

SECTION 4

HYDROMODIFICATION ANALYSIS

The hydromodification analysis within this section utilizes the continuous modeling software SDHM, version dated 10/11/2011, developed by Clear Creek Solutions Inc. to model the pre- and post-project condition of each basin. The user inputs the number of acres of appropriate basin land use information. Pervious land use information is in the form of soil, vegetation, and land slope. For example, “A, Grass, Flat” means SCS soil type A, non-turf grassland vegetation, and flat (0-5%) land slope.

There are three basic soil types: A (well infiltrating soils), B (moderate infiltrating soils), and C/D (poor infiltrating soils). There are five basic vegetation categories: forest, native shrub rural vegetation, non-turf grasslands, dirt (no vegetation), and urban landscaped vegetation. Natural vegetation has been divided into forest, shrub, and non-turf grass and refers to the natural (non-planted) vegetation. In contrast, the developed landscape will consist of urban vegetation (lawns, flowers, planted shrubs and trees). Urban vegetation is irrigated in the model. Land slope is divided into flat (0-5%), moderate (5-10%), steep (10-20%), and very steep (>20%) land slopes.

HSPF parameter values in SDHM are adjusted for the different soil, vegetation, and land slope categories. SDHM HSPF soil parameter values take into account the hydrologic effects of land development activities that result from soil compaction when “Urban” is specified. Impervious areas are divided into five types with four different slopes. The five types are: roads, roofs, driveways, sidewalks, and parking. The slope categories are the same as for the pervious land use (flat, moderate, steep, and very steep).

Calculations within the software were performed using historical rain gauge data specific to the project. In this case data was used from the “Fallbrook” gauge. Monthly peak rainfall measurements from the gauge. The basin models were created using the pre- and post-project land use and slope values calculated within Section 3 and Illustrated on Exhibits “A” & “B” (POC1). In the post-project condition, the basins were routed to various hydromodification BMP’s. IMP (Integrated Management Practices) facilities are small-scale stormwater control facilities designed to meet hydromodification plan (HMP) flow duration requirements. IMP facilities can be designed in San Diego County, California, using the BMP Sizing Calculator; they can also be designed using the San Diego Hydrology Model (SDHM). SDHM gives the user more control and flexibility than the BMP Sizing calculator in sizing IMP facilities.

For the purposes of these calculations, the County of San Diego SUSMP “Standard Urban Stormwater Management Plan” and Hydromodification Workgroup, BMP Sizing calculator (Version 3.0) was utilized to determine the approximate Bioretention/Detention storage area needed in each basin, and than adjusted to meet hydromodification flow durations. The reports from each of the BMP’s follow in this section and the results are summarized in attachments below.

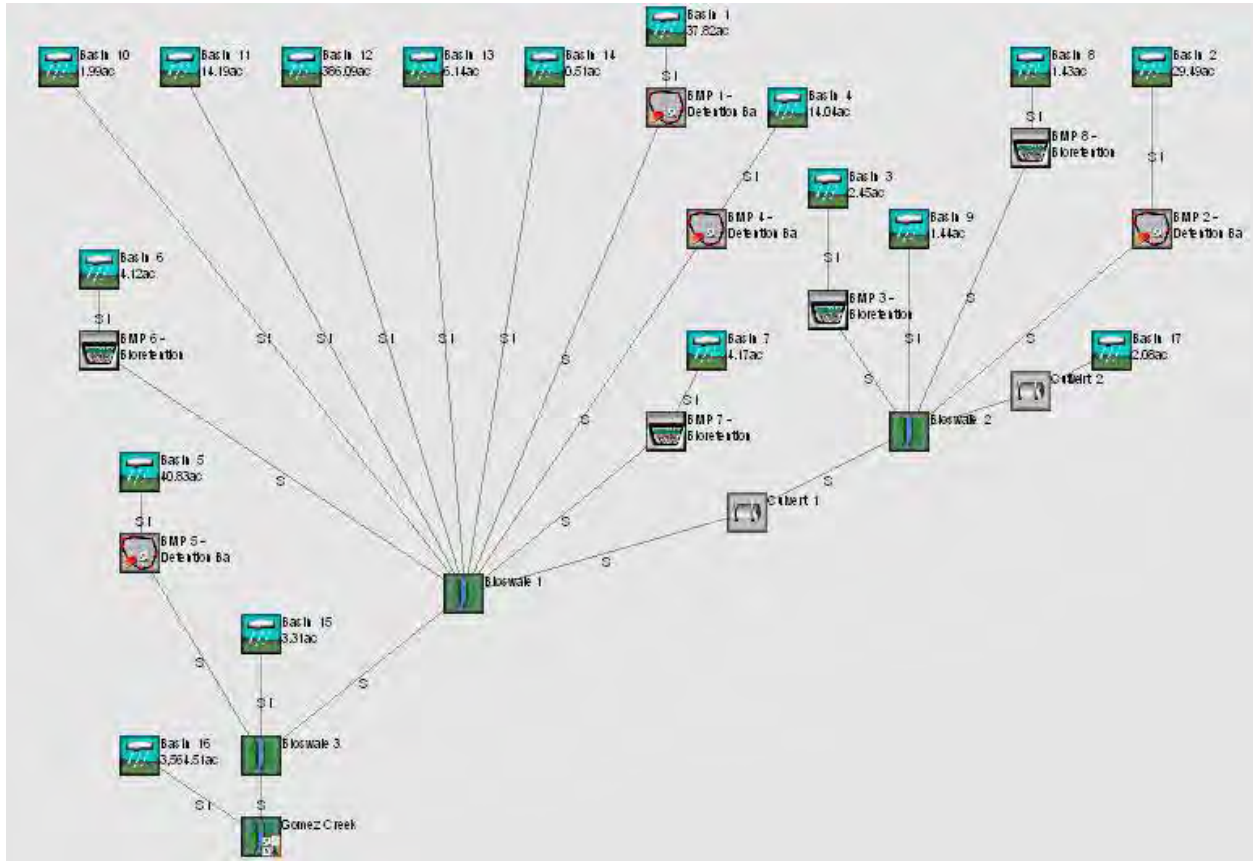


Figure 4-1 – Gomez Creek SDHM Diagram POC1

SDHM2011
PROJECT REPORT

Project Name: WARNER RANCH - (Tract No. 5508 rpl4)
Site Address: APN 110-090-01,17,18, 110-021-09,10 110-021-32,
110-021-22
City : SAN DIEGO, CA
Report Date : 3/20/2013
Gage : FALLBROO
Data Start : 10/01/1959
Data End : 09/30/2004
Precip Scale: 1.00
Version : 2011/10/11

PREDEVELOPED LAND USE

Name : Basin 1
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
A,Forest,Flat(0-5%)	.16
A,Forest,Mod(5-10%)	.02
A,Forest,Stee(10-20)	.01
A,Forest,Very(>20%)	.1
A,Grass,Flat(0-5%)	12.03
A,Grass,Mod(5-10%)	.54
A,Grass,Stee(10-20%)	.12
A,Grass,Very S(>20%)	.19
B,Forest,Flat(0-5%)	4.93
B,Forest,Mod(5-10%)	5.3
B,Forest,Stee(10-20)	1.2
B,Forest,Very(>20%)	5.76
B,Shrub,Flat(0-5%)	.66
B,Shrub,Mod(5-10%)	6.7
B,Shrub,Stee(10-20%)	8.63
B,Shrub,Very S(>20%)	10.4
B,Grass,Flat(0-5%)	6.56
B,Grass,Mod(5-10%)	2.07
B,Grass,Stee(10-20%)	1.63
B,Grass,Very S(>20%)	1.58
C D,Forest,Flat(0-5)	4.12
C D,Forest,Mod(5-10)	6.8
C D,Forest,St(10-20)	2.38
C D,Forest,Very(>20)	3.7
C D,Shrub,Mod(5-10%)	16.64
C D,Shrub,St(10-20%)	43.7
C D,Shrub,Very(>20%)	354.98
C D,Grass,Flat(0-5%)	5.02

C D,Grass,Mod(5-10%)	1.37
C D,Grass,Very(>20%)	.02
C D,Shrub,Flat(0-5%)	.83
C D,Grass,Ste(10-20)	.25

Impervious Land Use Acres

Element Flows To:

Surface	Interflow	Groundwater
Gomez Creek	Gomez Creek	

Name : Gomez Creek
 Bottom Length: 1500.00 ft.
 Bottom Width : 47.00 ft.
 Manning's n : 0.05
 Channel bottom slope 1: 0.007 To 1
 Channel Left side slope 0: 2 To 1
 Channel right side slope 2: 2 To 1
 Infiltration On
 Infiltration rate : 0.7
 Infiltration safety factor : 0.5
Discharge Structure
 Riser Height: 0 ft.
 Riser Diameter: 0 in.

Element Flows To:

Outlet 1	Outlet 2
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Channel Hydraulic Table

Stage(ft)	Area(ac)	Volume(ac-ft)	Discharge(cfs)	Infilt(cfs)
0.0000	1.618	0.000	0.000	0.000
0.0778	1.629	0.126	1.661	0.571
0.1556	1.639	0.253	5.278	0.571
0.2333	1.650	0.381	10.38	0.571
0.3111	1.661	0.510	16.78	0.571
0.3889	1.672	0.639	24.35	0.571
0.4667	1.682	0.770	33.02	0.571
0.5444	1.693	0.901	42.73	0.571
0.6222	1.704	1.033	53.42	0.571
0.7000	1.714	1.166	65.05	0.571
0.7778	1.725	1.300	77.59	0.571
0.8556	1.736	1.435	91.02	0.571
0.9333	1.747	1.570	105.3	0.571
1.0111	1.757	1.706	120.4	0.571

1.0889	1.768	1.844	136.3	0.571
1.1667	1.779	1.982	153.1	0.571
1.2444	1.789	2.120	170.6	0.571
1.3222	1.800	2.260	188.9	0.571
1.4000	1.811	2.400	208.0	0.571
1.4778	1.822	2.542	227.8	0.571
1.5556	1.832	2.684	248.3	0.571
1.6333	1.843	2.827	269.6	0.571
1.7111	1.854	2.971	291.6	0.571
1.7889	1.864	3.115	314.3	0.571
1.8667	1.875	3.261	337.7	0.571
1.9444	1.886	3.407	361.8	0.571
2.0222	1.897	3.554	386.7	0.571
2.1000	1.907	3.702	412.2	0.571
2.1778	1.918	3.851	438.3	0.571
2.2556	1.929	4.000	465.2	0.571
2.3333	1.939	4.151	492.7	0.571
2.4111	1.950	4.302	520.9	0.571
2.4889	1.961	4.454	549.7	0.571
2.5667	1.972	4.607	579.3	0.571
2.6444	1.982	4.761	609.4	0.571
2.7222	1.993	4.916	640.3	0.571
2.8000	2.004	5.071	671.7	0.571
2.8778	2.014	5.228	703.8	0.571
2.9556	2.025	5.385	736.6	0.571
3.0333	2.036	5.543	770.0	0.571
3.1111	2.047	5.701	804.0	0.571
3.1889	2.057	5.861	838.7	0.571
3.2667	2.068	6.022	874.0	0.571
3.3444	2.079	6.183	910.0	0.571
3.4222	2.089	6.345	946.6	0.571
3.5000	2.100	6.508	983.8	0.571
3.5778	2.111	6.672	1021.	0.571
3.6556	2.122	6.836	1060.	0.571
3.7333	2.132	7.002	1099.	0.571
3.8111	2.143	7.168	1138.	0.571
3.8889	2.154	7.335	1179.	0.571
3.9667	2.164	7.503	1220.	0.571
4.0444	2.175	7.672	1261.	0.571
4.1222	2.186	7.842	1303.	0.571
4.2000	2.197	8.012	1346.	0.571
4.2778	2.207	8.183	1390.	0.571
4.3556	2.218	8.356	1434.	0.571
4.4333	2.229	8.529	1478.	0.571
4.5111	2.239	8.702	1524.	0.571
4.5889	2.250	8.877	1570.	0.571
4.6667	2.261	9.052	1616.	0.571
4.7444	2.272	9.229	1663.	0.571
4.8222	2.282	9.406	1711.	0.571
4.9000	2.293	9.584	1759.	0.571
4.9778	2.304	9.763	1808.	0.571
5.0556	2.314	9.942	1858.	0.571
5.1333	2.325	10.12	1908.	0.571

5.2111	2.336	10.30	1959.	0.571
5.2889	2.347	10.48	2010.	0.571
5.3667	2.357	10.67	2062.	0.571
5.4444	2.368	10.85	2115.	0.571
5.5222	2.379	11.03	2168.	0.571
5.6000	2.389	11.22	2222.	0.571
5.6778	2.400	11.41	2277.	0.571
5.7556	2.411	11.59	2332.	0.571
5.8333	2.422	11.78	2388.	0.571
5.9111	2.432	11.97	2444.	0.571
5.9889	2.443	12.16	2501.	0.571
6.0667	2.454	12.35	2558.	0.571
6.1444	2.464	12.54	2617.	0.571
6.2222	2.475	12.73	2676.	0.571
6.3000	2.486	12.93	2735.	0.571
6.3778	2.497	13.12	2795.	0.571
6.4556	2.507	13.31	2856.	0.571
6.5333	2.518	13.51	2917.	0.571
6.6111	2.529	13.71	2979.	0.571
6.6889	2.540	13.90	3041.	0.571
6.7667	2.550	14.10	3105.	0.571
6.8444	2.561	14.30	3168.	0.571
6.9222	2.572	14.50	3233.	0.571
7.0000	2.582	14.70	3298.	0.571
7.0778	2.593	14.90	3363.	0.571

Name : Basin 2
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
A,Forest,Flat(0-5%)	.07
A,Forest,Stee(10-20)	.04
A,Forest,Very(>20%)	2.45
A,Shrub,Mod(5-10%)	.01
A,Shrub,Stee(10-20%)	1.32
A,Shrub,Very S(>20%)	34.39
A,Grass,Flat(0-5%)	1.58
A,Grass,Mod(5-10%)	.02
B,Forest,Stee(10-20)	.01
B,Forest,Very(>20%)	3.99
B,Shrub,Flat(0-5%)	3.24
B,Shrub,Mod(5-10%)	8.54
B,Shrub,Stee(10-20%)	29
B,Shrub,Very S(>20%)	106.46
B,Grass,Flat(0-5%)	9.4
B,Grass,Mod(5-10%)	2.08
B,Grass,Stee(10-20%)	2.18
B,Grass,Very S(>20%)	3.63
C D,Forest,Flat(0-5)	9.95
C D,Forest,Mod(5-10)	8.96

C D,Forest,St(10-20)	28.97
C D,Forest,Very(>20)	51.67
C D,Shrub,Flat(0-5%)	9.85
C D,Shrub,Mod(5-10%)	111.68
C D,Shrub,St(10-20%)	482.84
C D,Shrub,Very(>20%)	2680.24
C D,Grass,Flat(0-5%)	10.33
C D,Grass,Mod(5-10%)	1.3
C D,Grass,Ste(10-20)	.04

Impervious Land Use Acres

Element Flows To:		
Surface	Interflow	Groundwater
Gomez Creek	Gomez Creek	

MITIGATED LAND USE

Name : Basin 12
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Forest,Flat(0-5%)	.08
B,Shrub,Flat(0-5%)	.31
B,Shrub,Mod(5-10%)	1.41
B,Shrub,Stee(10-20%)	.77
B,Shrub,Very S(>20%)	4.16
B,Urban,Flat(0-5%)	.15
B,Urban,Mod(5-10%)	.06
B,Urban,Stee(10-20%)	.03
B,Urban,Very S(>20%)	1.04
C D,Forest,Very(>20)	.6
C D,Shrub,Flat(0-5%)	3.23
C D,Shrub,Mod(5-10%)	10.44
C D,Shrub,St(10-20%)	34.49
C D,Shrub,Very(>20%)	325.79
C D,Urban,Flat(0-5%)	.36
C D,Urban,Mod(5-10%)	.06
C D,Urban,St(10-20%)	.11
C D,Urban,Very(>20%)	3

Impervious Land Use Acres

Element Flows To:		
Surface	Interflow	Groundwater
Bioswale 1	Bioswale 1	

Name : Basin 13
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Forest,Very(>20%)	1.4
B,Shrub,Very S(>20%)	1.53
B,Forest,Mod(5-10%)	.01
B,Forest,Stee(10-20)	.01
B,Shrub,Flat(0-5%)	.01
B,Shrub,Stee(10-20%)	.07
C D,Forest,St(10-20)	.01
C D,Forest,Very(>20)	.3
C D,Shrub,Very(>20%)	1.32
B,Urban,Stee(10-20%)	.05
B,Urban,Very S(>20%)	1.26
C D,Urban,Flat(0-5%)	.17

<u>Impervious Land Use</u>	<u>Acres</u>
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Element Flows To:	Interflow	Groundwater
Surface		
Bioswale 1	Bioswale 1	

Name : Basin 14
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Urban,Flat(0-5%)	.14
B,Urban,Mod(5-10%)	.08
B,Urban,Stee(10-20%)	.05
B,Urban,Very S(>20%)	.19
C D,Urban,Mod(5-10%)	.02

<u>Impervious Land Use</u>	<u>Acres</u>
Sidewalks,Flat(0-5%)	0.03

Element Flows To:	Interflow	Groundwater
Surface		
Bioswale 1	Bioswale 1	

Name : Basin 1
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Urban,Flat(0-5%)	5.98
B,Urban,Very S(>20%)	1.84
C D,Urban,Flat(0-5%)	9.89
C D,Urban,Very(>20%)	1.96

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	4.48
Roads,Mod(5-10%)	1.7
Roof Area	8.74
Driveways,Flat(0-5%)	2.07
Sidewalks,Flat(0-5%)	0.7
Sidewalks,Mod(5-10%)	0.46

Element Flows To:
Surface Interflow Groundwater
BMP 1 - Detention Ba BMP 1 - Detention Ba

Name : Basin 4
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Urban,Flat(0-5%)	1.04
C D,Urban,Flat(0-5%)	3.27
B,Urban,Very S(>20%)	.43
C D,Urban,Very(>20%)	.83

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	3.39
Roof Area	2.84
Driveways,Flat(0-5%)	1.33
Sidewalks,Flat(0-5%)	0.91

Element Flows To:
Surface Interflow Groundwater
BMP 4 - Detention Ba BMP 4 - Detention Ba

Name : Basin 3
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
C D,Urban,Very(>20%)	.08
B,Urban,Flat(0-5%)	.25
B,Urban,Very S(>20%)	.05
C D,Urban,Flat(0-5%)	.5

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	0.46
Roof Area	0.85
Driveways,Flat(0-5%)	0.23
Sidewalks,Flat(0-5%)	0.03

Element Flows To:

Surface	Interflow	Groundwater
BMP 3 - Bi Surfaceon	BMP 3 - Bi Surfaceon	

Name : Basin 2
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Urban,Flat(0-5%)	3.43
B,Urban,Very S(>20%)	1.56
C D,Urban,Flat(0-5%)	4.2
C D,Urban,Very(>20%)	1.97
A,Urban,Flat(0-5%)	2.8
A,Urban,Very S(>20%)	.66

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	3.16
Roads,Mod(5-10%)	2
Roof Area	6.66
Driveways,Flat(0-5%)	2.07
Sidewalks,Flat(0-5%)	0.62
Sidewalks,Mod(5-10%)	0.36

Element Flows To:

Surface	Interflow	Groundwater
BMP 2 - Detention Ba	BMP 2 - Detention Ba	

Name : BMP 1 - Detention Ba
Depth: 5 ft.
Discharge Structure
Riser Height: 3.2 ft.
Riser Diameter: 60 in.
Notch Type : Rectangular
Notch Width : 5.000 ft.
Notch Height: 0.250 ft.
Orifice 1 Diameter: 4.5 in. **Elevation**: 0 ft.
Orifice 2 Diameter: 18 in. **Elevation**: 2.25 ft.

Element Flows To:

Outlet 1 **Outlet 2**
 Bioswale 1

Irregular Pond Hydraulic Table

<u>Stage(ft)</u>	<u>Area(ac)</u>	<u>Volume(ac-ft)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	0.591	0.000	0.000	0.000
0.0556	0.597	0.033	0.125	0.030
0.1111	0.602	0.066	0.177	0.030
0.1667	0.608	0.100	0.217	0.030
0.2222	0.613	0.134	0.250	0.030
0.2778	0.618	0.168	0.280	0.030
0.3333	0.624	0.203	0.307	0.030
0.3889	0.629	0.238	0.331	0.030
0.4444	0.635	0.273	0.354	0.030
0.5000	0.640	0.309	0.376	0.030
0.5556	0.646	0.345	0.396	0.030
0.6111	0.652	0.381	0.415	0.030
0.6667	0.657	0.418	0.434	0.030
0.7222	0.663	0.455	0.452	0.030
0.7778	0.668	0.492	0.469	0.030
0.8333	0.674	0.529	0.485	0.030
0.8889	0.680	0.567	0.501	0.030
0.9444	0.685	0.605	0.516	0.030
1.0000	0.691	0.643	0.531	0.030
1.0556	0.697	0.682	0.546	0.030
1.1111	0.702	0.721	0.560	0.030
1.1667	0.708	0.761	0.574	0.030
1.2222	0.714	0.800	0.588	0.030
1.2778	0.719	0.840	0.601	0.030
1.3333	0.725	0.881	0.614	0.030
1.3889	0.731	0.921	0.626	0.030
1.4444	0.736	0.962	0.639	0.030
1.5000	0.742	1.003	0.651	0.030
1.5556	0.748	1.045	0.663	0.030
1.6111	0.754	1.087	0.675	0.030
1.6667	0.759	1.129	0.686	0.030

1.7222	0.765	1.172	0.698	0.030
1.7778	0.771	1.214	0.709	0.030
1.8333	0.777	1.258	0.720	0.030
1.8889	0.783	1.301	0.730	0.030
1.9444	0.788	1.345	0.741	0.030
2.0000	0.794	1.389	0.752	0.030
2.0556	0.800	1.434	0.762	0.030
2.1111	0.806	1.478	0.772	0.030
2.1667	0.812	1.524	0.782	0.030
2.2222	0.818	1.569	0.792	0.030
2.2778	0.824	1.615	2.220	0.030
2.3333	0.830	1.661	3.268	0.030
2.3889	0.835	1.707	3.993	0.030
2.4444	0.841	1.754	4.583	0.030
2.5000	0.847	1.801	5.095	0.030
2.5556	0.853	1.849	5.554	0.030
2.6111	0.859	1.896	5.973	0.030
2.6667	0.865	1.944	6.361	0.030
2.7222	0.871	1.993	6.725	0.030
2.7778	0.877	2.042	7.068	0.030
2.8333	0.883	2.091	7.394	0.030
2.8889	0.889	2.140	7.705	0.030
2.9444	0.895	2.190	8.003	0.030
3.0000	0.901	2.240	8.476	0.030
3.0556	0.907	2.290	9.138	0.030
3.1111	0.913	2.341	9.911	0.030
3.1667	0.919	2.392	10.77	0.030
3.2222	0.925	2.444	11.58	0.030
3.2778	0.931	2.495	12.72	0.030
3.3333	0.938	2.548	14.28	0.030
3.3889	0.944	2.600	16.13	0.030
3.4444	0.950	2.653	18.25	0.030
3.5000	0.956	2.706	20.59	0.030
3.5556	0.962	2.759	23.13	0.030
3.6111	0.968	2.813	25.85	0.030
3.6667	0.974	2.867	28.75	0.030
3.7222	0.981	2.922	31.80	0.030
3.7778	0.987	2.977	35.01	0.030
3.8333	0.993	3.032	38.37	0.030
3.8889	0.999	3.087	41.86	0.030
3.9444	1.005	3.143	45.49	0.030
4.0000	1.012	3.200	49.24	0.030
4.0556	1.018	3.256	53.12	0.030
4.1111	1.024	3.313	57.11	0.030
4.1667	1.031	3.370	61.22	0.030
4.2222	1.037	3.428	65.45	0.030
4.2778	1.043	3.486	69.78	0.030
4.3333	1.050	3.544	74.22	0.030
4.3889	1.056	3.603	78.76	0.030
4.4444	1.062	3.662	83.40	0.030
4.5000	1.069	3.721	88.15	0.030
4.5556	1.075	3.781	92.99	0.030
4.6111	1.081	3.841	97.92	0.030

4.6667	1.088	3.902	102.9	0.030
4.7222	1.094	3.963	108.0	0.030
4.7778	1.101	4.024	113.2	0.030
4.8333	1.107	4.085	118.5	0.030
4.8889	1.114	4.147	123.9	0.030
4.9444	1.120	4.209	129.4	0.030
5.0000	1.127	4.272	134.9	0.030

Name : BMP 4 - Detention Ba
Depth: 5 ft.
Discharge Structure
Riser Height: 3.5 ft.
Riser Diameter: 48 in.
Notch Type : Rectangular
Notch Width : 4.000 ft.
Notch Height: 0.250 ft.
Orifice 1 Diameter: 2.5 in. **Elevation**: 0 ft.
Orifice 2 Diameter: 12 in. **Elevation**: 2 ft.

Element Flows To:
Outlet 1 **Outlet 2**
 Bioswale 1

Irregular Pond Hydraulic Table

<u>Stage(ft)</u>	<u>Area(ac)</u>	<u>Volume(ac-ft)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	0.012	0.000	0.000	0.000
0.0556	0.023	0.001	0.038	0.000
0.1111	0.034	0.003	0.054	0.000
0.1667	0.045	0.005	0.067	0.000
0.2222	0.056	0.008	0.077	0.000
0.2778	0.067	0.012	0.086	0.000
0.3333	0.077	0.016	0.094	0.000
0.3889	0.088	0.021	0.102	0.000
0.4444	0.099	0.027	0.109	0.000
0.5000	0.109	0.033	0.116	0.000
0.5556	0.120	0.040	0.122	0.000
0.6111	0.131	0.047	0.128	0.000
0.6667	0.141	0.055	0.134	0.000
0.7222	0.152	0.063	0.139	0.000
0.7778	0.162	0.072	0.144	0.000
0.8333	0.172	0.082	0.149	0.000
0.8889	0.183	0.092	0.154	0.000
0.9444	0.193	0.103	0.159	0.000
1.0000	0.203	0.114	0.164	0.000
1.0556	0.213	0.126	0.168	0.000
1.1111	0.223	0.138	0.173	0.000
1.1667	0.233	0.151	0.177	0.000
1.2222	0.243	0.165	0.181	0.000
1.2778	0.253	0.179	0.185	0.000

1.3333	0.263	0.194	0.189	0.000
1.3889	0.273	0.209	0.193	0.000
1.4444	0.282	0.225	0.197	0.000
1.5000	0.292	0.241	0.201	0.000
1.5556	0.302	0.258	0.204	0.000
1.6111	0.311	0.275	0.208	0.000
1.6667	0.321	0.293	0.211	0.000
1.7222	0.330	0.311	0.215	0.000
1.7778	0.339	0.330	0.218	0.000
1.8333	0.349	0.349	0.222	0.000
1.8889	0.358	0.369	0.225	0.000
1.9444	0.367	0.390	0.228	0.000
2.0000	0.377	0.411	0.232	0.000
2.0556	0.386	0.432	1.126	0.000
2.1111	0.395	0.454	1.499	0.000
2.1667	0.404	0.477	1.785	0.000
2.2222	0.413	0.500	2.027	0.000
2.2778	0.422	0.523	2.241	0.000
2.3333	0.431	0.547	2.434	0.000
2.3889	0.440	0.571	2.612	0.000
2.4444	0.449	0.596	2.778	0.000
2.5000	0.458	0.622	2.933	0.000
2.5556	0.467	0.648	3.081	0.000
2.6111	0.476	0.674	3.221	0.000
2.6667	0.485	0.701	3.356	0.000
2.7222	0.494	0.729	3.484	0.000
2.7778	0.503	0.757	3.609	0.000
2.8333	0.512	0.785	3.728	0.000
2.8889	0.521	0.814	3.844	0.000
2.9444	0.530	0.844	3.957	0.000
3.0000	0.539	0.874	4.066	0.000
3.0556	0.548	0.904	4.172	0.000
3.1111	0.557	0.935	4.276	0.000
3.1667	0.565	0.967	4.377	0.000
3.2222	0.574	0.998	4.475	0.000
3.2778	0.583	1.031	4.634	0.000
3.3333	0.592	1.064	4.987	0.000
3.3889	0.601	1.097	5.448	0.000
3.4444	0.610	1.131	5.992	0.000
3.5000	0.619	1.166	6.604	0.000
3.5556	0.628	1.200	7.201	0.000
3.6111	0.637	1.236	8.220	0.000
3.6667	0.646	1.272	9.512	0.000
3.7222	0.654	1.308	11.02	0.000
3.7778	0.663	1.345	12.73	0.000
3.8333	0.672	1.382	14.60	0.000
3.8889	0.681	1.420	16.63	0.000
3.9444	0.690	1.459	18.80	0.000
4.0000	0.699	1.497	21.11	0.000
4.0556	0.708	1.537	23.54	0.000
4.1111	0.717	1.577	26.10	0.000
4.1667	0.726	1.617	28.77	0.000
4.2222	0.735	1.658	31.55	0.000

4.2778	0.744	1.699	34.43	0.000
4.3333	0.753	1.741	37.41	0.000
4.3889	0.762	1.783	40.50	0.000
4.4444	0.771	1.826	43.67	0.000
4.5000	0.780	1.870	46.94	0.000
4.5556	0.789	1.913	50.30	0.000
4.6111	0.798	1.958	53.75	0.000
4.6667	0.807	2.003	57.28	0.000
4.7222	0.816	2.048	60.90	0.000
4.7778	0.825	2.094	64.59	0.000
4.8333	0.834	2.140	68.36	0.000
4.8889	0.843	2.187	72.22	0.000
4.9444	0.852	2.234	76.14	0.000
5.0000	0.861	2.282	80.14	0.000

Name : BMP 2 - Detention Ba
Depth: 5 ft.
Discharge Structure
Riser Height: 2.5 ft.
Riser Diameter: 60 in.
Notch Type : Rectangular
Notch Width : 5.000 ft.
Notch Height: 0.200 ft.
Orifice 1 Diameter: 4.5 in. **Elevation:** 0 ft.
Orifice 2 Diameter: 8 in. **Elevation:** 0.8 ft.

Element Flows To:
Outlet 1 **Outlet 2**
 Bioswale 2

Irregular Pond Hydraulic Table

<u>Stage(ft)</u>	<u>Area(ac)</u>	<u>Volume(ac-ft)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	2.777	0.000	0.000	0.000
0.0556	2.767	0.153	0.125	0.019
0.1111	2.757	0.306	0.177	0.019
0.1667	2.747	0.459	0.217	0.019
0.2222	2.736	0.611	0.250	0.019
0.2778	2.726	0.763	0.280	0.019
0.3333	2.716	0.913	0.307	0.019
0.3889	2.706	1.064	0.331	0.019
0.4444	2.695	1.214	0.354	0.019
0.5000	2.685	1.363	0.376	0.019
0.5556	2.675	1.511	0.396	0.019
0.6111	2.665	1.659	0.415	0.019
0.6667	2.654	1.807	0.434	0.019
0.7222	2.644	1.954	0.452	0.019
0.7778	2.634	2.100	0.469	0.019
0.8333	2.624	2.246	0.792	0.019
0.8889	2.614	2.391	1.002	0.019

0.9444	2.604	2.536	1.155	0.019
1.0000	2.594	2.680	1.283	0.019
1.0556	2.584	2.824	1.396	0.019
1.1111	2.573	2.967	1.498	0.019
1.1667	2.563	3.109	1.592	0.019
1.2222	2.553	3.251	1.680	0.019
1.2778	2.543	3.392	1.763	0.019
1.3333	2.533	3.533	1.841	0.019
1.3889	2.523	3.673	1.916	0.019
1.4444	2.513	3.813	1.988	0.019
1.5000	2.503	3.952	2.057	0.019
1.5556	2.493	4.091	2.124	0.019
1.6111	2.483	4.229	2.188	0.019
1.6667	2.473	4.366	2.251	0.019
1.7222	2.463	4.503	2.312	0.019
1.7778	2.453	4.639	2.371	0.019
1.8333	2.443	4.775	2.428	0.019
1.8889	2.433	4.910	2.485	0.019
1.9444	2.424	5.045	2.539	0.019
2.0000	2.414	5.179	2.593	0.019
2.0556	2.404	5.312	2.646	0.019
2.1111	2.394	5.445	2.697	0.019
2.1667	2.384	5.578	2.747	0.019
2.2222	2.374	5.710	2.797	0.019
2.2778	2.364	5.841	2.846	0.019
2.3333	2.355	5.972	2.995	0.019
2.3889	2.345	6.102	3.382	0.019
2.4444	2.335	6.232	3.901	0.019
2.5000	2.325	6.361	4.521	0.019
2.5556	2.315	6.490	5.204	0.019
2.6111	2.306	6.618	6.414	0.019
2.6667	2.296	6.746	7.967	0.019
2.7222	2.286	6.873	9.798	0.019
2.7778	2.277	6.999	11.86	0.019
2.8333	2.267	7.125	14.15	0.019
2.8889	2.257	7.251	16.63	0.019
2.9444	2.247	7.376	19.29	0.019
3.0000	2.238	7.500	22.12	0.019
3.0556	2.228	7.624	25.10	0.019
3.1111	2.219	7.747	28.24	0.019
3.1667	2.209	7.870	31.52	0.019
3.2222	2.199	7.992	34.94	0.019
3.2778	2.190	8.114	38.50	0.019
3.3333	2.180	8.235	42.17	0.019
3.3889	2.171	8.355	45.98	0.019
3.4444	2.161	8.475	49.90	0.019
3.5000	2.151	8.595	53.94	0.019
3.5556	2.142	8.714	58.09	0.019
3.6111	2.132	8.832	62.35	0.019
3.6667	2.123	8.950	66.71	0.019
3.7222	2.113	9.068	71.18	0.019
3.7778	2.104	9.185	75.75	0.019
3.8333	2.094	9.301	80.42	0.019

3.8889	2.085	9.417	85.19	0.019
3.9444	2.075	9.532	90.06	0.019
4.0000	2.066	9.647	95.01	0.019
4.0556	2.057	9.761	100.0	0.019
4.1111	2.047	9.875	105.2	0.019
4.1667	2.038	9.988	110.4	0.019
4.2222	2.028	10.10	115.7	0.019
4.2778	2.019	10.21	121.1	0.019
4.3333	2.010	10.32	126.6	0.019
4.3889	2.000	10.43	132.2	0.019
4.4444	1.991	10.54	137.8	0.019
4.5000	1.982	10.65	143.5	0.019
4.5556	1.972	10.76	149.3	0.019
4.6111	1.963	10.87	155.2	0.019
4.6667	1.954	10.98	161.2	0.019
4.7222	1.945	11.09	167.2	0.019
4.7778	1.935	11.20	173.4	0.019
4.8333	1.926	11.30	179.5	0.019
4.8889	1.917	11.41	185.8	0.019
4.9444	1.908	11.52	192.2	0.019
5.0000	1.898	11.62	198.6	0.019

Name : Bioswale 2
Bottom Length: 1200.00 ft.
Bottom Width : 3.00 ft.
Manning's n : 0.022
Channel bottom slope 1: 0.01 To 1
Channel Left side slope 0: 3 To 1
Channel right side slope 2: 3 To 1
Infiltration On
Infiltration rate : 0.4
Infiltration safety factor : 0.5
Discharge Structure
Riser Height: 0 ft.
Riser Diameter: 0 in.

Element Flows To:
Outlet 1 **Outlet 2**
 Culvert 1

Channel Hydraulic Table

<u>Stage(ft)</u>	<u>Area(ac)</u>	<u>Volume(ac-ft)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	0.082	0.000	0.000	0.000
0.0356	0.088	0.003	0.078	0.016
0.0711	0.094	0.006	0.253	0.016
0.1067	0.100	0.009	0.504	0.016
0.1422	0.106	0.013	0.825	0.016
0.1778	0.112	0.017	1.213	0.016
0.2133	0.117	0.021	1.667	0.016

0.2489	0.123	0.025	2.187	0.016
0.2844	0.129	0.030	2.773	0.016
0.3200	0.135	0.034	3.426	0.016
0.3556	0.141	0.039	4.146	0.016
0.3911	0.147	0.045	4.934	0.016
0.4267	0.153	0.050	5.791	0.016
0.4622	0.159	0.055	6.719	0.016
0.4978	0.164	0.061	7.719	0.016
0.5333	0.170	0.067	8.792	0.016
0.5689	0.176	0.073	9.940	0.016
0.6044	0.182	0.080	11.16	0.016
0.6400	0.188	0.086	12.46	0.016
0.6756	0.194	0.093	13.84	0.016
0.7111	0.200	0.100	15.30	0.016
0.7467	0.206	0.107	16.84	0.016
0.7822	0.211	0.115	18.46	0.016
0.8178	0.217	0.122	20.17	0.016
0.8533	0.223	0.130	21.96	0.016
0.8889	0.229	0.138	23.84	0.016
0.9244	0.235	0.147	25.80	0.016
0.9600	0.241	0.155	27.86	0.016
0.9956	0.247	0.164	30.01	0.016
1.0311	0.253	0.173	32.25	0.016
1.0667	0.259	0.182	34.58	0.016
1.1022	0.264	0.191	37.01	0.016
1.1378	0.270	0.201	39.54	0.016
1.1733	0.276	0.210	42.16	0.016
1.2089	0.282	0.220	44.88	0.016
1.2444	0.288	0.230	47.71	0.016
1.2800	0.294	0.241	50.63	0.016
1.3156	0.300	0.251	53.66	0.016
1.3511	0.306	0.262	56.79	0.016
1.3867	0.311	0.273	60.03	0.016
1.4222	0.317	0.284	63.37	0.016
1.4578	0.323	0.296	66.83	0.016
1.4933	0.329	0.307	70.39	0.016
1.5289	0.335	0.319	74.06	0.016
1.5644	0.341	0.331	77.85	0.016
1.6000	0.347	0.343	81.75	0.016
1.6356	0.353	0.356	85.77	0.016
1.6711	0.358	0.368	89.90	0.016
1.7067	0.364	0.381	94.14	0.016
1.7422	0.370	0.394	98.51	0.016
1.7778	0.376	0.408	103.0	0.016
1.8133	0.382	0.421	107.6	0.016
1.8489	0.388	0.435	112.3	0.016
1.8844	0.394	0.449	117.1	0.016
1.9200	0.400	0.463	122.1	0.016
1.9556	0.405	0.477	127.2	0.016
1.9911	0.411	0.492	132.5	0.016
2.0267	0.417	0.507	137.8	0.016
2.0622	0.423	0.521	143.3	0.016
2.0978	0.429	0.537	148.9	0.016

2.1333	0.435	0.552	154.7	0.016
2.1689	0.441	0.568	160.6	0.016
2.2044	0.447	0.583	166.6	0.016
2.2400	0.452	0.599	172.7	0.016
2.2756	0.458	0.616	179.0	0.016
2.3111	0.464	0.632	185.5	0.016
2.3467	0.470	0.649	192.0	0.016
2.3822	0.476	0.665	198.7	0.016
2.4178	0.482	0.682	205.6	0.016
2.4533	0.488	0.700	212.6	0.016
2.4889	0.494	0.717	219.7	0.016
2.5244	0.499	0.735	227.0	0.016
2.5600	0.505	0.753	234.4	0.016
2.5956	0.511	0.771	242.0	0.016
2.6311	0.517	0.789	249.7	0.016
2.6667	0.523	0.808	257.6	0.016
2.7022	0.529	0.826	265.6	0.016
2.7378	0.535	0.845	273.8	0.016
2.7733	0.541	0.864	282.1	0.016
2.8089	0.546	0.884	290.6	0.016
2.8444	0.552	0.903	299.2	0.016
2.8800	0.558	0.923	308.0	0.016
2.9156	0.564	0.943	316.9	0.016
2.9511	0.570	0.963	326.0	0.016
2.9867	0.576	0.984	335.3	0.016
3.0222	0.582	1.004	344.7	0.016
3.0578	0.588	1.025	354.3	0.016
3.0933	0.594	1.046	364.0	0.016
3.1289	0.599	1.067	373.9	0.016
3.1644	0.605	1.089	384.0	0.016
3.2000	0.611	1.110	394.3	0.016
3.2356	0.617	1.132	404.7	0.016

Name : Basin 7
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
A, Urban, Flat(0-5%)	1.71
A, Urban, Very S(>20%)	.05
B, Urban, Flat(0-5%)	.79
B, Urban, Very S(>20%)	.39
C D, Urban, Flat(0-5%)	.07
C D, Urban, Very(>20%)	.06

<u>Impervious Land Use</u>	<u>Acres</u>
Roads, Flat(0-5%)	0.39
Roads, Mod(5-10%)	0.27
Roof Area	0.02
Sidewalks, Flat(0-5%)	0.07
Parking, Flat(0-5%)	0.35

Element Flows To:
Surface **Interflow** **Groundwater**
 BMP 7 - Bi Surfaceon BMP 7 - Bi Surfaceon

Name : Culvert 1
Discharge Structure
Riser Height: 0 ft.
Riser Diameter: 0 in.

Element Flows To:
Outlet 1 **Outlet 2**
 Bioswale 1

Name : Bioswale 1
Bottom Length: 770.00 ft.
Bottom Width : 12.50 ft.
Manning's n : 0.022
Channel bottom slope 1: 0.004 To 1
Channel Left side slope 0: 3 To 1
Channel right side slope 2: 3 To 1
Infiltration On
Infiltration rate : 0.4
Infiltration safety factor : 0.5
Discharge Structure
Riser Height: 0 ft.
Riser Diameter: 0 in.

Element Flows To:
Outlet 1 **Outlet 2**
 Bioswale 3

Channel Hydraulic Table

Stage(ft)	Area(ac)	Volume(ac-ft)	Discharge(cfs)	Infilt(cfs)
0.0000	0.221	0.000	0.000	0.000
0.0356	0.224	0.007	0.206	0.044
0.0711	0.228	0.016	0.656	0.044
0.1067	0.232	0.024	1.293	0.044
0.1422	0.236	0.032	2.094	0.044
0.1778	0.239	0.041	3.046	0.044
0.2133	0.243	0.049	4.139	0.044
0.2489	0.247	0.058	5.366	0.044
0.2844	0.251	0.067	6.723	0.044
0.3200	0.254	0.076	8.204	0.044

0.3556	0.258	0.085	9.808	0.044
0.3911	0.262	0.094	11.53	0.044
0.4267	0.266	0.103	13.37	0.044
0.4622	0.270	0.113	15.32	0.044
0.4978	0.273	0.123	17.39	0.044
0.5333	0.277	0.132	19.57	0.044
0.5689	0.281	0.142	21.86	0.044
0.6044	0.285	0.152	24.27	0.044
0.6400	0.288	0.163	26.78	0.044
0.6756	0.292	0.173	29.40	0.044
0.7111	0.296	0.183	32.13	0.044
0.7467	0.300	0.194	34.97	0.044
0.7822	0.303	0.205	37.92	0.044
0.8178	0.307	0.216	40.97	0.044
0.8533	0.311	0.227	44.14	0.044
0.8889	0.315	0.238	47.41	0.044
0.9244	0.319	0.249	50.79	0.044
0.9600	0.322	0.261	54.27	0.044
0.9956	0.326	0.272	57.86	0.044
1.0311	0.330	0.284	61.57	0.044
1.0667	0.334	0.296	65.38	0.044
1.1022	0.337	0.308	69.29	0.044
1.1378	0.341	0.320	73.32	0.044
1.1733	0.345	0.332	77.45	0.044
1.2089	0.349	0.344	81.70	0.044
1.2444	0.353	0.357	86.05	0.044
1.2800	0.356	0.369	90.51	0.044
1.3156	0.360	0.382	95.08	0.044
1.3511	0.364	0.395	99.76	0.044
1.3867	0.368	0.408	104.5	0.044
1.4222	0.371	0.421	109.4	0.044
1.4578	0.375	0.434	114.4	0.044
1.4933	0.379	0.448	119.6	0.044
1.5289	0.383	0.461	124.8	0.044
1.5644	0.386	0.475	130.1	0.044
1.6000	0.390	0.489	135.6	0.044
1.6356	0.394	0.503	141.2	0.044
1.6711	0.398	0.517	146.9	0.044
1.7067	0.402	0.531	152.7	0.044
1.7422	0.405	0.545	158.6	0.044
1.7778	0.409	0.560	164.6	0.044
1.8133	0.413	0.575	170.8	0.044
1.8489	0.417	0.589	177.0	0.044
1.8844	0.420	0.604	183.4	0.044
1.9200	0.424	0.619	189.9	0.044
1.9556	0.428	0.634	196.5	0.044
1.9911	0.432	0.650	203.3	0.044
2.0267	0.435	0.665	210.1	0.044
2.0622	0.439	0.681	217.1	0.044
2.0978	0.443	0.696	224.2	0.044
2.1333	0.447	0.712	231.4	0.044
2.1689	0.451	0.728	238.7	0.044
2.2044	0.454	0.744	246.2	0.044

2.2400	0.458	0.761	253.7	0.044
2.2756	0.462	0.777	261.4	0.044
2.3111	0.466	0.793	269.3	0.044
2.3467	0.469	0.810	277.2	0.044
2.3822	0.473	0.827	285.3	0.044
2.4178	0.477	0.844	293.5	0.044
2.4533	0.481	0.861	301.8	0.044
2.4889	0.484	0.878	310.2	0.044
2.5244	0.488	0.895	318.8	0.044
2.5600	0.492	0.913	327.5	0.044
2.5956	0.496	0.930	336.3	0.044
2.6311	0.500	0.948	345.2	0.044
2.6667	0.503	0.966	354.3	0.044
2.7022	0.507	0.984	363.5	0.044
2.7378	0.511	1.002	372.8	0.044
2.7733	0.515	1.020	382.3	0.044
2.8089	0.518	1.039	391.9	0.044
2.8444	0.522	1.057	401.6	0.044
2.8800	0.526	1.076	411.5	0.044
2.9156	0.530	1.095	421.5	0.044
2.9511	0.534	1.113	431.6	0.044
2.9867	0.537	1.133	441.8	0.044
3.0222	0.541	1.152	452.2	0.044
3.0578	0.545	1.171	462.7	0.044
3.0933	0.549	1.191	473.4	0.044
3.1289	0.552	1.210	484.2	0.044
3.1644	0.556	1.230	495.1	0.044
3.2000	0.560	1.250	506.2	0.044
3.2356	0.564	1.270	517.4	0.044

Name : Basin 6

Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Urban,Flat(0-5%)	1.45
B,Urban,Very S(>20%)	.28

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	1.07
Roof Area	0.85
Driveways,Flat(0-5%)	0.27
Sidewalks,Flat(0-5%)	0.2

Element Flows To:

Surface	Interflow	Groundwater
BMP 6 - Bi Surfaceon	BMP 6 - Bi Surfaceon	

Name : Basin 5
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Urban,Flat(0-5%)	8.52
B,Urban,Very S(>20%)	1.39
C D,Urban,Flat(0-5%)	3.97
A,Urban,Flat(0-5%)	1.37
A,Urban,Very S(>20%)	.51
C D,Urban,Very(>20%)	.29
B,Shrub,Very S(>20%)	3.91
B,Forest,Very(>20%)	.8

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	7.64
Roof Area	8.55
Driveways,Flat(0-5%)	2.51
Sidewalks,Flat(0-5%)	1.37

Element Flows To:

Surface	Interflow	Groundwater
BMP 5 - Detention Ba	BMP 5 - Detention Ba	

Name : BMP 5 - Detention Ba
 Depth: 5 ft.
Discharge Structure
 Riser Height: 3.5 ft.
 Riser Diameter: 66 in.
 Notch Type : Rectangular
 Notch Width : 5.500 ft.
 Notch Height: 0.250 ft.
 Orifice 1 Diameter: 4 in. Elevation: 0 ft.
 Orifice 2 Diameter: 13 in. Elevation: 2 ft.

Element Flows To:

Outlet 1	Outlet 2
Bioswale 3	

Irregular Pond Hydraulic Table

<u>Stage(ft)</u>	<u>Area(ac)</u>	<u>Volume(ac-ft)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	0.825	0.000	0.000	0.000
0.0556	0.834	0.046	0.099	0.000
0.1111	0.843	0.093	0.140	0.000
0.1667	0.853	0.140	0.171	0.000
0.2222	0.862	0.188	0.198	0.000

0.2778	0.871	0.237	0.221	0.000
0.3333	0.880	0.285	0.242	0.000
0.3889	0.889	0.335	0.262	0.000
0.4444	0.899	0.385	0.280	0.000
0.5000	0.908	0.435	0.297	0.000
0.5556	0.917	0.486	0.313	0.000
0.6111	0.926	0.538	0.328	0.000
0.6667	0.935	0.590	0.343	0.000
0.7222	0.944	0.642	0.357	0.000
0.7778	0.953	0.695	0.370	0.000
0.8333	0.963	0.749	0.383	0.000
0.8889	0.972	0.803	0.396	0.000
0.9444	0.981	0.857	0.408	0.000
1.0000	0.990	0.912	0.420	0.000
1.0556	0.999	0.968	0.431	0.000
1.1111	1.008	1.024	0.443	0.000
1.1667	1.017	1.080	0.453	0.000
1.2222	1.026	1.137	0.464	0.000
1.2778	1.036	1.195	0.475	0.000
1.3333	1.045	1.253	0.485	0.000
1.3889	1.054	1.312	0.495	0.000
1.4444	1.063	1.371	0.505	0.000
1.5000	1.072	1.430	0.514	0.000
1.5556	1.081	1.490	0.524	0.000
1.6111	1.090	1.551	0.533	0.000
1.6667	1.099	1.612	0.542	0.000
1.7222	1.108	1.674	0.551	0.000
1.7778	1.117	1.736	0.560	0.000
1.8333	1.126	1.798	0.569	0.000
1.8889	1.136	1.861	0.577	0.000
1.9444	1.145	1.925	0.586	0.000
2.0000	1.154	1.989	0.594	0.000
2.0556	1.163	2.054	1.648	0.000
2.1111	1.172	2.119	2.090	0.000
2.1667	1.181	2.185	2.430	0.000
2.2222	1.190	2.251	2.718	0.000
2.2778	1.199	2.317	2.973	0.000
2.3333	1.208	2.384	3.204	0.000
2.3889	1.217	2.452	3.417	0.000
2.4444	1.226	2.520	3.616	0.000
2.5000	1.235	2.589	3.803	0.000
2.5556	1.244	2.658	3.980	0.000
2.6111	1.253	2.728	4.148	0.000
2.6667	1.262	2.798	4.310	0.000
2.7222	1.271	2.868	4.465	0.000
2.7778	1.280	2.940	4.614	0.000
2.8333	1.289	3.011	4.759	0.000
2.8889	1.298	3.083	4.899	0.000
2.9444	1.307	3.156	5.034	0.000
3.0000	1.316	3.229	5.166	0.000
3.0556	1.325	3.303	5.294	0.000
3.1111	1.334	3.377	5.419	0.000
3.1667	1.343	3.452	5.542	0.000

3.2222	1.352	3.527	5.661	0.000
3.2778	1.361	3.602	5.862	0.000
3.3333	1.370	3.679	6.333	0.000
3.3889	1.379	3.755	6.952	0.000
3.4444	1.388	3.832	7.684	0.000
3.5000	1.397	3.910	8.511	0.000
3.5556	1.406	3.988	9.319	0.000
3.6111	1.415	4.067	10.70	0.000
3.6667	1.424	4.146	12.46	0.000
3.7222	1.433	4.226	14.53	0.000
3.7778	1.442	4.306	16.86	0.000
3.8333	1.451	4.386	19.43	0.000
3.8889	1.460	4.467	22.20	0.000
3.9444	1.468	4.549	25.18	0.000
4.0000	1.477	4.631	28.34	0.000
4.0556	1.486	4.714	31.68	0.000
4.1111	1.494	4.797	35.18	0.000
4.1667	1.503	4.880	38.83	0.000
4.2222	1.512	4.964	42.64	0.000
4.2778	1.521	5.049	46.59	0.000
4.3333	1.530	5.134	50.69	0.000
4.3889	1.539	5.219	54.92	0.000
4.4444	1.548	5.305	59.27	0.000
4.5000	1.558	5.392	63.76	0.000
4.5556	1.567	5.479	68.37	0.000
4.6111	1.576	5.567	73.10	0.000
4.6667	1.586	5.655	77.94	0.000
4.7222	1.595	5.743	82.90	0.000
4.7778	1.605	5.833	87.97	0.000
4.8333	1.614	5.922	93.15	0.000
4.8889	1.623	6.012	98.43	0.000
4.9444	1.633	6.103	103.8	0.000
5.0000	1.642	6.194	109.3	0.000

Name : Bioswale 3
Bottom Length: 350.00 ft.
Bottom Width : 12.50 ft.
Manning's n : 0.022
Channel bottom slope 1: 0.01 To 1
Channel Left side slope 0: 3 To 1
Channel right side slope 2: 3 To 1
Infiltration On
Infiltration rate : 0.4
Infiltration safety factor : 0.5
Discharge Structure
Riser Height: 0 ft.
Riser Diameter: 0 in.

Element Flows To:
Outlet 1 **Outlet 2**
 Gomez Creek

Channel Hydraulic Table

<u>Stage(ft)</u>	<u>Area(ac)</u>	<u>Volume(ac-ft)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	0.100	0.000	0.000	0.000
0.0356	0.102	0.003	0.326	0.020
0.0711	0.103	0.007	1.038	0.020
0.1067	0.105	0.011	2.045	0.020
0.1422	0.107	0.014	3.312	0.020
0.1778	0.109	0.018	4.817	0.020
0.2133	0.110	0.022	6.544	0.020
0.2489	0.112	0.026	8.485	0.020
0.2844	0.114	0.030	10.63	0.020
0.3200	0.115	0.034	12.97	0.020
0.3556	0.117	0.038	15.50	0.020
0.3911	0.119	0.043	18.23	0.020
0.4267	0.121	0.047	21.14	0.020
0.4622	0.122	0.051	24.23	0.020
0.4978	0.124	0.056	27.50	0.020
0.5333	0.126	0.060	30.95	0.020
0.5689	0.127	0.064	34.57	0.020
0.6044	0.129	0.069	38.37	0.020
0.6400	0.131	0.074	42.34	0.020
0.6756	0.133	0.078	46.49	0.020
0.7111	0.134	0.083	50.81	0.020
0.7467	0.136	0.088	55.30	0.020
0.7822	0.138	0.093	59.96	0.020
0.8178	0.139	0.098	64.79	0.020
0.8533	0.141	0.103	69.79	0.020
0.8889	0.143	0.108	74.96	0.020
0.9244	0.145	0.113	80.30	0.020
0.9600	0.146	0.118	85.81	0.020
0.9956	0.148	0.123	91.50	0.020
1.0311	0.150	0.129	97.35	0.020
1.0667	0.151	0.134	103.3	0.020
1.1022	0.153	0.140	109.5	0.020
1.1378	0.155	0.145	115.9	0.020
1.1733	0.157	0.151	122.4	0.020
1.2089	0.158	0.156	129.1	0.020
1.2444	0.160	0.162	136.0	0.020
1.2800	0.162	0.168	143.1	0.020
1.3156	0.163	0.173	150.3	0.020
1.3511	0.165	0.179	157.7	0.020
1.3867	0.167	0.185	165.3	0.020
1.4222	0.169	0.191	173.0	0.020
1.4578	0.170	0.197	181.0	0.020
1.4933	0.172	0.203	189.1	0.020
1.5289	0.174	0.209	197.3	0.020
1.5644	0.175	0.216	205.8	0.020
1.6000	0.177	0.222	214.4	0.020
1.6356	0.179	0.228	223.3	0.020
1.6711	0.181	0.235	232.2	0.020

1.7067	0.182	0.241	241.4	0.020
1.7422	0.184	0.248	250.8	0.020
1.7778	0.186	0.254	260.3	0.020
1.8133	0.187	0.261	270.0	0.020
1.8489	0.189	0.268	279.9	0.020
1.8844	0.191	0.274	290.0	0.020
1.9200	0.193	0.281	300.3	0.020
1.9556	0.194	0.288	310.8	0.020
1.9911	0.196	0.295	321.4	0.020
2.0267	0.198	0.302	332.3	0.020
2.0622	0.199	0.309	343.3	0.020
2.0978	0.201	0.316	354.5	0.020
2.1333	0.203	0.324	365.9	0.020
2.1689	0.205	0.331	377.5	0.020
2.2044	0.206	0.338	389.3	0.020
2.2400	0.208	0.345	401.2	0.020
2.2756	0.210	0.353	413.4	0.020
2.3111	0.211	0.360	425.8	0.020
2.3467	0.213	0.368	438.3	0.020
2.3822	0.215	0.376	451.1	0.020
2.4178	0.217	0.383	464.0	0.020
2.4533	0.218	0.391	477.2	0.020
2.4889	0.220	0.399	490.5	0.020
2.5244	0.222	0.407	504.1	0.020
2.5600	0.223	0.415	517.8	0.020
2.5956	0.225	0.423	531.7	0.020
2.6311	0.227	0.431	545.9	0.020
2.6667	0.229	0.439	560.2	0.020
2.7022	0.230	0.447	574.8	0.020
2.7378	0.232	0.455	589.5	0.020
2.7733	0.234	0.464	604.5	0.020
2.8089	0.235	0.472	619.7	0.020
2.8444	0.237	0.480	635.0	0.020
2.8800	0.239	0.489	650.6	0.020
2.9156	0.241	0.497	666.4	0.020
2.9511	0.242	0.506	682.4	0.020
2.9867	0.244	0.515	698.6	0.020
3.0222	0.246	0.523	715.0	0.020
3.0578	0.247	0.532	731.7	0.020
3.0933	0.249	0.541	748.5	0.020
3.1289	0.251	0.550	765.6	0.020
3.1644	0.253	0.559	782.8	0.020
3.2000	0.254	0.568	800.3	0.020
3.2356	0.256	0.577	818.0	0.020

Name : Basin 15
 Bypass: No

GroundWater: No

Pervious Land Use Acres
 A,Urban,Flat(0-5%) .62

C D,Urban,Flat(0-5%) .03

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	2.59
Sidewalks,Flat(0-5%)	0.07

Element Flows To:

Surface	Interflow	Groundwater
Bioswale 3	Bioswale 3	

Name : Gomez Creek
Bottom Length: 1500.00 ft.
Bottom Width : 47.00 ft.
Manning's n : 0.05
Channel bottom slope 1: 0.007 To 1
Channel Left side slope 0: 2 To 1
Channel right side slope 2: 2 To 1
Infiltration On
Infiltration rate : 0.7
Infiltration saftey factor : 0.5
Discharge Structure
Riser Height: 0 ft.
Riser Diameter: 0 in.

Element Flows To:

Outlet 1	Outlet 2
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Channel Hydraulic Table

<u>Stage(ft)</u>	<u>Area(ac)</u>	<u>Volume(ac-ft)</u>	<u>Discharge(cfs)</u>	<u>Infilt(cfs)</u>
0.0000	1.618	0.000	0.000	0.000
0.0778	1.629	0.126	1.661	0.571
0.1556	1.639	0.253	5.278	0.571
0.2333	1.650	0.381	10.38	0.571
0.3111	1.661	0.510	16.78	0.571
0.3889	1.672	0.639	24.35	0.571
0.4667	1.682	0.770	33.02	0.571
0.5444	1.693	0.901	42.73	0.571
0.6222	1.704	1.033	53.42	0.571
0.7000	1.714	1.166	65.05	0.571
0.7778	1.725	1.300	77.59	0.571
0.8556	1.736	1.435	91.02	0.571
0.9333	1.747	1.570	105.3	0.571
1.0111	1.757	1.706	120.4	0.571
1.0889	1.768	1.844	136.3	0.571
1.1667	1.779	1.982	153.1	0.571

1.2444	1.789	2.120	170.6	0.571
1.3222	1.800	2.260	188.9	0.571
1.4000	1.811	2.400	208.0	0.571
1.4778	1.822	2.542	227.8	0.571
1.5556	1.832	2.684	248.3	0.571
1.6333	1.843	2.827	269.6	0.571
1.7111	1.854	2.971	291.6	0.571
1.7889	1.864	3.115	314.3	0.571
1.8667	1.875	3.261	337.7	0.571
1.9444	1.886	3.407	361.8	0.571
2.0222	1.897	3.554	386.7	0.571
2.1000	1.907	3.702	412.2	0.571
2.1778	1.918	3.851	438.3	0.571
2.2556	1.929	4.000	465.2	0.571
2.3333	1.939	4.151	492.7	0.571
2.4111	1.950	4.302	520.9	0.571
2.4889	1.961	4.454	549.7	0.571
2.5667	1.972	4.607	579.3	0.571
2.6444	1.982	4.761	609.4	0.571
2.7222	1.993	4.916	640.3	0.571
2.8000	2.004	5.071	671.7	0.571
2.8778	2.014	5.228	703.8	0.571
2.9556	2.025	5.385	736.6	0.571
3.0333	2.036	5.543	770.0	0.571
3.1111	2.047	5.701	804.0	0.571
3.1889	2.057	5.861	838.7	0.571
3.2667	2.068	6.022	874.0	0.571
3.3444	2.079	6.183	910.0	0.571
3.4222	2.089	6.345	946.6	0.571
3.5000	2.100	6.508	983.8	0.571
3.5778	2.111	6.672	1021.	0.571
3.6556	2.122	6.836	1060.	0.571
3.7333	2.132	7.002	1099.	0.571
3.8111	2.143	7.168	1138.	0.571
3.8889	2.154	7.335	1179.	0.571
3.9667	2.164	7.503	1220.	0.571
4.0444	2.175	7.672	1261.	0.571
4.1222	2.186	7.842	1303.	0.571
4.2000	2.197	8.012	1346.	0.571
4.2778	2.207	8.183	1390.	0.571
4.3556	2.218	8.356	1434.	0.571
4.4333	2.229	8.529	1478.	0.571
4.5111	2.239	8.702	1524.	0.571
4.5889	2.250	8.877	1570.	0.571
4.6667	2.261	9.052	1616.	0.571
4.7444	2.272	9.229	1663.	0.571
4.8222	2.282	9.406	1711.	0.571
4.9000	2.293	9.584	1759.	0.571
4.9778	2.304	9.763	1808.	0.571
5.0556	2.314	9.942	1858.	0.571
5.1333	2.325	10.12	1908.	0.571
5.2111	2.336	10.30	1959.	0.571
5.2889	2.347	10.48	2010.	0.571

5.3667	2.357	10.67	2062.	0.571
5.4444	2.368	10.85	2115.	0.571
5.5222	2.379	11.03	2168.	0.571
5.6000	2.389	11.22	2222.	0.571
5.6778	2.400	11.41	2277.	0.571
5.7556	2.411	11.59	2332.	0.571
5.8333	2.422	11.78	2388.	0.571
5.9111	2.432	11.97	2444.	0.571
5.9889	2.443	12.16	2501.	0.571
6.0667	2.454	12.35	2558.	0.571
6.1444	2.464	12.54	2617.	0.571
6.2222	2.475	12.73	2676.	0.571
6.3000	2.486	12.93	2735.	0.571
6.3778	2.497	13.12	2795.	0.571
6.4556	2.507	13.31	2856.	0.571
6.5333	2.518	13.51	2917.	0.571
6.6111	2.529	13.71	2979.	0.571
6.6889	2.540	13.90	3041.	0.571
6.7667	2.550	14.10	3105.	0.571
6.8444	2.561	14.30	3168.	0.571
6.9222	2.572	14.50	3233.	0.571
7.0000	2.582	14.70	3298.	0.571
7.0778	2.593	14.90	3363.	0.571

Name : Basin 16
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
A,Forest,Flat(0-5%)	.13
A,Forest,Mod(5-10%)	.01
A,Forest,Stee(10-20)	.05
A,Forest,Very(>20%)	2.41
A,Grass,Flat(0-5%)	.11
A,Shrub,Flat(0-5%)	.15
A,Shrub,Mod(5-10%)	.14
A,Shrub,Stee(10-20%)	1.45
A,Shrub,Very S(>20%)	33.98
B,Forest,Very(>20%)	.11
B,Shrub,Flat(0-5%)	14.1
B,Shrub,Mod(5-10%)	8.85
B,Shrub,Stee(10-20%)	27.2
B,Shrub,Very S(>20%)	92.68
C D,Forest,Flat(0-5)	17.49
C D,Forest,Mod(5-10)	9.02
C D,Forest,St(10-20)	26.56
C D,Forest,Very(>20)	46.4
C D,Shrub,Flat(0-5%)	47.64
C D,Shrub,Mod(5-10%)	128.81
C D,Shrub,St(10-20%)	481.29
C D,Shrub,Very(>20%)	2623.92

C D,Urban,Flat(0-5%)	.04
C D,Urban,Mod(5-10%)	.01
C D,Urban,St(10-20%)	.05
C D,Urban,Very(>20%)	1.03
C D,Grass,Mod(5-10%)	.04
C D,Grass,Flat(0-5%)	.84

Impervious Land Use Acres

Element Flows To:

Surface	Interflow	Groundwater
Gomez Creek	Gomez Creek	

Name : BMP 7 - Bioretention
 Bottom Length: 190.00 ft.
 Bottom Width : 25.00 ft.
 Trench bottom slope 1: 0.01 To 1
 Trench Left side slope 0: 3 To 1
 Trench right side slope 2: 3 To 1
 Material thickness of first layer : 1.5
 Pour Space of material for first layer : 0.39
 Material thickness of second layer : 1.5
 Pour Space of material for second layer : 0.4
 Material thickness of third layer : 0
 Pour Space of material for third layer : 0.4
Discharge Structure
 Riser Height: 1 ft.
 Riser Diameter: 6 in.
 Orifice 1 Diameter: 1 in. Elevation: 0 ft.

Element Flows To:

Outlet 1	Outlet 2
Bioswale 1	

Landscape Swale Hydraulic Table

Stage(ft)	Area(ac)	Volume(ac-ft)	Discharge(cfs)	Infilt(cfs)
360.00	0.109	0.000	0.000	0.000
360.06	0.110	0.002	0.006	0.000
360.11	0.112	0.004	0.008	0.000
360.17	0.113	0.007	0.010	0.000
360.22	0.114	0.009	0.012	0.000
360.28	0.116	0.012	0.013	0.000
360.33	0.117	0.014	0.015	0.000
360.39	0.119	0.017	0.016	0.000
360.44	0.120	0.019	0.017	0.000
360.50	0.122	0.022	0.018	0.000
360.56	0.123	0.025	0.019	0.000

360.61	0.125	0.027	0.020	0.000
360.67	0.126	0.030	0.021	0.000
360.72	0.128	0.033	0.022	0.000
360.78	0.129	0.036	0.023	0.000
360.83	0.130	0.039	0.024	0.000
360.89	0.132	0.041	0.024	0.000
360.94	0.133	0.044	0.025	0.000
361.00	0.135	0.047	0.026	0.000
361.06	0.136	0.050	0.090	0.000
361.11	0.138	0.053	0.208	0.000
361.17	0.139	0.056	0.359	0.000
361.22	0.141	0.059	0.539	0.000
361.28	0.142	0.062	0.742	0.000
361.33	0.143	0.065	0.967	0.000
361.39	0.145	0.068	1.211	0.000
361.44	0.146	0.072	1.474	0.000
361.50	0.148	0.075	1.753	0.000
361.56	0.149	0.078	2.049	0.000
361.61	0.151	0.082	2.359	0.000
361.67	0.152	0.085	2.684	0.000
361.72	0.154	0.088	3.023	0.000
361.78	0.155	0.092	3.375	0.000
361.83	0.157	0.095	3.739	0.000
361.89	0.158	0.099	4.117	0.000
361.94	0.159	0.102	4.506	0.000
362.00	0.161	0.106	4.906	0.000
362.06	0.162	0.109	5.318	0.000
362.11	0.164	0.113	5.741	0.000
362.17	0.165	0.117	6.174	0.000
362.22	0.167	0.120	6.618	0.000
362.28	0.168	0.124	7.073	0.000
362.33	0.170	0.128	7.537	0.000
362.39	0.171	0.132	8.011	0.000
362.44	0.173	0.136	8.494	0.000
362.50	0.174	0.139	8.987	0.000
362.56	0.175	0.143	9.489	0.000
362.61	0.177	0.147	10.00	0.000
362.67	0.178	0.151	10.52	0.000
362.72	0.180	0.155	11.04	0.000
362.78	0.181	0.159	11.58	0.000
362.83	0.183	0.163	12.13	0.000
362.89	0.184	0.167	12.68	0.000
362.94	0.186	0.172	13.24	0.000
363.00	0.187	0.176	13.81	0.000
363.06	0.189	0.186	14.39	0.000
363.11	0.190	0.197	14.98	0.000
363.17	0.192	0.207	15.57	0.000
363.22	0.193	0.218	16.17	0.000
363.28	0.194	0.229	16.78	0.000
363.33	0.196	0.240	17.40	0.000
363.39	0.197	0.251	18.02	0.000
363.44	0.199	0.262	18.65	0.000
363.50	0.200	0.273	19.29	0.000

363.56	0.202	0.284	19.94	0.000
363.61	0.203	0.295	20.59	0.000
363.67	0.205	0.307	21.25	0.000
363.72	0.206	0.318	21.92	0.000
363.78	0.208	0.329	22.59	0.000
363.83	0.209	0.341	23.27	0.000
363.89	0.210	0.353	23.96	0.000
363.94	0.212	0.365	24.65	0.000
364.00	0.213	0.376	25.35	0.000
364.06	0.215	0.388	26.06	0.000
364.11	0.216	0.400	26.77	0.000
364.17	0.218	0.412	27.49	0.000
364.22	0.219	0.425	28.21	0.000
364.28	0.221	0.437	28.95	0.000
364.33	0.222	0.449	29.69	0.000
364.39	0.224	0.461	30.43	0.000
364.44	0.225	0.474	31.18	0.000
364.50	0.226	0.487	31.94	0.000
364.56	0.228	0.499	32.70	0.000
364.61	0.229	0.512	33.47	0.000
364.67	0.231	0.525	34.24	0.000
364.72	0.232	0.538	35.02	0.000
364.78	0.234	0.551	35.81	0.000
364.83	0.235	0.564	36.60	0.000
364.89	0.237	0.577	37.40	0.000
364.94	0.238	0.590	38.20	0.000
365.00	0.240	0.603	39.01	0.000
365.06	0.241	0.617	39.82	0.000

Name : BMP 6 - Bioretention
Bottom Length: 400.00 ft.
Bottom Width : 20.00 ft.
Trench bottom slope 1: 0.01 To 1
Trench Left side slope 0: 3 To 1
Trench right side slope 2: 3 To 1
Material thickness of first layer : 1.5
Pour Space of material for first layer : 0.39
Material thickness of second layer : 1.5
Pour Space of material for second layer : 0.4
Material thickness of third layer : 0
Pour Space of material for third layer : 0.4
Discharge Structure
Riser Height: 1 ft.
Riser Diameter: 6 in.
Orifice 1 Diameter: 2 in. **Elevation:** 0 ft.

Element Flows To:
Outlet 1 **Outlet 2**
 Bioswale 1

Landscape Swale Hydraulic Table

Stage(ft)	Area(ac)	Volume(ac-ft)	Discharge(cfs)	Infilt(cfs)
370.00	0.183	0.000	0.000	0.000
370.06	0.186	0.004	0.024	0.000
370.11	0.189	0.008	0.035	0.000
370.17	0.192	0.012	0.042	0.000
370.22	0.195	0.016	0.049	0.000
370.28	0.199	0.020	0.055	0.000
370.33	0.202	0.025	0.060	0.000
370.39	0.205	0.029	0.065	0.000
370.44	0.208	0.034	0.070	0.000
370.50	0.211	0.038	0.074	0.000
370.56	0.214	0.043	0.078	0.000
370.61	0.217	0.047	0.082	0.000
370.67	0.220	0.052	0.085	0.000
370.72	0.223	0.057	0.089	0.000
370.78	0.226	0.062	0.092	0.000
370.83	0.229	0.067	0.095	0.000
370.89	0.232	0.072	0.099	0.000
370.94	0.235	0.077	0.102	0.000
371.00	0.238	0.082	0.105	0.000
371.06	0.241	0.087	0.171	0.000
371.11	0.244	0.092	0.291	0.000
371.17	0.247	0.098	0.444	0.000
371.22	0.251	0.103	0.626	0.000
371.28	0.254	0.109	0.831	0.000
371.33	0.257	0.114	1.058	0.000
371.39	0.260	0.120	1.304	0.000
371.44	0.263	0.125	1.569	0.000
371.50	0.266	0.131	1.850	0.000
371.56	0.269	0.137	2.147	0.000
371.61	0.272	0.143	2.459	0.000
371.67	0.275	0.149	2.786	0.000
371.72	0.278	0.156	3.126	0.000
371.78	0.281	0.162	3.480	0.000
371.83	0.284	0.168	3.846	0.000
371.89	0.287	0.174	4.225	0.000
371.94	0.290	0.181	4.615	0.000
372.00	0.293	0.187	5.018	0.000
372.06	0.296	0.194	5.431	0.000
372.11	0.300	0.201	5.855	0.000
372.17	0.303	0.207	6.290	0.000
372.22	0.306	0.214	6.736	0.000
372.28	0.309	0.221	7.192	0.000
372.33	0.312	0.228	7.657	0.000
372.39	0.315	0.235	8.132	0.000
372.44	0.318	0.242	8.617	0.000
372.50	0.321	0.249	9.112	0.000
372.56	0.324	0.256	9.615	0.000
372.61	0.327	0.263	10.12	0.000

372.67	0.330	0.271	10.64	0.000
372.72	0.333	0.278	11.17	0.000
372.78	0.336	0.285	11.71	0.000
372.83	0.339	0.293	12.26	0.000
372.89	0.342	0.301	12.82	0.000
372.94	0.345	0.308	13.38	0.000
373.00	0.349	0.316	13.95	0.000
373.06	0.352	0.335	14.53	0.000
373.11	0.355	0.355	15.12	0.000
373.17	0.358	0.375	15.71	0.000
373.22	0.361	0.395	16.32	0.000
373.28	0.364	0.415	16.93	0.000
373.33	0.367	0.435	17.54	0.000
373.39	0.370	0.456	18.17	0.000
373.44	0.373	0.476	18.80	0.000
373.50	0.376	0.497	19.44	0.000
373.56	0.379	0.518	20.09	0.000
373.61	0.382	0.539	20.74	0.000
373.67	0.385	0.561	21.40	0.000
373.72	0.388	0.582	22.07	0.000
373.78	0.391	0.604	22.74	0.000
373.83	0.394	0.626	23.42	0.000
373.89	0.398	0.648	24.11	0.000
373.94	0.401	0.670	24.81	0.000
374.00	0.404	0.692	25.51	0.000
374.06	0.407	0.715	26.22	0.000
374.11	0.410	0.738	26.93	0.000
374.17	0.413	0.761	27.65	0.000
374.22	0.416	0.784	28.38	0.000
374.28	0.419	0.807	29.11	0.000
374.33	0.422	0.830	29.85	0.000
374.39	0.425	0.854	30.59	0.000
374.44	0.428	0.877	31.35	0.000
374.50	0.431	0.901	32.10	0.000
374.56	0.434	0.925	32.87	0.000
374.61	0.437	0.950	33.64	0.000
374.67	0.440	0.974	34.41	0.000
374.72	0.443	0.999	35.19	0.000
374.78	0.446	1.023	35.98	0.000
374.83	0.450	1.048	36.77	0.000
374.89	0.453	1.073	37.57	0.000
374.94	0.456	1.099	38.38	0.000
375.00	0.459	1.124	39.19	0.000
375.06	0.462	1.150	40.00	0.000

Name : BMP 3 - Bioretention
Bottom Length: 85.00 ft.
Bottom Width : 80.00 ft.
Trench bottom slope 1: 0.01 To 1
Trench Left side slope 0: 3 To 1
Trench right side slope 2: 3 To 1

Material thickness of first layer : 1.5
 Pour Space of material for first layer : 0.39
 Material thickness of second layer : 1.5
 Pour Space of material for second layer : 0.4
 Material thickness of third layer : 0
 Pour Space of material for third layer : 0.4

Discharge Structure

Riser Height: 1 ft.
 Riser Diameter: 6 in.
 Orifice 1 Diameter: 1 in. Elevation: 0 ft.

Element Flows To:

Outlet 1 Outlet 2
 Bioswale 2

Landscape Swale Hydraulic Table

Stage(ft)	Area(ac)	Volume(ac-ft)	Discharge(cfs)	Infilt(cfs)
380.00	0.156	0.000	0.000	0.000
380.06	0.156	0.003	0.006	0.000
380.11	0.157	0.006	0.008	0.000
380.17	0.158	0.010	0.010	0.000
380.22	0.158	0.013	0.012	0.000
380.28	0.159	0.017	0.013	0.000
380.33	0.160	0.020	0.015	0.000
380.39	0.160	0.024	0.016	0.000
380.44	0.161	0.027	0.017	0.000
380.50	0.162	0.031	0.018	0.000
380.56	0.162	0.034	0.019	0.000
380.61	0.163	0.038	0.020	0.000
380.67	0.163	0.041	0.021	0.000
380.72	0.164	0.045	0.022	0.000
380.78	0.165	0.048	0.023	0.000
380.83	0.165	0.052	0.024	0.000
380.89	0.166	0.055	0.024	0.000
380.94	0.167	0.059	0.025	0.000
381.00	0.167	0.063	0.026	0.000
381.06	0.168	0.066	0.090	0.000
381.11	0.169	0.070	0.208	0.000
381.17	0.169	0.074	0.359	0.000
381.22	0.170	0.077	0.539	0.000
381.28	0.171	0.081	0.742	0.000
381.33	0.171	0.085	0.967	0.000
381.39	0.172	0.089	1.211	0.000
381.44	0.173	0.092	1.474	0.000
381.50	0.173	0.096	1.753	0.000
381.56	0.174	0.100	2.049	0.000
381.61	0.175	0.104	2.359	0.000
381.67	0.175	0.108	2.684	0.000
381.72	0.176	0.112	3.023	0.000
381.78	0.177	0.116	3.375	0.000

381.83	0.177	0.120	3.739	0.000
381.89	0.178	0.123	4.117	0.000
381.94	0.178	0.127	4.506	0.000
382.00	0.179	0.131	4.906	0.000
382.06	0.180	0.135	5.318	0.000
382.11	0.180	0.139	5.741	0.000
382.17	0.181	0.143	6.174	0.000
382.22	0.182	0.148	6.618	0.000
382.28	0.182	0.152	7.073	0.000
382.33	0.183	0.156	7.537	0.000
382.39	0.184	0.160	8.011	0.000
382.44	0.184	0.164	8.494	0.000
382.50	0.185	0.168	8.987	0.000
382.56	0.186	0.172	9.489	0.000
382.61	0.186	0.176	10.00	0.000
382.67	0.187	0.180	10.52	0.000
382.72	0.188	0.185	11.04	0.000
382.78	0.188	0.189	11.58	0.000
382.83	0.189	0.193	12.13	0.000
382.89	0.190	0.197	12.68	0.000
382.94	0.190	0.201	13.24	0.000
383.00	0.191	0.206	13.81	0.000
383.06	0.191	0.216	14.39	0.000
383.11	0.192	0.227	14.98	0.000
383.17	0.193	0.238	15.57	0.000
383.22	0.193	0.248	16.17	0.000
383.28	0.194	0.259	16.78	0.000
383.33	0.195	0.270	17.40	0.000
383.39	0.195	0.281	18.02	0.000
383.44	0.196	0.292	18.65	0.000
383.50	0.197	0.303	19.29	0.000
383.56	0.197	0.314	19.94	0.000
383.61	0.198	0.325	20.59	0.000
383.67	0.199	0.336	21.25	0.000
383.72	0.199	0.347	21.92	0.000
383.78	0.200	0.358	22.59	0.000
383.83	0.201	0.369	23.27	0.000
383.89	0.201	0.380	23.96	0.000
383.94	0.202	0.392	24.65	0.000
384.00	0.203	0.403	25.35	0.000
384.06	0.203	0.414	26.06	0.000
384.11	0.204	0.425	26.77	0.000
384.17	0.205	0.437	27.49	0.000
384.22	0.205	0.448	28.21	0.000
384.28	0.206	0.460	28.95	0.000
384.33	0.206	0.471	29.69	0.000
384.39	0.207	0.483	30.43	0.000
384.44	0.208	0.494	31.18	0.000
384.50	0.208	0.506	31.94	0.000
384.56	0.209	0.517	32.70	0.000
384.61	0.210	0.529	33.47	0.000
384.67	0.210	0.541	34.24	0.000
384.72	0.211	0.552	35.02	0.000

384.78	0.212	0.564	35.81	0.000
384.83	0.212	0.576	36.60	0.000
384.89	0.213	0.588	37.40	0.000
384.94	0.214	0.600	38.20	0.000
385.00	0.214	0.612	39.01	0.000
385.06	0.215	0.624	39.82	0.000

Name : Basin 8
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Urban,Flat(0-5%)	.17
C D,Urban,Flat(0-5%)	.39
C D,Urban,Very(>20%)	.11

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	0.27
Roof Area	0.49

Element Flows To:

Surface	Interflow	Groundwater
BMP 8 - Bi Surfaceon	BMP 8 - Bi Surfaceon	

Name : Basin 9
 Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
A,Urban,Very S(>20%)	1.44

<u>Impervious Land Use</u>	<u>Acres</u>
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Element Flows To:

Surface	Interflow	Groundwater
Bioswale 2	Bioswale 2	

Name : BMP 8 - Bioretention
 Bottom Length: 140.00 ft.
 Bottom Width : 35.00 ft.
 Trench bottom slope 1: 0.01 To 1
 Trench Left side slope 0: 3 To 1
 Trench right side slope 2: 3 To 1

Material thickness of first layer : 1.5
 Pour Space of material for first layer : 0.39
 Material thickness of second layer : 1.5
 Pour Space of material for second layer : 0.4
 Material thickness of third layer : 0
 Pour Space of material for third layer : 0.4

Discharge Structure

Riser Height: 1 ft.
 Riser Diameter: 6 in.
 Orifice 1 Diameter: 1 in. Elevation: 0 ft.

Element Flows To:

Outlet 1 Outlet 2
 Bioswale 2

Landscape Swale Hydraulic Table

Stage(ft)	Area(ac)	Volume(ac-ft)	Discharge(cfs)	Infilt(cfs)
402.00	0.112	0.000	0.000	0.000
402.06	0.113	0.002	0.006	0.000
402.11	0.114	0.004	0.008	0.000
402.17	0.115	0.007	0.010	0.000
402.22	0.116	0.009	0.012	0.000
402.28	0.117	0.012	0.013	0.000
402.33	0.118	0.015	0.015	0.000
402.39	0.120	0.017	0.016	0.000
402.44	0.121	0.020	0.017	0.000
402.50	0.122	0.022	0.018	0.000
402.56	0.123	0.025	0.019	0.000
402.61	0.124	0.028	0.020	0.000
402.67	0.125	0.030	0.021	0.000
402.72	0.126	0.033	0.022	0.000
402.78	0.127	0.036	0.023	0.000
402.83	0.128	0.039	0.024	0.000
402.89	0.129	0.042	0.024	0.000
402.94	0.130	0.044	0.025	0.000
403.00	0.131	0.047	0.026	0.000
403.06	0.132	0.050	0.090	0.000
403.11	0.133	0.053	0.208	0.000
403.17	0.135	0.056	0.359	0.000
403.22	0.136	0.059	0.539	0.000
403.28	0.137	0.062	0.742	0.000
403.33	0.138	0.065	0.967	0.000
403.39	0.139	0.068	1.211	0.000
403.44	0.140	0.071	1.474	0.000
403.50	0.141	0.074	1.753	0.000
403.56	0.142	0.077	2.049	0.000
403.61	0.143	0.080	2.359	0.000
403.67	0.144	0.083	2.684	0.000
403.72	0.145	0.087	3.023	0.000
403.78	0.146	0.090	3.375	0.000

403.83	0.147	0.093	3.739	0.000
403.89	0.148	0.096	4.117	0.000
403.94	0.150	0.100	4.506	0.000
404.00	0.151	0.103	4.906	0.000
404.06	0.152	0.107	5.318	0.000
404.11	0.153	0.110	5.741	0.000
404.17	0.154	0.113	6.174	0.000
404.22	0.155	0.117	6.618	0.000
404.28	0.156	0.120	7.073	0.000
404.33	0.157	0.124	7.537	0.000
404.39	0.158	0.127	8.011	0.000
404.44	0.159	0.131	8.494	0.000
404.50	0.160	0.134	8.987	0.000
404.56	0.161	0.138	9.489	0.000
404.61	0.162	0.142	10.00	0.000
404.67	0.163	0.145	10.52	0.000
404.72	0.165	0.149	11.04	0.000
404.78	0.166	0.152	11.58	0.000
404.83	0.167	0.156	12.13	0.000
404.89	0.168	0.160	12.68	0.000
404.94	0.169	0.164	13.24	0.000
405.00	0.170	0.167	13.81	0.000
405.06	0.171	0.177	14.39	0.000
405.11	0.172	0.186	14.98	0.000
405.17	0.173	0.196	15.57	0.000
405.22	0.174	0.206	16.17	0.000
405.28	0.175	0.216	16.78	0.000
405.33	0.176	0.225	17.40	0.000
405.39	0.177	0.235	18.02	0.000
405.44	0.179	0.245	18.65	0.000
405.50	0.180	0.255	19.29	0.000
405.56	0.181	0.265	19.94	0.000
405.61	0.182	0.275	20.59	0.000
405.67	0.183	0.285	21.25	0.000
405.72	0.184	0.296	21.92	0.000
405.78	0.185	0.306	22.59	0.000
405.83	0.186	0.316	23.27	0.000
405.89	0.187	0.327	23.96	0.000
405.94	0.188	0.337	24.65	0.000
406.00	0.189	0.347	25.35	0.000
406.06	0.190	0.358	26.06	0.000
406.11	0.191	0.369	26.77	0.000
406.17	0.192	0.379	27.49	0.000
406.22	0.194	0.390	28.21	0.000
406.28	0.195	0.401	28.95	0.000
406.33	0.196	0.412	29.69	0.000
406.39	0.197	0.423	30.43	0.000
406.44	0.198	0.434	31.18	0.000
406.50	0.199	0.445	31.94	0.000
406.56	0.200	0.456	32.70	0.000
406.61	0.201	0.467	33.47	0.000
406.67	0.202	0.478	34.24	0.000
406.72	0.203	0.489	35.02	0.000

406.78	0.204	0.501	35.81	0.000
406.83	0.205	0.512	36.60	0.000
406.89	0.206	0.524	37.40	0.000
406.94	0.207	0.535	38.20	0.000
407.00	0.209	0.547	39.01	0.000
407.06	0.210	0.558	39.82	0.000

Name : Basin 11
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
B,Shrub,Stee(10-20%)	1.81
C D,Shrub,Very(>20%)	7.68
B,Shrub,Flat(0-5%)	.04
B,Shrub,Mod(5-10%)	.23
B,Shrub,Very S(>20%)	.77
B,Urban,Stee(10-20%)	.01
B,Urban,Very S(>20%)	.65
C D,Shrub,Flat(0-5%)	.03
C D,Shrub,Mod(5-10%)	.09
C D,Shrub,St(10-20%)	2.1
C D,Urban,Very(>20%)	.78

<u>Impervious Land Use</u>	<u>Acres</u>
----------------------------	--------------

Element Flows To:		
Surface	Interflow	Groundwater
Bioswale 1	Bioswale 1	

Name : Basin 10
Bypass: No

GroundWater: No

<u>Pervious Land Use</u>	<u>Acres</u>
A,Urban,Flat(0-5%)	.26
A,Urban,Very S(>20%)	.98
B,Urban,Flat(0-5%)	.16
C D,Urban,Flat(0-5%)	.02

<u>Impervious Land Use</u>	<u>Acres</u>
Roads,Flat(0-5%)	0.5
Sidewalks,Flat(0-5%)	0.07

ANALYSIS RESULTS

Flow Frequency Return Periods for Predeveloped. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>
2 year	654.759155
5 year	1889.200834
10 year	2405.490349
25 year	2628.084752

Flow Frequency Return Periods for Mitigated. POC #1

<u>Return Period</u>	<u>Flow(cfs)</u>
2 year	652.152222
5 year	1845.479229
10 year	2360.597394
25 year	2568.009691

Yearly Peaks for Predeveloped and Mitigated. POC#1

Year	Predeveloped	Mitigated
1959	1081.193	1055.635
1960	0.3422765	2.021625
1961	654.7592	638.5154
1962	15.44898	39.17114
1963	22.25984	37.36028
1964	322.5231	316.682
1965	1633.046	1599.96
1966	2285.463	2276.747
1967	654.6273	652.1522
1968	2084.392	2046.458
1969	638.8546	624.9839
1970	794.3021	769.0964
1971	812.6219	812.199
1972	1620.728	1563.389
1973	794.4695	782.2207
1974	61.37566	60.39404
1975	400.5204	385.6841
1976	274.8431	268.8464
1977	5206.893	5165.293
1978	1405.271	1358.556
1979	2494.774	2483.358
1980	22.94777	24.42793
1981	2684.977	2604.136
1982	1784.06	1729.475

1983	478.7769	463.1219
1984	899.6305	876.2397
1985	2143.865	2077.24
1986	9.942201	15.52449
1987	345.8388	343.4304
1988	167.825	168.9874
1989	5.504023	16.66916
1990	1460.442	1439.513
1991	1968.707	1914.865
1992	1798.552	1766.369
1993	172.6198	169.7512
1994	2481.296	2472.158
1995	238.5508	237.2584
1996	868.6955	852.006
1997	2400.332	2353.005
1998	0.3744088	1.431055
1999	4.213601	7.484876
2000	0.5661935	14.50207
2001	0.042820845	1.247335
2002	0	0.00163861
2003	428.8498	424.6595
2004	0	0

POC #1
The Facility PASSED

The Facility PASSED.

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
65.4759	1447	1478	102	Pass
89.1124	1244	1262	101	Pass
112.7489	1108	1110	100	Pass
136.3854	994	991	99	Pass
160.0220	887	893	100	Pass
183.6585	818	822	100	Pass
207.2950	755	750	99	Pass
230.9315	695	691	99	Pass
254.5680	637	638	100	Pass
278.2045	596	595	99	Pass
301.8410	556	551	99	Pass
325.4775	526	526	100	Pass
349.1140	493	494	100	Pass
372.7505	463	457	98	Pass
396.3870	426	423	99	Pass
420.0236	394	391	99	Pass
443.6601	366	367	100	Pass
467.2966	346	345	99	Pass

490.9331	329	326	99	Pass
514.5696	306	306	100	Pass
538.2061	289	287	99	Pass
561.8426	279	276	98	Pass
585.4791	267	267	100	Pass
609.1156	253	255	100	Pass
632.7521	245	239	97	Pass
656.3887	231	226	97	Pass
680.0252	214	211	98	Pass
703.6617	207	200	96	Pass
727.2982	194	189	97	Pass
750.9347	183	182	99	Pass
774.5712	174	169	97	Pass
798.2077	162	159	98	Pass
821.8442	153	151	98	Pass
845.4807	149	148	99	Pass
869.1172	145	142	97	Pass
892.7537	137	132	96	Pass
916.3903	127	129	101	Pass
940.0268	125	124	99	Pass
963.6633	119	120	100	Pass
987.2998	118	113	95	Pass
1010.9363	107	110	102	Pass
1034.5728	102	101	99	Pass
1058.2093	95	94	98	Pass
1081.8458	92	90	97	Pass
1105.4823	87	84	96	Pass
1129.1188	83	83	100	Pass
1152.7553	81	77	95	Pass
1176.3919	73	74	101	Pass
1200.0284	70	71	101	Pass
1223.6649	70	69	98	Pass
1247.3014	69	68	98	Pass
1270.9379	68	68	100	Pass
1294.5744	67	68	101	Pass
1318.2109	67	65	97	Pass
1341.8474	67	64	95	Pass
1365.4839	63	61	96	Pass
1389.1204	61	60	98	Pass
1412.7570	59	57	96	Pass
1436.3935	55	55	100	Pass
1460.0300	55	52	94	Pass
1483.6665	53	51	96	Pass
1507.3030	50	49	98	Pass
1530.9395	48	47	97	Pass
1554.5760	46	46	100	Pass
1578.2125	46	43	93	Pass
1601.8490	45	40	88	Pass
1625.4855	41	40	97	Pass
1649.1220	40	38	95	Pass
1672.7586	39	38	97	Pass
1696.3951	38	38	100	Pass
1720.0316	38	35	92	Pass

1743.6681	37	34	91	Pass
1767.3046	37	33	89	Pass
1790.9411	32	30	93	Pass
1814.5776	28	28	100	Pass
1838.2141	27	27	100	Pass
1861.8506	27	27	100	Pass
1885.4871	27	27	100	Pass
1909.1237	26	26	100	Pass
1932.7602	26	23	88	Pass
1956.3967	25	22	88	Pass
1980.0332	23	21	91	Pass
2003.6697	23	21	91	Pass
2027.3062	22	20	90	Pass
2050.9427	20	18	90	Pass
2074.5792	19	18	94	Pass
2098.2157	18	17	94	Pass
2121.8522	18	17	94	Pass
2145.4887	16	15	93	Pass
2169.1253	16	14	87	Pass
2192.7618	14	14	100	Pass
2216.3983	14	14	100	Pass
2240.0348	14	14	100	Pass
2263.6713	14	13	92	Pass
2287.3078	12	12	100	Pass
2310.9443	12	12	100	Pass
2334.5808	12	10	83	Pass
2358.2173	12	8	66	Pass
2381.8538	11	7	63	Pass
2405.4903	8	6	75	Pass

Water Quality BMP Flow and Volume for POC #1

On-line facility volume: 0 acre-feet

On-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

Off-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

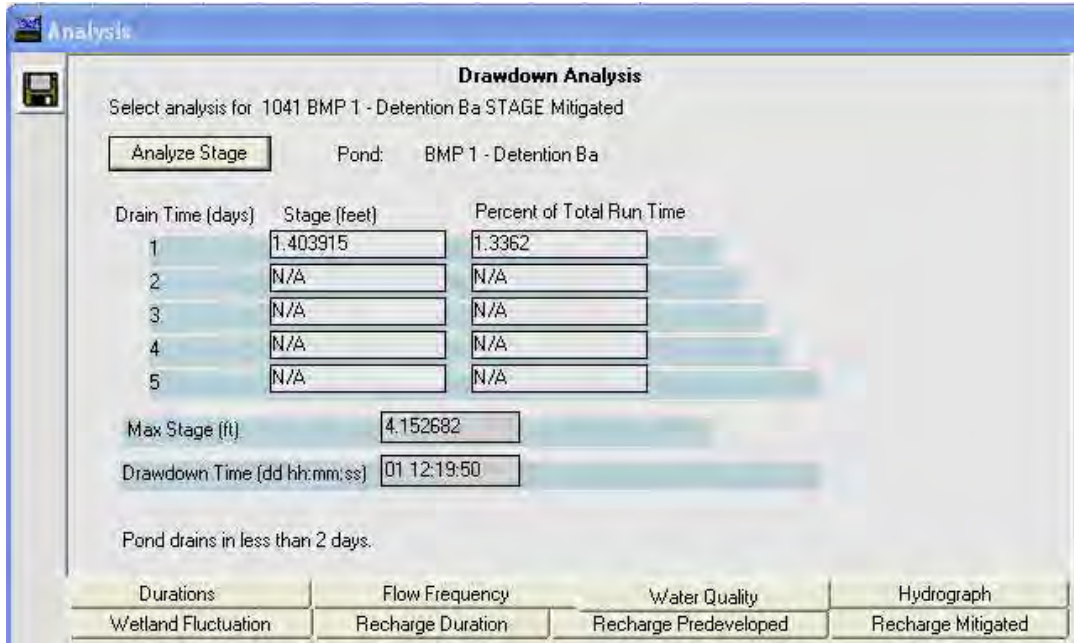
PerlnD and Implnd Changes

No changes have been made.

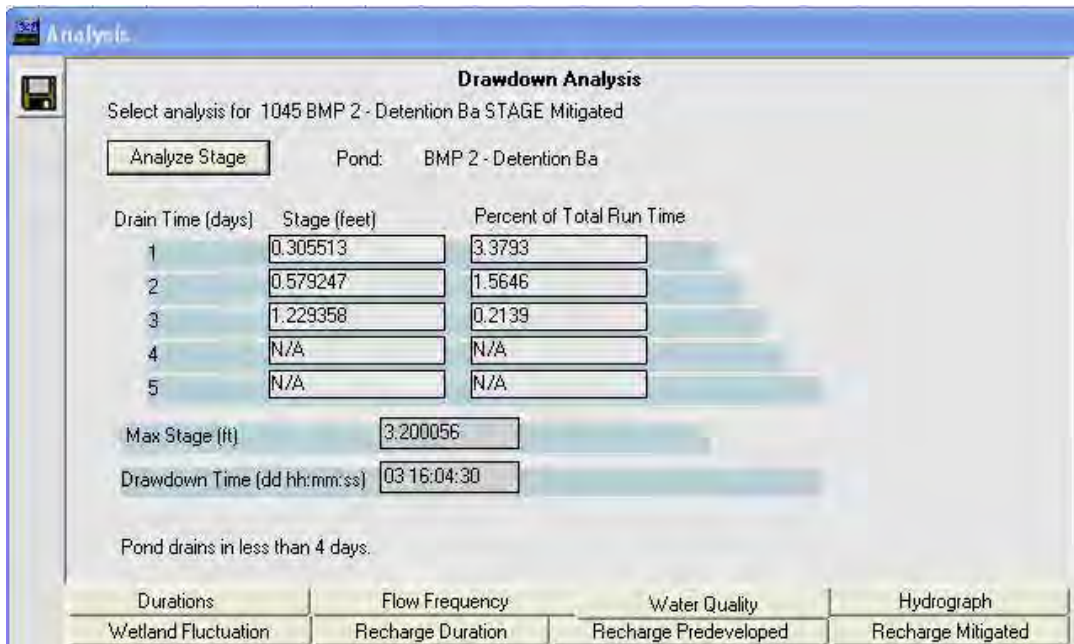
This program and accompanying documentation is provided 'as-is' without warranty of any kind. The entire risk regarding the performance and results of this program is assumed by the user. Clear Creek Solutions, Inc. disclaims all warranties, either expressed or implied, including but not limited to implied warranties of program and accompanying documentation. In no event shall Clear Creek Solutions, Inc. be liable for any damages whatsoever (including without limitation to damages for loss of business profits, loss of business information, business interruption, and the like) arising out of the use of, or inability to use this program even if Clear Creek Solutions, Inc. has been advised of the possibility of such damages.

Drawdown Analysis Results

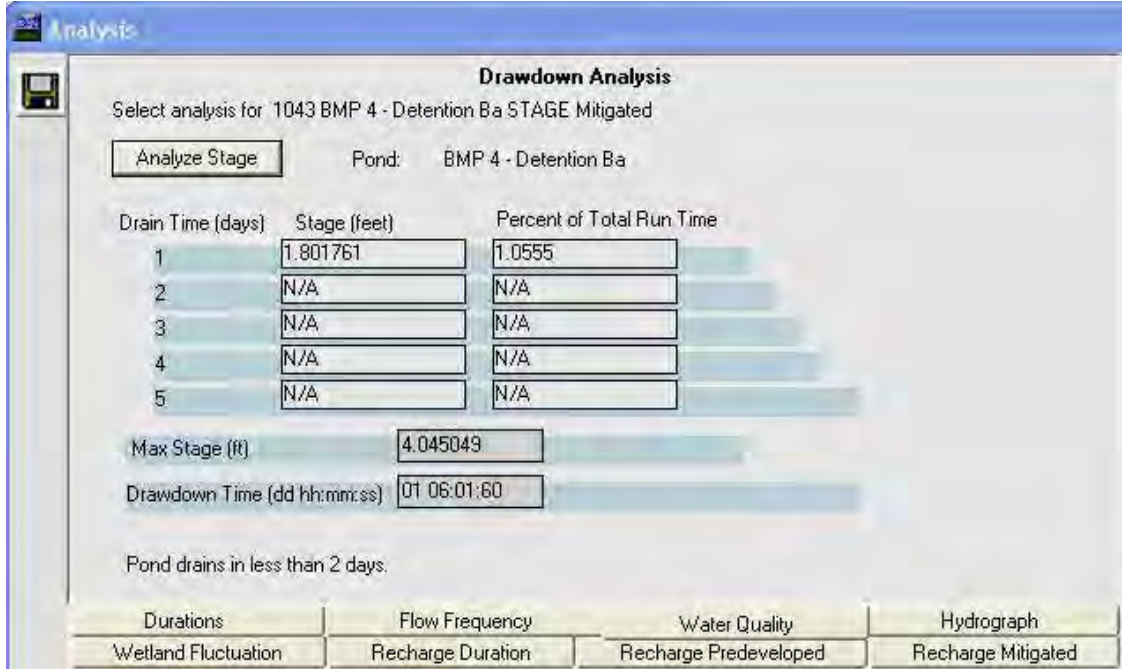
BMP 1 – Detention Basin



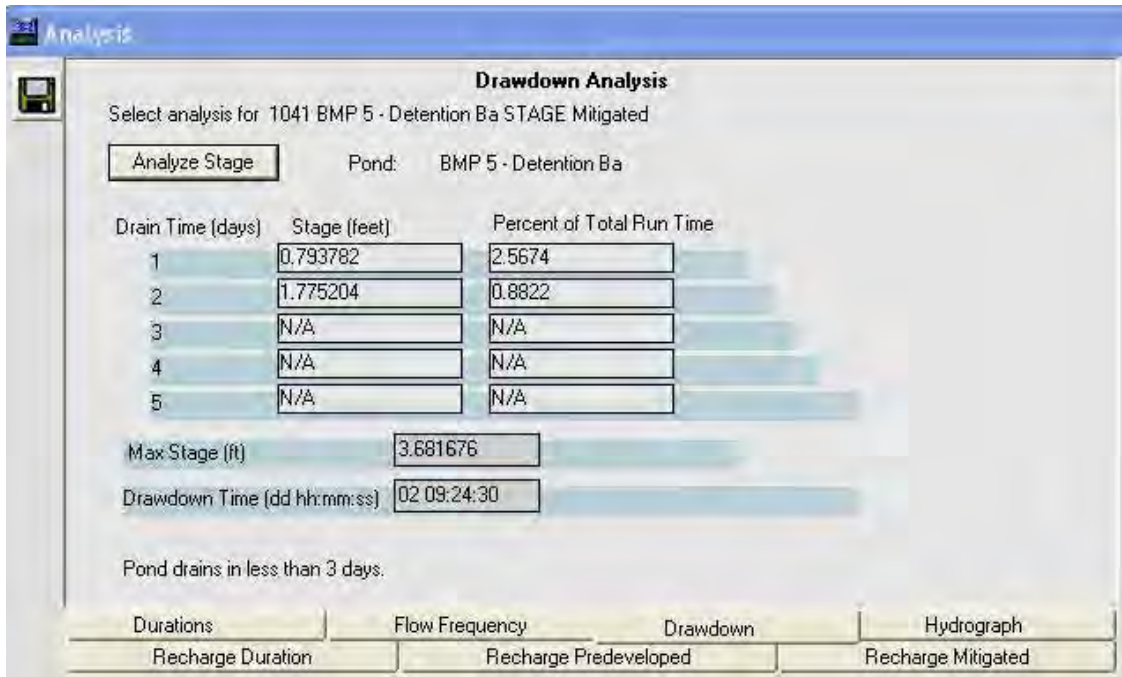
BMP 2 – Detention Basin



BMP 4 – Detention Basin

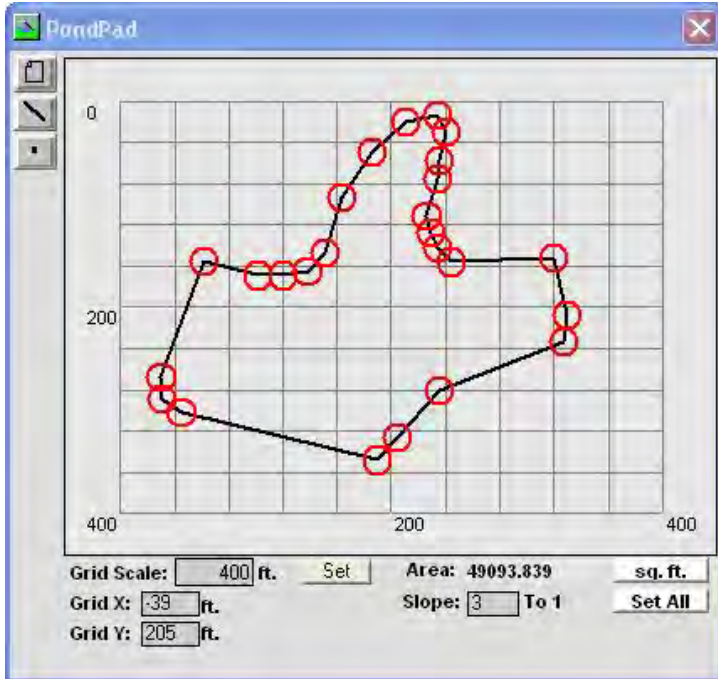


BMP 5 – Detention Basin

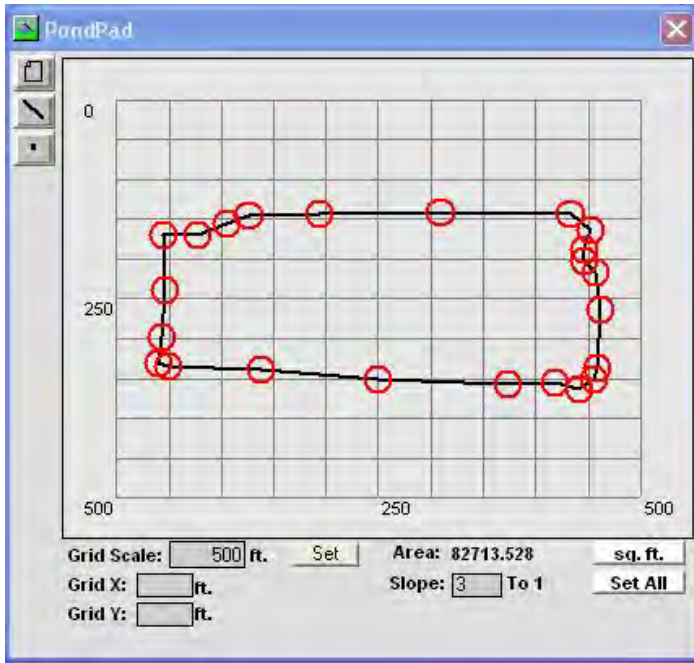


Irregular Detention Pond Shapes

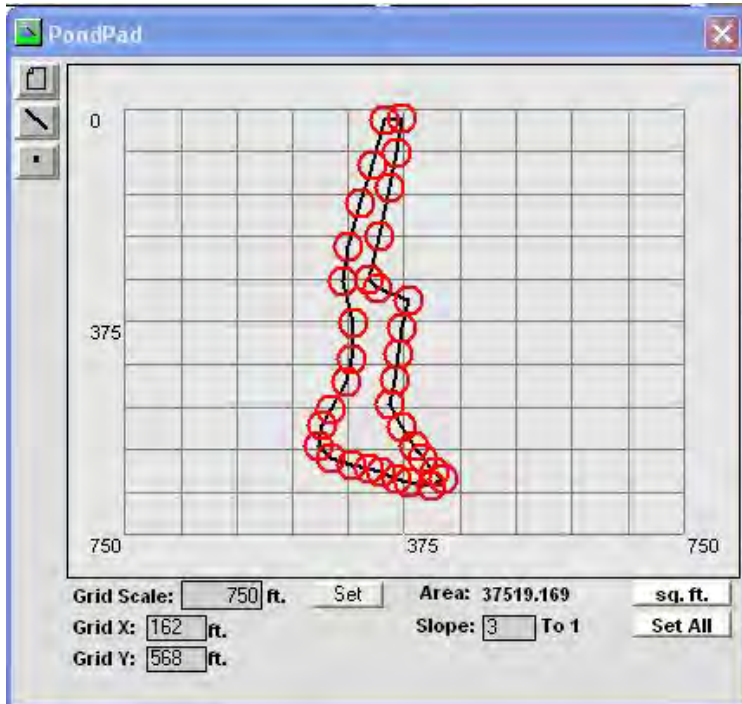
BMP 1 – Detention Basin



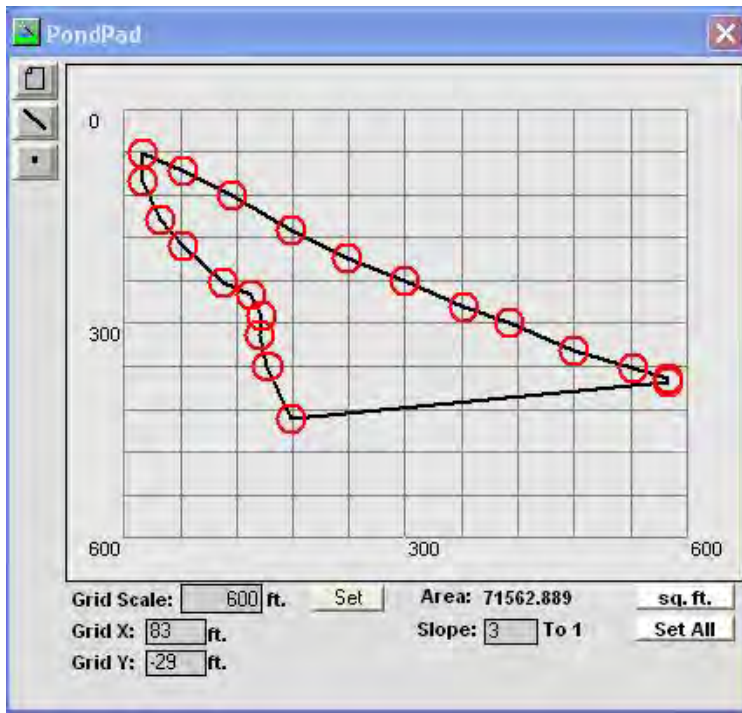
BMP 2 – Detention Basin



BMP 4 – Detention Basin



BMP 5 – Detention Basin



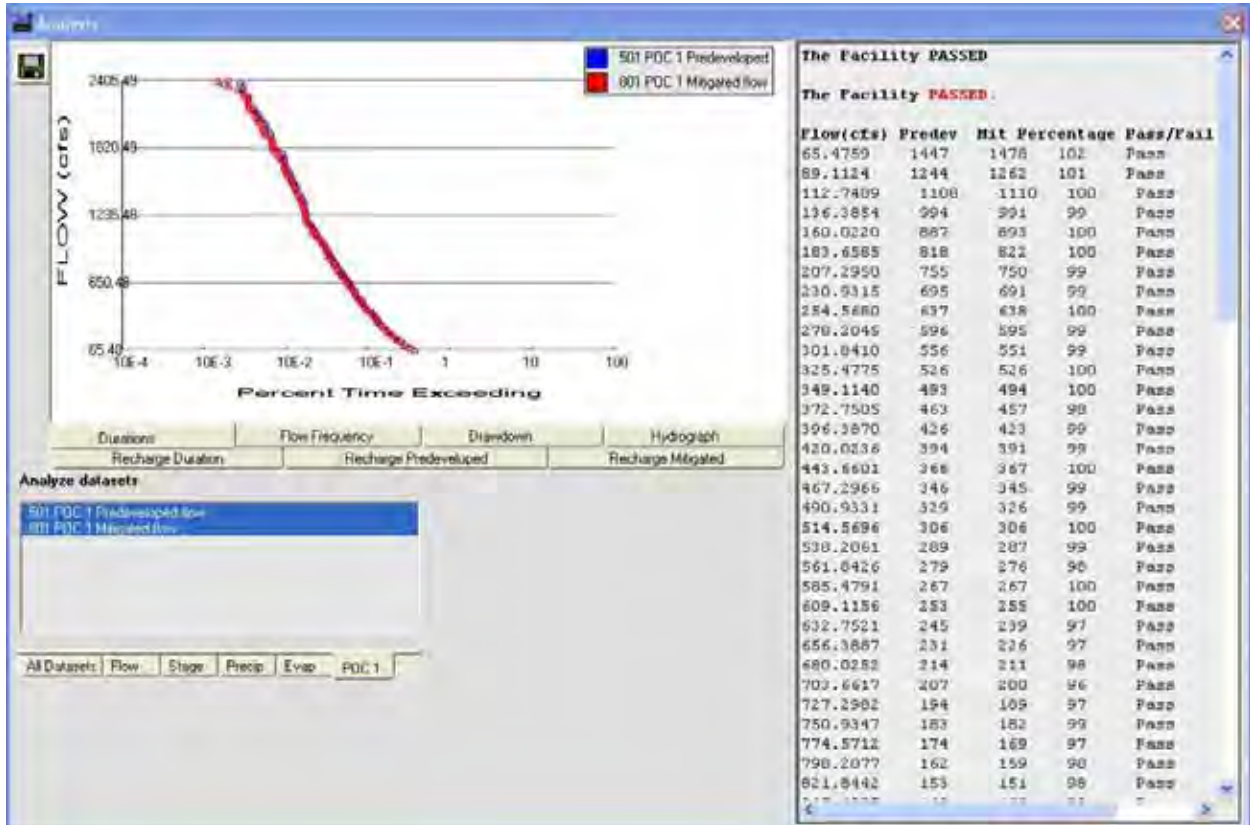


Figure 4-2 – Duration Analysis at POC1

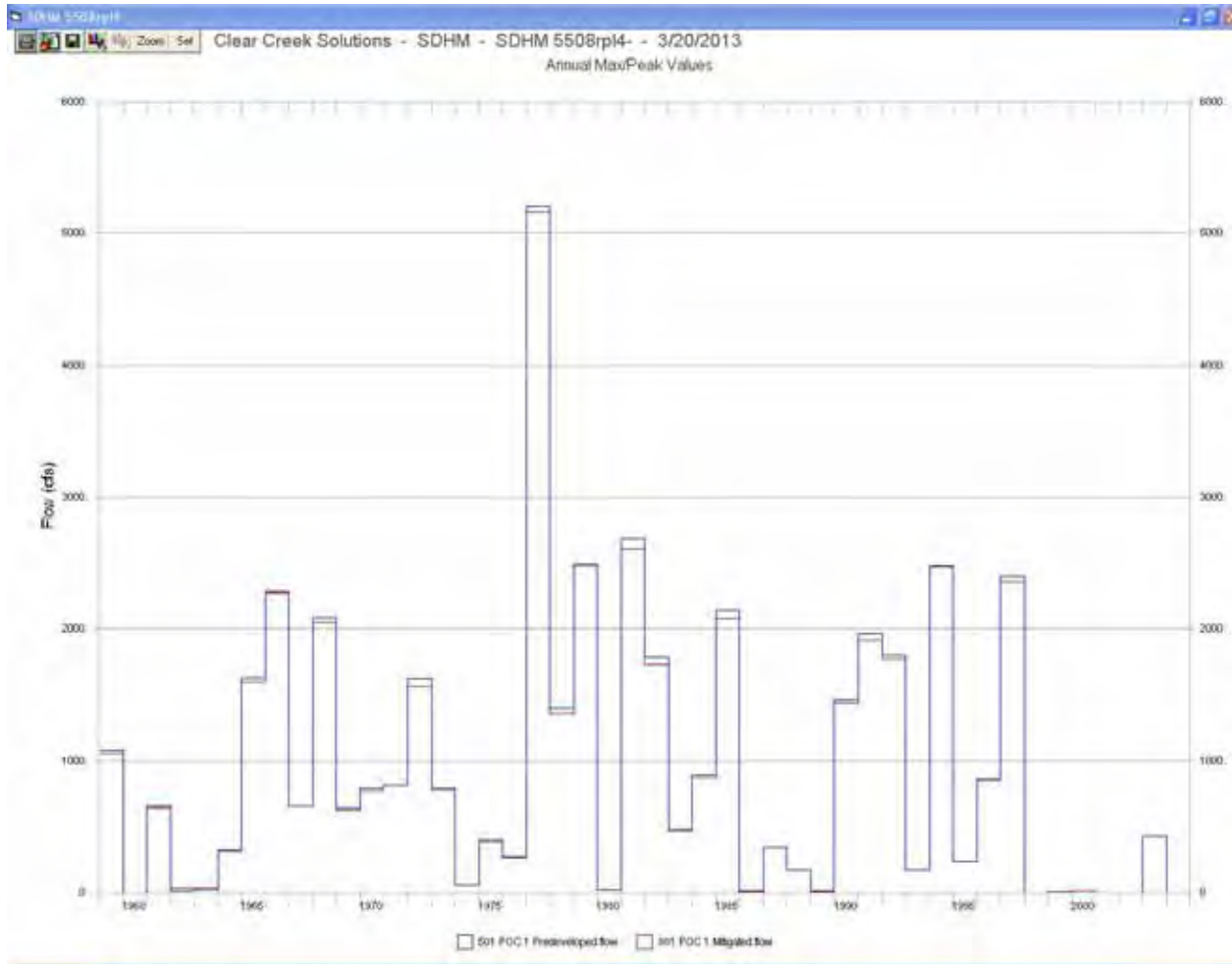


Figure 4-3 – Yearly Peak Values (Gomez Creek)

Project Summary

Project Name	Project - 5508rpl4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Note: The BMP Sizing calculator is based on three Rain Basins: Oceanside, Lake Wohlford and Lindbergh Field. The applicable Rain Basin for this project is part of Lake Wohlford.

Refer to: BMP Sizing Calculator (v3.0) per Brown and Caldwell on-line software. This calculator provides the minimum capacity requirements, the proposed capacity is greater than this recommendation. http://www.projectcleanwater.org/html/wg_susmp.html

The Rain gage for this project is based on Fallbrook Station as described on page 1-4, Rainfall Data Section.

Compliance Basin Summary

Basin Name:	DMA/BASIN 1
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	37.82
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21868	Drains to Pond	BMP 1	Soil Type B Landscape (0-5%)	5.98	Pervious (Pre)		Type B (moderate infiltration)	Flat - slope (less ...
21869	Drains to Pond	BMP 1	Soil Type B Landscape (>10%)	1.84	Pervious (Pre)		Type B (moderate infiltration)	Steep (greater 10%)
21870	Drains to Pond	BMP 1	Soil Type C Landscape (0-5%)	9.89	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...
21871	Drains to Pond	BMP 1	Soil Type C Landscape (>10%)	1.96	Pervious (Pre)		Type C (slow infiltration)	Steep (greater 10%)
21872	Drains to Pond	BMP 1	Roads, Sidewalks, Dwy (0-5%)	7.25	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...
21873	Drains to Pond	BMP 1	Roads, Sidewalks, Dwy (5-10%)	2.16	Pervious (Pre)		Type C (slow infiltration)	Moderate (5 - 10%)
21874	Drains to Pond	BMP 1	Roofs	8.74	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	BMP 1 - Detention Basin	34000	45963	5	199908.6	4.5	0.00	18.00	2.25	5.00	4.5	B	28.00

Project Summary

Project Name	Project - 5508rpl4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Compliance Basin Summary

Basin Name:	DMA/BASIN 2
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	29.48
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21877	Drains to Pond	BMP 2	Soil Type A Landscape (0-5%)	2.8	Pervious (Pre)		Type A (low runoff - sandy soi...	Flat - slope (less ...
21878	Drains to Pond	BMP 2	Soil Type A Landscape (>10%)	0.66	Pervious (Pre)		Type A (low runoff - sandy soi...	Steep (greater 10%)
21879	Drains to Pond	BMP 2	Soil Type B Landscape (0-5%)	3.43	Pervious (Pre)		Type B (moderate infiltration)	Flat - slope (less ...
21880	Drains to Pond	BMP 2	Soil Type B Landscape (>10%)	1.56	Pervious (Pre)		Type B (moderate infiltration)	Steep (greater 10%)
21881	Drains to Pond	BMP 2	Soil type C Landscape (0-5%)	2.63	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...
21882	Drains to Pond	BMP 2	Soil Type C Landscape (>10%)	1.97	Pervious (Pre)		Type C (slow infiltration)	Steep (greater 10%)
21883	Drains to Pond	BMP 2	Soil Type D Landscape (0-5%)	1.57	Pervious (Pre)		Type D (high runoff - clay soi...	Flat - slope (less ...
21884	Drains to Pond	BMP 2	Roads, Sidewalks, Dwy (0-5%)	5.85	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...
21885	Drains to Pond	BMP 2	Roads, Sidewalks, Dwy (5-10%)	2.36	Pervious (Pre)		Type C (slow infiltration)	Moderate (5 - 10%)
21886	Drains to Pond	BMP 2	Roof	6.66	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	BMP 2 - Detention Basin	26000	36574	5	156436.7	3.00	0.00	8.00	0.8	5.00	4.5	A	11.00

Project Summary

Project Name	Project - 5508rp4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Compliance Basin Summary

Basin Name:	DMA/BASIN 3
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	2.45
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21889	Drains to LID	BMP 3	Soil Type B Landscape (0-5%)	0.25	Pervious (Pre)	Landscaping	Type B (moderate infiltration)	Flat - slope (less ...
21890	Drains to LID	BMP 3	Soil type B Landscape (>10%)	0.05	Pervious (Pre)	Landscaping	Type B (moderate infiltration)	Moderate (5 - 10%)
21891	Drains to LID	BMP 3	Soil Type C Landscape (0-5%)	0.5	Pervious (Pre)	Landscaping	Type C (slow infiltration)	Flat - slope (less ...
21892	Drains to LID	BMP 3	Soil Type C Landscape (>10%)	0.08	Pervious (Pre)	Landscaping	Type C (slow infiltration)	Moderate (5 - 10%)
21893	Drains to LID	BMP 3	Roads, Sidewalks, Dwy (0-5%)	0.72	Pervious (Pre)	Concrete or asphalt	Type C (slow infiltration)	Moderate (5 - 10%)
21896	Drains to LID	BMP 3	Roof	0.85	Pervious (Pre)	Roofs	Type C (slow infiltration)	Moderate (5 - 10%)

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 3	Bioretention	BMP 3 - Bioretention	7760	6469	4183	0.060	1.00

Project Summary

Project Name	Project - 5508rpl4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Compliance Basin Summary

Basin Name:	DMA/BASIN 4
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	14.04
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21898	Drains to Pond	BMP 4	Soil Type B Landscape (0-5%)	1.04	Pervious (Pre)		Type B (moderate infiltration)	Flat - slope (less ...
21899	Drains to Pond	BMP 4	Soil Type B Landscape (>10%)	0.43	Pervious (Pre)		Type B (moderate infiltration)	Steep (greater 10%)
21900	Drains to Pond	BMP 4	Soil Type C Landscape (0-5%)	2.05	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...
21901	Drains to Pond	BMP 4	Soil Type C Landscape (>10%)	0.04	Pervious (Pre)		Type C (slow infiltration)	Steep (greater 10%)
21902	Drains to Pond	BMP 4	Soil Type D Landscape (0-5%)	1.22	Pervious (Pre)		Type D (high runoff - clay soi...	Flat - slope (less ...
21903	Drains to Pond	BMP 4	Soil Type D Landscape (>10%)	0.79	Pervious (Pre)		Type D (high runoff - clay soi...	Steep (greater 10%)
21904	Drains to Pond	BMP 4	Roads, Sidewalks, Dwy (0-5%)	5.63	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...
21905	Drains to Pond	BMP 4	Roof	2.84	Pervious (Pre)		Type C (slow infiltration)	Flat - slope (less ...

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	BMP 4 - Detention Basin	19309	28547	5	119642.7	2.5	0.00	12.00	2.00	5.00	4.5	B	35.00

Project Summary

Project Name	Project - 5508rpl4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Compliance Basin Summary

Basin Name:	DMA/BASIN 5
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	40.83
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21963	Drains to Pond	BMP 5	Soil Type A Landscape (0-5%)	1.37	Pervious (Pre)		Type A (low runoff - sandy soi...	Flat - slope (less ...
21964	Drains to Pond	BMP 5	Soil Type A Landscape (>10%)	0.51	Pervious (Pre)		Type A (low runoff - sandy soi...	Steep (greater 10%)
21965	Drains to Pond	BMP 5	Soil Type B Landscape (0-5%)	8.52	Pervious (Pre)		Type B (moderate infiltration)	Flat - slope (less ...
21966	Drains to Pond	BMP 5	Soil Type B Landscape (>10%)	1.39	Pervious (Pre)		Type B (moderate infiltration)	Steep (greater 10%)
21967	Drains to Pond	BMP 5	Soil Type D Landscape (0-5%)	3.97	Pervious (Pre)		Type D (high runoff - clay soi...	Flat - slope (less ...
21968	Drains to Pond	BMP 5	Soil Type D Landscape (>10%)	0.29	Pervious (Pre)		Type D (high runoff - clay soi...	Steep (greater 10%)
21969	Drains to Pond	BMP 5	Roads, Sidewalks, Dwy (0-5%)	11.52	Pervious (Pre)		Type B (moderate infiltration)	Flat - slope (less ...
21970	Drains to Pond	BMP 5	Roofs	8.55	Pervious (Pre)		Type B (moderate infiltration)	Flat - slope (less ...
21971	Drains to Pond	BMP 5	Soil Type B Shrubs (>10%)	3.91	Pervious (Pre)		Type B (moderate infiltration)	Steep (greater 10%)
21972	Drains to Pond	BMP 5	Soil Type B Forest (>10%)	0.8	Pervious (Pre)		Type B (moderate infiltration)	Steep (greater 10%)

Pond Facility Summary

Scenario	Description	Bottom Area (sqft)	Top Area (sqft)	Depth (ft)	Volume (cft)	Low Orifice (in)	Low Invert (ft)	High Orifice (in)	High Invert (ft)	Weir Length (ft)	Weir Invert (ft)	Facility Soil	Drawdown (hrs)
Design A	BMP 5 - Detention Basin	53000	67713	5	301782.5	4.00	0.00	13.00	2.00	5.00	4.5	B	38.00

Project Summary

Project Name	Project - 5508rpl4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Compliance Basin Summary

Basin Name:	DMA/BASIN 6
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	4.12
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21975	Drains to LID	BMP 6	Soil Type B Landscape (0-5%)	1.45	Pervious (Pre)	Landscaping	Type B (moderate infiltration)	Flat - slope (less ...
21976	Drains to LID	BMP 6	Soil Type B Landscape (>10%)	0.28	Pervious (Pre)	Landscaping	Type B (moderate infiltration)	Flat - slope (less ...
21977	Drains to LID	BMP 6	Roads, Sidewalks, Dwy (0-5%)	1.54	Pervious (Pre)	Concrete or asphalt	Type B (moderate infiltration)	Flat - slope (less ...
21978	Drains to LID	BMP 6	Roofs	0.85	Pervious (Pre)	Roofs	Type B (moderate infiltration)	Flat - slope (less ...

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 6	Bioretention	BMP 6 - Bioretention	10048	8373	0.00	0.085	2.00

Project Summary

Project Name	Project - 5508rpl4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Compliance Basin Summary

Basin Name:	DMA/BASIN 7
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	4.16
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21981	Drains to LID	BMP 7	Soil Type A Landscape (0-5%)	1.71	Pervious (Pre)	Landscaping	Type A (low runoff - sandy soi...	Flat - slope (less ...
21982	Drains to LID	BMP 7	Soil Type A Landscape (>10%)	0.05	Pervious (Pre)	Landscaping	Type A (low runoff - sandy soi...	Flat - slope (less ...
21983	Drains to LID	BMP 7	Soil Type B Landscape (0-5%)	0.79	Pervious (Pre)	Landscaping	Type B (moderate infiltration)	Flat - slope (less ...
21984	Drains to LID	BMP 7	Soil Type B Landscape (>10%)	0.39	Pervious (Pre)	Landscaping	Type B (moderate infiltration)	Flat - slope (less ...
21985	Drains to LID	BMP 7	Soil Type D Landscape (0-5%)	0.07	Pervious (Pre)	Landscaping	Type D (high runoff - clay soi...	Flat - slope (less ...
21986	Drains to LID	BMP 7	Soil Type D Landscape (>10%)	0.06	Pervious (Pre)	Landscaping	Type D (high runoff - clay soi...	Flat - slope (less ...
21987	Drains to LID	BMP 7	Roads, Sidewalks, Dwy (0-5%)	0.46	Pervious (Pre)	Concrete or asphalt	Type B (moderate infiltration)	Flat - slope (less ...
21988	Drains to LID	BMP 7	Roads, Sidewalks, Dwy (5-10%)	0.27	Pervious (Pre)	Concrete or asphalt	Type B (moderate infiltration)	Moderate (5 - 10%)
21989	Drains to LID	BMP 7	Roofs	0.02	Pervious (Pre)	Roofs	Type B (moderate infiltration)	Flat - slope (less ...
21990	Drains to LID	BMP 7	Parking Lots (0-5%)	0.35	Pervious (Pre)	Concrete or asphalt	Type B (moderate infiltration)	Flat - slope (less ...

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 7	Bioretention	BMP 7 - Bioretention	4480	3734	114	0.075	1.00

Project Summary

Project Name	Project - 5508rpl4
Project Applicant	Shapouri & associates
Jurisdiction	County of San Diego
Parcel (APN)	110-090-01
Hydrologic Unit	San Luis Rey

Compliance Basin Summary

Basin Name:	DMA/BASIN 8
Receiving Water:	1
Rainfall Basin	Lake Wohlford
Mean Annual Precipitation (inches)	19.5
Project Basin Area (acres):	1.42
Watershed Area (acres):	0.00
SCCWRP Lateral Channel Susceptibility (H, M, L):	
SCCWRP Vertical Channel Susceptibility (H, M, L):	
Overall Channel Susceptibility (H, M, L):	HIGH
Lower Flow Threshold (% of 2-Year Flow):	0.1

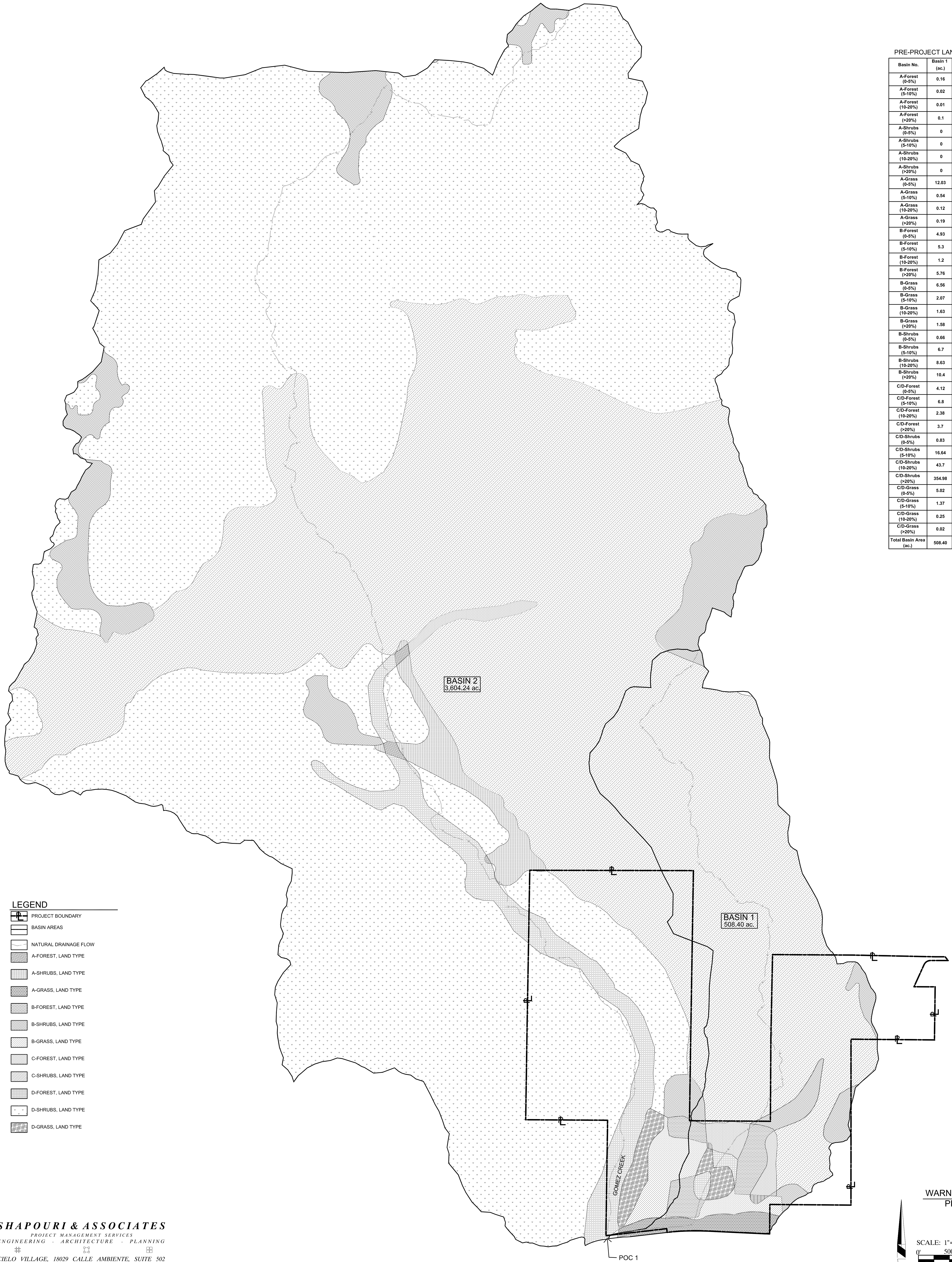
Drainage Management Area Summary

ID	Type	BMP ID	Description	Area (ac)	Pre-Project Cover	Post Surface Type	Drainage Soil	Slope
21993	Drains to LID	BMP 8	Soil Type B Landscape (0-5%)	0.17	Pervious (Pre)	Landscaping	Type B (moderate infiltration)	Flat - slope (less ...
21994	Drains to LID	BMP 8	Soil Type C Landscape (0-5%)	0.39	Pervious (Pre)	Landscaping	Type C (slow infiltration)	Flat - slope (less ...
21995	Drains to LID	BMP 8	Soil Type C Landscape (>10%)	0.11	Pervious (Pre)	Landscaping	Type C (slow infiltration)	Flat - slope (less ...
21996	Drains to LID	BMP 8	Roads (0-5%)	0.27	Pervious (Pre)	Concrete or asphalt	Type C (slow infiltration)	Flat - slope (less ...
21997	Drains to LID	BMP 8	Roofs	0.49	Pervious (Pre)	Roofs	Type C (slow infiltration)	Flat - slope (less ...

LID Facility Summary

BMP ID	Type	Description	Plan Area (sqft)	Volume 1(cft)	Volume 2(cft)	Orifice Flow (cfs)	Orifice Size (inch)
BMP 8	Bioretention	BMP 8 - Bioretention	3877	3231	2095	0.034	0.9

WARNER RANCH (GOMEZ CREEK)
 PRE-PROJECT LAND USE AREA BREAKDOWN
 (Sheet 1 of 1)



PRE-PROJECT LAND USE BREAKDOWN

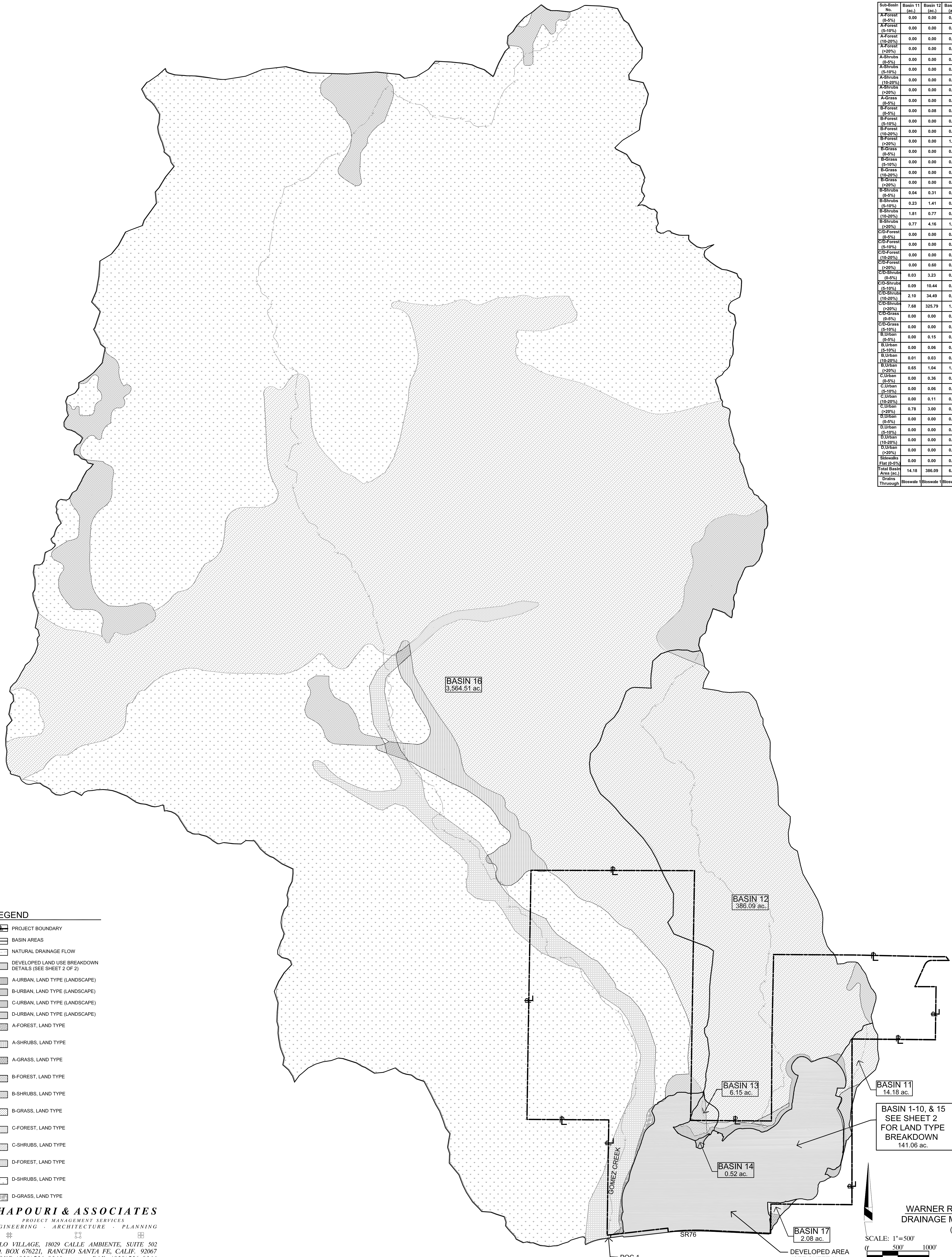
Basin No.	Basin 1 (ac.)	Basin 2 (ac.)	Total Land Use Area (ac.)
A-Forest (0-5%)	0.16	0.07	0.23
A-Forest (5-10%)	0.02	0	0.02
A-Forest (10-20%)	0.01	0.04	0.05
A-Forest (>20%)	0.1	2.45	2.55
A-Shrubs (0-5%)	0	0	0.00
A-Shrubs (5-10%)	0	0.01	0.01
A-Shrubs (10-20%)	0	1.32	1.32
A-Shrubs (>20%)	0	34.39	34.39
A-Grass (0-5%)	12.03	1.58	13.61
A-Grass (5-10%)	0.54	0.02	0.56
A-Grass (10-20%)	0.12	0	0.12
A-Grass (>20%)	0.19	0	0.19
B-Forest (0-5%)	4.93	0	4.93
B-Forest (5-10%)	5.3	0	5.30
B-Forest (10-20%)	1.2	0.01	1.21
B-Forest (>20%)	5.76	3.99	9.75
B-Grass (0-5%)	6.56	9.4	15.96
B-Grass (5-10%)	2.07	2.08	4.15
B-Grass (10-20%)	1.63	2.18	3.81
B-Grass (>20%)	1.58	3.63	5.21
B-Shrubs (0-5%)	0.66	3.24	3.90
B-Shrubs (5-10%)	6.7	8.54	15.24
B-Shrubs (10-20%)	8.63	29	37.63
B-Shrubs (>20%)	10.4	106.46	116.86
C/D-Forest (0-5%)	4.12	9.95	14.07
C/D-Forest (5-10%)	6.8	8.96	15.76
C/D-Forest (10-20%)	2.38	28.97	31.35
C/D-Forest (>20%)	3.7	51.67	55.37
C/D-Shrubs (0-5%)	0.83	9.85	10.68
C/D-Shrubs (5-10%)	16.64	111.68	128.32
C/D-Shrubs (10-20%)	43.7	482.84	526.54
C/D-Shrubs (>20%)	354.98	2680.24	3035.22
C/D-Grass (0-5%)	5.02	10.33	15.35
C/D-Grass (5-10%)	1.37	1.3	2.67
C/D-Grass (10-20%)	0.25	0.04	0.29
C/D-Grass (>20%)	0.02	0	0.02
Total Basin Area (ac.)	508.40	3604.24	4112.64

- LEGEND**
- PROJECT BOUNDARY
 - BASIN AREAS
 - NATURAL DRAINAGE FLOW
 - A-FOREST, LAND TYPE
 - A-SHRUBS, LAND TYPE
 - A-GRASS, LAND TYPE
 - B-FOREST, LAND TYPE
 - B-SHRUBS, LAND TYPE
 - B-GRASS, LAND TYPE
 - C-FOREST, LAND TYPE
 - C-SHRUBS, LAND TYPE
 - D-FOREST, LAND TYPE
 - D-SHRUBS, LAND TYPE
 - D-GRASS, LAND TYPE

WARNER RANCH (GOMEZ CREEK) - TM 5508 RPL4
DRAINAGE MANAGEMENT AREA MAP
(sheet 1 of 2)

POST-PROJECT LAND USE AREA
BREAKDOWN (SELF-TREATED)

Sub-Basin No.	Basin 11 (ac.)	Basin 12 (ac.)	Basin 13 (ac.)	Basin 14 (ac.)	Basin 16 (ac.)	Basin 17 (ac.)	Total Land Use Area (ac.)
A-Forest (0-5%)	0.00	0.00	0.00	0.00	0.13	0.00	0.13
A-Forest (5-10%)	0.00	0.00	0.00	0.00	0.01	0.00	0.01
A-Forest (10-20%)	0.00	0.00	0.00	0.00	0.05	0.00	0.05
A-Forest (>20%)	0.00	0.00	0.00	0.00	2.41	0.00	2.41
A-Shrubs (0-5%)	0.00	0.00	0.00	0.00	0.15	0.00	0.15
A-Shrubs (5-10%)	0.00	0.00	0.00	0.00	0.14	0.00	0.14
A-Shrubs (10-20%)	0.00	0.00	0.00	0.00	1.45	0.00	1.45
A-Shrubs (>20%)	0.00	0.00	0.00	0.00	33.98	0.00	33.98
A-Grass (0-5%)	0.00	0.00	0.00	0.00	0.11	0.61	0.72
B-Forest (0-5%)	0.00	0.08	0.00	0.00	0	0.00	0.08
B-Forest (5-10%)	0.00	0.00	0.01	0.00	0	0.00	0.01
B-Forest (10-20%)	0.00	0.00	0.01	0.00	0	0.00	0.01
B-Forest (>20%)	0.00	0.00	1.40	0.00	0.11	0.00	1.51
B-Grass (0-5%)	0.00	0.00	0.00	0.00	0	0.00	0
B-Grass (5-10%)	0.00	0.00	0.00	0.00	0	0.35	0.35
B-Grass (10-20%)	0.00	0.00	0.00	0.00	0	0.34	0.34
B-Grass (>20%)	0.00	0.00	0.00	0.00	0	0.35	0.35
B-Shrubs (0-5%)	0.04	0.31	0.01	0.00	14.1	0.00	14.46
B-Shrubs (5-10%)	0.23	1.41	0.00	0.00	8.85	0.00	10.49
B-Shrubs (10-20%)	1.81	0.77	0.07	0.00	27.2	0.43	30.28
B-Shrubs (>20%)	0.77	4.16	1.53	0.00	92.68	0.00	99.14
C-D-Forest (0-5%)	0.00	0.00	0.00	0.00	17.49	0.00	17.49
C-D-Forest (5-10%)	0.00	0.00	0.00	0.00	9.02	0.00	9.02
C-D-Forest (10-20%)	0.00	0.00	0.01	0.00	26.56	0.00	26.57
C-D-Forest (>20%)	0.00	0.60	0.30	0.00	46.4	0.00	47.31
C-D-Shrubs (0-5%)	0.03	3.23	0.00	0.00	47.64	0.00	50.90
C-D-Shrubs (5-10%)	0.09	10.44	0.00	0.00	128.81	0.00	139.34
C-D-Shrubs (10-20%)	2.10	34.49	0.00	0.00	481.29	0.00	517.87
C-D-Shrubs (>20%)	7.68	325.79	1.32	0.00	2623.92	0.00	2958.70
C-D-Grass (0-5%)	0.00	0.00	0.00	0.00	0.84	0.00	0.84
C-D-Grass (5-10%)	0.00	0.00	0.00	0.00	0.04	0.00	0.04
B-Urban (0-5%)	0.00	0.15	0.00	0.14	0	0.00	0.29
B-Urban (5-10%)	0.00	0.06	0.00	0.08	0	0.00	0.13
B-Urban (10-20%)	0.01	0.03	0.05	0.05	0	0.00	0.14
B-Urban (>20%)	0.65	1.04	1.26	0.19	0	0.00	3.14
C-Urban (0-5%)	0.00	0.36	0.01	0.00	0	0.00	0.37
C-Urban (5-10%)	0.00	0.06	0.00	0.02	0	0.00	0.08
C-Urban (10-20%)	0.00	0.11	0.00	0.00	0	0.00	0.11
C-Urban (>20%)	0.78	3.00	0.17	0.00	0	0.00	3.95
D-Urban (0-5%)	0.00	0.00	0.00	0.00	0.04	0.00	0.04
D-Urban (5-10%)	0.00	0.00	0.00	0.00	0.01	0.00	0.01
D-Urban (10-20%)	0.00	0.00	0.00	0.00	0.05	0.00	0.05
D-Urban (>20%)	0.00	0.00	0.00	0.00	1.03	0.00	1.03
Sidewalks Flat (0-5%)	0.00	0.00	0.00	0.03	0	0.00	0.03
Total Basin Area (ac.)	14.18	386.09	6.15	0.52	3564.5	2.08	3973.54
Drains Through	Bioswale 1	Bioswale 1	Bioswale 1	Bioswale 1	Gomez Creek	Bioswale 2	



- LEGEND**
- PROJECT BOUNDARY
 - BASIN AREAS
 - NATURAL DRAINAGE FLOW
 - DEVELOPED LAND USE BREAKDOWN
DETAILS (SEE SHEET 2 OF 2)
 - A-URBAN, LAND TYPE (LANDSCAPE)
 - B-URBAN, LAND TYPE (LANDSCAPE)
 - C-URBAN, LAND TYPE (LANDSCAPE)
 - D-URBAN, LAND TYPE (LANDSCAPE)
 - A-FOREST, LAND TYPE
 - A-SHRUBS, LAND TYPE
 - A-GRASS, LAND TYPE
 - B-FOREST, LAND TYPE
 - B-SHRUBS, LAND TYPE
 - B-GRASS, LAND TYPE
 - C-FOREST, LAND TYPE
 - C-SHRUBS, LAND TYPE
 - D-FOREST, LAND TYPE
 - D-SHRUBS, LAND TYPE
 - D-GRASS, LAND TYPE

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WARNER RANCH (GOMEZ CREEK)
DRAINAGE MANAGEMENT AREA MAP
(sheet 1 of 2)
SCALE: 1"=500'
0' 500' 1000'
92-27-2013