



August 8, 2024

El Paso County
Planning & Community Development
2880 International Circle, Suite 110
Colorado Springs, CO 80910

Attn.: Project Manager

RE: Bradley Point Filing No .1
Private Detention/Stormwater Quality Pond 1 and Private Detention/Stormwater Quality Pond 2

Dear Project Manager:

Per the construction drawings for "Bradley Point Filing No. 1" improvements were made to construct two (2) water quality and stormwater detention facilities. The two ponds are in compliance with the current El Paso County Drainage Criteria and with the approved Final Drainage Report for this project.

Based upon this information and periodic site visits to the project during significant/key phases of the stormwater BMP installation, M&S Civil Consultants, Inc. is of the opinion that the stormwater BMPs have been constructed in general compliance with the approved design plans, and specifications as filed with El Paso County.

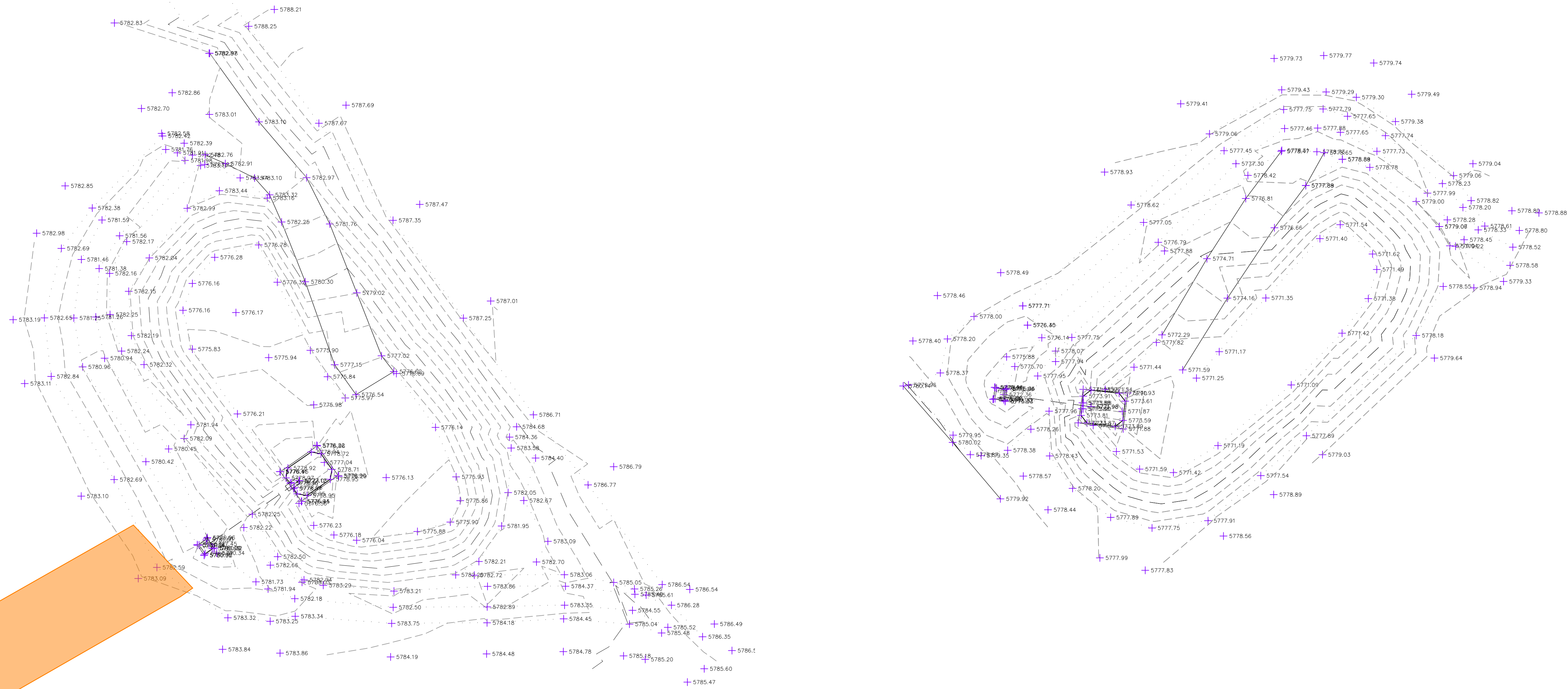
This is true aside from not installing the swale into Pond 1, please discuss this field change and demonstrate the tributary area to Pond 1 is the same as designed.

Statement Of Engineer In Responsible Charge

To the best of my knowledge, information and belief, for the referenced project above, the improvements have been constructed in general compliance with the approved design plans and specifications as filed with El Paso County to provide the required storage volume and meet the required release rates documented by the SDI design form, the stage areas, elevations and outlet dimensions. In addition, to the best of my knowledge, information and belief, for the referenced project above, the site and adjacent properties (as affected by work performed under the County permit) are stable with respect to settlement and subsidence, sloughing of cut and fill slopes, revegetation or other ground cover, and that the improvements (public improvements, common development improvements, site grading and paving) meet or exceed the minimum design requirements.

Virgil A. Sanchez
Colorado P.E. No.37160
For and on behalf of M&S Civil
Consultants, Inc.





POND 1

POND 2

POND CERTIFICATION

FOREBAY INLETS

DESIGNED INVERT 18" IN = 5777.10', SURVEY INVERT 18" IN = 5777.12"

VOLUME

DESIGNED VOLUME = 0.626 ACRE FEET @ 6281.88' (100 YR SURFACE)
 PROVIDED VOLUME = 0.63 ACRE FEET @ 6281.9' (100 YR SURFACE)

POND CERTIFICATION

FOREBAY INLETS

DESIGNED INVERT 24" IN = 5772.10', SURVEY INVERT 24" IN = 5771.98'

VOLUME

DESIGNED VOLUME = 0.576 ACRE FEET @ 6276.61' (100 YR SURFACE)
 PROVIDED VOLUME = 0.58 ACRE FEET @ 6276.6' (100 YR SURFACE)

The original design provided a swale here to convey runoff to Pond 1. Without this defined channel, it is unclear if the full 100-Yr runoff will be conveyed to Pond 1 or will bypass to Pond 2. Please show change with update dimensions.

Please also provide hydraulic calculations with updated configuration to demonstrate the site still has sufficient conveyance capacity as it did with the designed v-ditch.

BRADLEY POINT FILING NO. 1	
AS-BUILT	
PROJECT NO. 70-074	DATE: 08/08/2024
DESIGNED BY: ###	HORIZONTAL: 1"=20'
DRAWN BY: SPM	VERTICAL: N/A
CHECKED BY: SPM	BMPAB
	SHEET 9 OF 9

212 N. WABATCH AVE. STE 303
 COLORADO SPRINGS, CO 80903
 PHONE: 719.555.5465

CIVIL CONSULTANTS, INC.

VIRGIL A. SANCHEZ, COLORADO, P.E. NO. 37160

FOR AND ON BEHALF OF
 M&S CIVIL CONSULTANTS, INC.

NO.	DATE	BY	DESCRIPTION

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

CAUTION

FOR LOCATING & MARKING GAS, ELECTRIC, WATER & TELEPHONE LINES

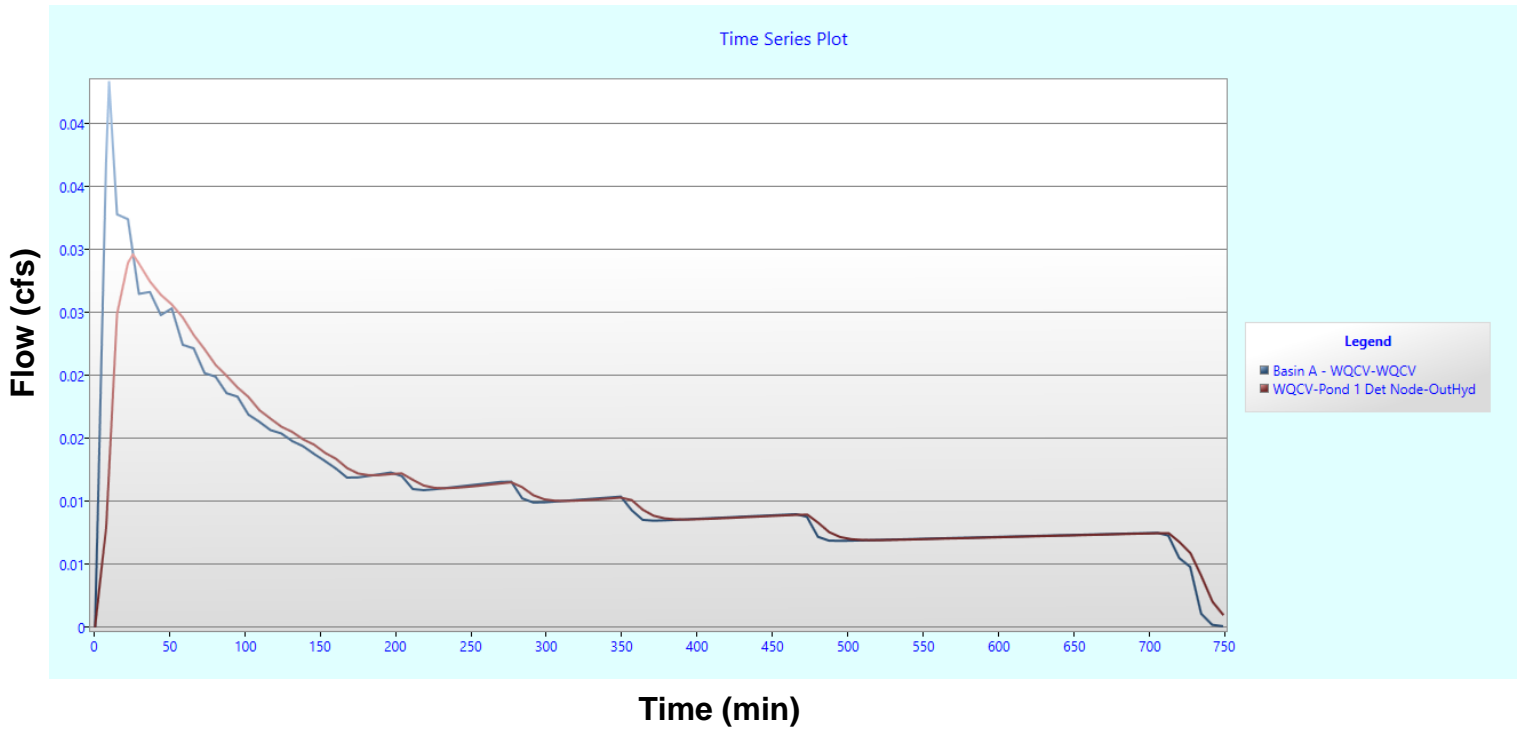
FOR BURIED UTILITY INFORMATION
 48 HRS BEFORE YOU DIG
 CALL 1-800-922-1987

StormSHED 4G Analyses

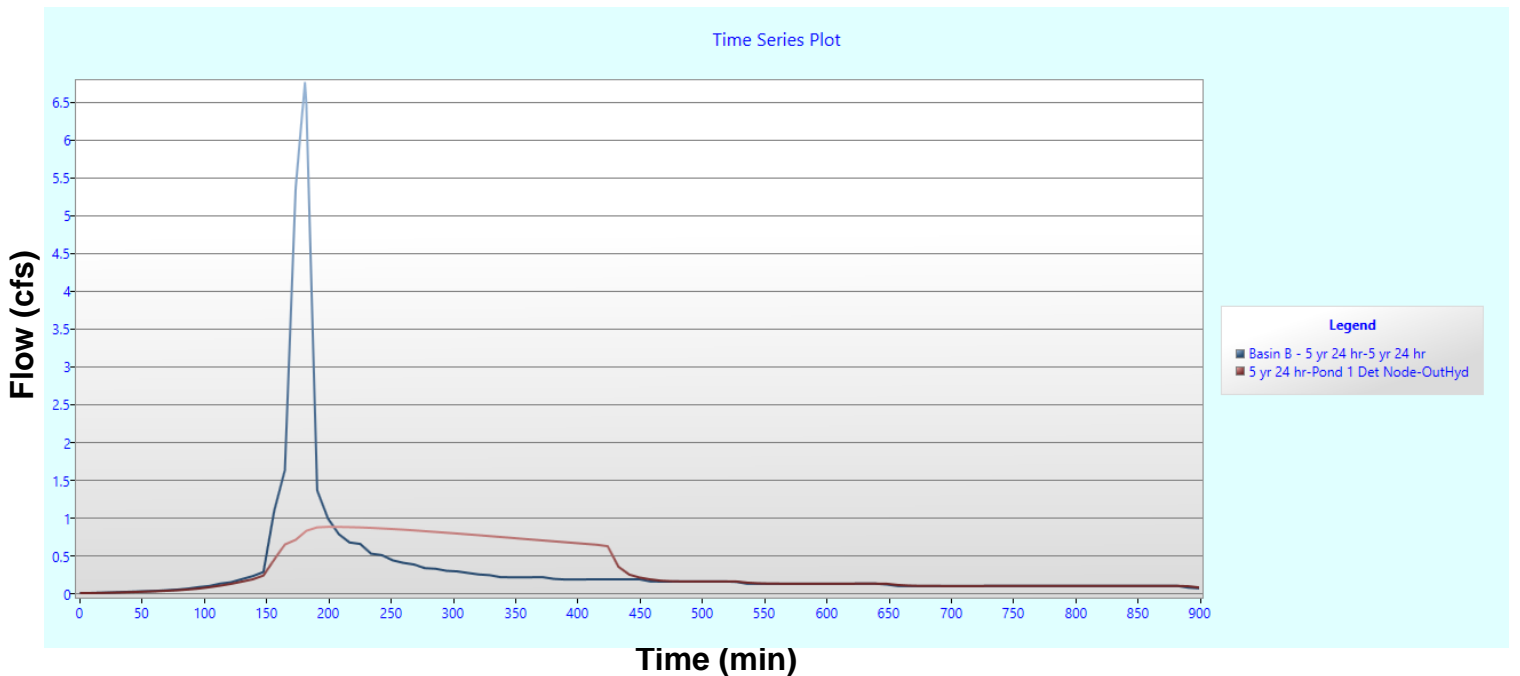
North Pond Summary Table (POND 1)

Design Event	Match Flows (cfs)	Peak Q (cfs)	Max Depth (ft)	Vol (cf)	HtoE	% Vol
WQCV	0.0432	0.0295	0.0047	15.7203	0.01	99.92
5 yr 24 hr	6.7560	0.8970	1.6587	6,668.4623	0.01	99.99
100 yr 24 hr	20.4919	1.5600	4.8800	27,287.7935	0.12	99.95

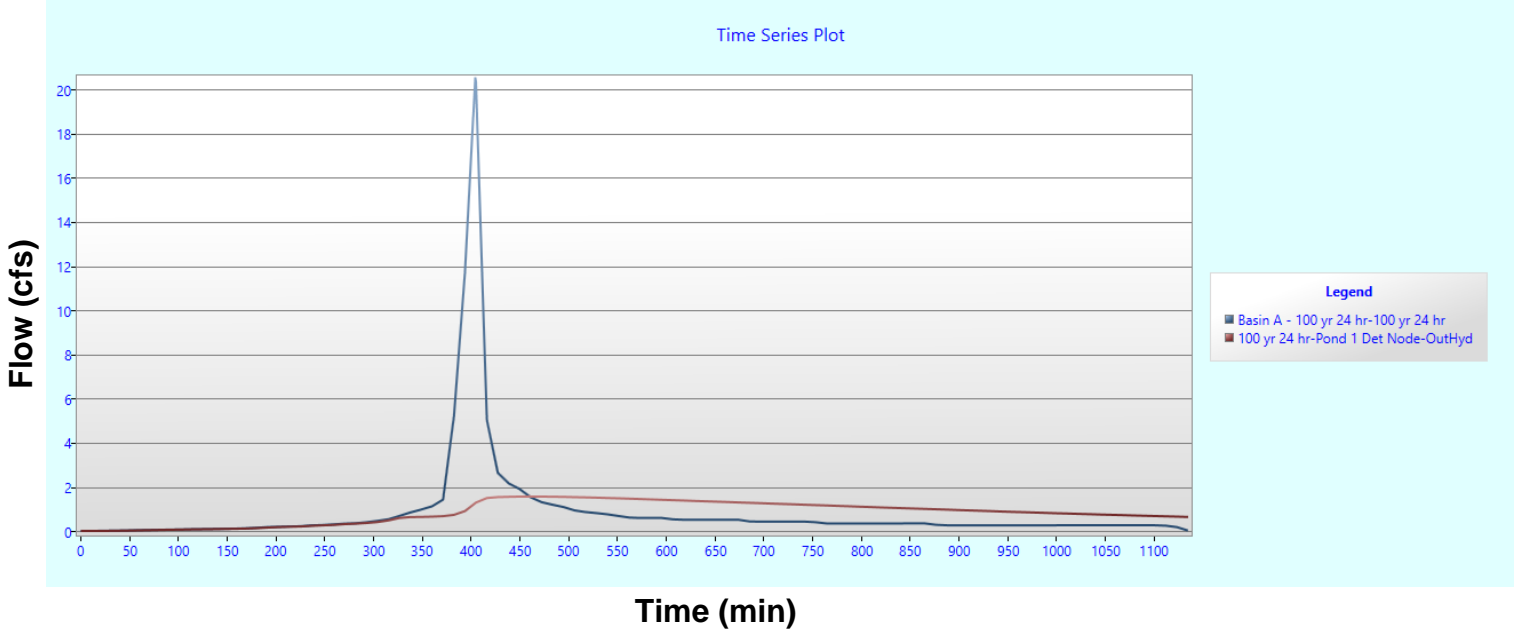
North Pond: WQCV Inflow and Outflow Hydrographs



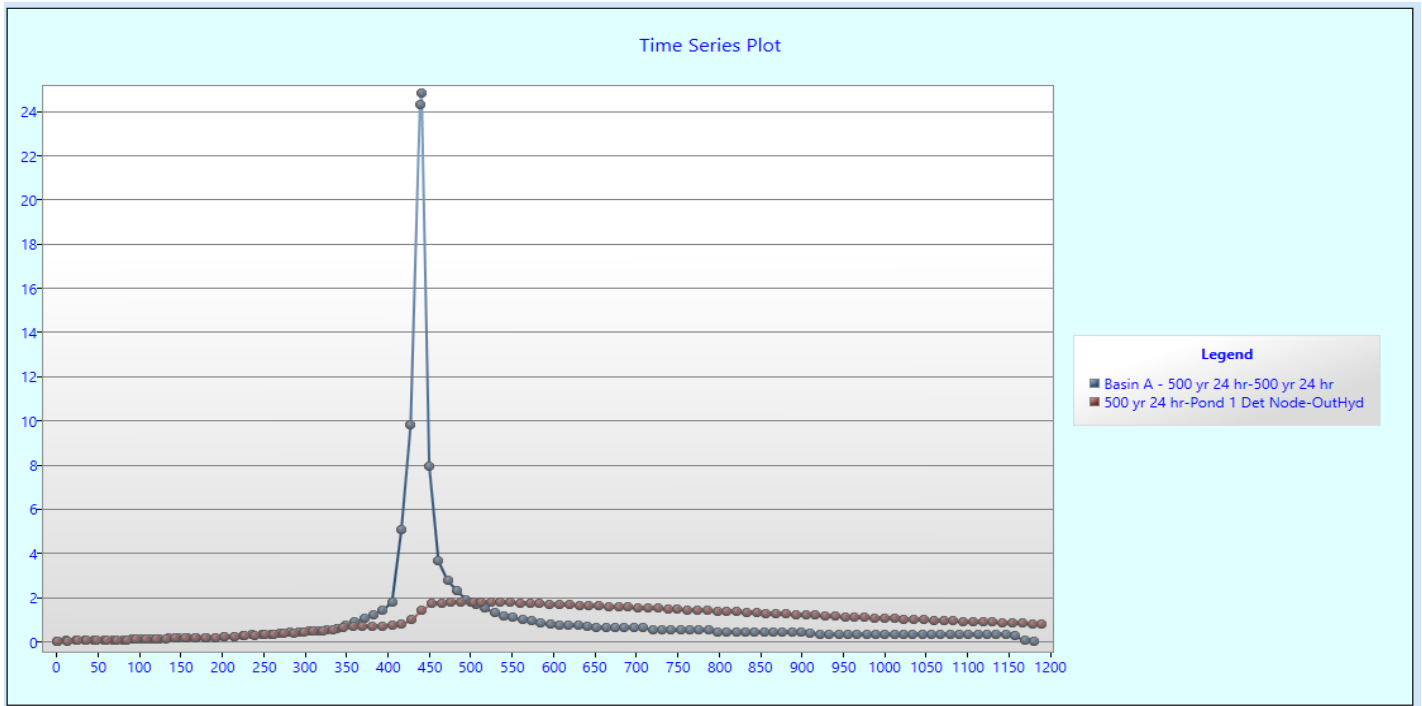
North Pond: 5 YR Inflow and Outflow Hydrographs



North Pond: 100 YR Inflow and Outflow Hydrographs



North Pond: 500 YR Inflow and Outflow Hydrograph and Summary Table

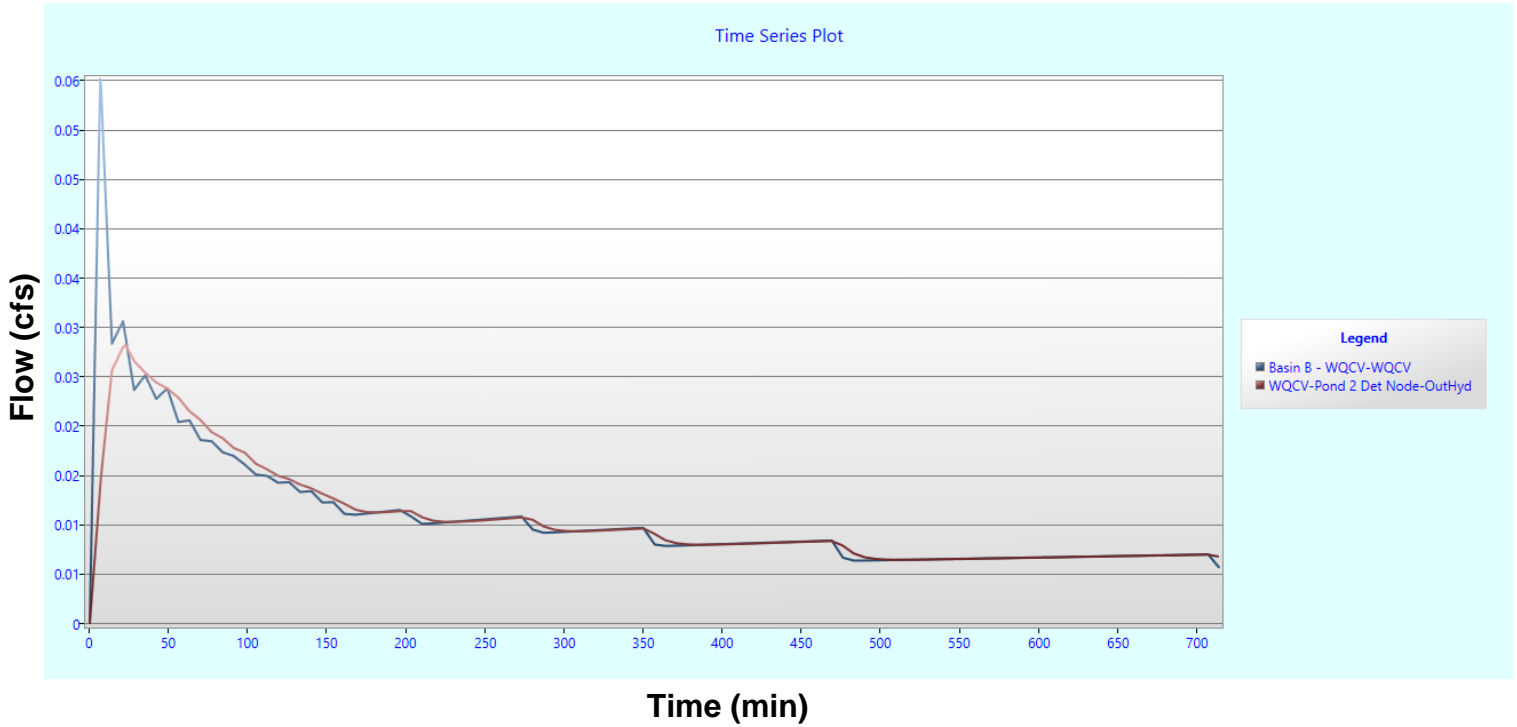


Design Event	Match Flows (cfs)	Peak Q (cfs)	Max Depth (ft)	Vol (cf)	HtoE	% Vol
500 yr 24 hr	24.7740	1.7555	5.7144	34,511.9753	1.42	99.96

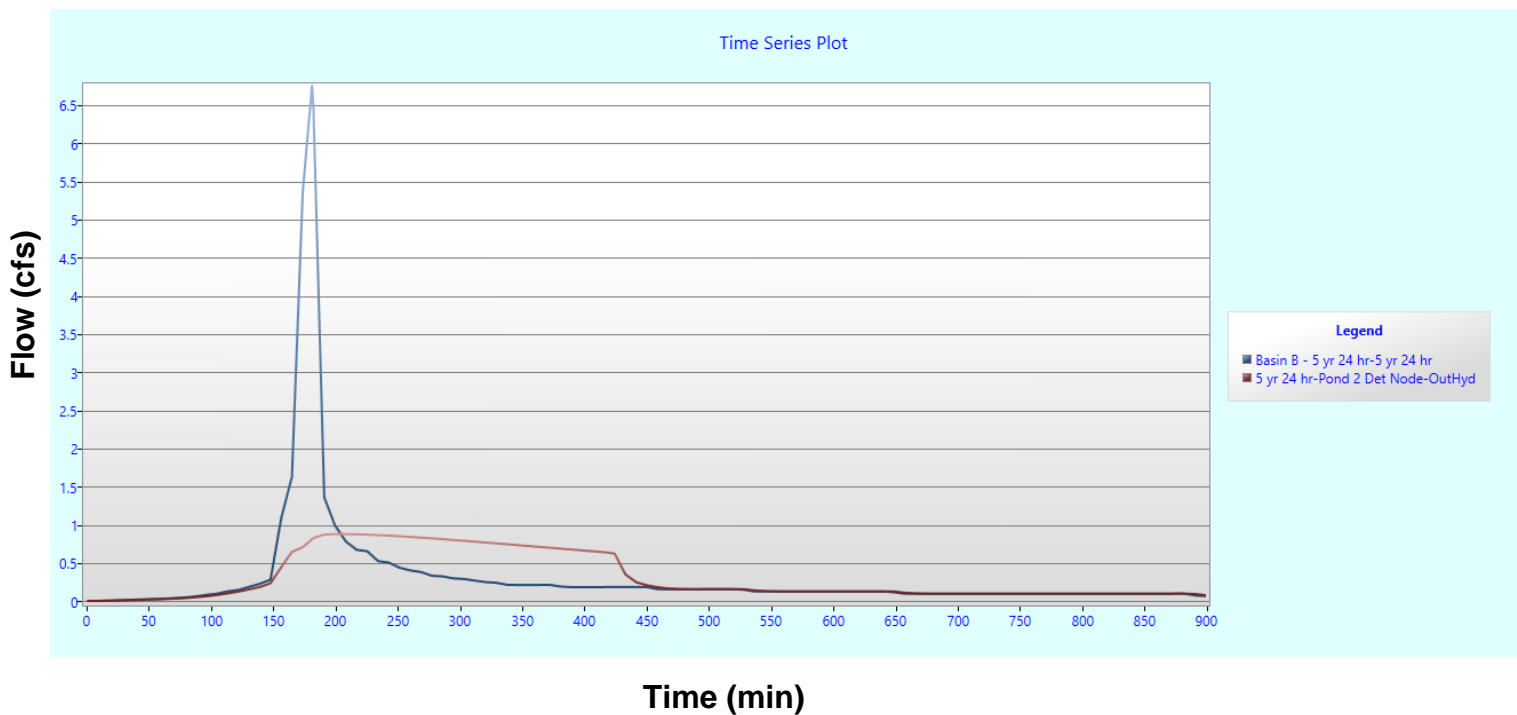
South Pond Summary Table (POND 2)

Design Event	Match Flows (cfs)	Peak Q (cfs)	Max Depth (ft)	Vol (cf)	HtoE	% Vol
WQCV	0.0551	0.0281	0.0045	14,9835	0.01	99.95
5 yr 24 hr	6.7430	0.8767	1.5473	6,143.8109	0.01	99.97
100 yr 24 hr	19.9827	1.4999	4.6147	25,163.8586	0.01	99.96

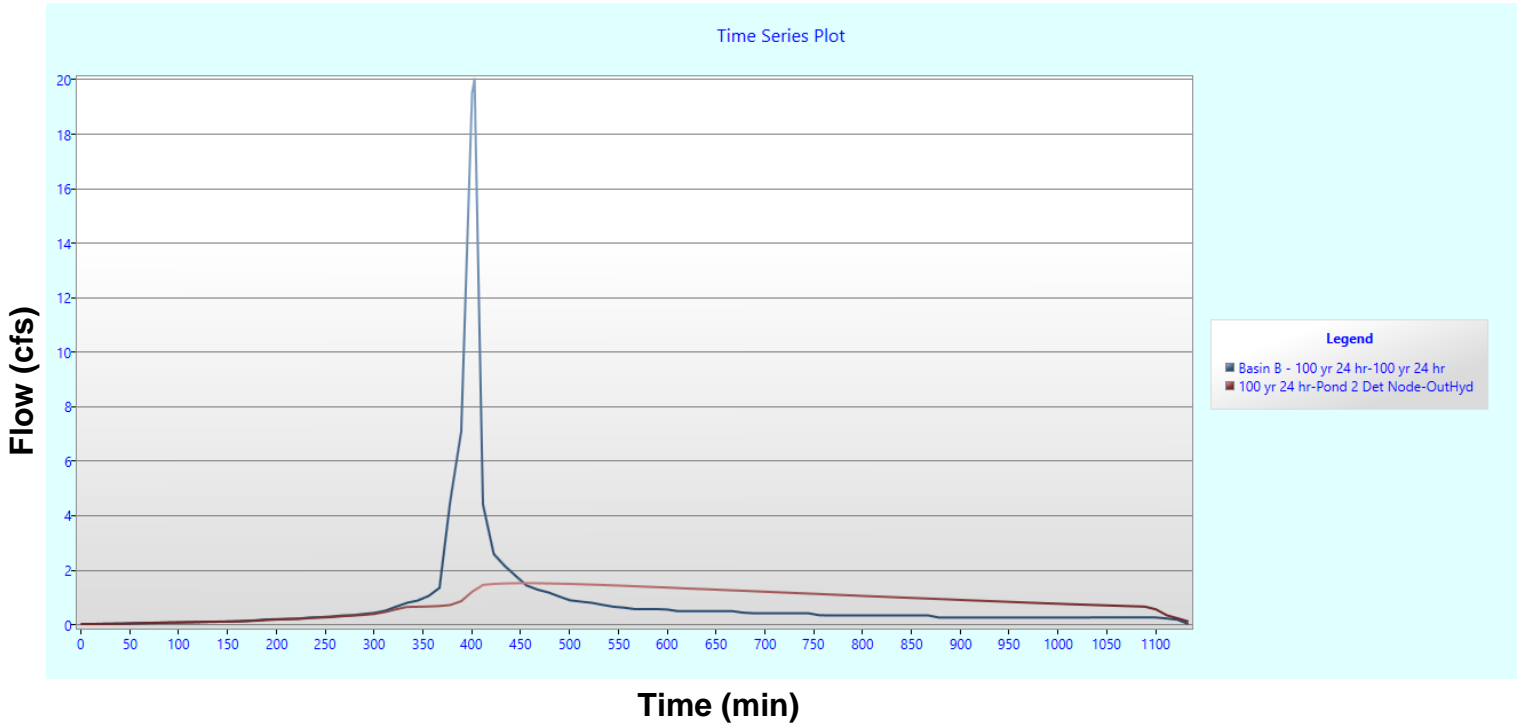
South Pond: WQCV Inflow and Outflow Hydrographs



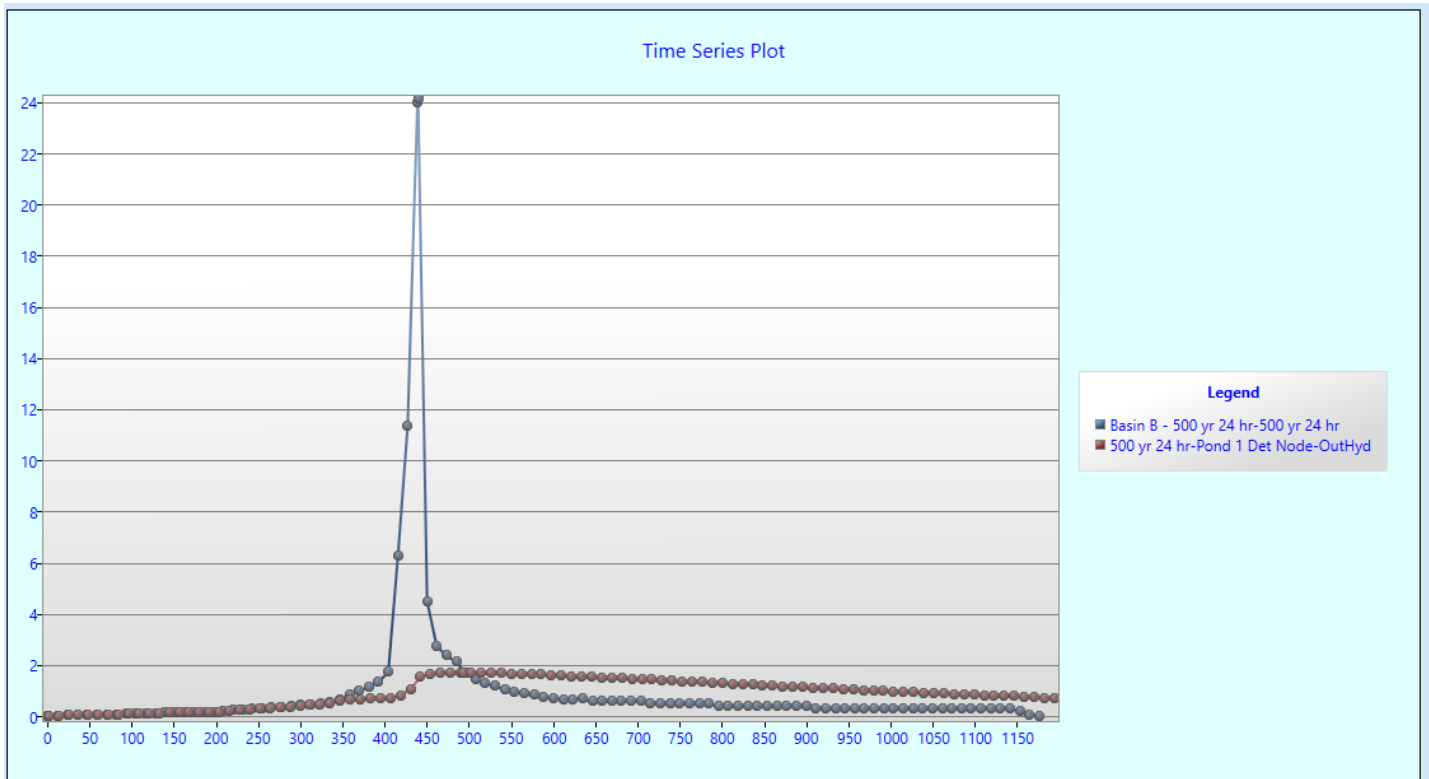
South Pond: 5 YR Inflow and Outflow Hydrographs



South Pond: 100 YR Inflow and Outflow Hydrographs



South Pond: 500 YR Inflow and Outflow Hydrograph and Summary Table



Design Event	Match Flows (cfs)	Peak Q (cfs)	Max Depth (ft)	Vol (cf)	HtoE	% Vol
500 yr 24 hr	24.0984	1.6845	5.4160	31,832.7139	1.05	99.95













WARNING
THIS AREA IS A STORMWATER
FACILITY AND IS SUBJECT
TO PERIODIC FLOODING







