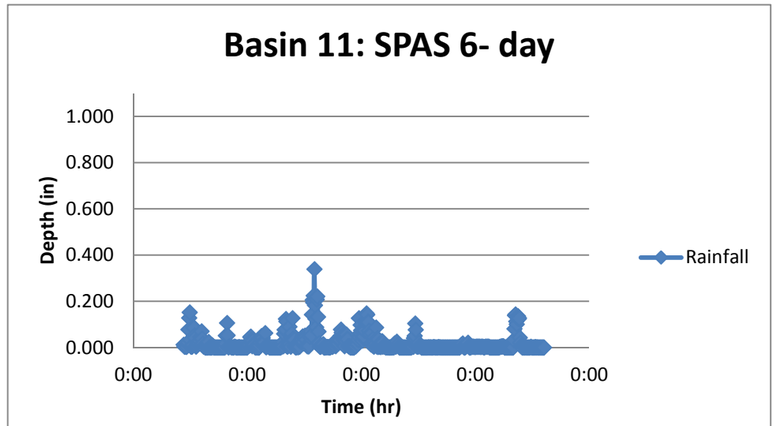

Basin 6: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

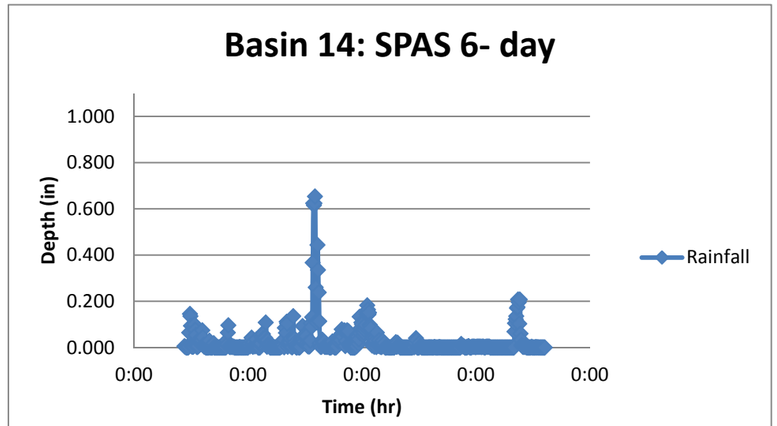

Basin 9: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

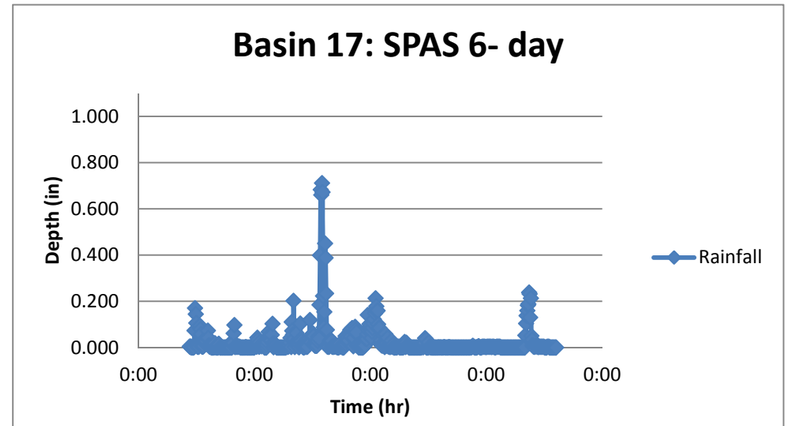

Basin 10: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

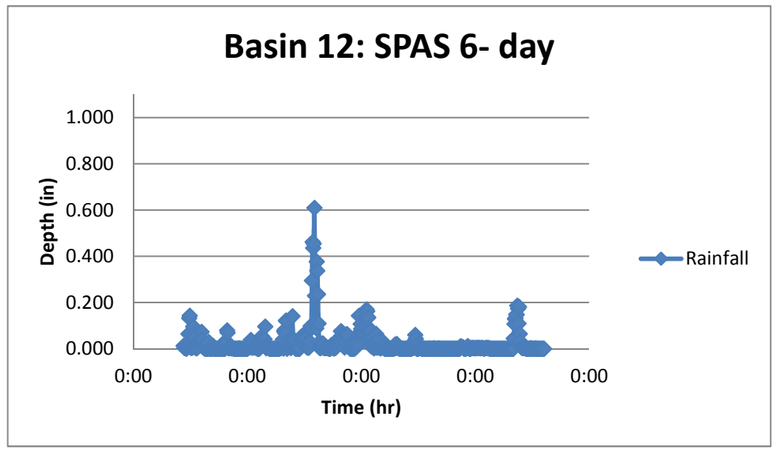

Basin 13: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

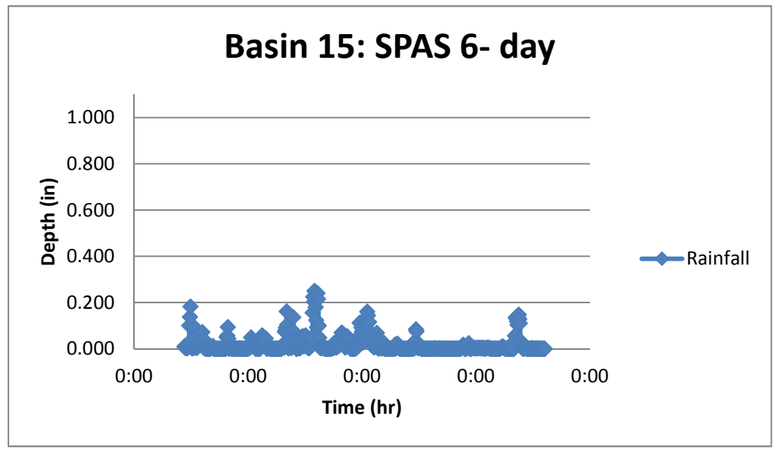

Basin 16: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

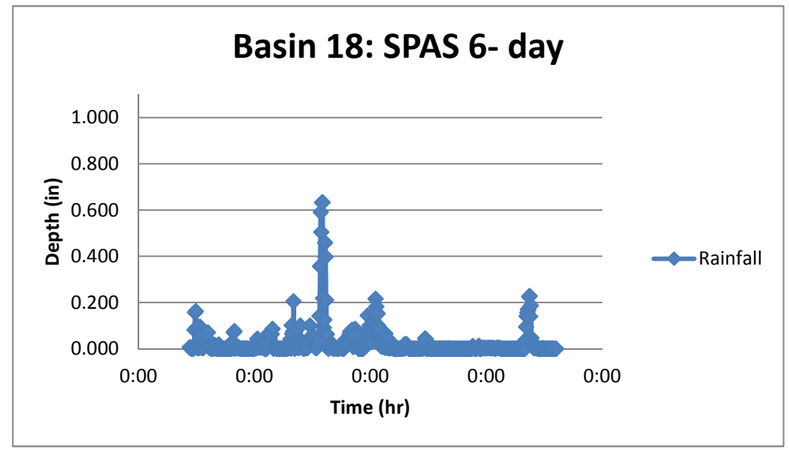

Basin 11: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

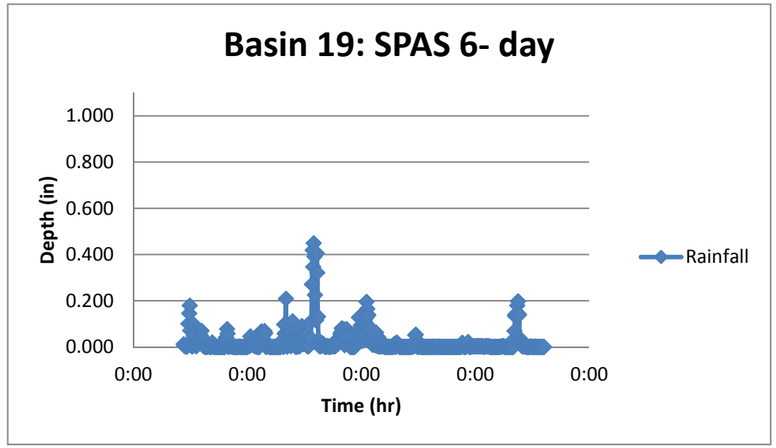

Basin 14: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

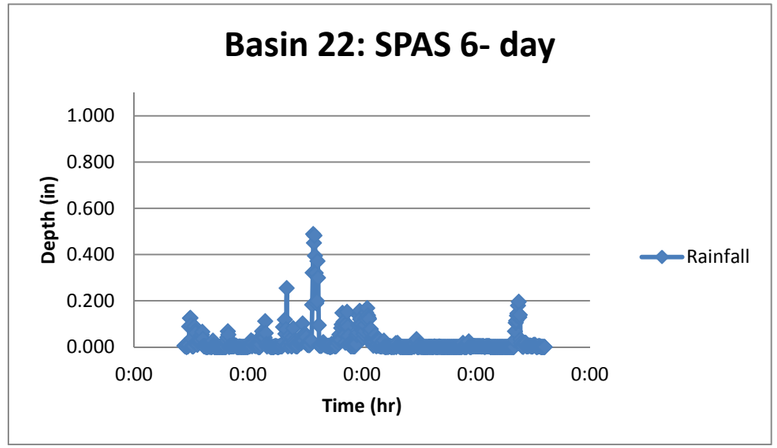

Basin 17: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

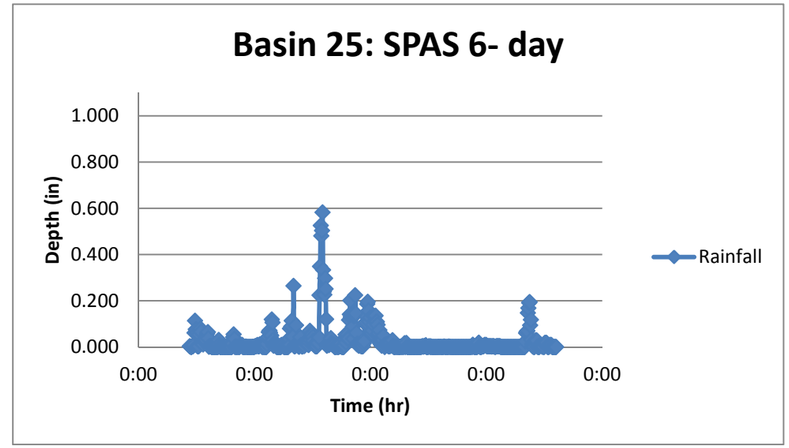

Basin 12: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

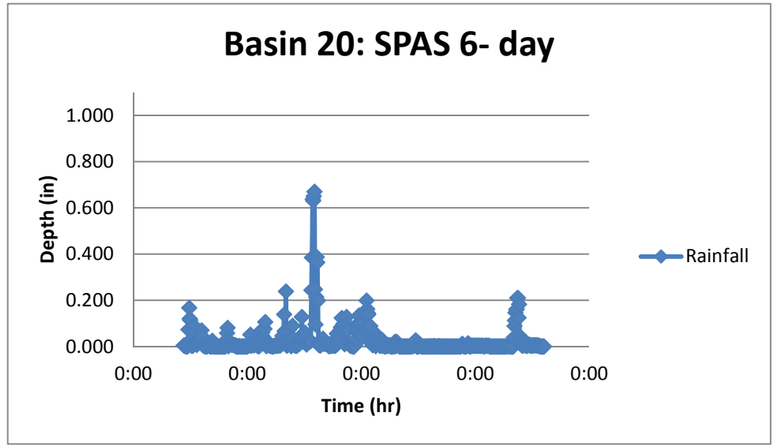

Basin 15: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

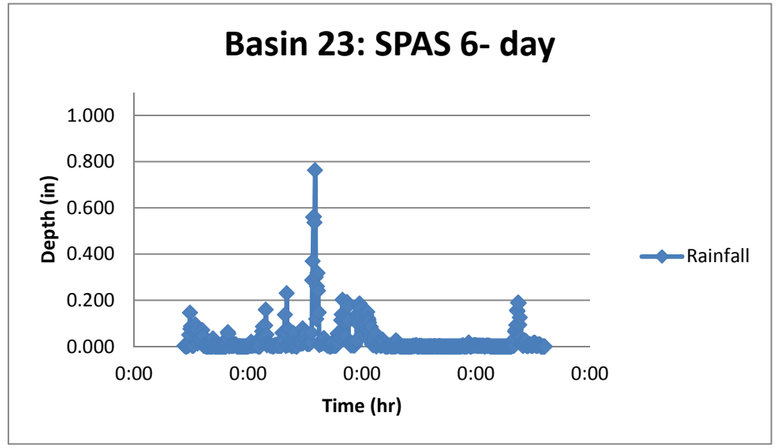

Basin 18: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

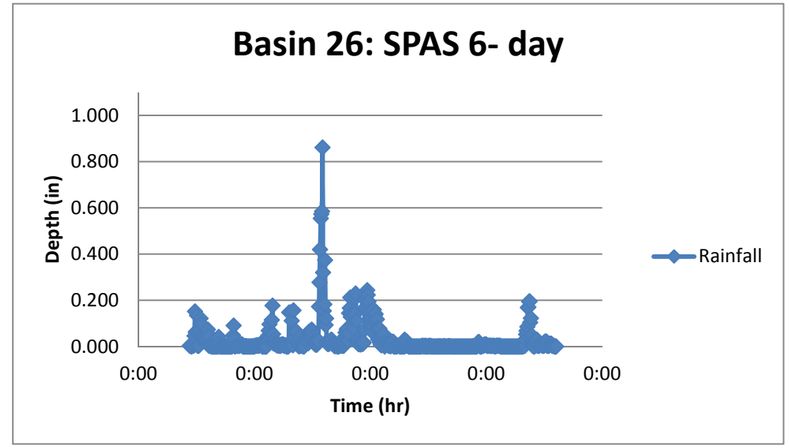

Basin 19: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

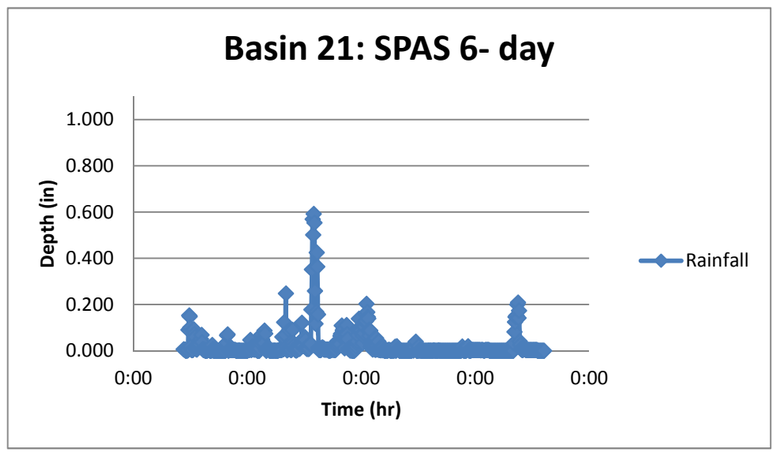

Basin 22: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

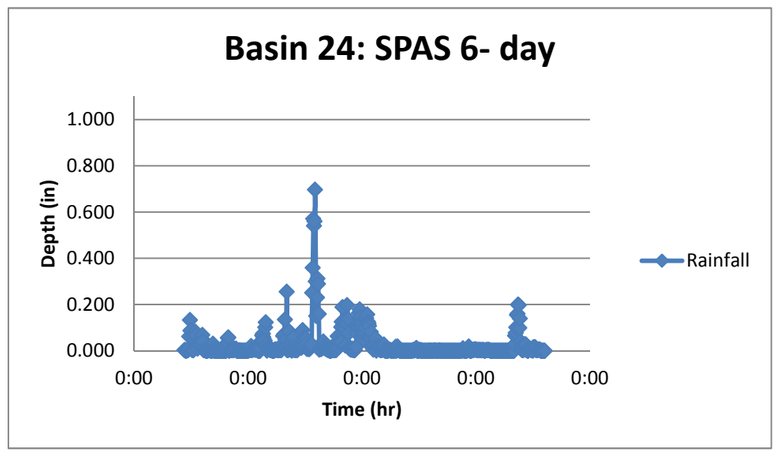

Basin 25: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

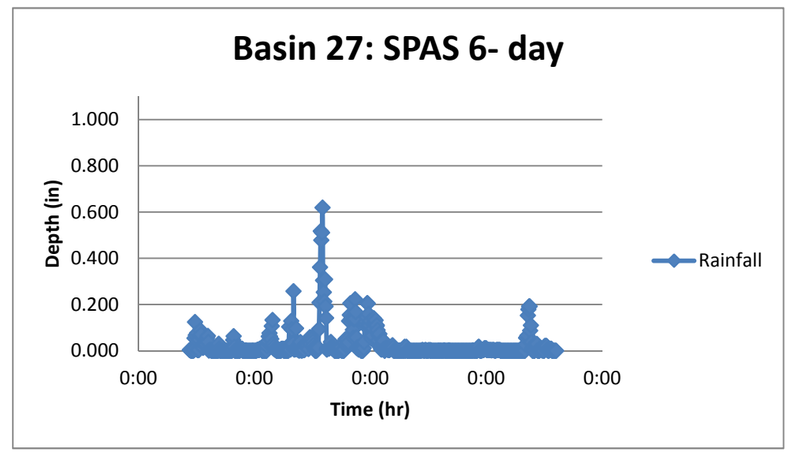

Basin 20: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

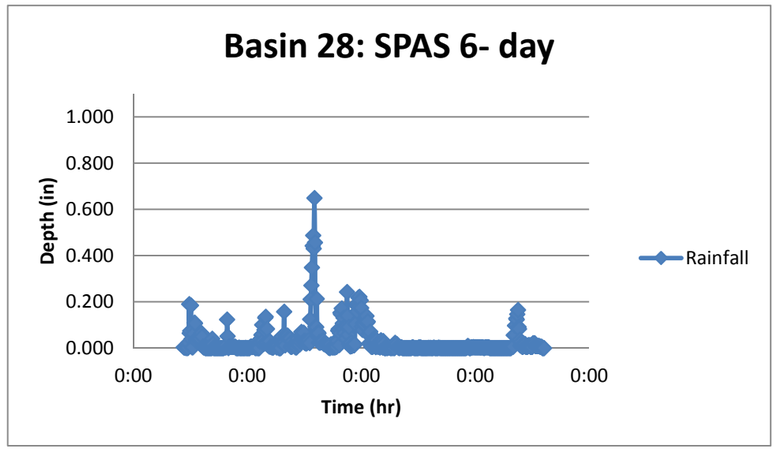

Basin 23: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

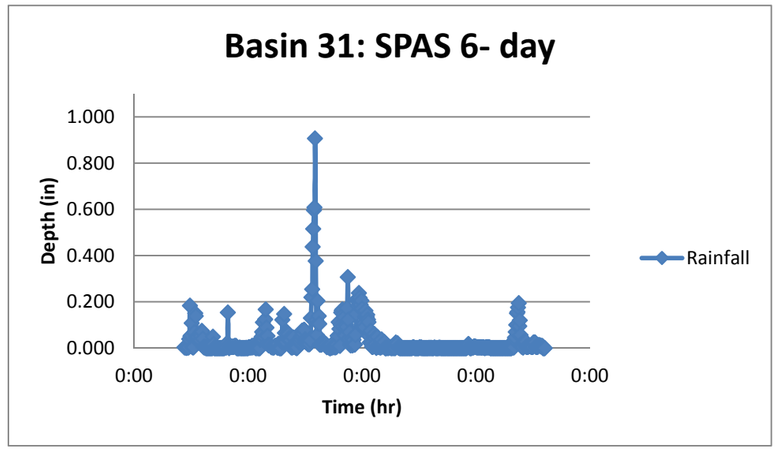

Basin 26: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

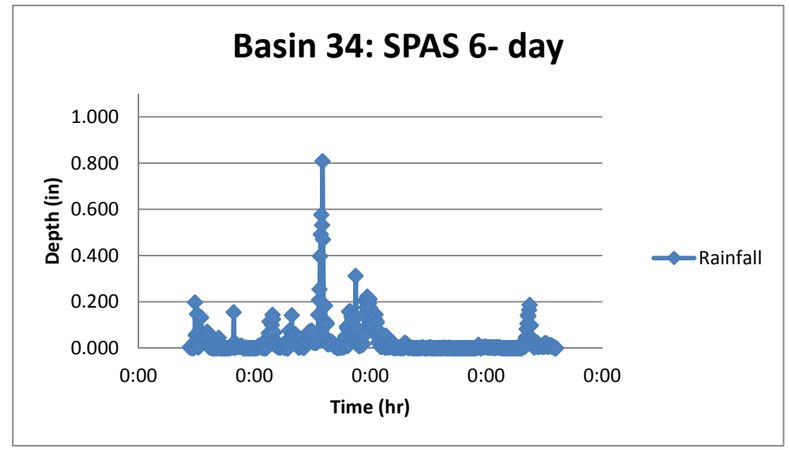

Basin 21: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

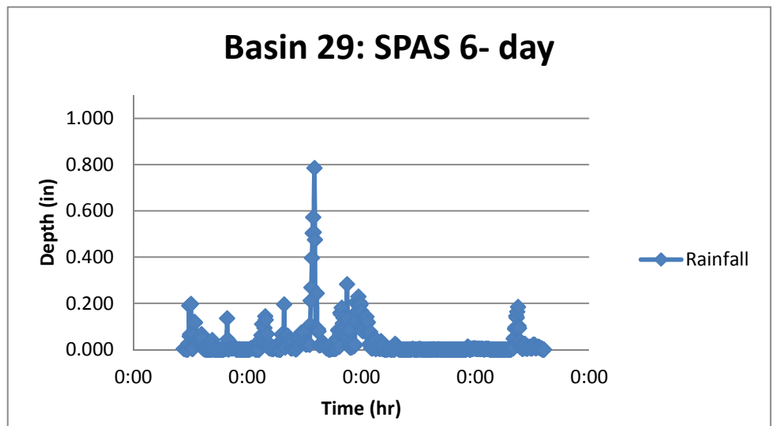

Basin 24: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

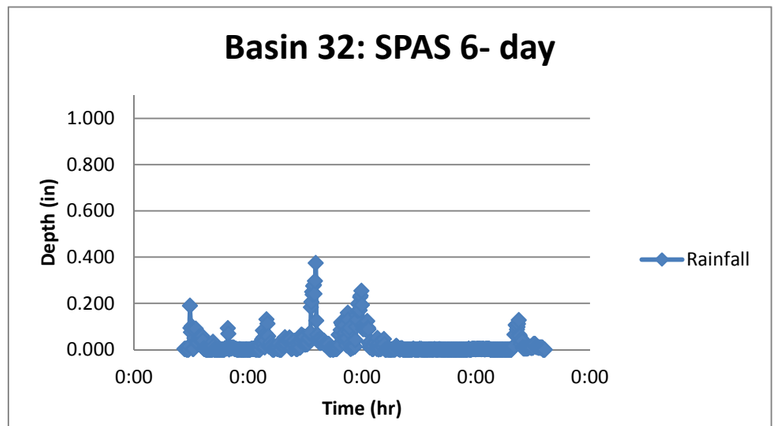

Basin 27: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

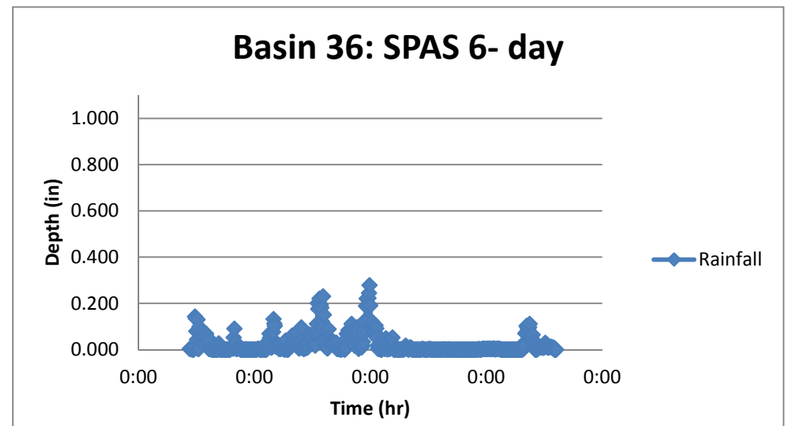

Basin 28: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

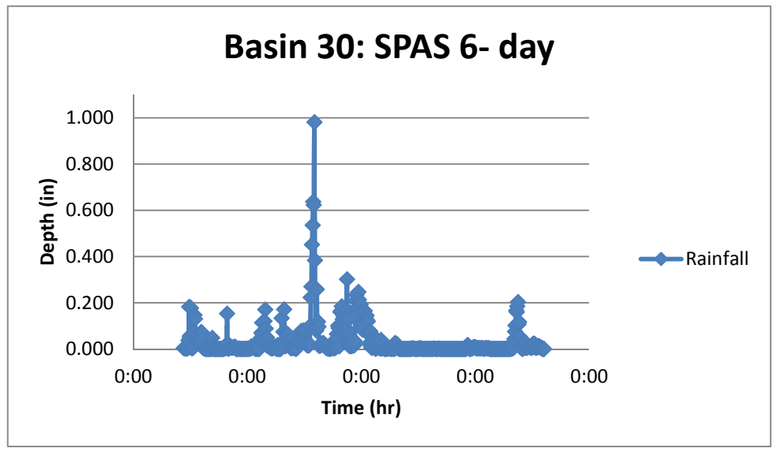

Basin 31: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

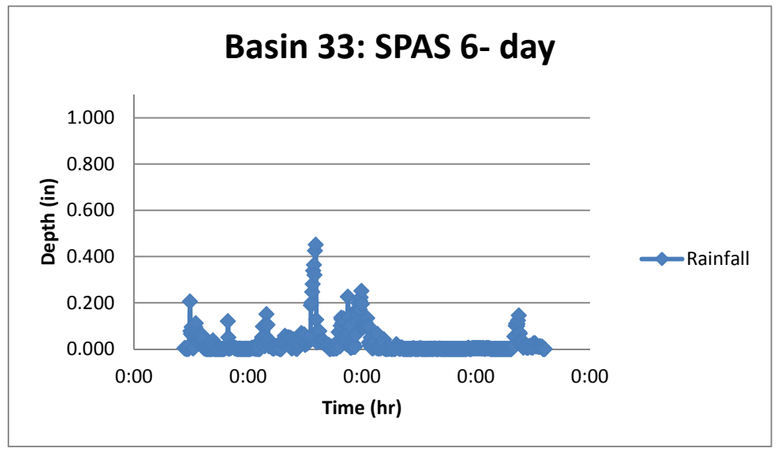

Basin 34: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

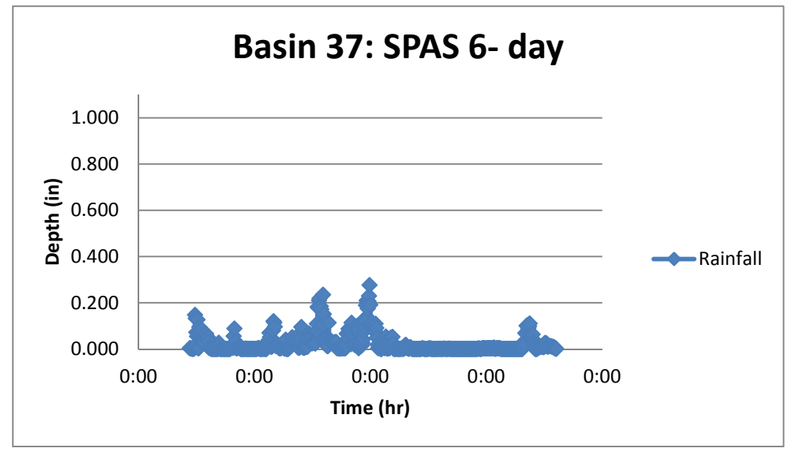

Basin 29: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

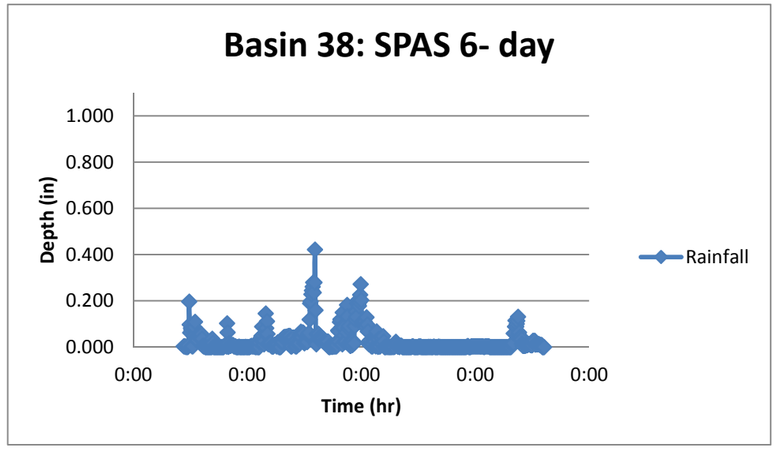

Basin 32: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall


Basin 36: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall


Basin 30: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall


Basin 33: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall


Basin 37: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall


Basin 38: SPAS 6- day
1.000
0.800
0.600
0.400
0.200
0.000
Depth (in)
0:00
0:00
0:00
0:00
0:00
Time (hr)
Rainfall

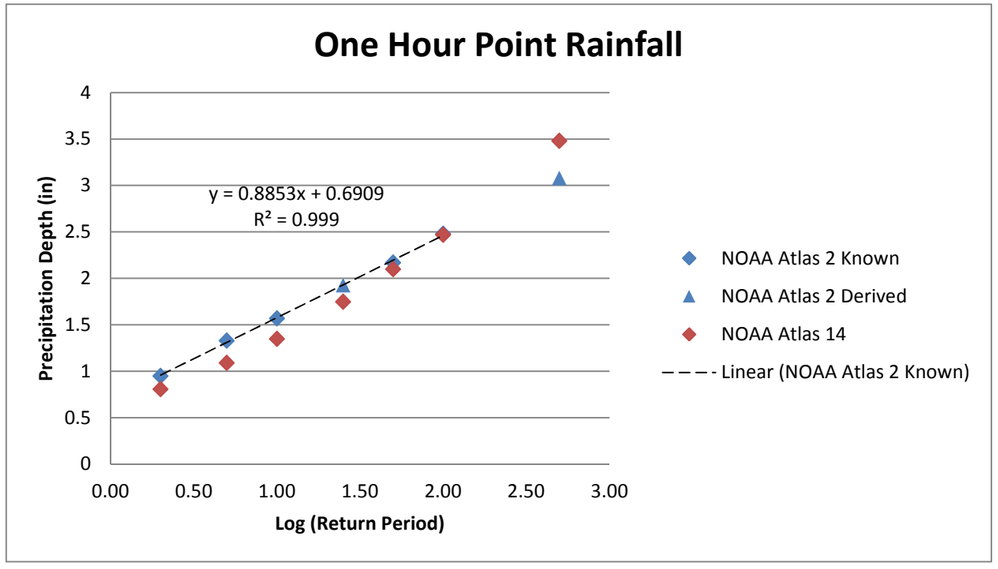
1-HOUR AND 6-HOUR RAINFALL - JEFFERSON COUNTY ZONE IIA

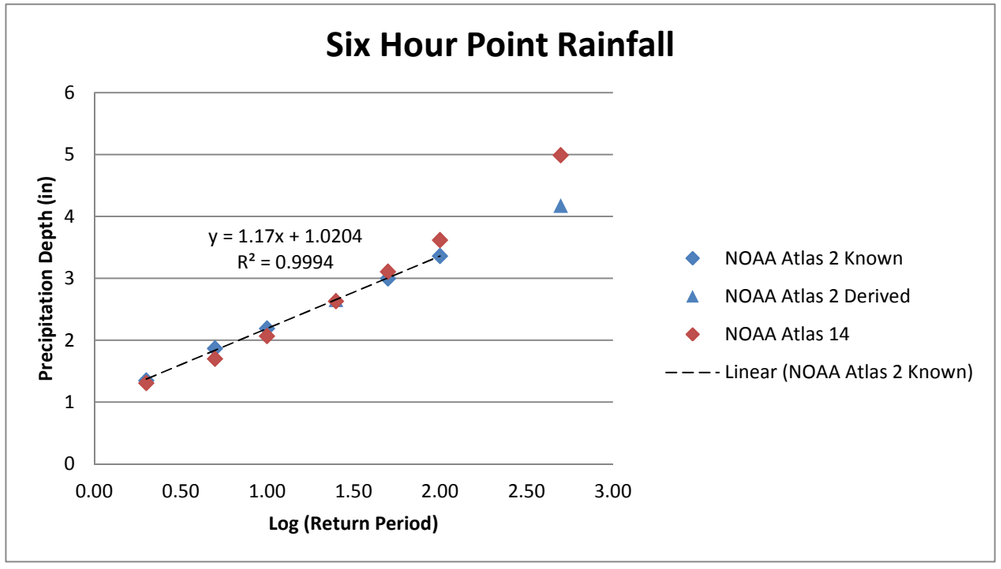
Jefferson County Zone IIA

Derived Cell

Return Period	Log Return Period	1-Hr Atlas 2	1-Hr Atlas 14
2	0.30	0.95	0.809
5	0.70	1.33	1.09
10	1.00	1.57	1.35
25	1.40	1.93	1.75
50	1.70	2.17	2.10
100	2.00	2.48	2.47
500	2.70	3.08	3.48

Return Period	Log Return Period	6-Hr Atlas 2	6-Hr Atlas 14
2	0.30	1.35	1.31
5	0.70	1.87	1.70
10	1.00	2.19	2.07
25	1.40	2.66	2.63
50	1.70	3.00	3.11
100	2.00	3.36	3.62
500	2.70	4.18	4.99





1-HOUR AND 6-HOUR RAINFALL - JEFERSON COUNTY ZONE IIB

Jefferson County Zone IIB

Derived Cell

Return Period	Log Return Period	1-Hr Atlas 2	1-Hr Atlas 14
2	0.30	0.85	0.803
5	0.70	1.19	1.08
10	1.00	1.39	1.32
25	1.40	1.71	1.67
50	1.70	1.93	1.95
100	2.00	2.2	2.25
500	2.70	2.73	2.99

Return Period	Log Return Period	6-Hr Atlas 2	6-Hr Atlas 14
2	0.30	1.35	1.32
5	0.70	1.87	1.72
10	1.00	2.19	2.07
25	1.40	2.66	2.57
50	1.70	3.00	2.97
100	2.00	3.36	3.39
500	2.70	4.18	4.45