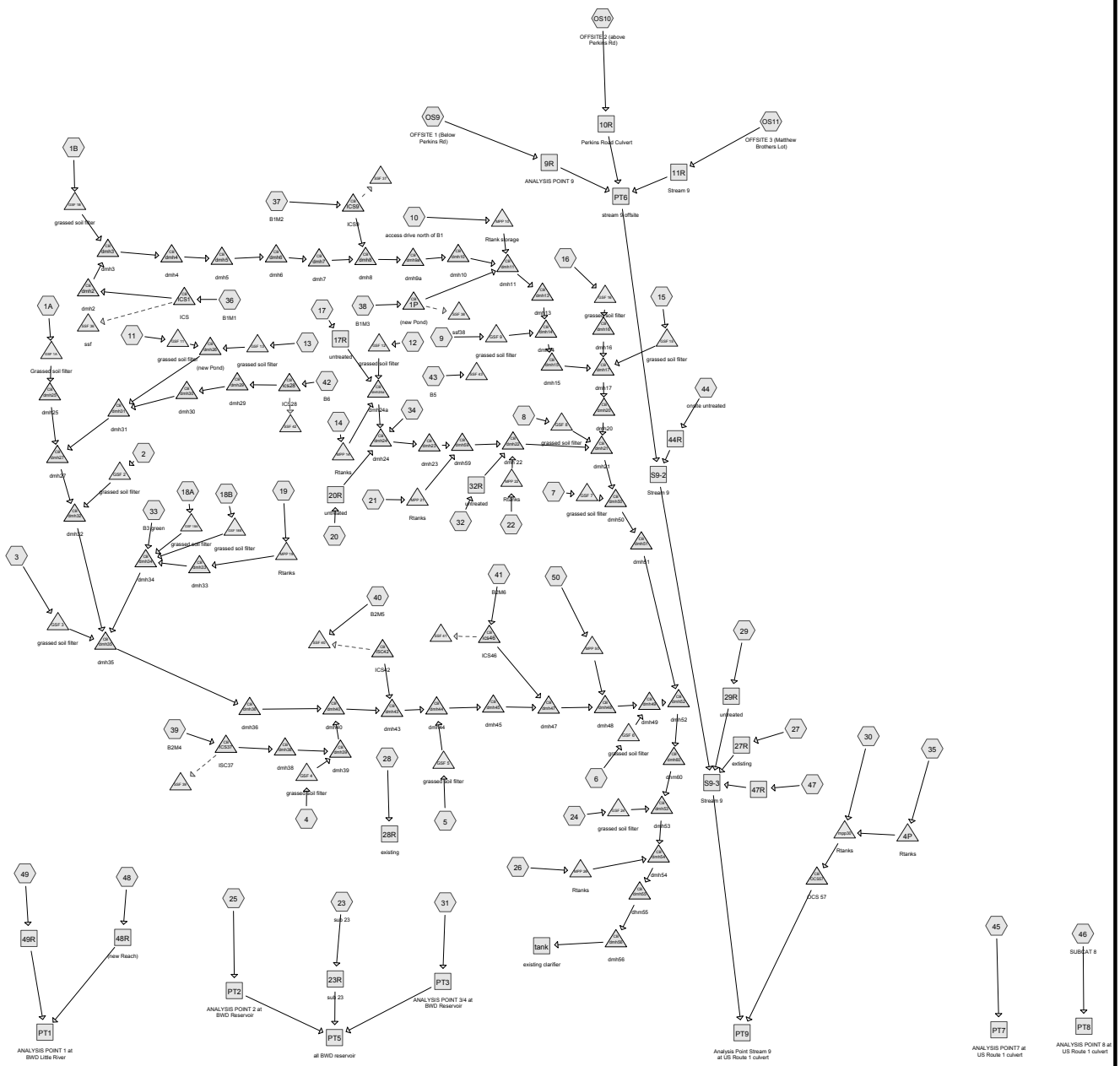
APPENDIX E

Post-Development Hydro CAD and backup Calculations



Subcat Reach Pond Link

Routing Diagram for post conditions

Prepared by Ransom Consulting, Printed 5/15/2019

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
3.930	74	>75% Grass cover, Good, HSG C (1B, 2, 4, 5, 6, 7, 8, 12, 14, 23, OS9)
0.266	77	>75% Grass cover, Good, HSG C/D (1A)
52.064	74	>75% Grass cover, Good, HSG C/D (2, 3, 7, 9, 11, 13, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 25, 30, 31, 32, 44, 45, 46, 47, 48, 49, OS10, OS11, OS9)
1.458	80	>75% Grass cover, Good, HSG D (24, 28, 47)
0.088	94	Gravel roads, HSG C/D (OS9)
12.469	98	Impervious (1B, 2, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 32, 42, 43, 47, 49, 50, OS10, OS11, OS9)
0.301	98	Impervious, HSG C (3)
0.314	98	Impervious, HSG C/D (1A, 12)
0.143	98	Paved parking, HSG C (23)
15.504	98	Roof (36, 37, 38, 39, 40, 41)
1.952	70	Woods, Good, HSG C (23, 48, OS9)
23.761	70	Woods, Good, HSG C/D (3, 25, 31, 44, 45, 46, 47, 48, 49, OS10, OS11)
0.147	77	Woods, Good, HSG D (28)
0.249	79	Woods/grass comb., Good, HSG D (28)
0.111	98	penhouse/walks on roof (34)
0.414	98	penthouse (33)
0.096	98	penthouse/walks on roof (35)
0.110	74	vegetated roof (15)
2.891	61	vegetated roof (33, 34, 35)
116.268	**79**	**TOTAL AREA**

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
82.818	HSG C	1A, 1B, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 23, 25, 30, 31, 32, 44, 45, 46, 47, 48, 49, OS10, OS11, OS9
1.854	HSG D	24, 28, 47
31.596	Other	1B, 2, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 47, 49, 50, OS10, OS11, OS9
116.268		**TOTAL AREA**

Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	56.260	1.458	0.000	57.718	>75% Grass cover, Good	1A, 1B, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 23, 24, 25, 28, 30, 31, 32, 44, 45, 46, 47, 48, 49, OS10, OS11, OS9
0.000	0.000	0.088	0.000	0.000	0.088	Gravel roads	OS9
0.000	0.000	0.615	0.000	12.469	13.084	Impervious	1A, 1B, 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18A, 18B, 19, 20, 21, 22, 24, 26, 27, 28, 29, 30, 32, 42, 43, 47, 49, 50, OS10, OS11, OS9

Ground Covers (all nodes) (continued)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	0.000	0.143	0.000	0.000	0.143	Paved parking	23
0.000	0.000	0.000	0.000	15.504	15.504	Roof	36, 37, 38, 39, 40, 41
0.000	0.000	25.712	0.147	0.000	25.860	Woods, Good	3, 23, 25, 28, 31, 44, 45, 46, 47, 48, 49, OS10, OS11, OS9
0.000	0.000	0.000	0.249	0.000	0.249	Woods/grass comb., Good	28
0.000	0.000	0.000	0.000	0.111	0.111	penhouse/walks on roof	34
0.000	0.000	0.000	0.000	0.414	0.414	penthouse	33
0.000	0.000	0.000	0.000	0.096	0.096	penthouse/walks on roof	35
0.000	0.000	0.000	0.000	3.001	3.001	vegetated roof	15, 33, 34, 35
0.000	**0.000**	**82.818**	**1.854**	**31.596**	**116.268**	**TOTAL AREA**	

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
1	10R	75.50	75.00	25.0	0.0200	0.013	24.0	0.0	0.0
2	PT7	21.60	18.30	83.0	0.0398	0.013	18.0	0.0	0.0
3	PT8	23.40	18.60	76.0	0.0632	0.011	36.0	24.0	0.0
4	PT9	20.00	14.00	93.0	0.0645	0.011	36.0	0.0	0.0
5	1P	60.70	60.15	4.0	0.1375	0.013	18.0	0.0	0.0
6	1P	60.75	60.72	5.0	0.0060	0.013	12.0	0.0	0.0
7	4P	29.28	29.28	5.0	0.0000	0.013	12.0	0.0	0.0
8	dmh10	54.59	53.56	206.0	0.0050	0.013	24.0	0.0	0.0
9	dmh11	53.54	53.12	84.0	0.0050	0.013	30.0	0.0	0.0
10	dmh13	53.10	52.09	201.0	0.0050	0.013	30.0	0.0	0.0
11	dmh14	52.07	51.95	23.0	0.0052	0.020	30.0	0.0	0.0
12	dmh15	51.95	51.50	90.0	0.0050	0.013	30.0	0.0	0.0
13	dmh16	60.50	58.00	198.0	0.0126	0.013	12.0	0.0	0.0
14	dmh17	51.48	51.30	35.0	0.0051	0.013	30.0	0.0	0.0
15	dmh2	63.00	61.50	100.0	0.0150	0.013	18.0	0.0	0.0
16	dmh20	51.28	50.78	100.0	0.0050	0.013	30.0	0.0	0.0
17	dmh21	50.76	46.00	281.0	0.0169	0.013	36.0	0.0	0.0
18	dmh22	51.50	51.03	93.0	0.0051	0.013	15.0	0.0	0.0
19	dmh23	55.19	54.50	138.0	0.0050	0.013	12.0	0.0	0.0
20	dmh24	56.10	55.92	72.0	0.0025	0.013	12.0	0.0	0.0
21	dmh24a	58.00	57.10	95.0	0.0095	0.013	8.0	0.0	0.0
22	dmh25	60.00	55.00	98.0	0.0510	0.013	12.0	0.0	0.0
23	dmh26	57.75	57.61	28.0	0.0050	0.020	12.0	0.0	0.0
24	dmh27	53.03	51.75	256.0	0.0050	0.013	15.0	0.0	0.0
25	dmh29	57.85	57.39	46.0	0.0100	0.013	8.0	0.0	0.0
26	dmh3	60.50	59.84	125.0	0.0053	0.013	18.0	0.0	0.0
27	dmh30	55.40	54.37	206.0	0.0050	0.013	12.0	0.0	0.0
28	dmh31	54.35	53.05	259.0	0.0050	0.013	15.0	0.0	0.0
29	dmh32	51.73	51.60	36.0	0.0036	0.013	18.0	0.0	0.0
30	dmh33	54.00	52.01	201.0	0.0099	0.013	12.0	0.0	0.0
31	dmh34	51.99	51.60	39.0	0.0100	0.013	18.0	0.0	0.0
32	dmh35	51.55	50.17	276.0	0.0050	0.013	24.0	0.0	0.0
33	dmh36	50.15	49.35	159.0	0.0050	0.013	24.0	0.0	0.0
34	dmh38	51.98	50.92	106.0	0.0100	0.013	18.0	0.0	0.0
35	dmh39	50.59	50.32	58.0	0.0047	0.013	18.0	0.0	0.0
36	dmh4	59.84	59.57	66.0	0.0041	0.013	18.0	0.0	0.0
37	dmh40	49.33	47.63	340.0	0.0050	0.013	30.0	0.0	0.0
38	dmh43	47.61	46.64	193.0	0.0050	0.013	30.0	0.0	0.0
39	dmh44	46.62	46.21	82.0	0.0050	0.013	36.0	0.0	0.0
40	dmh45	46.19	44.61	316.0	0.0050	0.013	36.0	0.0	0.0

Pipe Listing (all nodes) (continued)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
41	dmh47	44.00	42.96	104.0	0.0100	0.013	36.0	0.0	0.0
42	dmh48	42.94	42.35	117.0	0.0050	0.013	36.0	0.0	0.0
43	dmh49	42.33	42.23	14.0	0.0071	0.013	36.0	0.0	0.0
44	dmh5	59.48	58.61	173.0	0.0050	0.013	18.0	0.0	0.0
45	dmh50	44.75	44.11	64.0	0.0100	0.013	36.0	0.0	0.0
46	dmh51	44.09	43.00	38.0	0.0287	0.013	36.0	0.0	0.0
47	dmh52	41.00	36.00	258.0	0.0194	0.013	60.0	0.0	0.0
48	dmh53	33.00	30.50	120.0	0.0208	0.013	60.0	0.0	0.0
49	dmh54	27.00	22.00	152.0	0.0329	0.013	60.0	0.0	0.0
50	dmh55	19.00	15.50	115.0	0.0304	0.013	60.0	0.0	0.0
51	dmh56	12.50	11.00	42.0	0.0357	0.013	60.0	0.0	0.0
52	dmh59	54.30	52.83	294.0	0.0050	0.013	12.0	0.0	0.0
53	dmh6	58.58	57.73	170.0	0.0050	0.020	18.0	0.0	0.0
54	dmh60	35.50	33.50	114.0	0.0175	0.013	60.0	0.0	0.0
55	dmh7	57.71	56.86	170.0	0.0050	0.013	18.0	0.0	0.0
56	dmh8	56.84	55.66	296.0	0.0040	0.013	24.0	0.0	0.0
57	dmh9a	55.64	54.61	206.0	0.0050	0.013	24.0	0.0	0.0
58	GSF 11	58.05	57.82	27.0	0.0085	0.013	12.0	0.0	0.0
59	GSF 12	58.20	58.10	21.0	0.0048	0.013	8.0	0.0	0.0
60	GSF 13	58.05	57.82	23.0	0.0100	0.013	12.0	0.0	0.0
61	GSF 15	60.70	60.52	18.0	0.0100	0.013	8.0	0.0	0.0
62	GSF 16	60.70	60.54	16.0	0.0100	0.013	8.0	0.0	0.0
63	GSF 18A	54.00	53.95	11.0	0.0045	0.013	8.0	0.0	0.0
64	GSF 18B	54.00	53.95	11.0	0.0045	0.013	8.0	0.0	0.0
65	GSF 1A	62.80	62.26	27.0	0.0200	0.013	8.0	0.0	0.0
66	GSF 1B	62.80	62.60	20.0	0.0100	0.013	8.0	0.0	0.0
67	GSF 2	53.95	53.76	19.0	0.0100	0.013	8.0	0.0	0.0
68	GSF 24	36.80	36.00	40.0	0.0200	0.013	8.0	0.0	0.0
69	GSF 3	51.98	51.84	14.0	0.0100	0.013	12.0	0.0	0.0
70	GSF 4	51.73	51.56	17.0	0.0100	0.013	8.0	0.0	0.0
71	GSF 5	51.00	50.95	5.0	0.0100	0.013	8.0	0.0	0.0
72	GSF 6	44.70	44.53	17.0	0.0100	0.013	8.0	0.0	0.0
73	GSF 7	51.00	50.48	26.0	0.0200	0.013	8.0	0.0	0.0
74	GSF 8	53.50	52.93	57.0	0.0100	0.013	8.0	0.0	0.0
75	GSF 9	59.00	57.92	54.0	0.0200	0.013	8.0	0.0	0.0
76	ICS1	63.50	63.27	23.0	0.0100	0.013	18.0	0.0	0.0
77	ICS1	63.95	63.90	5.0	0.0100	0.013	12.0	0.0	0.0
78	ics28	58.00	57.90	10.0	0.0100	0.013	8.0	0.0	0.0
79	ics28	58.15	58.12	5.0	0.0060	0.013	8.0	0.0	0.0
80	ICS37	52.50	52.00	51.0	0.0098	0.013	18.0	0.0	0.0

Pipe Listing (all nodes) (continued)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
81	ICS37	52.80	52.75	5.0	0.0100	0.013	12.0	0.0	0.0
82	ics46	46.20	46.00	22.0	0.0091	0.013	18.0	0.0	0.0
83	ics46	46.80	46.75	5.0	0.0100	0.013	12.0	0.0	0.0
84	ICS9	61.70	61.00	14.0	0.0500	0.013	18.0	0.0	0.0
85	ICS9	62.00	61.65	5.0	0.0700	0.013	12.0	0.0	0.0
86	ISC42	52.20	51.88	16.0	0.0200	0.013	18.0	0.0	0.0
87	ISC42	52.80	52.75	5.0	0.0100	0.013	12.0	0.0	0.0
88	MPP 10	61.48	61.40	2.0	0.0400	0.013	8.0	0.0	0.0
89	MPP 14	56.23	56.12	21.0	0.0052	0.013	8.0	0.0	0.0
90	MPP 19	55.08	55.00	19.0	0.0042	0.013	6.0	0.0	0.0
91	MPP 21	54.73	54.73	2.0	0.0000	0.013	6.0	0.0	0.0
92	MPP 22	55.05	55.05	2.0	0.0000	0.013	6.0	0.0	0.0
93	MPP 26	34.62	34.34	8.0	0.0350	0.013	8.0	0.0	0.0
94	MPP 50	54.58	54.55	3.0	0.0100	0.013	8.0	0.0	0.0
95	mpp30	29.61	29.00	20.0	0.0305	0.013	12.0	0.0	0.0
96	OCS57	29.50	29.30	20.0	0.0100	0.013	18.0	0.0	0.0

Time span=1.00-20.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth>1.33"
Tc=6.0 min CN=84 Runoff=0.67 cfs 0.045 af

Subcatchment1B: Runoff Area=34,018 sf 20.08% Impervious Runoff Depth>1.03"
Tc=6.0 min CN=79 Runoff=0.98 cfs 0.067 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth>1.08"
Tc=6.0 min CN=80 Runoff=0.95 cfs 0.064 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth>1.20"
Tc=6.0 min CN=82 Runoff=1.23 cfs 0.083 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth>0.77"
Tc=6.0 min CN=74 Runoff=0.18 cfs 0.012 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth>0.77"
Tc=6.0 min CN=74 Runoff=0.22 cfs 0.016 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth>1.20"
Tc=6.0 min CN=82 Runoff=0.48 cfs 0.032 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth>1.08"
Tc=6.0 min CN=80 Runoff=0.93 cfs 0.063 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth>1.54"
Tc=6.0 min CN=87 Runoff=1.98 cfs 0.134 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth>1.70"
Tc=6.0 min CN=89 Runoff=1.34 cfs 0.091 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=1.95 cfs 0.150 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth>1.27"
Tc=6.0 min CN=83 Runoff=1.55 cfs 0.105 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth>1.62"
Tc=6.0 min CN=88 Runoff=0.59 cfs 0.040 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth>1.40"
Tc=6.0 min CN=85 Runoff=1.79 cfs 0.121 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth>2.43"
Tc=6.0 min CN=97 Runoff=0.58 cfs 0.044 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth>0.77"
Tc=6.0 min CN=74 Runoff=0.19 cfs 0.013 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth>1.20"
Tc=6.0 min CN=82 Runoff=0.51 cfs 0.035 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth>2.13"
Tc=6.0 min CN=94 Runoff=0.76 cfs 0.054 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth>1.33"
Tc=6.0 min CN=84 Runoff=0.24 cfs 0.016 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth>1.62"
Tc=6.0 min CN=88 Runoff=0.18 cfs 0.012 af

Subcatchment19: Runoff Area=13,711 sf 81.76% Impervious Runoff Depth>2.13"
Tc=6.0 min CN=94 Runoff=0.78 cfs 0.056 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth>1.95"
Tc=6.0 min CN=92 Runoff=1.52 cfs 0.106 af

Subcatchment21: Runoff Area=9,994 sf 83.66% Impervious Runoff Depth>2.13"
Tc=6.0 min CN=94 Runoff=0.57 cfs 0.041 af

Subcatchment22: Runoff Area=13,511 sf 76.43% Impervious Runoff Depth>1.95"
Tc=6.0 min CN=92 Runoff=0.72 cfs 0.050 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth>0.97"
Tc=6.0 min CN=78 Runoff=0.77 cfs 0.053 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth>1.95"
Tc=6.0 min CN=92 Runoff=0.98 cfs 0.068 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth>0.61"
Flow Length=438' Tc=67.0 min CN=71 Runoff=0.71 cfs 0.139 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=0.24 cfs 0.019 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=0.27 cfs 0.021 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth>1.40"
Tc=6.0 min CN=85 Runoff=3.16 cfs 0.213 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=0.08 cfs 0.006 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth>2.04"
Tc=6.0 min CN=93 Runoff=1.74 cfs 0.123 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth>0.63"
Flow Length=217' Tc=12.3 min CN=71 Runoff=0.94 cfs 0.085 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth>1.70"
Tc=6.0 min CN=89 Runoff=0.22 cfs 0.015 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth>0.48"
Tc=6.0 min CN=67 Runoff=1.19 cfs 0.098 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth>0.51"
Tc=6.0 min CN=68 Runoff=0.30 cfs 0.024 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth>0.51"
Tc=6.0 min CN=68 Runoff=0.26 cfs 0.021 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=7.08 cfs 0.547 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=7.08 cfs 0.547 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=7.08 cfs 0.547 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=7.08 cfs 0.547 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=7.08 cfs 0.547 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=7.08 cfs 0.547 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=0.76 cfs 0.058 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=1.19 cfs 0.092 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth>0.63"
Flow Length=574' Tc=18.8 min CN=71 Runoff=1.81 cfs 0.192 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth>0.58"
Flow Length=307' Tc=29.9 min CN=70 Runoff=0.56 cfs 0.072 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>0.62"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.13 cfs 0.018 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth>0.81"
Flow Length=639' Tc=15.9 min CN=75 Runoff=1.31 cfs 0.123 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth>0.58"
Flow Length=377' Tc=54.0 min CN=70 Runoff=0.25 cfs 0.044 af

Subcatchment49: Runoff Area=84,173 sf 0.65% Impervious Runoff Depth>0.58"
Flow Length=470' Tc=54.1 min CN=70 Runoff=0.53 cfs 0.093 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth>2.54"
Tc=6.0 min CN=98 Runoff=1.90 cfs 0.147 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>0.73"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=10.03 cfs 2.307 af

SubcatchmentOS11: OFFSITE 3 Runoff Area=513,527 sf 23.06% Impervious Runoff Depth>0.97"
Flow Length=532' Tc=6.8 min CN=78 Runoff=13.59 cfs 0.953 af

SubcatchmentOS9: OFFSITE 1 (Below Runoff Area=702,010 sf 3.63% Impervious Runoff Depth>0.80"
Flow Length=1,353' Tc=35.1 min CN=75 Runoff=8.31 cfs 1.080 af

Reach 9R: ANALYSISPOINT 9 Inflow=8.31 cfs 1.080 af
Outflow=8.31 cfs 1.080 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=0.77' Max Vel=9.01 fps Inflow=10.03 cfs 2.307 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=10.03 cfs 2.307 af

Reach 11R: Stream 9 Inflow=13.59 cfs 0.953 af
Outflow=13.59 cfs 0.953 af

Reach 17R: untreated Inflow=0.76 cfs 0.054 af
Outflow=0.76 cfs 0.054 af

Reach 20R: untreated Inflow=1.52 cfs 0.106 af
Outflow=1.52 cfs 0.106 af

Reach 23R: sub 23 Inflow=0.77 cfs 0.053 af
Outflow=0.77 cfs 0.053 af

Reach 27R: extisting Inflow=0.27 cfs 0.021 af
Outflow=0.27 cfs 0.021 af

Reach 28R: existing Inflow=3.16 cfs 0.213 af
Outflow=3.16 cfs 0.213 af

Reach 29R: untreated Inflow=0.08 cfs 0.006 af
Outflow=0.08 cfs 0.006 af

Reach 32R: untreated Inflow=0.22 cfs 0.015 af
Outflow=0.22 cfs 0.015 af

Reach 44R: Inflow=1.81 cfs 0.192 af
Outflow=1.81 cfs 0.192 af

Reach 47R: Inflow=1.31 cfs 0.123 af
Outflow=1.31 cfs 0.123 af

Reach 48R: (new Reach) Inflow=0.25 cfs 0.044 af
Outflow=0.25 cfs 0.044 af

Reach 49R: Inflow=0.53 cfs 0.093 af
Outflow=0.53 cfs 0.093 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=0.79 cfs 0.137 af
Outflow=0.79 cfs 0.137 af

Reach PT2: ANALYSISPOINT 2 at BWD Reservoir Inflow=0.71 cfs 0.139 af
Outflow=0.71 cfs 0.139 af

Reach PT3: ANALYSISPOINT 3/4 at BWD Reservoir Inflow=0.94 cfs 0.085 af
Outflow=0.94 cfs 0.085 af

Reach PT5: all BWD reservoir Inflow=1.57 cfs 0.277 af
Outflow=1.57 cfs 0.277 af

Reach PT6: stream 9 offsite Avg. Flow Depth=0.76' Max Vel=3.14 fps Inflow=16.20 cfs 4.340 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=15.42 cfs 4.321 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.17' Max Vel=5.11 fps Inflow=0.56 cfs 0.072 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=0.55 cfs 0.072 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.02' Max Vel=2.48 fps Inflow=0.13 cfs 0.018 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.13 cfs 0.018 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=0.59' Max Vel=17.28 fps Inflow=17.03 cfs 4.727 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=17.03 cfs 4.726 af

Reach S9-2: Stream 9 Avg. Flow Depth=0.68' Max Vel=3.74 fps Inflow=17.00 cfs 4.512 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=16.06 cfs 4.456 af

Reach S9-3: Stream 9 Avg. Flow Depth=0.64' Max Vel=3.72 fps Inflow=16.60 cfs 4.606 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=16.58 cfs 4.593 af

Reach tank: existing clarifier Inflow=23.93 cfs 1.475 af
Outflow=23.93 cfs 1.475 af

Pond 1P: (new Pond) Peak Elev=63.34' Inflow=7.08 cfs 0.547 af
Primary=2.77 cfs 0.029 af Secondary=4.31 cfs 0.518 af Outflow=7.08 cfs 0.547 af

Pond 4P: Rtanks Peak Elev=29.54' Storage=138 cf Inflow=0.26 cfs 0.021 af
12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/' Outflow=0.15 cfs 0.020 af

Pond dmh10: dmh10 Peak Elev=55.76' Inflow=5.57 cfs 0.105 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=5.57 cfs 0.105 af

Pond dmh11: dmh11 Peak Elev=55.03' Inflow=9.16 cfs 0.260 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=9.16 cfs 0.260 af

Pond dmh13: dmh13 Peak Elev=54.52' Inflow=9.16 cfs 0.260 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=9.16 cfs 0.260 af

Pond dmh14: dmh14 Peak Elev=53.86' Inflow=10.50 cfs 0.352 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=10.50 cfs 0.352 af

Pond dmh15: dmh15 Peak Elev=53.56' Inflow=10.50 cfs 0.352 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=10.50 cfs 0.352 af

Pond dmh16: dmh16 Peak Elev=60.50' Inflow=0.00 cfs 0.000 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.00 cfs 0.000 af

Pond dmh17: dmh17 Peak Elev=53.18' Inflow=10.50 cfs 0.362 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=10.50 cfs 0.362 af

Pond dmh2: dmh2 Peak Elev=63.89' Inflow=2.77 cfs 0.029 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=2.77 cfs 0.029 af

Pond dmh20: dmh20 Peak Elev=52.88' Inflow=10.50 cfs 0.362 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=10.50 cfs 0.362 af

Pond dmh21: dmh21 Peak Elev=52.44' Inflow=14.18 cfs 0.759 af
36.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=14.18 cfs 0.759 af

Pond dmh22: dmh 22 Peak Elev=52.77' Inflow=3.76 cfs 0.337 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=3.76 cfs 0.337 af

Pond dmh23: dmh23 Peak Elev=57.21' Inflow=3.30 cfs 0.250 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=3.30 cfs 0.250 af

Pond dmh24: dmh24 Peak Elev=58.06' Inflow=3.30 cfs 0.250 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=3.30 cfs 0.250 af

Pond dmh24a: dmh24a Peak Elev=59.81' Inflow=1.53 cfs 0.121 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=1.53 cfs 0.121 af

Pond dmh25: dmh25 Peak Elev=60.44' Inflow=0.60 cfs 0.045 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=0.60 cfs 0.045 af

Pond dmh26: (new Pond) Peak Elev=58.20' Inflow=0.42 cfs 0.099 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=0.42 cfs 0.099 af

Pond dmh27: dmh27 Peak Elev=53.66' Inflow=1.32 cfs 0.202 af
15.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=1.32 cfs 0.202 af

Pond dmh29: dmh29 Peak Elev=58.50' Inflow=0.76 cfs 0.058 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=0.76 cfs 0.058 af

Pond dmh3: dmh3 Peak Elev=61.40' Inflow=2.77 cfs 0.075 af
18.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=2.77 cfs 0.075 af

Pond dmh30: dmh30 Peak Elev=55.91' Inflow=0.76 cfs 0.058 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=0.76 cfs 0.058 af

Pond dmh31: dmh31 Peak Elev=54.82' Inflow=0.76 cfs 0.157 af
15.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=0.76 cfs 0.157 af

Pond dmh32: dmh32 Peak Elev=52.40' Inflow=1.32 cfs 0.231 af
18.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=1.32 cfs 0.231 af

Pond dmh33: dmh33 Peak Elev=54.23' Inflow=0.18 cfs 0.042 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.18 cfs 0.042 af

Pond dmh34: dmh34 Peak Elev=52.57' Inflow=1.29 cfs 0.151 af
18.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=1.29 cfs 0.151 af

Pond dmh35: dmh35 Peak Elev=52.32' Inflow=2.61 cfs 0.418 af
24.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=2.61 cfs 0.418 af

Pond dmh36: dmh36 Peak Elev=50.92' Inflow=2.61 cfs 0.418 af
24.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=2.61 cfs 0.418 af

Pond dmh38: dmh38 Peak Elev=52.87' Inflow=2.77 cfs 0.029 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=2.77 cfs 0.029 af

Pond dmh39: dmh39 Peak Elev=51.55' Inflow=2.77 cfs 0.034 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=2.77 cfs 0.034 af

Pond dmh4: dmh4 Peak Elev=60.82' Inflow=2.77 cfs 0.075 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=2.77 cfs 0.075 af

Pond dmh40: dmh40 Peak Elev=50.37' Inflow=5.32 cfs 0.452 af
30.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=5.32 cfs 0.452 af

Pond dmh43: dmh43 Peak Elev=48.65' Inflow=5.32 cfs 0.452 af
30.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=5.32 cfs 0.452 af

Pond dmh44: dmh44 Peak Elev=47.67' Inflow=5.54 cfs 0.468 af
36.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=5.54 cfs 0.468 af

Pond dmh45: dmh45 Peak Elev=47.19' Inflow=5.54 cfs 0.468 af
36.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=5.54 cfs 0.468 af

Pond dmh47: dmh47 Peak Elev=45.25' Inflow=8.31 cfs 0.497 af
36.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=8.31 cfs 0.497 af

Pond dmh48: dmh48 Peak Elev=44.29' Inflow=9.20 cfs 0.611 af
36.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=9.20 cfs 0.611 af

Pond dmh49: dmh49 Peak Elev=43.86' Inflow=9.67 cfs 0.643 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=9.67 cfs 0.643 af

Pond dmh5: dmh5 Peak Elev=60.38' Inflow=2.77 cfs 0.075 af
18.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=2.77 cfs 0.075 af

Pond dmh50: dmh50 Peak Elev=46.43' Inflow=14.18 cfs 0.781 af
36.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=14.18 cfs 0.781 af

Pond dmh51: dmh51 Peak Elev=45.77' Inflow=14.18 cfs 0.781 af
36.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=14.18 cfs 0.781 af

Pond dmh52: dmh52 Peak Elev=42.84' Inflow=23.85 cfs 1.424 af
60.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=23.85 cfs 1.424 af

Pond dmh53: dmh53 Peak Elev=34.84' Inflow=23.85 cfs 1.460 af
60.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=23.85 cfs 1.460 af

Pond dmh54: dmh54 Peak Elev=28.84' Inflow=23.93 cfs 1.475 af
60.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=23.93 cfs 1.475 af

Pond dmh55: dhm55 Peak Elev=20.84' Inflow=23.93 cfs 1.475 af
60.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=23.93 cfs 1.475 af

Pond dmh56: dmh56 Peak Elev=14.34' Inflow=23.93 cfs 1.475 af
60.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=23.93 cfs 1.475 af

Pond dmh59: dmh59 Peak Elev=57.21' Inflow=3.48 cfs 0.285 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=3.48 cfs 0.285 af

Pond dmh6: dmh6 Peak Elev=59.66' Inflow=2.77 cfs 0.075 af
18.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=2.77 cfs 0.075 af

Pond dmh60: dhm60 Peak Elev=37.34' Inflow=23.85 cfs 1.424 af
60.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=23.85 cfs 1.424 af

Pond dmh7: dmh7 Peak Elev=58.61' Inflow=2.77 cfs 0.075 af
18.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=2.77 cfs 0.075 af

Pond dmh8: dmh8 Peak Elev=58.05' Inflow=5.57 cfs 0.105 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=5.57 cfs 0.105 af

Pond dmh9a: dmh9a Peak Elev=56.81' Inflow=5.57 cfs 0.105 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=5.57 cfs 0.105 af

Pond GSF 11: grassed soil filter Peak Elev=62.04' Storage=2,590 cf Inflow=1.55 cfs 0.105 af
Outflow=0.21 cfs 0.047 af

Pond GSF 12: grassed soil filter Peak Elev=61.57' Storage=558 cf Inflow=0.59 cfs 0.040 af
Outflow=0.53 cfs 0.029 af

Pond GSF 13: grassed soil filter Peak Elev=62.04' Storage=3,135 cf Inflow=1.79 cfs 0.121 af
Outflow=0.21 cfs 0.051 af

Pond GSF 15: grassed soil filter Peak Elev=63.73' Storage=149 cf Inflow=0.19 cfs 0.013 af
Outflow=0.14 cfs 0.010 af

Pond GSF 16: grassed soil filter Peak Elev=63.86' Storage=1,513 cf Inflow=0.51 cfs 0.035 af
Outflow=0.00 cfs 0.000 af

Pond GSF 18A: grassed soil filter Peak Elev=57.41' Storage=415 cf Inflow=0.24 cfs 0.016 af
Outflow=0.03 cfs 0.007 af

Pond GSF 18B: grassed soil filter Peak Elev=57.91' Storage=376 cf Inflow=0.18 cfs 0.012 af
Outflow=0.02 cfs 0.004 af

Pond GSF 1A: Grassed soil filter Peak Elev=65.83' Storage=131 cf Inflow=0.67 cfs 0.045 af
Outflow=0.60 cfs 0.045 af

Pond GSF 1B: grassed soil filter Peak Elev=66.97' Storage=999 cf Inflow=0.98 cfs 0.067 af
Outflow=0.53 cfs 0.046 af

Pond GSF 2: grassed soil filter Peak Elev=57.63' Storage=1,574 cf Inflow=0.95 cfs 0.064 af
Outflow=0.12 cfs 0.029 af

Pond GSF 24: grassed soil filter Peak Elev=40.67' Storage=1,478 cf Inflow=0.98 cfs 0.068 af
Outflow=0.44 cfs 0.037 af

Pond GSF 3: grassed soil filter Peak Elev=55.78' Storage=2,084 cf Inflow=1.23 cfs 0.083 af
Outflow=0.15 cfs 0.037 af

Pond GSF 4: grassed soil filter Peak Elev=55.11' Storage=336 cf Inflow=0.18 cfs 0.012 af
Outflow=0.02 cfs 0.005 af

Pond GSF 5: grassed soil filter Peak Elev=54.00' Storage=1 cf Inflow=0.22 cfs 0.016 af
Outflow=0.22 cfs 0.016 af

Pond GSF 6: grassed soil filter Peak Elev=49.00' Storage=1 cf Inflow=0.48 cfs 0.032 af
Outflow=0.48 cfs 0.032 af

Pond GSF 7: grassed soil filter Peak Elev=54.72' Storage=1,812 cf Inflow=0.93 cfs 0.063 af
Outflow=0.07 cfs 0.022 af

Pond GSF 8: grassed soil filter Peak Elev=57.65' Storage=3,408 cf Inflow=1.98 cfs 0.134 af
Outflow=0.32 cfs 0.059 af

Pond GSF 9: grassed soil filter Peak Elev=63.51' Storage=14 cf Inflow=1.34 cfs 0.091 af
Outflow=1.34 cfs 0.091 af

Pond ICS1: ICS Peak Elev=66.54' Inflow=7.08 cfs 0.547 af
Primary=2.77 cfs 0.029 af Secondary=4.31 cfs 0.518 af Outflow=7.08 cfs 0.547 af

Pond ics28: ICS28 Peak Elev=58.51' Inflow=0.76 cfs 0.058 af
Primary=0.76 cfs 0.058 af Secondary=0.00 cfs 0.000 af Outflow=0.76 cfs 0.058 af

Pond ICS37: ISC37 Peak Elev=55.39' Inflow=7.08 cfs 0.547 af
Primary=2.77 cfs 0.029 af Secondary=4.31 cfs 0.518 af Outflow=7.08 cfs 0.547 af

Pond ics46: ICS46 Peak Elev=49.39' Inflow=7.08 cfs 0.547 af
Primary=2.77 cfs 0.029 af Secondary=4.31 cfs 0.518 af Outflow=7.08 cfs 0.547 af

Pond ICS9: ICS9 Peak Elev=64.57' Inflow=7.08 cfs 0.547 af
Primary=2.79 cfs 0.029 af Secondary=4.29 cfs 0.518 af Outflow=7.08 cfs 0.547 af

Pond ISC42: ICS42 Peak Elev=0.00'
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af

Pond MPP 10: Rtank storage Peak Elev=61.72' Storage=0.055 af Inflow=1.95 cfs 0.150 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=1.07 cfs 0.127 af

Pond MPP 14: Rtanks Peak Elev=56.51' Storage=679 cf Inflow=0.58 cfs 0.044 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.33 cfs 0.038 af

Pond MPP 19: Rtanks Peak Elev=55.42' Storage=0.030 af Inflow=0.78 cfs 0.056 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.18 cfs 0.042 af

Pond MPP 21: Rtanks Peak Elev=55.15' Storage=731 cf Inflow=0.57 cfs 0.041 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.24 cfs 0.035 af

Pond MPP 22: Rtanks Peak Elev=55.37' Storage=1,184 cf Inflow=0.72 cfs 0.050 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.15 cfs 0.037 af

Pond MPP 26: Rtanks Peak Elev=34.82' Storage=368 cf Inflow=0.24 cfs 0.019 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.11 cfs 0.015 af

Pond MPP 50: Peak Elev=54.86' Storage=2,639 cf Inflow=1.90 cfs 0.147 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=1.14 cfs 0.114 af

Pond mpp30: Rtanks Peak Elev=30.33' Storage=1,090 cf Inflow=1.80 cfs 0.142 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0305 '/' Outflow=1.38 cfs 0.134 af

Pond OCS57: OCS 57 Peak Elev=30.27' Inflow=1.38 cfs 0.134 af
Outflow=1.38 cfs 0.134 af

Pond SSF 36: ssf Inflow=4.31 cfs 0.518 af
Primary=4.31 cfs 0.518 af

Pond SSF 37: Inflow=4.29 cfs 0.518 af
Primary=4.29 cfs 0.518 af

Pond SSF 38: ssf38 Inflow=4.31 cfs 0.518 af
Primary=4.31 cfs 0.518 af

Pond SSF 39: Inflow=4.31 cfs 0.518 af
Primary=4.31 cfs 0.518 af

Pond SSF 40: Inflow=7.08 cfs 0.547 af
Primary=7.08 cfs 0.547 af

Pond SSF 41: Inflow=4.31 cfs 0.518 af
Primary=4.31 cfs 0.518 af

Pond SSF 42: Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Pond SSF 43: Inflow=1.19 cfs 0.092 af
Primary=1.19 cfs 0.092 af

Total Runoff Area = 116.268 ac Runoff Volume = 10.799 af Average Runoff Depth = 1.11"
74.75% Pervious = 86.915 ac 25.25% Impervious = 29.353 ac

Summary for Subcatchment 1A:

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.045 af, Depth> 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 0.98 cfs @ 12.10 hrs, Volume= 0.067 af, Depth> 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	27,186	74	>75% Grass cover, Good, HSG C
	34,018	79	Weighted Average
	27,186		79.92% Pervious Area
	6,832		20.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 0.95 cfs @ 12.10 hrs, Volume= 0.064 af, Depth> 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 1.23 cfs @ 12.10 hrs, Volume= 0.083 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.18 cfs @ 12.10 hrs, Volume= 0.012 af, Depth> 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

Area (sf)	CN	Description
8,448	74	>75% Grass cover, Good, HSG C
8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 0.22 cfs @ 12.10 hrs, Volume= 0.016 af, Depth> 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 0.48 cfs @ 12.10 hrs, Volume= 0.032 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 0.93 cfs @ 12.10 hrs, Volume= 0.063 af, Depth> 1.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 1.98 cfs @ 12.09 hrs, Volume= 0.134 af, Depth> 1.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 1.34 cfs @ 12.09 hrs, Volume= 0.091 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 1.95 cfs @ 12.09 hrs, Volume= 0.150 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 1.55 cfs @ 12.09 hrs, Volume= 0.105 af, Depth> 1.27"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 0.59 cfs @ 12.09 hrs, Volume= 0.040 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 1.79 cfs @ 12.09 hrs, Volume= 0.121 af, Depth> 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 0.58 cfs @ 12.09 hrs, Volume= 0.044 af, Depth> 2.43"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 0.19 cfs @ 12.10 hrs, Volume= 0.013 af, Depth> 0.77"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 0.51 cfs @ 12.10 hrs, Volume= 0.035 af, Depth> 1.20"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 0.76 cfs @ 12.09 hrs, Volume= 0.054 af, Depth> 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.016 af, Depth> 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.18 cfs @ 12.09 hrs, Volume= 0.012 af, Depth> 1.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 0.78 cfs @ 12.09 hrs, Volume= 0.056 af, Depth> 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	11,210	98	Impervious
*	2,501	74	>75% Grass cover, Good, HSG C/D
	13,711	94	Weighted Average
	2,501		18.24% Pervious Area
	11,210		81.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 1.52 cfs @ 12.09 hrs, Volume= 0.106 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af, Depth> 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	8,361	98	Impervious
*	1,633	74	>75% Grass cover, Good, HSG C/D
	9,994	94	Weighted Average
	1,633		16.34% Pervious Area
	8,361		83.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.050 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	10,326	98	Impervious
*	3,185	74	>75% Grass cover, Good, HSG C/D
	13,511	92	Weighted Average
	3,185		23.57% Pervious Area
	10,326		76.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 0.77 cfs @ 12.10 hrs, Volume= 0.053 af, Depth> 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 0.068 af, Depth> 1.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 0.71 cfs @ 13.01 hrs, Volume= 0.139 af, Depth> 0.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.27 cfs @ 12.09 hrs, Volume= 0.021 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 3.16 cfs @ 12.09 hrs, Volume= 0.213 af, Depth> 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.08 cfs @ 12.09 hrs, Volume= 0.006 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 1.74 cfs @ 12.09 hrs, Volume= 0.123 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 0.94 cfs @ 12.20 hrs, Volume= 0.085 af, Depth> 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b**
					Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c**
					Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d**
					Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.22 cfs @ 12.09 hrs, Volume= 0.015 af, Depth> 1.70"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 1.19 cfs @ 12.11 hrs, Volume= 0.098 af, Depth> 0.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 0.30 cfs @ 12.11 hrs, Volume= 0.024 af, Depth> 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penhouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 0.26 cfs @ 12.11 hrs, Volume= 0.021 af, Depth> 0.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 1.19 cfs @ 12.09 hrs, Volume= 0.092 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 1.81 cfs @ 12.30 hrs, Volume= 0.192 af, Depth> 0.63"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 0.56 cfs @ 12.49 hrs, Volume= 0.072 af, Depth> 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9 307 Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.13 cfs @ 12.55 hrs, Volume= 0.018 af, Depth> 0.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 1.31 cfs @ 12.24 hrs, Volume= 0.123 af, Depth> 0.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 0.25 cfs @ 12.83 hrs, Volume= 0.044 af, Depth> 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 0.53 cfs @ 12.84 hrs, Volume= 0.093 af, Depth> 0.58"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	2,923	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	84,173	70	Weighted Average
	83,625		99.35% Pervious Area
	548		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 1.90 cfs @ 12.09 hrs, Volume= 0.147 af, Depth> 2.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 10.03 cfs @ 13.35 hrs, Volume= 2.307 af, Depth> 0.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment OS11: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 13.59 cfs @ 12.11 hrs, Volume= 0.953 af, Depth> 0.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	118,437	98	Impervious
*	237,621	70	Woods, Good, HSG C/D
*	157,469	74	>75% Grass cover, Good, HSG C/D
	513,527	78	Weighted Average
	395,090		76.94% Pervious Area
	118,437		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment OS9: OFFSITE 1 (Below Perkins Rd)

Runoff = 8.31 cfs @ 12.53 hrs, Volume= 1.080 af, Depth> 0.80"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 2-year Rainfall=2.90"

	Area (sf)	CN	Description
*	25,513	98	Impervious
*	532,320	74	>75% Grass cover, Good, HSG C/D
*	3,818	94	Gravel roads, HSG C/D
	6,087	74	>75% Grass cover, Good, HSG C
	72,382	70	Woods, Good, HSG C
	61,890	74	>75% Grass cover, Good, HSG C
	702,010	75	Weighted Average
	676,497		96.37% Pervious Area
	25,513		3.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	15	0.2000	2.25		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
12.6	373	0.0050	0.49		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
13.1	715	0.0170	0.91		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
9.3	250	0.0320	0.45		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
35.1	1,353	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 16.116 ac, 3.63% Impervious, Inflow Depth > 0.80" for 2-year event
Inflow = 8.31 cfs @ 12.53 hrs, Volume= 1.080 af
Outflow = 8.31 cfs @ 12.53 hrs, Volume= 1.080 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

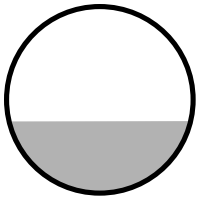
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 0.73" for 2-year event
Inflow = 10.03 cfs @ 13.35 hrs, Volume= 2.307 af
Outflow = 10.03 cfs @ 13.36 hrs, Volume= 2.307 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 9.01 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 5.80 fps, Avg. Travel Time= 0.1 min

Peak Storage= 28 cf @ 13.35 hrs
Average Depth at Peak Storage= 0.77'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 11.789 ac, 23.06% Impervious, Inflow Depth > 0.97" for 2-year event
Inflow = 13.59 cfs @ 12.11 hrs, Volume= 0.953 af
Outflow = 13.59 cfs @ 12.11 hrs, Volume= 0.953 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth > 2.13" for 2-year event
Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.054 af
Outflow = 0.76 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth > 1.95" for 2-year event
Inflow = 1.52 cfs @ 12.09 hrs, Volume= 0.106 af
Outflow = 1.52 cfs @ 12.09 hrs, Volume= 0.106 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth > 0.97" for 2-year event
Inflow = 0.77 cfs @ 12.10 hrs, Volume= 0.053 af
Outflow = 0.77 cfs @ 12.10 hrs, Volume= 0.053 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 0.27 cfs @ 12.09 hrs, Volume= 0.021 af
Outflow = 0.27 cfs @ 12.09 hrs, Volume= 0.021 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 28R: existing

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth > 1.40" for 2-year event
Inflow = 3.16 cfs @ 12.09 hrs, Volume= 0.213 af
Outflow = 3.16 cfs @ 12.09 hrs, Volume= 0.213 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 0.08 cfs @ 12.09 hrs, Volume= 0.006 af
Outflow = 0.08 cfs @ 12.09 hrs, Volume= 0.006 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth > 1.70" for 2-year event
Inflow = 0.22 cfs @ 12.09 hrs, Volume= 0.015 af
Outflow = 0.22 cfs @ 12.09 hrs, Volume= 0.015 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth > 0.63" for 2-year event
Inflow = 1.81 cfs @ 12.30 hrs, Volume= 0.192 af
Outflow = 1.81 cfs @ 12.30 hrs, Volume= 0.192 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth > 0.81" for 2-year event
Inflow = 1.31 cfs @ 12.24 hrs, Volume= 0.123 af
Outflow = 1.31 cfs @ 12.24 hrs, Volume= 0.123 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth > 0.58" for 2-year event
Inflow = 0.25 cfs @ 12.83 hrs, Volume= 0.044 af
Outflow = 0.25 cfs @ 12.83 hrs, Volume= 0.044 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 49R:

Inflow Area = 1.932 ac, 0.65% Impervious, Inflow Depth > 0.58" for 2-year event
Inflow = 0.53 cfs @ 12.84 hrs, Volume= 0.093 af
Outflow = 0.53 cfs @ 12.84 hrs, Volume= 0.093 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 2.855 ac, 0.44% Impervious, Inflow Depth > 0.58" for 2-year event
Inflow = 0.79 cfs @ 12.84 hrs, Volume= 0.137 af
Outflow = 0.79 cfs @ 12.84 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at BWD Reservoir

Inflow Area = 2.714 ac, 0.00% Impervious, Inflow Depth > 0.61" for 2-year event
Inflow = 0.71 cfs @ 13.01 hrs, Volume= 0.139 af
Outflow = 0.71 cfs @ 13.01 hrs, Volume= 0.139 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at BWD Reservoir

Inflow Area = 1.621 ac, 0.00% Impervious, Inflow Depth > 0.63" for 2-year event
Inflow = 0.94 cfs @ 12.20 hrs, Volume= 0.085 af
Outflow = 0.94 cfs @ 12.20 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 4.989 ac, 2.88% Impervious, Inflow Depth > 0.67" for 2-year event
Inflow = 1.57 cfs @ 12.15 hrs, Volume= 0.277 af
Outflow = 1.57 cfs @ 12.15 hrs, Volume= 0.277 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 65.668 ac, 6.51% Impervious, Inflow Depth > 0.79" for 2-year event
Inflow = 16.20 cfs @ 12.12 hrs, Volume= 4.340 af
Outflow = 15.42 cfs @ 12.21 hrs, Volume= 4.321 af, Atten= 5%, Lag= 5.3 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.14 fps, Min. Travel Time= 2.6 min
Avg. Velocity = 1.97 fps, Avg. Travel Time= 4.1 min

Peak Storage= 2,390 cf @ 12.16 hrs
Average Depth at Peak Storage= 0.76'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'

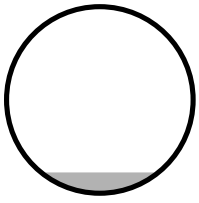
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth > 0.58" for 2-year event
Inflow = 0.56 cfs @ 12.49 hrs, Volume= 0.072 af
Outflow = 0.55 cfs @ 12.50 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.11 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.82 fps, Avg. Travel Time= 0.5 min

Peak Storage= 9 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.17'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 0.62" for 2-year event
Inflow = 0.13 cfs @ 12.55 hrs, Volume= 0.018 af
Outflow = 0.13 cfs @ 12.57 hrs, Volume= 0.018 af, Atten= 0%, Lag= 1.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 2.48 fps, Min. Travel Time= 0.5 min
Avg. Velocity = 2.48 fps, Avg. Travel Time= 0.5 min

Peak Storage= 4 cf @ 12.56 hrs
Average Depth at Peak Storage= 0.02'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'

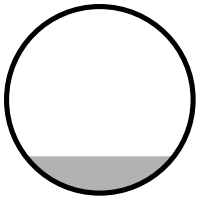
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 72.477 ac, 7.14% Impervious, Inflow Depth > 0.78" for 2-year event
Inflow = 17.03 cfs @ 12.67 hrs, Volume= 4.727 af
Outflow = 17.03 cfs @ 12.67 hrs, Volume= 4.726 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 17.28 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 7.22 fps, Avg. Travel Time= 0.2 min

Peak Storage= 92 cf @ 12.67 hrs
Average Depth at Peak Storage= 0.59'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 69.327 ac, 6.17% Impervious, Inflow Depth > 0.78" for 2-year event
Inflow = 17.00 cfs @ 12.21 hrs, Volume= 4.512 af
Outflow = 16.06 cfs @ 12.69 hrs, Volume= 4.456 af, Atten= 6%, Lag= 28.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.74 fps, Min. Travel Time= 7.0 min
Avg. Velocity = 2.30 fps, Avg. Travel Time= 11.5 min

Peak Storage= 6,796 cf @ 12.57 hrs
Average Depth at Peak Storage= 0.68'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'

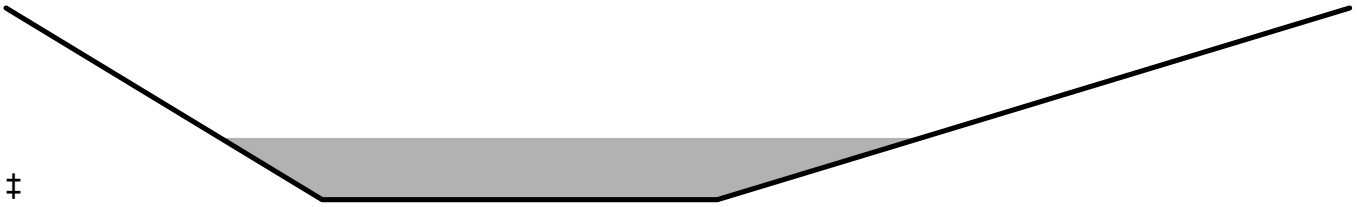
Summary for Reach S9-3: Stream 9

Inflow Area = 71.273 ac, 6.33% Impervious, Inflow Depth > 0.78" for 2-year event
Inflow = 16.60 cfs @ 12.65 hrs, Volume= 4.606 af
Outflow = 16.58 cfs @ 12.70 hrs, Volume= 4.593 af, Atten= 0%, Lag= 2.6 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.72 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 1.43 fps, Avg. Travel Time= 4.2 min

Peak Storage= 1,621 cf @ 12.67 hrs
Average Depth at Peak Storage= 0.64'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



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Summary for Reach tank: existing clarifier

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 0.60" for 2-year event
Inflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af
Outflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: (new Pond)

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af
Outflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af
Secondary = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.34' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=63.32' (Free Discharge)
└**1=Culvert** (Passes 2.60 cfs of 9.18 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 2.60 cfs @ 1.76 fps)

Secondary OutFlow Max=4.29 cfs @ 12.09 hrs HW=63.32' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.29 cfs @ 5.47 fps)

Summary for Pond 4P: Rtanks

Inflow Area = 0.482 ac, 20.00% Impervious, Inflow Depth > 0.51" for 2-year event
Inflow = 0.26 cfs @ 12.11 hrs, Volume= 0.021 af
Outflow = 0.15 cfs @ 12.31 hrs, Volume= 0.020 af, Atten= 40%, Lag= 11.7 min
Primary = 0.15 cfs @ 12.31 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 29.54' @ 12.31 hrs Surf.Area= 1,314 sf Storage= 138 cf

Plug-Flow detention time= 30.8 min calculated for 0.020 af (96% of inflow)
Center-of-Mass det. time= 16.6 min (856.8 - 840.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field A** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#2A	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		2,931 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**12.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 29.28' / 29.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.15 cfs @ 12.31 hrs HW=29.54' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.15 cfs @ 1.46 fps)

Summary for Pond dmh10: dmh10

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.21" for 2-year event
Inflow = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af
Outflow = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min
Primary = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.76' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=5.22 cfs @ 12.09 hrs HW=55.72' (Free Discharge)
└**1=Culvert** (Inlet Controls 5.22 cfs @ 2.86 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 0.34" for 2-year event
Inflow = 9.16 cfs @ 12.09 hrs, Volume= 0.260 af
Outflow = 9.16 cfs @ 12.09 hrs, Volume= 0.260 af, Atten= 0%, Lag= 0.0 min
Primary = 9.16 cfs @ 12.09 hrs, Volume= 0.260 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.03' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=8.68 cfs @ 12.09 hrs HW=54.99' (Free Discharge)
└**1=Culvert** (Barrel Controls 8.68 cfs @ 4.25 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 0.34" for 2-year event
Inflow = 9.16 cfs @ 12.09 hrs, Volume= 0.260 af
Outflow = 9.16 cfs @ 12.09 hrs, Volume= 0.260 af, Atten= 0%, Lag= 0.0 min
Primary = 9.16 cfs @ 12.09 hrs, Volume= 0.260 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.52' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=8.68 cfs @ 12.09 hrs HW=54.47' (Free Discharge)
└**1=Culvert** (Inlet Controls 8.68 cfs @ 3.15 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 0.43" for 2-year event
Inflow = 10.50 cfs @ 12.09 hrs, Volume= 0.352 af
Outflow = 10.50 cfs @ 12.09 hrs, Volume= 0.352 af, Atten= 0%, Lag= 0.0 min
Primary = 10.50 cfs @ 12.09 hrs, Volume= 0.352 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 53.86' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=10.00 cfs @ 12.09 hrs HW=53.81' (Free Discharge)
1=Culvert (Barrel Controls 10.00 cfs @ 3.87 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 0.43" for 2-year event
Inflow = 10.50 cfs @ 12.09 hrs, Volume= 0.352 af
Outflow = 10.50 cfs @ 12.09 hrs, Volume= 0.352 af, Atten= 0%, Lag= 0.0 min
Primary = 10.50 cfs @ 12.09 hrs, Volume= 0.352 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.56' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=10.00 cfs @ 12.09 hrs HW=53.52' (Free Discharge)
1=Culvert (Barrel Controls 10.00 cfs @ 4.41 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth = 0.00" for 2-year event
Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.50' @ 1.00 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=60.50' (Free Discharge)
1=Culvert (Controls 0.00 cfs)

Summary for Pond dmh17: dmh17

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 0.42" for 2-year event
Inflow = 10.50 cfs @ 12.09 hrs, Volume= 0.362 af
Outflow = 10.50 cfs @ 12.09 hrs, Volume= 0.362 af, Atten= 0%, Lag= 0.0 min
Primary = 10.50 cfs @ 12.09 hrs, Volume= 0.362 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.18' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=10.00 cfs @ 12.09 hrs HW=53.13' (Free Discharge)
1=Culvert (Barrel Controls 10.00 cfs @ 4.14 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 0.14" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.89' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=63.86' (Free Discharge)
1=Culvert (Inlet Controls 2.60 cfs @ 2.49 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 0.42" for 2-year event
Inflow = 10.50 cfs @ 12.09 hrs, Volume= 0.362 af
Outflow = 10.50 cfs @ 12.09 hrs, Volume= 0.362 af, Atten= 0%, Lag= 0.0 min
Primary = 10.50 cfs @ 12.09 hrs, Volume= 0.362 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.88' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert**

L= 100.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=10.00 cfs @ 12.09 hrs HW=52.83' (Free Discharge)
1=Culvert (Barrel Controls 10.00 cfs @ 4.45 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.164 ac, 80.88% Impervious, Inflow Depth > 0.64" for 2-year event
Inflow = 14.18 cfs @ 12.09 hrs, Volume= 0.759 af
Outflow = 14.18 cfs @ 12.09 hrs, Volume= 0.759 af, Atten= 0%, Lag= 0.0 min
Primary = 14.18 cfs @ 12.09 hrs, Volume= 0.759 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.44' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**36.0" Round Culvert**
			L= 281.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=13.73 cfs @ 12.09 hrs HW=52.41' (Free Discharge)
1=Culvert (Inlet Controls 13.73 cfs @ 3.45 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.671 ac, 64.47% Impervious, Inflow Depth > 1.51" for 2-year event
Inflow = 3.76 cfs @ 12.11 hrs, Volume= 0.337 af
Outflow = 3.76 cfs @ 12.11 hrs, Volume= 0.337 af, Atten= 0%, Lag= 0.0 min
Primary = 3.76 cfs @ 12.11 hrs, Volume= 0.337 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.77' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert**
			L= 93.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=3.69 cfs @ 12.11 hrs HW=52.75' (Free Discharge)
1=Culvert (Inlet Controls 3.69 cfs @ 3.00 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 1.48" for 2-year event
Inflow = 3.30 cfs @ 12.11 hrs, Volume= 0.250 af
Outflow = 3.30 cfs @ 12.11 hrs, Volume= 0.250 af, Atten= 0%, Lag= 0.0 min
Primary = 3.30 cfs @ 12.11 hrs, Volume= 0.250 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.21' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.24 cfs @ 12.11 hrs HW=57.14' (Free Discharge)
1=Culvert (Barrel Controls 3.24 cfs @ 4.12 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 1.48" for 2-year event
Inflow = 3.30 cfs @ 12.11 hrs, Volume= 0.250 af
Outflow = 3.30 cfs @ 12.11 hrs, Volume= 0.250 af, Atten= 0%, Lag= 0.0 min
Primary = 3.30 cfs @ 12.11 hrs, Volume= 0.250 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.06' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.24 cfs @ 12.11 hrs HW=58.02' (Free Discharge)
1=Culvert (Barrel Controls 3.24 cfs @ 4.12 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.817 ac, 77.70% Impervious, Inflow Depth > 1.77" for 2-year event
Inflow = 1.53 cfs @ 12.12 hrs, Volume= 0.121 af
Outflow = 1.53 cfs @ 12.12 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min
Primary = 1.53 cfs @ 12.12 hrs, Volume= 0.121 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.81' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert**

L= 95.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.46 cfs @ 12.12 hrs HW=59.68' (Free Discharge)
1=Culvert (Barrel Controls 1.46 cfs @ 4.19 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 1.33" for 2-year event
Inflow = 0.60 cfs @ 12.13 hrs, Volume= 0.045 af
Outflow = 0.60 cfs @ 12.13 hrs, Volume= 0.045 af, Atten= 0%, Lag= 0.0 min
Primary = 0.60 cfs @ 12.13 hrs, Volume= 0.045 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.44' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert**
			L= 98.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.59 cfs @ 12.13 hrs HW=60.44' (Free Discharge)
1=Culvert (Inlet Controls 0.59 cfs @ 1.78 fps)

Summary for Pond dmh26: (new Pond)

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 0.58" for 2-year event
Inflow = 0.42 cfs @ 12.84 hrs, Volume= 0.099 af
Outflow = 0.42 cfs @ 12.84 hrs, Volume= 0.099 af, Atten= 0%, Lag= 0.0 min
Primary = 0.42 cfs @ 12.84 hrs, Volume= 0.099 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.20' @ 12.84 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert**
			L= 28.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.42 cfs @ 12.84 hrs HW=58.20' (Free Discharge)
1=Culvert (Barrel Controls 0.42 cfs @ 1.81 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 0.89" for 2-year event
Inflow = 1.32 cfs @ 12.10 hrs, Volume= 0.202 af
Outflow = 1.32 cfs @ 12.10 hrs, Volume= 0.202 af, Atten= 0%, Lag= 0.0 min
Primary = 1.32 cfs @ 12.10 hrs, Volume= 0.202 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.66' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**15.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=1.31 cfs @ 12.10 hrs HW=53.66' (Free Discharge)
1=Culvert (Barrel Controls 1.31 cfs @ 3.09 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af
Outflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min
Primary = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.50' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.74 cfs @ 12.09 hrs HW=58.49' (Free Discharge)
1=Culvert (Inlet Controls 0.74 cfs @ 2.14 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.27" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.40' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**18.0" Round Culvert**

L= 125.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=61.37' (Free Discharge)
1=Culvert (Barrel Controls 2.60 cfs @ 3.54 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af
Outflow = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min
Primary = 0.76 cfs @ 12.09 hrs, Volume= 0.058 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.91' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert**
			L= 206.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.73 cfs @ 12.09 hrs HW=55.91' (Free Discharge)
1=Culvert (Barrel Controls 0.73 cfs @ 2.69 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 0.82" for 2-year event
Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.157 af
Outflow = 0.76 cfs @ 12.09 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min
Primary = 0.76 cfs @ 12.09 hrs, Volume= 0.157 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.82' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**15.0" Round Culvert**
			L= 259.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=0.73 cfs @ 12.09 hrs HW=54.81' (Free Discharge)
1=Culvert (Barrel Controls 0.73 cfs @ 2.66 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 0.81" for 2-year event
Inflow = 1.32 cfs @ 12.10 hrs, Volume= 0.231 af
Outflow = 1.32 cfs @ 12.10 hrs, Volume= 0.231 af, Atten= 0%, Lag= 0.0 min
Primary = 1.32 cfs @ 12.10 hrs, Volume= 0.231 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.40' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**18.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.31 cfs @ 12.10 hrs HW=52.39' (Free Discharge)
1=Culvert (Barrel Controls 1.31 cfs @ 2.57 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 1.58" for 2-year event
Inflow = 0.18 cfs @ 12.50 hrs, Volume= 0.042 af
Outflow = 0.18 cfs @ 12.50 hrs, Volume= 0.042 af, Atten= 0%, Lag= 0.0 min
Primary = 0.18 cfs @ 12.50 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.23' @ 12.50 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.18 cfs @ 12.50 hrs HW=54.23' (Free Discharge)
1=Culvert (Inlet Controls 0.18 cfs @ 1.29 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.90% Impervious, Inflow Depth > 0.60" for 2-year event
Inflow = 1.29 cfs @ 12.12 hrs, Volume= 0.151 af
Outflow = 1.29 cfs @ 12.12 hrs, Volume= 0.151 af, Atten= 0%, Lag= 0.0 min
Primary = 1.29 cfs @ 12.12 hrs, Volume= 0.151 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.57' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**18.0" Round Culvert**

L= 39.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=1.24 cfs @ 12.12 hrs HW=52.56' (Free Discharge)
1=Culvert (Inlet Controls 1.24 cfs @ 2.03 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 0.69" for 2-year event
Inflow = 2.61 cfs @ 12.11 hrs, Volume= 0.418 af
Outflow = 2.61 cfs @ 12.11 hrs, Volume= 0.418 af, Atten= 0%, Lag= 0.0 min
Primary = 2.61 cfs @ 12.11 hrs, Volume= 0.418 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.32' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**24.0" Round Culvert**
			L= 276.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=2.54 cfs @ 12.11 hrs HW=52.31' (Free Discharge)
1=Culvert (Inlet Controls 2.54 cfs @ 2.34 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 0.69" for 2-year event
Inflow = 2.61 cfs @ 12.11 hrs, Volume= 0.418 af
Outflow = 2.61 cfs @ 12.11 hrs, Volume= 0.418 af, Atten= 0%, Lag= 0.0 min
Primary = 2.61 cfs @ 12.11 hrs, Volume= 0.418 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 50.92' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**24.0" Round Culvert**
			L= 159.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=2.54 cfs @ 12.11 hrs HW=50.91' (Free Discharge)
1=Culvert (Barrel Controls 2.54 cfs @ 3.44 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 0.14" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.87' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=52.84' (Free Discharge)
1=Culvert (Inlet Controls 2.60 cfs @ 2.49 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 0.15" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.034 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 51.55' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=51.51' (Free Discharge)
1=Culvert (Barrel Controls 2.60 cfs @ 3.26 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.27" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.82' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**18.0" Round Culvert**

L= 66.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=60.78' (Free Discharge)
1=Culvert (Barrel Controls 2.60 cfs @ 3.20 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 0.54" for 2-year event
Inflow = 5.32 cfs @ 12.09 hrs, Volume= 0.452 af
Outflow = 5.32 cfs @ 12.09 hrs, Volume= 0.452 af, Atten= 0%, Lag= 0.0 min
Primary = 5.32 cfs @ 12.09 hrs, Volume= 0.452 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 50.37' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**30.0" Round Culvert** L= 340.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=5.18 cfs @ 12.09 hrs HW=50.36' (Free Discharge)
1=Culvert (Inlet Controls 5.18 cfs @ 2.72 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 0.54" for 2-year event
Inflow = 5.32 cfs @ 12.09 hrs, Volume= 0.452 af
Outflow = 5.32 cfs @ 12.09 hrs, Volume= 0.452 af, Atten= 0%, Lag= 0.0 min
Primary = 5.32 cfs @ 12.09 hrs, Volume= 0.452 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 48.65' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**30.0" Round Culvert** L= 193.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=5.18 cfs @ 12.09 hrs HW=48.64' (Free Discharge)
1=Culvert (Inlet Controls 5.18 cfs @ 2.72 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 0.54" for 2-year event
Inflow = 5.54 cfs @ 12.09 hrs, Volume= 0.468 af
Outflow = 5.54 cfs @ 12.09 hrs, Volume= 0.468 af, Atten= 0%, Lag= 0.0 min
Primary = 5.54 cfs @ 12.09 hrs, Volume= 0.468 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 47.67' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**36.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=5.40 cfs @ 12.09 hrs HW=47.65' (Free Discharge)
1=Culvert (Barrel Controls 5.40 cfs @ 3.74 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 0.54" for 2-year event
Inflow = 5.54 cfs @ 12.09 hrs, Volume= 0.468 af
Outflow = 5.54 cfs @ 12.09 hrs, Volume= 0.468 af, Atten= 0%, Lag= 0.0 min
Primary = 5.54 cfs @ 12.09 hrs, Volume= 0.468 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 47.19' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**36.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=5.40 cfs @ 12.09 hrs HW=47.18' (Free Discharge)
1=Culvert (Inlet Controls 5.40 cfs @ 2.67 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 12.894 ac, 59.74% Impervious, Inflow Depth > 0.46" for 2-year event
Inflow = 8.31 cfs @ 12.09 hrs, Volume= 0.497 af
Outflow = 8.31 cfs @ 12.09 hrs, Volume= 0.497 af, Atten= 0%, Lag= 0.0 min
Primary = 8.31 cfs @ 12.09 hrs, Volume= 0.497 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 45.25' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**36.0" Round Culvert**

L= 104.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=7.98 cfs @ 12.09 hrs HW=45.22' (Free Discharge)
1=Culvert (Inlet Controls 7.98 cfs @ 2.97 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 13.587 ac, 61.79% Impervious, Inflow Depth > 0.54" for 2-year event
Inflow = 9.20 cfs @ 12.09 hrs, Volume= 0.611 af
Outflow = 9.20 cfs @ 12.09 hrs, Volume= 0.611 af, Atten= 0%, Lag= 0.0 min
Primary = 9.20 cfs @ 12.09 hrs, Volume= 0.611 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 44.29' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**36.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=8.94 cfs @ 12.09 hrs HW=44.27' (Free Discharge)
1=Culvert (Barrel Controls 8.94 cfs @ 4.34 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 13.908 ac, 61.10% Impervious, Inflow Depth > 0.55" for 2-year event
Inflow = 9.67 cfs @ 12.09 hrs, Volume= 0.643 af
Outflow = 9.67 cfs @ 12.09 hrs, Volume= 0.643 af, Atten= 0%, Lag= 0.0 min
Primary = 9.67 cfs @ 12.09 hrs, Volume= 0.643 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 43.86' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=9.41 cfs @ 12.09 hrs HW=43.83' (Free Discharge)
1=Culvert (Barrel Controls 9.41 cfs @ 3.88 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.27" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.38' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**18.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=60.34' (Free Discharge)
1=Culvert (Barrel Controls 2.60 cfs @ 3.56 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 0.63" for 2-year event
Inflow = 14.18 cfs @ 12.09 hrs, Volume= 0.781 af
Outflow = 14.18 cfs @ 12.09 hrs, Volume= 0.781 af, Atten= 0%, Lag= 0.0 min
Primary = 14.18 cfs @ 12.09 hrs, Volume= 0.781 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 46.43' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**36.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=13.73 cfs @ 12.09 hrs HW=46.40' (Free Discharge)
1=Culvert (Inlet Controls 13.73 cfs @ 3.45 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 0.63" for 2-year event
Inflow = 14.18 cfs @ 12.09 hrs, Volume= 0.781 af
Outflow = 14.18 cfs @ 12.09 hrs, Volume= 0.781 af, Atten= 0%, Lag= 0.0 min
Primary = 14.18 cfs @ 12.09 hrs, Volume= 0.781 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 45.77' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**36.0" Round Culvert**

L= 38.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=13.73 cfs @ 12.09 hrs HW=45.74' (Free Discharge)
1=Culvert (Inlet Controls 13.73 cfs @ 3.45 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 0.59" for 2-year event
Inflow = 23.85 cfs @ 12.09 hrs, Volume= 1.424 af
Outflow = 23.85 cfs @ 12.09 hrs, Volume= 1.424 af, Atten= 0%, Lag= 0.0 min
Primary = 23.85 cfs @ 12.09 hrs, Volume= 1.424 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 42.84' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**60.0" Round Culvert**
			L= 258.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=23.13 cfs @ 12.09 hrs HW=42.81' (Free Discharge)
1=Culvert (Inlet Controls 23.13 cfs @ 3.61 fps)

Summary for Pond dmh53: dmh53

Inflow Area = 29.187 ac, 69.95% Impervious, Inflow Depth > 0.60" for 2-year event
Inflow = 23.85 cfs @ 12.09 hrs, Volume= 1.460 af
Outflow = 23.85 cfs @ 12.09 hrs, Volume= 1.460 af, Atten= 0%, Lag= 0.0 min
Primary = 23.85 cfs @ 12.09 hrs, Volume= 1.460 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 34.84' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**60.0" Round Culvert**
			L= 120.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=23.13 cfs @ 12.09 hrs HW=34.81' (Free Discharge)
1=Culvert (Inlet Controls 23.13 cfs @ 3.61 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 0.60" for 2-year event
Inflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af
Outflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af, Atten= 0%, Lag= 0.0 min
Primary = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 28.84' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**60.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=23.22 cfs @ 12.09 hrs HW=28.81' (Free Discharge)
1=Culvert (Inlet Controls 23.22 cfs @ 3.62 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 0.60" for 2-year event
Inflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af
Outflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af, Atten= 0%, Lag= 0.0 min
Primary = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 20.84' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**60.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=23.22 cfs @ 12.09 hrs HW=20.81' (Free Discharge)
1=Culvert (Inlet Controls 23.22 cfs @ 3.62 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 0.60" for 2-year event
Inflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af
Outflow = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af, Atten= 0%, Lag= 0.0 min
Primary = 23.93 cfs @ 12.09 hrs, Volume= 1.475 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 14.34' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**60.0" Round Culvert**

L= 42.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=23.22 cfs @ 12.09 hrs HW=14.31' (Free Discharge)
1=Culvert (Inlet Controls 23.22 cfs @ 3.62 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.253 ac, 63.02% Impervious, Inflow Depth > 1.52" for 2-year event
Inflow = 3.48 cfs @ 12.11 hrs, Volume= 0.285 af
Outflow = 3.48 cfs @ 12.11 hrs, Volume= 0.285 af, Atten= 0%, Lag= 0.0 min
Primary = 3.48 cfs @ 12.11 hrs, Volume= 0.285 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.21' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert**
			L= 294.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.40 cfs @ 12.11 hrs HW=57.06' (Free Discharge)
1=Culvert (Barrel Controls 3.40 cfs @ 4.33 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.27" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.66' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**18.0" Round Culvert**
			L= 170.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=59.62' (Free Discharge)
1=Culvert (Barrel Controls 2.60 cfs @ 2.81 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 0.59" for 2-year event
Inflow = 23.85 cfs @ 12.09 hrs, Volume= 1.424 af
Outflow = 23.85 cfs @ 12.09 hrs, Volume= 1.424 af, Atten= 0%, Lag= 0.0 min
Primary = 23.85 cfs @ 12.09 hrs, Volume= 1.424 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 37.34' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**60.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=23.13 cfs @ 12.09 hrs HW=37.31' (Free Discharge)
1=Culvert (Inlet Controls 23.13 cfs @ 3.61 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.27" for 2-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af
Outflow = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.61' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**18.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=58.57' (Free Discharge)
1=Culvert (Barrel Controls 2.60 cfs @ 3.55 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.21" for 2-year event
Inflow = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af
Outflow = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min
Primary = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.05' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert**

L= 296.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=5.22 cfs @ 12.09 hrs HW=58.01' (Free Discharge)
1=Culvert (Barrel Controls 5.22 cfs @ 3.95 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.21" for 2-year event
Inflow = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af
Outflow = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af, Atten= 0%, Lag= 0.0 min
Primary = 5.57 cfs @ 12.09 hrs, Volume= 0.105 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.81' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=5.22 cfs @ 12.09 hrs HW=56.77' (Free Discharge)
1=Culvert (Inlet Controls 5.22 cfs @ 2.86 fps)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth > 1.27" for 2-year event
Inflow = 1.55 cfs @ 12.09 hrs, Volume= 0.105 af
Outflow = 0.21 cfs @ 12.79 hrs, Volume= 0.047 af, Atten= 87%, Lag= 41.5 min
Primary = 0.21 cfs @ 12.79 hrs, Volume= 0.047 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.04' @ 12.79 hrs Surf.Area= 2,795 sf Storage= 2,590 cf
Flood Elev= 63.00' Surf.Area= 3,400 sf Storage= 5,560 cf

Plug-Flow detention time= 191.1 min calculated for 0.047 af (45% of inflow)
Center-of-Mass det. time= 105.3 min (905.0 - 799.7)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. cb19 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.21 cfs @ 12.79 hrs HW=62.04' (Free Discharge)
└**1=Culvert** (Passes 0.21 cfs of 5.58 cfs potential flow)
└**2=cb19** (Weir Controls 0.21 cfs @ 0.65 fps)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth > 1.62" for 2-year event
Inflow = 0.59 cfs @ 12.09 hrs, Volume= 0.040 af
Outflow = 0.53 cfs @ 12.14 hrs, Volume= 0.029 af, Atten= 10%, Lag= 3.1 min
Primary = 0.53 cfs @ 12.14 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.57' @ 12.14 hrs Surf.Area= 1,061 sf Storage= 558 cf
Flood Elev= 62.50' Surf.Area= 1,368 sf Storage= 1,681 cf

Plug-Flow detention time= 106.8 min calculated for 0.029 af (72% of inflow)
Center-of-Mass det. time= 42.8 min (827.6 - 784.8)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Device	Routing	Invert	Outlet Devices
#1	Primary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	61.50'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.52 cfs @ 12.14 hrs HW=61.57' (Free Discharge)
└**1=Culvert** (Passes 0.52 cfs of 2.31 cfs potential flow)
└**2=Catch Basin** (Weir Controls 0.52 cfs @ 0.88 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth > 1.40" for 2-year event
Inflow = 1.79 cfs @ 12.09 hrs, Volume= 0.121 af
Outflow = 0.21 cfs @ 12.87 hrs, Volume= 0.051 af, Atten= 88%, Lag= 46.4 min
Primary = 0.21 cfs @ 12.87 hrs, Volume= 0.051 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.04' @ 12.87 hrs Surf.Area= 3,554 sf Storage= 3,135 cf
Flood Elev= 63.00' Surf.Area= 4,582 sf Storage= 7,028 cf

Plug-Flow detention time= 200.0 min calculated for 0.051 af (42% of inflow)
Center-of-Mass det. time= 113.4 min (907.5 - 794.1)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. db18 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.21 cfs @ 12.87 hrs HW=62.04' (Free Discharge)
└**1=Culvert** (Passes 0.21 cfs of 5.58 cfs potential flow)
└**2=db18** (Weir Controls 0.21 cfs @ 0.66 fps)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth > 0.77" for 2-year event
Inflow = 0.19 cfs @ 12.10 hrs, Volume= 0.013 af
Outflow = 0.14 cfs @ 12.22 hrs, Volume= 0.010 af, Atten= 29%, Lag= 7.2 min
Primary = 0.14 cfs @ 12.22 hrs, Volume= 0.010 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.73' @ 12.20 hrs Surf.Area= 712 sf Storage= 149 cf
Flood Elev= 65.00' Surf.Area= 1,418 sf Storage= 1,489 cf

Plug-Flow detention time= 91.5 min calculated for 0.010 af (77% of inflow)
Center-of-Mass det. time= 32.8 min (855.9 - 823.1)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	63.70'	**2.0" x 2.0" Horiz. cb9 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 12.22 hrs HW=63.73' (Free Discharge)
↑—**1=Culvert** (Passes 0.12 cfs of 2.18 cfs potential flow)
↑—**2=cb9** (Weir Controls 0.12 cfs @ 0.54 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 1.20" for 2-year event
Inflow = 0.51 cfs @ 12.10 hrs, Volume= 0.035 af
Outflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 100%, Lag= 0.0 min
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.86' @ 20.00 hrs Surf.Area= 1,750 sf Storage= 1,513 cf

Plug-Flow detention time= (not calculated: initial storage exceeds outflow)
Center-of-Mass det. time= (not calculated: no outflow)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	64.40'	**2.0" x 2.0" Horiz. Catch Basin X 49.00**

C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=62.75' (Free Discharge)
↑**1=Culvert** (Passes 0.00 cfs of 1.74 cfs potential flow)
↑**2=Catch Basin** (Controls 0.00 cfs)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth > 1.33" for 2-year event
Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.016 af
Outflow = 0.03 cfs @ 12.84 hrs, Volume= 0.007 af, Atten= 88%, Lag= 44.8 min
Primary = 0.03 cfs @ 12.84 hrs, Volume= 0.007 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.41' @ 12.84 hrs Surf.Area= 1,124 sf Storage= 415 cf

Plug-Flow detention time= 199.1 min calculated for 0.007 af (42% of inflow)
Center-of-Mass det. time= 111.4 min (908.4 - 797.0)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.40'	**2.0" x 2.0" Horiz. cb24 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.03 cfs @ 12.84 hrs HW=57.41' (Free Discharge)
↑**1=Culvert** (Passes 0.03 cfs of 2.33 cfs potential flow)
↑**2=cb24** (Weir Controls 0.03 cfs @ 0.34 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth > 1.62" for 2-year event
Inflow = 0.18 cfs @ 12.09 hrs, Volume= 0.012 af
Outflow = 0.02 cfs @ 13.36 hrs, Volume= 0.004 af, Atten= 92%, Lag= 75.8 min
Primary = 0.02 cfs @ 13.36 hrs, Volume= 0.004 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.91' @ 13.36 hrs Surf.Area= 555 sf Storage= 376 cf

Plug-Flow detention time= 250.4 min calculated for 0.004 af (31% of inflow)

Center-of-Mass det. time= 152.5 min (937.4 - 784.8)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.90'	**2.0" x 2.0" Horiz. cb23 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 13.36 hrs HW=57.91' (Free Discharge)
↑—**1=Culvert** (Passes 0.01 cfs of 2.51 cfs potential flow)
↑—**2=cb23** (Weir Controls 0.01 cfs @ 0.25 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 1.33" for 2-year event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.045 af
Outflow = 0.60 cfs @ 12.13 hrs, Volume= 0.045 af, Atten= 11%, Lag= 2.4 min
Primary = 0.60 cfs @ 12.13 hrs, Volume= 0.045 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 65.83' @ 12.13 hrs Surf.Area= 1,655 sf Storage= 131 cf
Flood Elev= 68.00' Surf.Area= 3,488 sf Storage= 5,554 cf

Plug-Flow detention time= 5.6 min calculated for 0.045 af (100% of inflow)
Center-of-Mass det. time= 4.6 min (801.5 - 797.0)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.80' / 62.26' S= 0.0200 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2 Device 1 65.75' **2.0" x 2.0" Horiz. Orifice/Grate X 49.00**
C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.58 cfs @ 12.13 hrs HW=65.83' (Free Discharge)
↑—**1=Culvert** (Passes 0.58 cfs of 2.18 cfs potential flow)
↑—**2=Orifice/Grate** (Weir Controls 0.58 cfs @ 0.92 fps)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.781 ac, 20.08% Impervious, Inflow Depth > 1.03" for 2-year event
Inflow = 0.98 cfs @ 12.10 hrs, Volume= 0.067 af
Outflow = 0.53 cfs @ 12.27 hrs, Volume= 0.046 af, Atten= 46%, Lag= 10.5 min
Primary = 0.53 cfs @ 12.27 hrs, Volume= 0.046 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 66.97' @ 12.27 hrs Surf.Area= 1,544 sf Storage= 999 cf
Flood Elev= 67.00' Surf.Area= 1,576 sf Storage= 1,039 cf

Plug-Flow detention time= 116.8 min calculated for 0.046 af (69% of inflow)
Center-of-Mass det. time= 46.5 min (856.8 - 810.3)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	1,039 cf	**gsf1B (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
66.00	583	194.0	0	0	583
67.00	1,576	297.0	1,039	1,039	4,615

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert**
			L= 20.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 62.80' / 62.60' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	66.90'	**2.0" x 2.0" Horiz. CB17 grate X 49.00**
			C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.51 cfs @ 12.27 hrs HW=66.97' (Free Discharge)
↑—**1=Culvert** (Passes 0.51 cfs of 2.60 cfs potential flow)
↑—**2=CB17 grate** (Weir Controls 0.51 cfs @ 0.88 fps)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth > 1.08" for 2-year event
Inflow = 0.95 cfs @ 12.10 hrs, Volume= 0.064 af
Outflow = 0.12 cfs @ 12.92 hrs, Volume= 0.029 af, Atten= 87%, Lag= 49.1 min
Primary = 0.12 cfs @ 12.92 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 57.63' @ 12.92 hrs Surf.Area= 2,095 sf Storage= 1,574 cf
Flood Elev= 59.00' Surf.Area= 3,488 sf Storage= 5,317 cf

Plug-Flow detention time= 193.0 min calculated for 0.029 af (45% of inflow)
Center-of-Mass det. time= 105.2 min (912.9 - 807.7)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Device	Routing	Invert	Outlet Devices
#1	Primary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb20 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.12 cfs @ 12.92 hrs HW=57.63' (Free Discharge)
↑**1=Culvert** (Passes 0.12 cfs of 2.43 cfs potential flow)
↑**2=cb20** (Weir Controls 0.12 cfs @ 0.54 fps)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth > 1.95" for 2-year event
Inflow = 0.98 cfs @ 12.09 hrs, Volume= 0.068 af
Outflow = 0.44 cfs @ 12.29 hrs, Volume= 0.037 af, Atten= 55%, Lag= 11.9 min
Primary = 0.44 cfs @ 12.29 hrs, Volume= 0.037 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 40.67' @ 12.29 hrs Surf.Area= 1,839 sf Storage= 1,478 cf

Plug-Flow detention time= 158.6 min calculated for 0.036 af (54% of inflow)
Center-of-Mass det. time= 79.4 min (849.2 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Device	Routing	Invert	Outlet Devices
#1	Primary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	40.60'	**2.0" x 2.0" Horiz. cb32 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.43 cfs @ 12.29 hrs HW=40.66' (Free Discharge)
└**1=Culvert** (Passes 0.43 cfs of 2.49 cfs potential flow)
└**2=cb32** (Weir Controls 0.43 cfs @ 0.83 fps)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth > 1.20" for 2-year event
Inflow = 1.23 cfs @ 12.10 hrs, Volume= 0.083 af
Outflow = 0.15 cfs @ 12.88 hrs, Volume= 0.037 af, Atten= 88%, Lag= 47.3 min
Primary = 0.15 cfs @ 12.88 hrs, Volume= 0.037 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.78' @ 12.88 hrs Surf.Area= 2,457 sf Storage= 2,084 cf
Flood Elev= 57.00' Surf.Area= 3,839 sf Storage= 5,872 cf

Plug-Flow detention time= 196.1 min calculated for 0.037 af (44% of inflow)
Center-of-Mass det. time= 108.4 min (910.9 - 802.4)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 51.84' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	55.75'	**2.0" x 2.0" Horiz. cb25 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.15 cfs @ 12.88 hrs HW=55.78' (Free Discharge)
└**1=Culvert** (Passes 0.15 cfs of 5.42 cfs potential flow)
└**2=cb25** (Weir Controls 0.15 cfs @ 0.58 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth > 0.77" for 2-year event
Inflow = 0.18 cfs @ 12.10 hrs, Volume= 0.012 af
Outflow = 0.02 cfs @ 13.70 hrs, Volume= 0.005 af, Atten= 90%, Lag= 95.7 min
Primary = 0.02 cfs @ 13.70 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.11' @ 13.70 hrs Surf.Area= 656 sf Storage= 336 cf
Flood Elev= 56.00' Surf.Area= 974 sf Storage= 1,061 cf

Plug-Flow detention time= 233.1 min calculated for 0.005 af (38% of inflow)
Center-of-Mass det. time= 134.9 min (958.0 - 823.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.56' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	55.10'	**2.0" x 2.0" Horiz. cb26 rim X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.01 cfs @ 13.70 hrs HW=55.11' (Free Discharge)
└**1=Culvert** (Passes 0.01 cfs of 2.31 cfs potential flow)
└**2=cb26 rim** (Weir Controls 0.01 cfs @ 0.24 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth > 0.77" for 2-year event
Inflow = 0.22 cfs @ 12.10 hrs, Volume= 0.016 af
Outflow = 0.22 cfs @ 12.10 hrs, Volume= 0.016 af, Atten= 0%, Lag= 0.0 min
Primary = 0.22 cfs @ 12.10 hrs, Volume= 0.016 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.00' @ 12.10 hrs Surf.Area= 601 sf Storage= 1 cf
Flood Elev= 55.00' Surf.Area= 1,257 sf Storage= 908 cf

Plug-Flow detention time= 0.0 min calculated for 0.016 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (823.2 - 823.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	54.60'	**2.0" x 2.0" Horiz. Catch Basin** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.17 cfs @ 12.10 hrs HW=54.00' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.17 cfs @ 6.21 fps)
└**2=Catch Basin** (Controls 0.00 cfs)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth > 1.20" for 2-year event
Inflow = 0.48 cfs @ 12.10 hrs, Volume= 0.032 af
Outflow = 0.48 cfs @ 12.10 hrs, Volume= 0.032 af, Atten= 0%, Lag= 0.0 min
Primary = 0.48 cfs @ 12.10 hrs, Volume= 0.032 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.00' @ 12.10 hrs Surf.Area= 1,000 sf Storage= 1 cf
Flood Elev= 50.00' Surf.Area= 1,768 sf Storage= 1,366 cf

Plug-Flow detention time= 0.0 min calculated for 0.032 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (802.5 - 802.4)

Volume	Invert	Avail.Storage	Storage Description
#1	49.00'	1,366 cf	**gsf6 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
49.00	1,000	156.0	0	0	1,000
50.00	1,768	184.0	1,366	1,366	1,776

Device	Routing	Invert	Outlet Devices
#1	Primary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	48.20'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=8.51 cfs @ 12.10 hrs HW=49.00' (Free Discharge)
└**1=culvert** (Inlet Controls 2.64 cfs @ 7.57 fps)
└**2=Catch Basin** (Orifice Controls 5.86 cfs @ 4.31 fps)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth > 1.08" for 2-year event
Inflow = 0.93 cfs @ 12.10 hrs, Volume= 0.063 af
Outflow = 0.07 cfs @ 13.86 hrs, Volume= 0.022 af, Atten= 92%, Lag= 105.9 min
Primary = 0.07 cfs @ 13.86 hrs, Volume= 0.022 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 54.72' @ 13.86 hrs Surf.Area= 3,028 sf Storage= 1,812 cf
Flood Elev= 56.00' Surf.Area= 5,203 sf Storage= 7,026 cf

Plug-Flow detention time= 238.3 min calculated for 0.022 af (35% of inflow)
Center-of-Mass det. time= 145.0 min (952.7 - 807.7)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	54.70'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.07 cfs @ 13.86 hrs HW=54.72' (Free Discharge)
└**1=cb29** (Passes 0.07 cfs of 2.44 cfs potential flow)
└**2=Catch Basin** (Weir Controls 0.07 cfs @ 0.46 fps)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth > 1.54" for 2-year event
Inflow = 1.98 cfs @ 12.09 hrs, Volume= 0.134 af
Outflow = 0.32 cfs @ 12.61 hrs, Volume= 0.059 af, Atten= 84%, Lag= 30.9 min
Primary = 0.32 cfs @ 12.61 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.65' @ 12.61 hrs Surf.Area= 3,327 sf Storage= 3,408 cf
Flood Elev= 58.50' Surf.Area= 3,910 sf Storage= 6,471 cf

Plug-Flow detention time= 191.5 min calculated for 0.059 af (44% of inflow)
Center-of-Mass det. time= 106.2 min (894.3 - 788.1)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**8.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb10 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.31 cfs @ 12.61 hrs HW=57.65' (Free Discharge)
↑—**1=Culvert** (Passes 0.31 cfs of 2.53 cfs potential flow)
↑—**2=cb10** (Weir Controls 0.31 cfs @ 0.75 fps)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth > 1.70" for 2-year event
Inflow = 1.34 cfs @ 12.09 hrs, Volume= 0.091 af
Outflow = 1.34 cfs @ 12.09 hrs, Volume= 0.091 af, Atten= 0%, Lag= 0.2 min
Primary = 1.34 cfs @ 12.09 hrs, Volume= 0.091 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.51' @ 12.09 hrs Surf.Area= 1,909 sf Storage= 14 cf
Flood Elev= 65.00' Surf.Area= 3,935 sf Storage= 4,339 cf

Plug-Flow detention time= 0.2 min calculated for 0.091 af (100% of inflow)
Center-of-Mass det. time= 0.2 min (781.6 - 781.5)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	4,339 cf	**gsf9 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	1,900	437.0	0	0	1,900
64.00	2,567	446.0	1,113	1,113	2,570
65.00	3,935	465.0	3,227	4,339	4,021

Device	Routing	Invert	Outlet Devices
#1	Primary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

#2	Device 1	63.00'	**2.0" x 2.0" Horiz. cb6 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.71 cfs @ 12.09 hrs HW=63.51' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.71 cfs @ 7.77 fps)
↑**2=cb6** (Passes 2.71 cfs of 4.67 cfs potential flow)

Summary for Pond ICS1: ICS

Inflow Area =	2.584 ac,100.00% Impervious,	Inflow Depth >	2.54"	for 2-year event
Inflow =	7.08 cfs @	12.09 hrs, Volume=	0.547 af	
Outflow =	7.08 cfs @	12.09 hrs, Volume=	0.547 af,	Atten= 0%, Lag= 0.0 min
Primary =	2.77 cfs @	12.09 hrs, Volume=	0.029 af	
Secondary =	4.31 cfs @	12.09 hrs, Volume=	0.518 af	

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 66.54' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.50' / 63.27' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	66.15'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	63.95'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.95' / 63.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=66.52' (Free Discharge)
↑**1=Culvert** (Passes 2.60 cfs of 10.12 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 2.60 cfs @ 1.76 fps)

Secondary OutFlow Max=4.29 cfs @ 12.09 hrs HW=66.52' (Free Discharge)
↑**3=Culvert** (Inlet Controls 4.29 cfs @ 5.47 fps)

Summary for Pond ics28: ICS28

Inflow Area =	0.275 ac,100.00% Impervious,	Inflow Depth >	2.54"	for 2-year event
Inflow =	0.76 cfs @	12.09 hrs, Volume=	0.058 af	
Outflow =	0.76 cfs @	12.09 hrs, Volume=	0.058 af,	Atten= 0%, Lag= 0.0 min
Primary =	0.76 cfs @	12.09 hrs, Volume=	0.058 af	
Secondary =	0.00 cfs @	1.00 hrs, Volume=	0.000 af	

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 58.51' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert** L= 10.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.73 cfs @ 12.09 hrs HW=58.50' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.50 cfs @ 2.46 fps)
└**3=Culvert** (Barrel Controls 0.24 cfs @ 1.84 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=58.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af
Outflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af
Secondary = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.39' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.50'	**18.0" Round Culvert** L= 51.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=55.37' (Free Discharge)
└**1=Culvert** (Passes 2.60 cfs of 9.78 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 2.60 cfs @ 1.76 fps)

Secondary OutFlow Max=4.29 cfs @ 12.09 hrs HW=55.37' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.29 cfs @ 5.47 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af
Outflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min
Primary = 2.77 cfs @ 12.09 hrs, Volume= 0.029 af
Secondary = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.39' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.60 cfs @ 12.09 hrs HW=49.37' (Free Discharge)
└**1=Culvert** (Passes 2.60 cfs of 10.45 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 2.60 cfs @ 1.76 fps)

Secondary OutFlow Max=4.29 cfs @ 12.09 hrs HW=49.37' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.29 cfs @ 5.47 fps)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af
Outflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min
Primary = 2.79 cfs @ 12.09 hrs, Volume= 0.029 af
Secondary = 4.29 cfs @ 12.09 hrs, Volume= 0.518 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 64.57' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.62 cfs @ 12.09 hrs HW=64.55' (Free Discharge)
└**1=Culvert** (Passes 2.62 cfs of 9.74 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 2.62 cfs @ 1.77 fps)

Secondary OutFlow Max=4.27 cfs @ 12.09 hrs HW=64.55' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.27 cfs @ 5.44 fps)

Summary for Pond ISC42: ICS42

Device	Routing	Invert	Outlet Devices
#1	Primary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
└**1=Culvert** (Controls 0.00 cfs)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
└**3=Culvert** (Controls 0.00 cfs)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 1.95 cfs @ 12.09 hrs, Volume= 0.150 af
Outflow = 1.07 cfs @ 12.22 hrs, Volume= 0.127 af, Atten= 45%, Lag= 7.9 min
Primary = 1.07 cfs @ 12.22 hrs, Volume= 0.127 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.72' @ 12.22 hrs Surf.Area= 0.179 ac Storage= 0.055 af

Plug-Flow detention time= 121.2 min calculated for 0.127 af (84% of inflow)
Center-of-Mass det. time= 73.8 min (804.6 - 730.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.06 cfs @ 12.22 hrs HW=61.72' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.06 cfs @ 2.31 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth > 2.43" for 2-year event
Inflow = 0.58 cfs @ 12.09 hrs, Volume= 0.044 af
Outflow = 0.33 cfs @ 12.21 hrs, Volume= 0.038 af, Atten= 44%, Lag= 7.7 min
Primary = 0.33 cfs @ 12.21 hrs, Volume= 0.038 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.51' @ 12.21 hrs Surf.Area= 1,935 sf Storage= 679 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 110.7 min calculated for 0.038 af (86% of inflow)
Center-of-Mass det. time= 67.6 min (807.9 - 740.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.32 cfs @ 12.21 hrs HW=56.50' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.32 cfs @ 1.76 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 2.13" for 2-year event
Inflow = 0.78 cfs @ 12.09 hrs, Volume= 0.056 af
Outflow = 0.18 cfs @ 12.50 hrs, Volume= 0.042 af, Atten= 78%, Lag= 24.5 min
Primary = 0.18 cfs @ 12.50 hrs, Volume= 0.042 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.42' @ 12.50 hrs Surf.Area= 0.074 ac Storage= 0.030 af

Plug-Flow detention time= 168.7 min calculated for 0.041 af (74% of inflow)
Center-of-Mass det. time= 108.3 min (868.5 - 760.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.18 cfs @ 12.50 hrs HW=55.42' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.18 cfs @ 1.77 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.229 ac, 83.66% Impervious, Inflow Depth > 2.13" for 2-year event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.24 cfs @ 12.30 hrs, Volume= 0.035 af, Atten= 58%, Lag= 12.8 min
Primary = 0.24 cfs @ 12.30 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.15' @ 12.30 hrs Surf.Area= 1,510 sf Storage= 731 cf

Plug-Flow detention time= 111.9 min calculated for 0.035 af (85% of inflow)
Center-of-Mass det. time= 68.3 min (828.5 - 760.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.24 cfs @ 12.30 hrs HW=55.15' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.24 cfs @ 1.83 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.310 ac, 76.43% Impervious, Inflow Depth > 1.95" for 2-year event
Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.050 af
Outflow = 0.15 cfs @ 12.52 hrs, Volume= 0.037 af, Atten= 79%, Lag= 25.9 min
Primary = 0.15 cfs @ 12.52 hrs, Volume= 0.037 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.37' @ 12.52 hrs Surf.Area= 3,003 sf Storage= 1,184 cf

Plug-Flow detention time= 167.2 min calculated for 0.037 af (73% of inflow)
Center-of-Mass det. time= 105.3 min (875.1 - 769.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.15 cfs @ 12.52 hrs HW=55.37' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.15 cfs @ 1.58 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 0.24 cfs @ 12.09 hrs, Volume= 0.019 af
Outflow = 0.11 cfs @ 12.26 hrs, Volume= 0.015 af, Atten= 54%, Lag= 10.7 min
Primary = 0.11 cfs @ 12.26 hrs, Volume= 0.015 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 34.82' @ 12.26 hrs Surf.Area= 1,289 sf Storage= 368 cf

Plug-Flow detention time= 149.3 min calculated for 0.015 af (78% of inflow)
Center-of-Mass det. time= 92.4 min (823.2 - 730.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.11 cfs @ 12.26 hrs HW=34.82' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.11 cfs @ 1.21 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 1.90 cfs @ 12.09 hrs, Volume= 0.147 af
Outflow = 1.14 cfs @ 12.20 hrs, Volume= 0.114 af, Atten= 40%, Lag= 7.0 min
Primary = 1.14 cfs @ 12.20 hrs, Volume= 0.114 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.86' @ 12.20 hrs Surf.Area= 5,946 sf Storage= 2,639 cf

Plug-Flow detention time= 140.3 min calculated for 0.114 af (77% of inflow)
Center-of-Mass det. time= 80.8 min (811.6 - 730.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.13 cfs @ 12.20 hrs HW=54.86' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.13 cfs @ 1.73 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 1.42" for 2-year event
Inflow = 1.80 cfs @ 12.09 hrs, Volume= 0.142 af
Outflow = 1.38 cfs @ 12.17 hrs, Volume= 0.134 af, Atten= 23%, Lag= 4.7 min
Primary = 1.38 cfs @ 12.17 hrs, Volume= 0.134 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.33' @ 12.17 hrs Surf.Area= 1,599 sf Storage= 1,090 cf
Flood Elev= 31.78' Surf.Area= 8,586 sf Storage= 7,539 cf

Plug-Flow detention time= 48.2 min calculated for 0.134 af (94% of inflow)
Center-of-Mass det. time= 26.9 min (804.8 - 778.0)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	694 cf	**10.56'W x 76.72'L x 3.42'H Field D** 2,767 cf Overall - 1,033 cf Embedded = 1,734 cf x 40.0% Voids
#6D	29.53'	982 cf	**ACF R-Tank HD 1.5** x 155 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 5 Rows of 31 Chambers
		10,595 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.61'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.61' / 29.00' S= 0.0305 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.35 cfs @ 12.17 hrs HW=30.32' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 1.35 cfs @ 2.27 fps)

Summary for Pond OCS57: OCS 57

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 1.33" for 2-year event
Inflow = 1.38 cfs @ 12.17 hrs, Volume= 0.134 af
Outflow = 1.38 cfs @ 12.17 hrs, Volume= 0.134 af, Atten= 0%, Lag= 0.0 min
Primary = 1.38 cfs @ 12.17 hrs, Volume= 0.134 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.27' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	29.50'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.50' / 29.30' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

#2	Device 1	30.07'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	29.53'	**2.0" Vert. Orifice/Grate X 2.00** C= 0.600
#4	Primary	29.90'	**6.0" W x 2.0" H Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=1.35 cfs @ 12.17 hrs HW=30.27' (Free Discharge)
- **1=Culvert** (Passes 0.97 cfs of 2.03 cfs potential flow)
  - **2=Broad-Crested Rectangular Weir** (Weir Controls 0.97 cfs @ 1.24 fps)
- **3=Orifice/Grate** (Orifice Controls 0.17 cfs @ 3.89 fps)
- **4=Orifice/Grate** (Orifice Controls 0.21 cfs @ 2.55 fps)

Summary for Pond SSF 36: ssf

Inflow = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af
Primary = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 37:

Inflow = 4.29 cfs @ 12.09 hrs, Volume= 0.518 af
Primary = 4.29 cfs @ 12.09 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 38: ssf38

Inflow = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af
Primary = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 39:

Inflow = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af
Primary = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 40:

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af
Primary = 7.08 cfs @ 12.09 hrs, Volume= 0.547 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 41:

Inflow = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af
Primary = 4.31 cfs @ 12.09 hrs, Volume= 0.518 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 42:

Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 43:

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 2.54" for 2-year event
Inflow = 1.19 cfs @ 12.09 hrs, Volume= 0.092 af
Primary = 1.19 cfs @ 12.09 hrs, Volume= 0.092 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Time span=1.00-20.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth>2.38"
Tc=6.0 min CN=84 Runoff=1.19 cfs 0.081 af

Subcatchment1B: Runoff Area=34,018 sf 20.08% Impervious Runoff Depth>1.98"
Tc=6.0 min CN=79 Runoff=1.91 cfs 0.129 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth>2.05"
Tc=6.0 min CN=80 Runoff=1.81 cfs 0.122 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth>2.22"
Tc=6.0 min CN=82 Runoff=2.26 cfs 0.153 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth>1.61"
Tc=6.0 min CN=74 Runoff=0.38 cfs 0.026 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth>1.61"
Tc=6.0 min CN=74 Runoff=0.49 cfs 0.033 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth>2.22"
Tc=6.0 min CN=82 Runoff=0.88 cfs 0.059 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth>2.05"
Tc=6.0 min CN=80 Runoff=1.77 cfs 0.119 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth>2.65"
Tc=6.0 min CN=87 Runoff=3.35 cfs 0.231 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth>2.84"
Tc=6.0 min CN=89 Runoff=2.19 cfs 0.153 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=2.84 cfs 0.224 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth>2.30"
Tc=6.0 min CN=83 Runoff=2.80 cfs 0.190 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth>2.74"
Tc=6.0 min CN=88 Runoff=0.98 cfs 0.068 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth>2.47"
Tc=6.0 min CN=85 Runoff=3.13 cfs 0.214 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth>3.67"
Tc=6.0 min CN=97 Runoff=0.85 cfs 0.066 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth>1.61"
Tc=6.0 min CN=74 Runoff=0.42 cfs 0.028 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth>2.22"
Tc=6.0 min CN=82 Runoff=0.95 cfs 0.064 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth>3.34"
Tc=6.0 min CN=94 Runoff=1.16 cfs 0.085 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth>2.38"
Tc=6.0 min CN=84 Runoff=0.43 cfs 0.029 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth>2.74"
Tc=6.0 min CN=88 Runoff=0.30 cfs 0.021 af

Subcatchment19: Runoff Area=13,711 sf 81.76% Impervious Runoff Depth>3.34"
Tc=6.0 min CN=94 Runoff=1.19 cfs 0.088 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth>3.13"
Tc=6.0 min CN=92 Runoff=2.38 cfs 0.171 af

Subcatchment21: Runoff Area=9,994 sf 83.66% Impervious Runoff Depth>3.34"
Tc=6.0 min CN=94 Runoff=0.87 cfs 0.064 af

Subcatchment22: Runoff Area=13,511 sf 76.43% Impervious Runoff Depth>3.13"
Tc=6.0 min CN=92 Runoff=1.13 cfs 0.081 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth>1.90"
Tc=6.0 min CN=78 Runoff=1.54 cfs 0.103 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth>3.13"
Tc=6.0 min CN=92 Runoff=1.53 cfs 0.109 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth>1.37"
Flow Length=438' Tc=67.0 min CN=71 Runoff=1.71 cfs 0.309 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=0.35 cfs 0.028 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=0.39 cfs 0.031 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth>2.47"
Tc=6.0 min CN=85 Runoff=5.52 cfs 0.377 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=0.12 cfs 0.009 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth>3.24"
Tc=6.0 min CN=93 Runoff=2.69 cfs 0.195 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth>1.40"
Flow Length=217' Tc=12.3 min CN=71 Runoff=2.26 cfs 0.189 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth>2.84"
Tc=6.0 min CN=89 Runoff=0.36 cfs 0.025 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth>1.15"
Tc=6.0 min CN=67 Runoff=3.39 cfs 0.238 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth>1.21"
Tc=6.0 min CN=68 Runoff=0.80 cfs 0.056 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth>1.21"
Tc=6.0 min CN=68 Runoff=0.70 cfs 0.049 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=10.34 cfs 0.814 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=10.34 cfs 0.814 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=10.34 cfs 0.814 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=10.34 cfs 0.814 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=10.34 cfs 0.814 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=10.34 cfs 0.814 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=1.10 cfs 0.087 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=1.74 cfs 0.137 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth>1.40"
Flow Length=574' Tc=18.8 min CN=71 Runoff=4.35 cfs 0.426 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth>1.33"
Flow Length=307' Tc=29.9 min CN=70 Runoff=1.38 cfs 0.163 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>1.39"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.31 cfs 0.040 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth>1.67"
Flow Length=639' Tc=15.9 min CN=75 Runoff=2.80 cfs 0.253 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth>1.31"
Flow Length=377' Tc=54.0 min CN=70 Runoff=0.63 cfs 0.101 af

Subcatchment49: Runoff Area=84,173 sf 0.65% Impervious Runoff Depth>1.31"
Flow Length=470' Tc=54.1 min CN=70 Runoff=1.32 cfs 0.211 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth>3.78"
Tc=6.0 min CN=98 Runoff=2.77 cfs 0.218 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>1.55"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=22.26 cfs 4.868 af

SubcatchmentOS11: OFFSITE 3 Runoff Area=513,527 sf 23.06% Impervious Runoff Depth>1.90"
Flow Length=532' Tc=6.8 min CN=78 Runoff=27.08 cfs 1.865 af

SubcatchmentOS9: OFFSITE 1 (Below Runoff Area=702,010 sf 3.63% Impervious Runoff Depth>1.66"
Flow Length=1,353' Tc=35.1 min CN=75 Runoff=17.76 cfs 2.228 af

Reach 9R: ANALYSISPOINT 9 Inflow=17.76 cfs 2.228 af
Outflow=17.76 cfs 2.228 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=1.23' Max Vel=11.00 fps Inflow=22.26 cfs 4.868 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=22.25 cfs 4.868 af

Reach 11R: Stream 9 Inflow=27.08 cfs 1.865 af
Outflow=27.08 cfs 1.865 af

Reach 17R: untreated Inflow=1.16 cfs 0.085 af
Outflow=1.16 cfs 0.085 af

Reach 20R: untreated Inflow=2.38 cfs 0.171 af
Outflow=2.38 cfs 0.171 af

Reach 23R: sub 23 Inflow=1.54 cfs 0.103 af
Outflow=1.54 cfs 0.103 af

Reach 27R: extisting Inflow=0.39 cfs 0.031 af
Outflow=0.39 cfs 0.031 af

Reach 28R: existing Inflow=5.52 cfs 0.377 af
Outflow=5.52 cfs 0.377 af

Reach 29R: untreated Inflow=0.12 cfs 0.009 af
Outflow=0.12 cfs 0.009 af

Reach 32R: untreated Inflow=0.36 cfs 0.025 af
Outflow=0.36 cfs 0.025 af

Reach 44R: Inflow=4.35 cfs 0.426 af
Outflow=4.35 cfs 0.426 af

Reach 47R: Inflow=2.80 cfs 0.253 af
Outflow=2.80 cfs 0.253 af

Reach 48R: (new Reach) Inflow=0.63 cfs 0.101 af
Outflow=0.63 cfs 0.101 af

Reach 49R: Inflow=1.32 cfs 0.211 af
Outflow=1.32 cfs 0.211 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=1.95 cfs 0.312 af
Outflow=1.95 cfs 0.312 af

Reach PT2: ANALYSISPOINT 2 at BWD Reservoir Inflow=1.71 cfs 0.309 af
Outflow=1.71 cfs 0.309 af

Reach PT3: ANALYSISPOINT 3/4 at BWD Reservoir Inflow=2.26 cfs 0.189 af
Outflow=2.26 cfs 0.189 af

Reach PT5: all BWD reservoir Inflow=3.72 cfs 0.602 af
Outflow=3.72 cfs 0.602 af

Reach PT6: stream 9 offsite Avg. Flow Depth=1.17' Max Vel=3.99 fps Inflow=35.42 cfs 8.962 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=33.70 cfs 8.935 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.26' Max Vel=6.70 fps Inflow=1.38 cfs 0.163 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=1.37 cfs 0.163 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.03' Max Vel=3.45 fps Inflow=0.31 cfs 0.040 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.31 cfs 0.040 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=0.89' Max Vel=21.89 fps Inflow=38.73 cfs 9.790 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=38.72 cfs 9.789 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.05' Max Vel=4.76 fps Inflow=37.57 cfs 9.361 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=35.58 cfs 9.282 af

Reach S9-3: Stream 9 Avg. Flow Depth=0.99' Max Vel=4.72 fps Inflow=37.14 cfs 9.575 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=37.03 cfs 9.557 af

Reach tank: existing clarifier Inflow=55.34 cfs 3.098 af
Outflow=55.34 cfs 3.098 af

Pond 1P: (new Pond) Peak Elev=63.56' Inflow=10.34 cfs 0.814 af
Primary=5.81 cfs 0.085 af Secondary=4.53 cfs 0.729 af Outflow=10.34 cfs 0.814 af

Pond 4P: Rtanks Peak Elev=29.72' Storage=329 cf Inflow=0.70 cfs 0.049 af
12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/' Outflow=0.45 cfs 0.048 af

Pond dmh10: dmh10 Peak Elev=56.83' Inflow=13.35 cfs 0.274 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=13.35 cfs 0.274 af

Pond dmh11: dmh11 Peak Elev=56.04' Inflow=20.48 cfs 0.559 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=20.48 cfs 0.559 af

Pond dmh13: dmh13 Peak Elev=55.53' Inflow=20.48 cfs 0.559 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=20.48 cfs 0.559 af

Pond dmh14: dmh14 Peak Elev=55.03' Inflow=22.68 cfs 0.712 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=22.68 cfs 0.712 af

Pond dmh15: dmh15 Peak Elev=54.67' Inflow=22.68 cfs 0.712 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=22.68 cfs 0.712 af

Pond dmh16: dmh16 Peak Elev=60.58' Inflow=0.02 cfs 0.005 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.02 cfs 0.005 af

Pond dmh17: dmh17 Peak Elev=54.32' Inflow=23.06 cfs 0.741 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=23.06 cfs 0.741 af

Pond dmh2: dmh2 Peak Elev=64.48' Inflow=5.81 cfs 0.085 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=5.81 cfs 0.085 af

Pond dmh20: dmh20 Peak Elev=54.04' Inflow=23.06 cfs 0.741 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=23.06 cfs 0.741 af

Pond dmh21: dmh21 Peak Elev=53.56' Inflow=30.88 cfs 1.473 af
36.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=30.88 cfs 1.473 af

Pond dmh22: dmh 22 Peak Elev=54.11' Inflow=6.58 cfs 0.576 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=6.58 cfs 0.576 af

Pond dmh23: dmh23 Peak Elev=60.58' Inflow=5.69 cfs 0.427 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=5.69 cfs 0.427 af

Pond dmh24: dmh24 Peak Elev=60.31' Inflow=5.69 cfs 0.427 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=5.69 cfs 0.427 af

Pond dmh24a: dmh24a Peak Elev=63.47' Inflow=2.53 cfs 0.201 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=2.53 cfs 0.201 af

Pond dmh25: dmh25 Peak Elev=60.62' Inflow=1.09 cfs 0.081 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=1.09 cfs 0.081 af

Pond dmh26: (new Pond) Peak Elev=60.20' Inflow=3.99 cfs 0.276 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=3.99 cfs 0.276 af

Pond dmh27: dmh27 Peak Elev=55.69' Inflow=5.81 cfs 0.444 af
15.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=5.81 cfs 0.444 af

Pond dmh29: dmh29 Peak Elev=58.87' Inflow=1.10 cfs 0.087 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=1.10 cfs 0.087 af

Pond dmh3: dmh3 Peak Elev=62.49' Inflow=7.52 cfs 0.189 af
18.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=7.52 cfs 0.189 af

Pond dmh30: dmh30 Peak Elev=56.04' Inflow=1.10 cfs 0.087 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=1.10 cfs 0.087 af

Pond dmh31: dmh31 Peak Elev=55.98' Inflow=4.67 cfs 0.363 af
15.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=4.67 cfs 0.363 af

Pond dmh32: dmh32 Peak Elev=53.67' Inflow=7.17 cfs 0.530 af
18.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=7.17 cfs 0.530 af

Pond dmh33: dmh33 Peak Elev=54.33' Inflow=0.35 cfs 0.072 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.35 cfs 0.072 af

Pond dmh34: dmh34 Peak Elev=53.07' Inflow=3.81 cfs 0.343 af
18.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=3.81 cfs 0.343 af

Pond dmh35: dmh35 Peak Elev=53.59' Inflow=12.28 cfs 0.980 af
24.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=12.28 cfs 0.980 af

Pond dmh36: dmh36 Peak Elev=52.19' Inflow=12.28 cfs 0.980 af
24.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=12.28 cfs 0.980 af

Pond dmh38: dmh38 Peak Elev=53.46' Inflow=5.81 cfs 0.085 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=5.81 cfs 0.085 af

Pond dmh39: dmh39 Peak Elev=52.14' Inflow=5.80 cfs 0.104 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=5.80 cfs 0.104 af

Pond dmh4: dmh4 Peak Elev=61.94' Inflow=7.52 cfs 0.189 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=7.52 cfs 0.189 af

Pond dmh40: dmh40 Peak Elev=51.31' Inflow=15.83 cfs 1.083 af
30.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=15.83 cfs 1.083 af

Pond dmh43: dmh43 Peak Elev=49.59' Inflow=15.83 cfs 1.083 af
30.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=15.83 cfs 1.083 af

Pond dmh44: dmh44 Peak Elev=48.56' Inflow=16.24 cfs 1.116 af
36.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=16.24 cfs 1.116 af

Pond dmh45: dmh45 Peak Elev=48.01' Inflow=16.24 cfs 1.116 af
36.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=16.24 cfs 1.116 af

Pond dmh47: dmh47 Peak Elev=46.12' Inflow=20.86 cfs 1.202 af
36.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=20.86 cfs 1.202 af

Pond dmh48: dmh48 Peak Elev=45.25' Inflow=22.54 cfs 1.386 af
36.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=22.54 cfs 1.386 af

Pond dmh49: dmh49 Peak Elev=44.89' Inflow=23.37 cfs 1.445 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=23.37 cfs 1.445 af

Pond dmh5: dmh5 Peak Elev=61.47' Inflow=7.52 cfs 0.189 af
18.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=7.52 cfs 0.189 af

Pond dmh50: dmh50 Peak Elev=47.55' Inflow=30.87 cfs 1.552 af
36.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=30.87 cfs 1.552 af

Pond dmh51: dmh51 Peak Elev=46.89' Inflow=30.87 cfs 1.552 af
36.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=30.87 cfs 1.552 af

Pond dmh52: dmh52 Peak Elev=43.89' Inflow=53.80 cfs 2.997 af
60.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=53.80 cfs 2.997 af

Pond dmh53: dmh53 Peak Elev=35.94' Inflow=55.19 cfs 3.075 af
60.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=55.19 cfs 3.075 af

Pond dmh54: dmh54 Peak Elev=29.94' Inflow=55.34 cfs 3.098 af
60.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=55.34 cfs 3.098 af

Pond dmh55: dhm55 Peak Elev=21.94' Inflow=55.34 cfs 3.098 af
60.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=55.34 cfs 3.098 af

Pond dmh56: dmh56 Peak Elev=15.44' Inflow=55.34 cfs 3.098 af
60.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=55.34 cfs 3.098 af

Pond dmh59: dmh59 Peak Elev=63.94' Inflow=6.01 cfs 0.485 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=6.01 cfs 0.485 af

Pond dmh6: dmh6 Peak Elev=61.83' Inflow=7.52 cfs 0.189 af
18.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=7.52 cfs 0.189 af

Pond dmh60: dhm60 Peak Elev=38.39' Inflow=53.80 cfs 2.997 af
60.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=53.80 cfs 2.997 af

Pond dmh7: dmh7 Peak Elev=59.70' Inflow=7.52 cfs 0.189 af
18.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=7.52 cfs 0.189 af

Pond dmh8: dmh8 Peak Elev=59.07' Inflow=13.35 cfs 0.274 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=13.35 cfs 0.274 af

Pond dmh9a: dmh9a Peak Elev=57.88' Inflow=13.35 cfs 0.274 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=13.35 cfs 0.274 af

Pond GSF 11: grassed soil filter Peak Elev=62.18' Storage=2,985 cf Inflow=2.80 cfs 0.190 af
Outflow=1.98 cfs 0.132 af

Pond GSF 12: grassed soil filter Peak Elev=61.61' Storage=595 cf Inflow=0.98 cfs 0.068 af
Outflow=0.94 cfs 0.057 af

Pond GSF 13: grassed soil filter Peak Elev=62.18' Storage=3,647 cf Inflow=3.13 cfs 0.214 af
Outflow=2.02 cfs 0.144 af

Pond GSF 15: grassed soil filter Peak Elev=63.76' Storage=174 cf Inflow=0.42 cfs 0.028 af
Outflow=0.40 cfs 0.025 af

Pond GSF 16: grassed soil filter Peak Elev=64.41' Storage=2,593 cf Inflow=0.95 cfs 0.064 af
Outflow=0.02 cfs 0.005 af

Pond GSF 18A: grassed soil filter Peak Elev=57.46' Storage=466 cf Inflow=0.43 cfs 0.029 af
Outflow=0.34 cfs 0.020 af

Pond GSF 18B: grassed soil filter Peak Elev=57.94' Storage=396 cf Inflow=0.30 cfs 0.021 af
Outflow=0.21 cfs 0.013 af

Pond GSF 1A: Grassed soil filter Peak Elev=65.87' Storage=198 cf Inflow=1.19 cfs 0.081 af
Outflow=1.09 cfs 0.081 af

Pond GSF 1B: grassed soil filter Peak Elev=67.06' Storage=1,039 cf Inflow=1.91 cfs 0.129 af
Outflow=1.71 cfs 0.103 af

Pond GSF 2: grassed soil filter Peak Elev=57.73' Storage=1,802 cf Inflow=1.81 cfs 0.122 af
Outflow=1.29 cfs 0.087 af

Pond GSF 24: grassed soil filter Peak Elev=40.74' Storage=1,623 cf Inflow=1.53 cfs 0.109 af
Outflow=1.41 cfs 0.078 af

Pond GSF 3: grassed soil filter Peak Elev=55.90' Storage=2,387 cf Inflow=2.26 cfs 0.153 af
Outflow=1.55 cfs 0.107 af

Pond GSF 4: grassed soil filter Peak Elev=55.15' Storage=366 cf Inflow=0.38 cfs 0.026 af
Outflow=0.29 cfs 0.018 af

Pond GSF 5: grassed soil filter Peak Elev=54.00' Storage=1 cf Inflow=0.49 cfs 0.033 af
Outflow=0.49 cfs 0.033 af

Pond GSF 6: grassed soil filter Peak Elev=49.00' Storage=1 cf Inflow=0.88 cfs 0.059 af
Outflow=0.88 cfs 0.059 af

Pond GSF 7: grassed soil filter Peak Elev=54.80' Storage=2,073 cf Inflow=1.77 cfs 0.119 af
Outflow=0.89 cfs 0.079 af

Pond GSF 8: grassed soil filter Peak Elev=57.81' Storage=3,937 cf Inflow=3.35 cfs 0.231 af
Outflow=2.48 cfs 0.156 af

Pond GSF 9: grassed soil filter Peak Elev=63.51' Storage=23 cf Inflow=2.19 cfs 0.153 af
Outflow=2.20 cfs 0.153 af

Pond ICS1: ICS Peak Elev=66.76' Inflow=10.34 cfs 0.814 af
Primary=5.81 cfs 0.085 af Secondary=4.53 cfs 0.729 af Outflow=10.34 cfs 0.814 af

Pond ics28: ICS28 Peak Elev=58.63' Inflow=1.10 cfs 0.087 af
Primary=1.10 cfs 0.087 af Secondary=0.00 cfs 0.000 af Outflow=1.10 cfs 0.087 af

Pond ICS37: ISC37 Peak Elev=55.61' Inflow=10.34 cfs 0.814 af
Primary=5.81 cfs 0.085 af Secondary=4.53 cfs 0.729 af Outflow=10.34 cfs 0.814 af

Pond ics46: ICS46 Peak Elev=49.61' Inflow=10.34 cfs 0.814 af
Primary=5.81 cfs 0.085 af Secondary=4.53 cfs 0.729 af Outflow=10.34 cfs 0.814 af

Pond ICS9: ICS9 Peak Elev=64.79' Inflow=10.34 cfs 0.814 af
Primary=5.83 cfs 0.086 af Secondary=4.52 cfs 0.728 af Outflow=10.34 cfs 0.814 af

Pond ISC42: ICS42 Peak Elev=0.00'
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af

Pond MPP 10: Rtank storage Peak Elev=61.80' Storage=0.067 af Inflow=2.84 cfs 0.224 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=1.68 cfs 0.199 af

Pond MPP 14: Rtanks Peak Elev=56.59' Storage=826 cf Inflow=0.85 cfs 0.066 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.53 cfs 0.059 af

Pond MPP 19: Rtanks Peak Elev=55.60' Storage=0.043 af Inflow=1.19 cfs 0.088 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.35 cfs 0.072 af

Pond MPP 21: Rtanks Peak Elev=55.33' Storage=972 cf Inflow=0.87 cfs 0.064 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.40 cfs 0.057 af

Pond MPP 22: Rtanks Peak Elev=55.57' Storage=1,715 cf Inflow=1.13 cfs 0.081 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.33 cfs 0.066 af

Pond MPP 26: Rtanks Peak Elev=34.89' Storage=448 cf Inflow=0.35 cfs 0.028 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.19 cfs 0.023 af

Pond MPP 50: Peak Elev=54.94' Storage=3,064 cf Inflow=2.77 cfs 0.218 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=1.82 cfs 0.184 af

Pond mpp30: Rtanks Peak Elev=30.68' Storage=1,494 cf Inflow=3.00 cfs 0.242 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0305 '/' Outflow=2.24 cfs 0.233 af

Pond OCS57: OCS 57 Peak Elev=30.36' Inflow=2.24 cfs 0.233 af
Outflow=2.24 cfs 0.233 af

Pond SSF 36: ssf Inflow=4.53 cfs 0.729 af
Primary=4.53 cfs 0.729 af

Pond SSF 37: Inflow=4.52 cfs 0.728 af
Primary=4.52 cfs 0.728 af

Pond SSF 38: ssf38 Inflow=4.53 cfs 0.729 af
Primary=4.53 cfs 0.729 af

Pond SSF 39: Inflow=4.53 cfs 0.729 af
Primary=4.53 cfs 0.729 af

Pond SSF 40: Inflow=10.34 cfs 0.814 af
Primary=10.34 cfs 0.814 af

Pond SSF 41: Inflow=4.53 cfs 0.729 af
Primary=4.53 cfs 0.729 af

Pond SSF 42: Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Pond SSF 43: Inflow=1.74 cfs 0.137 af
Primary=1.74 cfs 0.137 af

Total Runoff Area = 116.268 ac Runoff Volume = 19.701 af Average Runoff Depth = 2.03"
74.75% Pervious = 86.915 ac 25.25% Impervious = 29.353 ac

Summary for Subcatchment 1A:

Runoff = 1.19 cfs @ 12.09 hrs, Volume= 0.081 af, Depth> 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 1.91 cfs @ 12.09 hrs, Volume= 0.129 af, Depth> 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	27,186	74	>75% Grass cover, Good, HSG C
	34,018	79	Weighted Average
	27,186		79.92% Pervious Area
	6,832		20.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 1.81 cfs @ 12.09 hrs, Volume= 0.122 af, Depth> 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 2.26 cfs @ 12.09 hrs, Volume= 0.153 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.38 cfs @ 12.10 hrs, Volume= 0.026 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
	8,448	74	>75% Grass cover, Good, HSG C
	8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 0.49 cfs @ 12.10 hrs, Volume= 0.033 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 0.88 cfs @ 12.09 hrs, Volume= 0.059 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 1.77 cfs @ 12.09 hrs, Volume= 0.119 af, Depth> 2.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 3.35 cfs @ 12.09 hrs, Volume= 0.231 af, Depth> 2.65"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 2.19 cfs @ 12.09 hrs, Volume= 0.153 af, Depth> 2.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 2.84 cfs @ 12.09 hrs, Volume= 0.224 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 2.80 cfs @ 12.09 hrs, Volume= 0.190 af, Depth> 2.30"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 0.98 cfs @ 12.09 hrs, Volume= 0.068 af, Depth> 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 3.13 cfs @ 12.09 hrs, Volume= 0.214 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 0.85 cfs @ 12.09 hrs, Volume= 0.066 af, Depth> 3.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 0.42 cfs @ 12.10 hrs, Volume= 0.028 af, Depth> 1.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 0.95 cfs @ 12.09 hrs, Volume= 0.064 af, Depth> 2.22"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 1.16 cfs @ 12.09 hrs, Volume= 0.085 af, Depth> 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.43 cfs @ 12.09 hrs, Volume= 0.029 af, Depth> 2.38"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.021 af, Depth> 2.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 1.19 cfs @ 12.09 hrs, Volume= 0.088 af, Depth> 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	11,210	98	Impervious
*	2,501	74	>75% Grass cover, Good, HSG C/D
	13,711	94	Weighted Average
	2,501		18.24% Pervious Area
	11,210		81.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 2.38 cfs @ 12.09 hrs, Volume= 0.171 af, Depth> 3.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 0.87 cfs @ 12.09 hrs, Volume= 0.064 af, Depth> 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	8,361	98	Impervious
*	1,633	74	>75% Grass cover, Good, HSG C/D
	9,994	94	Weighted Average
	1,633		16.34% Pervious Area
	8,361		83.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af, Depth> 3.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	10,326	98	Impervious
*	3,185	74	>75% Grass cover, Good, HSG C/D
	13,511	92	Weighted Average
	3,185		23.57% Pervious Area
	10,326		76.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 1.54 cfs @ 12.09 hrs, Volume= 0.103 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 1.53 cfs @ 12.09 hrs, Volume= 0.109 af, Depth> 3.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 1.71 cfs @ 12.95 hrs, Volume= 0.309 af, Depth> 1.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 5.52 cfs @ 12.09 hrs, Volume= 0.377 af, Depth> 2.47"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.12 cfs @ 12.09 hrs, Volume= 0.009 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 2.69 cfs @ 12.09 hrs, Volume= 0.195 af, Depth> 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 2.26 cfs @ 12.18 hrs, Volume= 0.189 af, Depth> 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.36 cfs @ 12.09 hrs, Volume= 0.025 af, Depth> 2.84"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 3.39 cfs @ 12.10 hrs, Volume= 0.238 af, Depth> 1.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 0.80 cfs @ 12.10 hrs, Volume= 0.056 af, Depth> 1.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penhouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 0.70 cfs @ 12.10 hrs, Volume= 0.049 af, Depth> 1.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 1.10 cfs @ 12.09 hrs, Volume= 0.087 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 1.74 cfs @ 12.09 hrs, Volume= 0.137 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 4.35 cfs @ 12.28 hrs, Volume= 0.426 af, Depth> 1.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 1.38 cfs @ 12.45 hrs, Volume= 0.163 af, Depth> 1.33"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9 307 Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.31 cfs @ 12.52 hrs, Volume= 0.040 af, Depth> 1.39"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 2.80 cfs @ 12.23 hrs, Volume= 0.253 af, Depth> 1.67"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 0.63 cfs @ 12.79 hrs, Volume= 0.101 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 1.32 cfs @ 12.79 hrs, Volume= 0.211 af, Depth> 1.31"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	2,923	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	84,173	70	Weighted Average
	83,625		99.35% Pervious Area
	548		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 2.77 cfs @ 12.09 hrs, Volume= 0.218 af, Depth> 3.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 22.26 cfs @ 13.30 hrs, Volume= 4.868 af, Depth> 1.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment OS11: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 27.08 cfs @ 12.10 hrs, Volume= 1.865 af, Depth> 1.90"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	118,437	98	Impervious
*	237,621	70	Woods, Good, HSG C/D
*	157,469	74	>75% Grass cover, Good, HSG C/D
	513,527	78	Weighted Average
	395,090		76.94% Pervious Area
	118,437		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment OS9: OFFSITE 1 (Below Perkins Rd)

Runoff = 17.76 cfs @ 12.51 hrs, Volume= 2.228 af, Depth> 1.66"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-year Rainfall=4.20"

	Area (sf)	CN	Description
*	25,513	98	Impervious
*	532,320	74	>75% Grass cover, Good, HSG C/D
*	3,818	94	Gravel roads, HSG C/D
	6,087	74	>75% Grass cover, Good, HSG C
	72,382	70	Woods, Good, HSG C
	61,890	74	>75% Grass cover, Good, HSG C
	702,010	75	Weighted Average
	676,497		96.37% Pervious Area
	25,513		3.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	15	0.2000	2.25		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
12.6	373	0.0050	0.49		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
13.1	715	0.0170	0.91		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
9.3	250	0.0320	0.45		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
35.1	1,353	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 16.116 ac, 3.63% Impervious, Inflow Depth > 1.66" for 10-year event
Inflow = 17.76 cfs @ 12.51 hrs, Volume= 2.228 af
Outflow = 17.76 cfs @ 12.51 hrs, Volume= 2.228 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

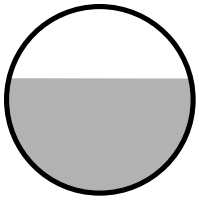
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 1.55" for 10-year event
Inflow = 22.26 cfs @ 13.30 hrs, Volume= 4.868 af
Outflow = 22.25 cfs @ 13.30 hrs, Volume= 4.868 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 11.00 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 6.58 fps, Avg. Travel Time= 0.1 min

Peak Storage= 51 cf @ 13.30 hrs
Average Depth at Peak Storage= 1.23'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 11.789 ac, 23.06% Impervious, Inflow Depth > 1.90" for 10-year event
Inflow = 27.08 cfs @ 12.10 hrs, Volume= 1.865 af
Outflow = 27.08 cfs @ 12.10 hrs, Volume= 1.865 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth > 3.34" for 10-year event
Inflow = 1.16 cfs @ 12.09 hrs, Volume= 0.085 af
Outflow = 1.16 cfs @ 12.09 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth > 3.13" for 10-year event
Inflow = 2.38 cfs @ 12.09 hrs, Volume= 0.171 af
Outflow = 2.38 cfs @ 12.09 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth > 1.90" for 10-year event
Inflow = 1.54 cfs @ 12.09 hrs, Volume= 0.103 af
Outflow = 1.54 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af
Outflow = 0.39 cfs @ 12.09 hrs, Volume= 0.031 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 28R: existing

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth > 2.47" for 10-year event
Inflow = 5.52 cfs @ 12.09 hrs, Volume= 0.377 af
Outflow = 5.52 cfs @ 12.09 hrs, Volume= 0.377 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 0.12 cfs @ 12.09 hrs, Volume= 0.009 af
Outflow = 0.12 cfs @ 12.09 hrs, Volume= 0.009 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth > 2.84" for 10-year event
Inflow = 0.36 cfs @ 12.09 hrs, Volume= 0.025 af
Outflow = 0.36 cfs @ 12.09 hrs, Volume= 0.025 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth > 1.40" for 10-year event
Inflow = 4.35 cfs @ 12.28 hrs, Volume= 0.426 af
Outflow = 4.35 cfs @ 12.28 hrs, Volume= 0.426 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth > 1.67" for 10-year event
Inflow = 2.80 cfs @ 12.23 hrs, Volume= 0.253 af
Outflow = 2.80 cfs @ 12.23 hrs, Volume= 0.253 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth > 1.31" for 10-year event
Inflow = 0.63 cfs @ 12.79 hrs, Volume= 0.101 af
Outflow = 0.63 cfs @ 12.79 hrs, Volume= 0.101 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 49R:

Inflow Area = 1.932 ac, 0.65% Impervious, Inflow Depth > 1.31" for 10-year event
Inflow = 1.32 cfs @ 12.79 hrs, Volume= 0.211 af
Outflow = 1.32 cfs @ 12.79 hrs, Volume= 0.211 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 2.855 ac, 0.44% Impervious, Inflow Depth > 1.31" for 10-year event
Inflow = 1.95 cfs @ 12.79 hrs, Volume= 0.312 af
Outflow = 1.95 cfs @ 12.79 hrs, Volume= 0.312 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at BWD Reservoir

Inflow Area = 2.714 ac, 0.00% Impervious, Inflow Depth > 1.37" for 10-year event
Inflow = 1.71 cfs @ 12.95 hrs, Volume= 0.309 af
Outflow = 1.71 cfs @ 12.95 hrs, Volume= 0.309 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at BWD Reservoir

Inflow Area = 1.621 ac, 0.00% Impervious, Inflow Depth > 1.40" for 10-year event
Inflow = 2.26 cfs @ 12.18 hrs, Volume= 0.189 af
Outflow = 2.26 cfs @ 12.18 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 4.989 ac, 2.88% Impervious, Inflow Depth > 1.45" for 10-year event
Inflow = 3.72 cfs @ 12.15 hrs, Volume= 0.602 af
Outflow = 3.72 cfs @ 12.15 hrs, Volume= 0.602 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 65.668 ac, 6.51% Impervious, Inflow Depth > 1.64" for 10-year event
Inflow = 35.42 cfs @ 12.12 hrs, Volume= 8.962 af
Outflow = 33.70 cfs @ 12.19 hrs, Volume= 8.935 af, Atten= 5%, Lag= 4.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 3.99 fps, Min. Travel Time= 2.0 min
Avg. Velocity = 2.28 fps, Avg. Travel Time= 3.5 min

Peak Storage= 4,166 cf @ 12.15 hrs
Average Depth at Peak Storage= 1.17'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'

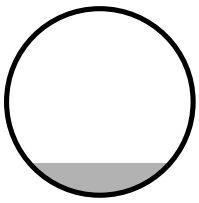
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth > 1.33" for 10-year event
Inflow = 1.38 cfs @ 12.45 hrs, Volume= 0.163 af
Outflow = 1.37 cfs @ 12.45 hrs, Volume= 0.163 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.70 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.34 fps, Avg. Travel Time= 0.4 min

Peak Storage= 17 cf @ 12.45 hrs
Average Depth at Peak Storage= 0.26'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 1.39" for 10-year event
Inflow = 0.31 cfs @ 12.52 hrs, Volume= 0.040 af
Outflow = 0.31 cfs @ 12.53 hrs, Volume= 0.040 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 3.45 fps, Min. Travel Time= 0.4 min
Avg. Velocity = 2.53 fps, Avg. Travel Time= 0.5 min

Peak Storage= 7 cf @ 12.52 hrs
Average Depth at Peak Storage= 0.03'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'

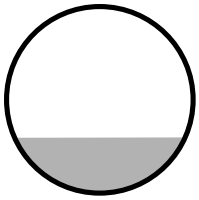
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 72.477 ac, 7.14% Impervious, Inflow Depth > 1.62" for 10-year event
Inflow = 38.73 cfs @ 12.42 hrs, Volume= 9.790 af
Outflow = 38.72 cfs @ 12.42 hrs, Volume= 9.789 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 21.89 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 8.71 fps, Avg. Travel Time= 0.2 min

Peak Storage= 164 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.89'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 69.327 ac, 6.17% Impervious, Inflow Depth > 1.62" for 10-year event
Inflow = 37.57 cfs @ 12.20 hrs, Volume= 9.361 af
Outflow = 35.58 cfs @ 12.62 hrs, Volume= 9.282 af, Atten= 5%, Lag= 25.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.76 fps, Min. Travel Time= 5.5 min
Avg. Velocity = 2.69 fps, Avg. Travel Time= 9.8 min

Peak Storage= 11,816 cf @ 12.53 hrs
Average Depth at Peak Storage= 1.05'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'

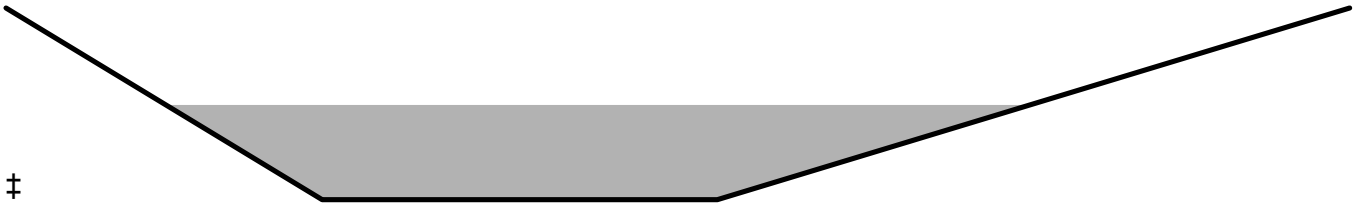
Summary for Reach S9-3: Stream 9

Inflow Area = 71.273 ac, 6.33% Impervious, Inflow Depth > 1.61" for 10-year event
Inflow = 37.14 cfs @ 12.38 hrs, Volume= 9.575 af
Outflow = 37.03 cfs @ 12.43 hrs, Volume= 9.557 af, Atten= 0%, Lag= 3.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.72 fps, Min. Travel Time= 1.3 min
Avg. Velocity = 1.77 fps, Avg. Travel Time= 3.4 min

Peak Storage= 2,871 cf @ 12.41 hrs
Average Depth at Peak Storage= 0.99'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



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Summary for Reach tank: existing clarifier

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.27" for 10-year event
Inflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af
Outflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: (new Pond)

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af
Outflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Atten= 0%, Lag= 0.0 min
Primary = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af
Secondary = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.56' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.54 cfs @ 12.09 hrs HW=63.54' (Free Discharge)
└**1=Culvert** (Passes 5.54 cfs of 9.71 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 5.54 cfs @ 2.36 fps)

Secondary OutFlow Max=4.52 cfs @ 12.09 hrs HW=63.54' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.52 cfs @ 5.75 fps)

Summary for Pond 4P: Rtanks

Inflow Area = 0.482 ac, 20.00% Impervious, Inflow Depth > 1.21" for 10-year event
Inflow = 0.70 cfs @ 12.10 hrs, Volume= 0.049 af
Outflow = 0.45 cfs @ 12.22 hrs, Volume= 0.048 af, Atten= 35%, Lag= 7.0 min
Primary = 0.45 cfs @ 12.22 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 29.72' @ 12.22 hrs Surf.Area= 1,314 sf Storage= 329 cf

Plug-Flow detention time= 20.8 min calculated for 0.048 af (97% of inflow)
Center-of-Mass det. time= 12.4 min (831.7 - 819.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field A** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#2A	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		2,931 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**12.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 29.28' / 29.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.45 cfs @ 12.22 hrs HW=29.72' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.45 cfs @ 2.01 fps)

Summary for Pond dmh10: dmh10

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.55" for 10-year event
Inflow = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af
Outflow = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Primary = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.83' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=12.79 cfs @ 12.09 hrs HW=56.74' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.79 cfs @ 4.07 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 0.73" for 10-year event
Inflow = 20.48 cfs @ 12.09 hrs, Volume= 0.559 af
Outflow = 20.48 cfs @ 12.09 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.0 min
Primary = 20.48 cfs @ 12.09 hrs, Volume= 0.559 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.04' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=19.74 cfs @ 12.09 hrs HW=55.97' (Free Discharge)
└**1=Culvert** (Barrel Controls 19.74 cfs @ 5.14 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 0.73" for 10-year event
Inflow = 20.48 cfs @ 12.09 hrs, Volume= 0.559 af
Outflow = 20.48 cfs @ 12.09 hrs, Volume= 0.559 af, Atten= 0%, Lag= 0.0 min
Primary = 20.48 cfs @ 12.09 hrs, Volume= 0.559 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.53' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=19.79 cfs @ 12.09 hrs HW=55.46' (Free Discharge)
└**1=Culvert** (Inlet Controls 19.79 cfs @ 4.13 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 0.86" for 10-year event
Inflow = 22.68 cfs @ 12.09 hrs, Volume= 0.712 af
Outflow = 22.68 cfs @ 12.09 hrs, Volume= 0.712 af, Atten= 0%, Lag= 0.0 min
Primary = 22.68 cfs @ 12.09 hrs, Volume= 0.712 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 55.03' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=21.92 cfs @ 12.09 hrs HW=54.95' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 21.92 cfs @ 4.86 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 0.86" for 10-year event
Inflow = 22.68 cfs @ 12.09 hrs, Volume= 0.712 af
Outflow = 22.68 cfs @ 12.09 hrs, Volume= 0.712 af, Atten= 0%, Lag= 0.0 min
Primary = 22.68 cfs @ 12.09 hrs, Volume= 0.712 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.67' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.00 cfs @ 12.09 hrs HW=54.59' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 22.00 cfs @ 4.48 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 0.16" for 10-year event
Inflow = 0.02 cfs @ 17.65 hrs, Volume= 0.005 af
Outflow = 0.02 cfs @ 17.65 hrs, Volume= 0.005 af, Atten= 0%, Lag= 0.0 min
Primary = 0.02 cfs @ 17.65 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.58' @ 17.65 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.02 cfs @ 17.65 hrs HW=60.58' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.02 cfs @ 0.76 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 0.85" for 10-year event
Inflow = 23.06 cfs @ 12.09 hrs, Volume= 0.741 af
Outflow = 23.06 cfs @ 12.09 hrs, Volume= 0.741 af, Atten= 0%, Lag= 0.0 min
Primary = 23.06 cfs @ 12.09 hrs, Volume= 0.741 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.32' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.30 cfs @ 12.09 hrs HW=54.25' (Free Discharge)
1=Culvert (Barrel Controls 22.30 cfs @ 5.11 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 0.40" for 10-year event
Inflow = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af
Outflow = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min
Primary = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.48' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.57 cfs @ 12.09 hrs HW=64.43' (Free Discharge)
1=Culvert (Inlet Controls 5.57 cfs @ 3.21 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 0.85" for 10-year event
Inflow = 23.06 cfs @ 12.09 hrs, Volume= 0.741 af
Outflow = 23.06 cfs @ 12.09 hrs, Volume= 0.741 af, Atten= 0%, Lag= 0.0 min
Primary = 23.06 cfs @ 12.09 hrs, Volume= 0.741 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.04' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert**

L= 100.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=22.35 cfs @ 12.09 hrs HW=53.96' (Free Discharge)
1=Culvert (Inlet Controls 22.35 cfs @ 4.55 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.164 ac, 80.88% Impervious, Inflow Depth > 1.25" for 10-year event
Inflow = 30.88 cfs @ 12.10 hrs, Volume= 1.473 af
Outflow = 30.88 cfs @ 12.10 hrs, Volume= 1.473 af, Atten= 0%, Lag= 0.0 min
Primary = 30.88 cfs @ 12.10 hrs, Volume= 1.473 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.56' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**36.0" Round Culvert**
			L= 281.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=30.54 cfs @ 12.10 hrs HW=53.53' (Free Discharge)
1=Culvert (Inlet Controls 30.54 cfs @ 4.48 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.671 ac, 64.47% Impervious, Inflow Depth > 2.59" for 10-year event
Inflow = 6.58 cfs @ 12.10 hrs, Volume= 0.576 af
Outflow = 6.58 cfs @ 12.10 hrs, Volume= 0.576 af, Atten= 0%, Lag= 0.0 min
Primary = 6.58 cfs @ 12.10 hrs, Volume= 0.576 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.11' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert**
			L= 93.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=6.57 cfs @ 12.10 hrs HW=54.11' (Free Discharge)
1=Culvert (Inlet Controls 6.57 cfs @ 5.35 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 2.53" for 10-year event
Inflow = 5.69 cfs @ 12.10 hrs, Volume= 0.427 af
Outflow = 5.69 cfs @ 12.10 hrs, Volume= 0.427 af, Atten= 0%, Lag= 0.0 min
Primary = 5.69 cfs @ 12.10 hrs, Volume= 0.427 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.58' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.65 cfs @ 12.10 hrs HW=60.51' (Free Discharge)
1=Culvert (Barrel Controls 5.65 cfs @ 7.20 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 2.53" for 10-year event
Inflow = 5.69 cfs @ 12.10 hrs, Volume= 0.427 af
Outflow = 5.69 cfs @ 12.10 hrs, Volume= 0.427 af, Atten= 0%, Lag= 0.0 min
Primary = 5.69 cfs @ 12.10 hrs, Volume= 0.427 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.31' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.65 cfs @ 12.10 hrs HW=60.27' (Free Discharge)
1=Culvert (Barrel Controls 5.65 cfs @ 7.20 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.817 ac, 77.70% Impervious, Inflow Depth > 2.95" for 10-year event
Inflow = 2.53 cfs @ 12.11 hrs, Volume= 0.201 af
Outflow = 2.53 cfs @ 12.11 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min
Primary = 2.53 cfs @ 12.11 hrs, Volume= 0.201 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.47' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert**

L= 95.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.49 cfs @ 12.11 hrs HW=63.34' (Free Discharge)
1=Culvert (Barrel Controls 2.49 cfs @ 7.15 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 2.38" for 10-year event
Inflow = 1.09 cfs @ 12.12 hrs, Volume= 0.081 af
Outflow = 1.09 cfs @ 12.12 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.0 min
Primary = 1.09 cfs @ 12.12 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.62' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert**
			L= 98.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.06 cfs @ 12.12 hrs HW=60.61' (Free Discharge)
1=Culvert (Inlet Controls 1.06 cfs @ 2.11 fps)

Summary for Pond dmh26: (new Pond)

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 1.63" for 10-year event
Inflow = 3.99 cfs @ 12.19 hrs, Volume= 0.276 af
Outflow = 3.99 cfs @ 12.19 hrs, Volume= 0.276 af, Atten= 0%, Lag= 0.0 min
Primary = 3.99 cfs @ 12.19 hrs, Volume= 0.276 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.20' @ 12.19 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert**
			L= 28.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.95 cfs @ 12.19 hrs HW=60.17' (Free Discharge)
1=Culvert (Barrel Controls 3.95 cfs @ 5.03 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 1.96" for 10-year event
Inflow = 5.81 cfs @ 12.17 hrs, Volume= 0.444 af
Outflow = 5.81 cfs @ 12.17 hrs, Volume= 0.444 af, Atten= 0%, Lag= 0.0 min
Primary = 5.81 cfs @ 12.17 hrs, Volume= 0.444 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.69' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**15.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=5.57 cfs @ 12.17 hrs HW=55.52' (Free Discharge)
1=Culvert (Barrel Controls 5.57 cfs @ 4.54 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 1.10 cfs @ 12.09 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min
Primary = 1.10 cfs @ 12.09 hrs, Volume= 0.087 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.87' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.07 cfs @ 12.09 hrs HW=58.84' (Free Discharge)
1=Culvert (Inlet Controls 1.07 cfs @ 3.08 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.67" for 10-year event
Inflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.49' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**18.0" Round Culvert**

L= 125.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.23 cfs @ 12.09 hrs HW=62.41' (Free Discharge)
1=Culvert (Inlet Controls 7.23 cfs @ 4.09 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.087 af
Outflow = 1.10 cfs @ 12.09 hrs, Volume= 0.087 af, Atten= 0%, Lag= 0.0 min
Primary = 1.10 cfs @ 12.09 hrs, Volume= 0.087 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.04' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert**
			L= 206.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.07 cfs @ 12.09 hrs HW=56.03' (Free Discharge)
1=Culvert (Barrel Controls 1.07 cfs @ 2.96 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 1.89" for 10-year event
Inflow = 4.67 cfs @ 12.18 hrs, Volume= 0.363 af
Outflow = 4.67 cfs @ 12.18 hrs, Volume= 0.363 af, Atten= 0%, Lag= 0.0 min
Primary = 4.67 cfs @ 12.18 hrs, Volume= 0.363 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.98' @ 12.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**15.0" Round Culvert**
			L= 259.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=4.60 cfs @ 12.18 hrs HW=55.95' (Free Discharge)
1=Culvert (Inlet Controls 4.60 cfs @ 3.74 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 1.86" for 10-year event
Inflow = 7.17 cfs @ 12.17 hrs, Volume= 0.530 af
Outflow = 7.17 cfs @ 12.17 hrs, Volume= 0.530 af, Atten= 0%, Lag= 0.0 min
Primary = 7.17 cfs @ 12.17 hrs, Volume= 0.530 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.67' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**18.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.82 cfs @ 12.17 hrs HW=53.60' (Free Discharge)
1=Culvert (Barrel Controls 6.82 cfs @ 3.97 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 2.75" for 10-year event
Inflow = 0.35 cfs @ 12.42 hrs, Volume= 0.072 af
Outflow = 0.35 cfs @ 12.42 hrs, Volume= 0.072 af, Atten= 0%, Lag= 0.0 min
Primary = 0.35 cfs @ 12.42 hrs, Volume= 0.072 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.33' @ 12.42 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.34 cfs @ 12.42 hrs HW=54.33' (Free Discharge)
1=Culvert (Inlet Controls 0.34 cfs @ 1.54 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.90% Impervious, Inflow Depth > 1.36" for 10-year event
Inflow = 3.81 cfs @ 12.12 hrs, Volume= 0.343 af
Outflow = 3.81 cfs @ 12.12 hrs, Volume= 0.343 af, Atten= 0%, Lag= 0.0 min
Primary = 3.81 cfs @ 12.12 hrs, Volume= 0.343 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.07' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**18.0" Round Culvert**

L= 39.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=3.72 cfs @ 12.12 hrs HW=53.05' (Free Discharge)
1=Culvert (Inlet Controls 3.72 cfs @ 2.77 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 1.61" for 10-year event
Inflow = 12.28 cfs @ 12.17 hrs, Volume= 0.980 af
Outflow = 12.28 cfs @ 12.17 hrs, Volume= 0.980 af, Atten= 0%, Lag= 0.0 min
Primary = 12.28 cfs @ 12.17 hrs, Volume= 0.980 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.59' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**24.0" Round Culvert**
			L= 276.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=11.83 cfs @ 12.17 hrs HW=53.52' (Free Discharge)
1=Culvert (Inlet Controls 11.83 cfs @ 3.78 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 1.61" for 10-year event
Inflow = 12.28 cfs @ 12.17 hrs, Volume= 0.980 af
Outflow = 12.28 cfs @ 12.17 hrs, Volume= 0.980 af, Atten= 0%, Lag= 0.0 min
Primary = 12.28 cfs @ 12.17 hrs, Volume= 0.980 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.19' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**24.0" Round Culvert**
			L= 159.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=11.83 cfs @ 12.17 hrs HW=52.12' (Free Discharge)
1=Culvert (Inlet Controls 11.83 cfs @ 3.78 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 0.40" for 10-year event
Inflow = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af
Outflow = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af, Atten= 0%, Lag= 0.0 min
Primary = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.46' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.57 cfs @ 12.09 hrs HW=53.41' (Free Discharge)
1=Culvert (Inlet Controls 5.57 cfs @ 3.21 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 0.45" for 10-year event
Inflow = 5.80 cfs @ 12.09 hrs, Volume= 0.104 af
Outflow = 5.80 cfs @ 12.09 hrs, Volume= 0.104 af, Atten= 0%, Lag= 0.0 min
Primary = 5.80 cfs @ 12.09 hrs, Volume= 0.104 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.14' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=5.56 cfs @ 12.09 hrs HW=52.09' (Free Discharge)
1=Culvert (Barrel Controls 5.56 cfs @ 3.91 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.67" for 10-year event
Inflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.94' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**18.0" Round Culvert**

L= 66.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.07 cfs @ 12.09 hrs HW=61.84' (Free Discharge)
1=Culvert (Barrel Controls 7.07 cfs @ 4.00 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 1.29" for 10-year event
Inflow = 15.83 cfs @ 12.14 hrs, Volume= 1.083 af
Outflow = 15.83 cfs @ 12.14 hrs, Volume= 1.083 af, Atten= 0%, Lag= 0.0 min
Primary = 15.83 cfs @ 12.14 hrs, Volume= 1.083 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 51.31' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**30.0" Round Culvert** L= 340.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=15.65 cfs @ 12.14 hrs HW=51.30' (Free Discharge)
1=Culvert (Inlet Controls 15.65 cfs @ 3.77 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 1.29" for 10-year event
Inflow = 15.83 cfs @ 12.14 hrs, Volume= 1.083 af
Outflow = 15.83 cfs @ 12.14 hrs, Volume= 1.083 af, Atten= 0%, Lag= 0.0 min
Primary = 15.83 cfs @ 12.14 hrs, Volume= 1.083 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.59' @ 12.15 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**30.0" Round Culvert** L= 193.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=15.65 cfs @ 12.14 hrs HW=49.58' (Free Discharge)
1=Culvert (Inlet Controls 15.65 cfs @ 3.77 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 1.30" for 10-year event
Inflow = 16.24 cfs @ 12.14 hrs, Volume= 1.116 af
Outflow = 16.24 cfs @ 12.14 hrs, Volume= 1.116 af, Atten= 0%, Lag= 0.0 min
Primary = 16.24 cfs @ 12.14 hrs, Volume= 1.116 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 48.56' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**36.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=16.03 cfs @ 12.14 hrs HW=48.54' (Free Discharge)
1=Culvert (Barrel Controls 16.03 cfs @ 4.77 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 1.30" for 10-year event
Inflow = 16.24 cfs @ 12.14 hrs, Volume= 1.116 af
Outflow = 16.24 cfs @ 12.14 hrs, Volume= 1.116 af, Atten= 0%, Lag= 0.0 min
Primary = 16.24 cfs @ 12.14 hrs, Volume= 1.116 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 48.01' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**36.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=16.03 cfs @ 12.14 hrs HW=47.99' (Free Discharge)
1=Culvert (Inlet Controls 16.03 cfs @ 3.61 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 12.894 ac, 59.74% Impervious, Inflow Depth > 1.12" for 10-year event
Inflow = 20.86 cfs @ 12.12 hrs, Volume= 1.202 af
Outflow = 20.86 cfs @ 12.12 hrs, Volume= 1.202 af, Atten= 0%, Lag= 0.0 min
Primary = 20.86 cfs @ 12.12 hrs, Volume= 1.202 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 46.12' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**36.0" Round Culvert**

L= 104.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=20.21 cfs @ 12.12 hrs HW=46.08' (Free Discharge)
1=Culvert (Inlet Controls 20.21 cfs @ 3.87 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 13.587 ac, 61.79% Impervious, Inflow Depth > 1.22" for 10-year event
Inflow = 22.54 cfs @ 12.12 hrs, Volume= 1.386 af
Outflow = 22.54 cfs @ 12.12 hrs, Volume= 1.386 af, Atten= 0%, Lag= 0.0 min
Primary = 22.54 cfs @ 12.12 hrs, Volume= 1.386 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 45.25' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**36.0" Round Culvert**
			L= 117.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=21.85 cfs @ 12.12 hrs HW=45.21' (Free Discharge)
1=Culvert (Barrel Controls 21.85 cfs @ 5.28 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 13.908 ac, 61.10% Impervious, Inflow Depth > 1.25" for 10-year event
Inflow = 23.37 cfs @ 12.12 hrs, Volume= 1.445 af
Outflow = 23.37 cfs @ 12.12 hrs, Volume= 1.445 af, Atten= 0%, Lag= 0.0 min
Primary = 23.37 cfs @ 12.12 hrs, Volume= 1.445 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 44.89' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert**
			L= 14.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=22.66 cfs @ 12.12 hrs HW=44.84' (Free Discharge)
1=Culvert (Barrel Controls 22.66 cfs @ 4.86 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.67" for 10-year event
Inflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.47' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**18.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.23 cfs @ 12.09 hrs HW=61.39' (Free Discharge)
1=Culvert (Inlet Controls 7.23 cfs @ 4.09 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 1.25" for 10-year event
Inflow = 30.87 cfs @ 12.10 hrs, Volume= 1.552 af
Outflow = 30.87 cfs @ 12.10 hrs, Volume= 1.552 af, Atten= 0%, Lag= 0.0 min
Primary = 30.87 cfs @ 12.10 hrs, Volume= 1.552 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 47.55' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**36.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=30.59 cfs @ 12.10 hrs HW=47.53' (Free Discharge)
1=Culvert (Inlet Controls 30.59 cfs @ 4.48 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 1.25" for 10-year event
Inflow = 30.87 cfs @ 12.10 hrs, Volume= 1.552 af
Outflow = 30.87 cfs @ 12.10 hrs, Volume= 1.552 af, Atten= 0%, Lag= 0.0 min
Primary = 30.87 cfs @ 12.10 hrs, Volume= 1.552 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 46.89' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**36.0" Round Culvert**

L= 38.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=30.59 cfs @ 12.10 hrs HW=46.87' (Free Discharge)
1=Culvert (Inlet Controls 30.59 cfs @ 4.48 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 1.25" for 10-year event
Inflow = 53.80 cfs @ 12.11 hrs, Volume= 2.997 af
Outflow = 53.80 cfs @ 12.11 hrs, Volume= 2.997 af, Atten= 0%, Lag= 0.0 min
Primary = 53.80 cfs @ 12.11 hrs, Volume= 2.997 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 43.89' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**60.0" Round Culvert**
			L= 258.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=52.98 cfs @ 12.11 hrs HW=43.87' (Free Discharge)
1=Culvert (Inlet Controls 52.98 cfs @ 4.55 fps)

Summary for Pond dmh53: dmh53

Inflow Area = 29.187 ac, 69.95% Impervious, Inflow Depth > 1.26" for 10-year event
Inflow = 55.19 cfs @ 12.11 hrs, Volume= 3.075 af
Outflow = 55.19 cfs @ 12.11 hrs, Volume= 3.075 af, Atten= 0%, Lag= 0.0 min
Primary = 55.19 cfs @ 12.11 hrs, Volume= 3.075 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 35.94' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**60.0" Round Culvert**
			L= 120.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=54.31 cfs @ 12.11 hrs HW=35.91' (Free Discharge)
1=Culvert (Inlet Controls 54.31 cfs @ 4.58 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.27" for 10-year event
Inflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af
Outflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af, Atten= 0%, Lag= 0.0 min
Primary = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 29.94' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**60.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=54.45 cfs @ 12.11 hrs HW=29.91' (Free Discharge)
1=Culvert (Inlet Controls 54.45 cfs @ 4.59 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.27" for 10-year event
Inflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af
Outflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af, Atten= 0%, Lag= 0.0 min
Primary = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 21.94' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**60.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=54.45 cfs @ 12.11 hrs HW=21.91' (Free Discharge)
1=Culvert (Inlet Controls 54.45 cfs @ 4.59 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.27" for 10-year event
Inflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af
Outflow = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af, Atten= 0%, Lag= 0.0 min
Primary = 55.34 cfs @ 12.11 hrs, Volume= 3.098 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 15.44' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**60.0" Round Culvert**

L= 42.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=54.45 cfs @ 12.11 hrs HW=15.41' (Free Discharge)
1=Culvert (Inlet Controls 54.45 cfs @ 4.59 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.253 ac, 63.02% Impervious, Inflow Depth > 2.58" for 10-year event
Inflow = 6.01 cfs @ 12.10 hrs, Volume= 0.485 af
Outflow = 6.01 cfs @ 12.10 hrs, Volume= 0.485 af, Atten= 0%, Lag= 0.0 min
Primary = 6.01 cfs @ 12.10 hrs, Volume= 0.485 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.94' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert**
			L= 294.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.00 cfs @ 12.10 hrs HW=63.91' (Free Discharge)
1=Culvert (Barrel Controls 6.00 cfs @ 7.64 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.67" for 10-year event
Inflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.83' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**18.0" Round Culvert**
			L= 170.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.23 cfs @ 12.09 hrs HW=61.64' (Free Discharge)
1=Culvert (Barrel Controls 7.23 cfs @ 4.09 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 1.25" for 10-year event
Inflow = 53.80 cfs @ 12.11 hrs, Volume= 2.997 af
Outflow = 53.80 cfs @ 12.11 hrs, Volume= 2.997 af, Atten= 0%, Lag= 0.0 min
Primary = 53.80 cfs @ 12.11 hrs, Volume= 2.997 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 38.39' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**60.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=52.98 cfs @ 12.11 hrs HW=38.37' (Free Discharge)
1=Culvert (Inlet Controls 52.98 cfs @ 4.55 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 0.67" for 10-year event
Inflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af
Outflow = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af, Atten= 0%, Lag= 0.0 min
Primary = 7.52 cfs @ 12.09 hrs, Volume= 0.189 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.70' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**18.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.23 cfs @ 12.09 hrs HW=59.62' (Free Discharge)
1=Culvert (Inlet Controls 7.23 cfs @ 4.09 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.55" for 10-year event
Inflow = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af
Outflow = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Primary = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.07' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert**

L= 296.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=12.80 cfs @ 12.09 hrs HW=58.99' (Free Discharge)
1=Culvert (Inlet Controls 12.80 cfs @ 4.07 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.55" for 10-year event
Inflow = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af
Outflow = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
Primary = 13.35 cfs @ 12.09 hrs, Volume= 0.274 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.88' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert**
			L= 206.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=12.79 cfs @ 12.09 hrs HW=57.79' (Free Discharge)
1=Culvert (Inlet Controls 12.79 cfs @ 4.07 fps)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth > 2.30" for 10-year event
Inflow = 2.80 cfs @ 12.09 hrs, Volume= 0.190 af
Outflow = 1.98 cfs @ 12.18 hrs, Volume= 0.132 af, Atten= 29%, Lag= 5.4 min
Primary = 1.98 cfs @ 12.18 hrs, Volume= 0.132 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.18' @ 12.18 hrs Surf.Area= 2,879 sf Storage= 2,985 cf
Flood Elev= 63.00' Surf.Area= 3,400 sf Storage= 5,560 cf

Plug-Flow detention time= 114.4 min calculated for 0.132 af (69% of inflow)
Center-of-Mass det. time= 48.0 min (834.2 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. cb19 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.94 cfs @ 12.18 hrs HW=62.18' (Free Discharge)
└**1=Culvert** (Passes 1.94 cfs of 5.69 cfs potential flow)
└**2=cb19** (Weir Controls 1.94 cfs @ 1.37 fps)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth > 2.74" for 10-year event
Inflow = 0.98 cfs @ 12.09 hrs, Volume= 0.068 af
Outflow = 0.94 cfs @ 12.11 hrs, Volume= 0.057 af, Atten= 3%, Lag= 1.4 min
Primary = 0.94 cfs @ 12.11 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.61' @ 12.11 hrs Surf.Area= 1,072 sf Storage= 595 cf
Flood Elev= 62.50' Surf.Area= 1,368 sf Storage= 1,681 cf

Plug-Flow detention time= 77.7 min calculated for 0.056 af (83% of inflow)
Center-of-Mass det. time= 31.8 min (804.2 - 772.4)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Device	Routing	Invert	Outlet Devices
#1	Primary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	61.50'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.92 cfs @ 12.11 hrs HW=61.61' (Free Discharge)
└**1=Culvert** (Passes 0.92 cfs of 2.33 cfs potential flow)
└**2=Catch Basin** (Weir Controls 0.92 cfs @ 1.07 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth > 2.47" for 10-year event
Inflow = 3.13 cfs @ 12.09 hrs, Volume= 0.214 af
Outflow = 2.02 cfs @ 12.20 hrs, Volume= 0.144 af, Atten= 35%, Lag= 6.7 min
Primary = 2.02 cfs @ 12.20 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.18' @ 12.20 hrs Surf.Area= 3,697 sf Storage= 3,647 cf
Flood Elev= 63.00' Surf.Area= 4,582 sf Storage= 7,028 cf

Plug-Flow detention time= 121.9 min calculated for 0.143 af (67% of inflow)
Center-of-Mass det. time= 53.7 min (834.7 - 781.0)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. db18 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.01 cfs @ 12.20 hrs HW=62.18' (Free Discharge)
└**1=Culvert** (Passes 2.01 cfs of 5.69 cfs potential flow)
└**2=db18** (Weir Controls 2.01 cfs @ 1.39 fps)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth > 1.61" for 10-year event
Inflow = 0.42 cfs @ 12.10 hrs, Volume= 0.028 af
Outflow = 0.40 cfs @ 12.12 hrs, Volume= 0.025 af, Atten= 3%, Lag= 1.3 min
Primary = 0.40 cfs @ 12.12 hrs, Volume= 0.025 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.76' @ 12.12 hrs Surf.Area= 729 sf Storage= 174 cf
Flood Elev= 65.00' Surf.Area= 1,418 sf Storage= 1,489 cf

Plug-Flow detention time= 50.0 min calculated for 0.025 af (89% of inflow)
Center-of-Mass det. time= 16.4 min (822.8 - 806.5)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	63.70'	**2.0" x 2.0" Horiz. cb9 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.39 cfs @ 12.12 hrs HW=63.76' (Free Discharge)
↑—**1=Culvert** (Passes 0.39 cfs of 2.19 cfs potential flow)
↑—**2=cb9** (Weir Controls 0.39 cfs @ 0.80 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 2.22" for 10-year event
Inflow = 0.95 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.02 cfs @ 17.65 hrs, Volume= 0.005 af, Atten= 98%, Lag= 333.7 min
Primary = 0.02 cfs @ 17.65 hrs, Volume= 0.005 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.41' @ 17.65 hrs Surf.Area= 2,197 sf Storage= 2,593 cf

Plug-Flow detention time= 488.8 min calculated for 0.005 af (7% of inflow)
Center-of-Mass det. time= 323.0 min (1,111.6 - 788.6)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	64.40'	**2.0" x 2.0" Horiz. Catch Basin X 49.00**

C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.02 cfs @ 17.65 hrs HW=64.41' (Free Discharge)
↑**1=Culvert** (Passes 0.02 cfs of 2.44 cfs potential flow)
↑**2=Catch Basin** (Weir Controls 0.02 cfs @ 0.28 fps)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth > 2.38" for 10-year event
Inflow = 0.43 cfs @ 12.09 hrs, Volume= 0.029 af
Outflow = 0.34 cfs @ 12.17 hrs, Volume= 0.020 af, Atten= 20%, Lag= 4.7 min
Primary = 0.34 cfs @ 12.17 hrs, Volume= 0.020 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.46' @ 12.17 hrs Surf.Area= 1,151 sf Storage= 466 cf

Plug-Flow detention time= 118.2 min calculated for 0.020 af (68% of inflow)
Center-of-Mass det. time= 50.3 min (833.9 - 783.6)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.40'	**2.0" x 2.0" Horiz. cb24 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.31 cfs @ 12.17 hrs HW=57.45' (Free Discharge)
↑**1=Culvert** (Passes 0.31 cfs of 2.34 cfs potential flow)
↑**2=cb24** (Weir Controls 0.31 cfs @ 0.75 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth > 2.74" for 10-year event
Inflow = 0.30 cfs @ 12.09 hrs, Volume= 0.021 af
Outflow = 0.21 cfs @ 12.19 hrs, Volume= 0.013 af, Atten= 29%, Lag= 6.1 min
Primary = 0.21 cfs @ 12.19 hrs, Volume= 0.013 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.94' @ 12.19 hrs Surf.Area= 566 sf Storage= 396 cf

Plug-Flow detention time= 140.8 min calculated for 0.013 af (59% of inflow)

Center-of-Mass det. time= 65.6 min (838.0 - 772.4)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.90'	**2.0" x 2.0" Horiz. cb23 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.21 cfs @ 12.19 hrs HW=57.94' (Free Discharge)
↑—**1=Culvert** (Passes 0.21 cfs of 2.52 cfs potential flow)
↑—**2=cb23** (Weir Controls 0.21 cfs @ 0.65 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 2.38" for 10-year event
Inflow = 1.19 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 1.09 cfs @ 12.12 hrs, Volume= 0.081 af, Atten= 8%, Lag= 1.8 min
Primary = 1.09 cfs @ 12.12 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 65.87' @ 12.12 hrs Surf.Area= 1,683 sf Storage= 198 cf
Flood Elev= 68.00' Surf.Area= 3,488 sf Storage= 5,554 cf

Plug-Flow detention time= 5.1 min calculated for 0.081 af (100% of inflow)
Center-of-Mass det. time= 4.2 min (787.8 - 783.6)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.80' / 62.26' S= 0.0200 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2 Device 1 65.75' **2.0" x 2.0" Horiz. Orifice/Grate X 49.00**
C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.06 cfs @ 12.12 hrs HW=65.87' (Free Discharge)
└**1=Culvert** (Passes 1.06 cfs of 2.19 cfs potential flow)
└**2=Orifice/Grate** (Weir Controls 1.06 cfs @ 1.12 fps)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.781 ac, 20.08% Impervious, Inflow Depth > 1.98" for 10-year event
Inflow = 1.91 cfs @ 12.09 hrs, Volume= 0.129 af
Outflow = 1.71 cfs @ 12.09 hrs, Volume= 0.103 af, Atten= 10%, Lag= 0.0 min
Primary = 1.71 cfs @ 12.09 hrs, Volume= 0.103 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 67.06' @ 12.09 hrs Surf.Area= 1,576 sf Storage= 1,039 cf
Flood Elev= 67.00' Surf.Area= 1,576 sf Storage= 1,039 cf

Plug-Flow detention time= 81.4 min calculated for 0.103 af (80% of inflow)
Center-of-Mass det. time= 28.7 min (824.3 - 795.6)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	1,039 cf	**gsf1B (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
66.00	583	194.0	0	0	583
67.00	1,576	297.0	1,039	1,039	4,615

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert**
			L= 20.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 62.80' / 62.60' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	66.90'	**2.0" x 2.0" Horiz. CB17 grate X 49.00**
			C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.68 cfs @ 12.09 hrs HW=67.06' (Free Discharge)
└**1=Culvert** (Passes 1.68 cfs of 2.63 cfs potential flow)
└**2=CB17 grate** (Weir Controls 1.68 cfs @ 1.31 fps)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth > 2.05" for 10-year event
Inflow = 1.81 cfs @ 12.09 hrs, Volume= 0.122 af
Outflow = 1.29 cfs @ 12.18 hrs, Volume= 0.087 af, Atten= 29%, Lag= 5.5 min
Primary = 1.29 cfs @ 12.18 hrs, Volume= 0.087 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 57.73' @ 12.18 hrs Surf.Area= 2,172 sf Storage= 1,802 cf
Flood Elev= 59.00' Surf.Area= 3,488 sf Storage= 5,317 cf

Plug-Flow detention time= 109.2 min calculated for 0.087 af (71% of inflow)
Center-of-Mass det. time= 43.9 min (837.2 - 793.3)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Device	Routing	Invert	Outlet Devices
#1	Primary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb20 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.26 cfs @ 12.18 hrs HW=57.73' (Free Discharge)
↑**1=Culvert** (Passes 1.26 cfs of 2.46 cfs potential flow)
↑**2=cb20** (Weir Controls 1.26 cfs @ 1.19 fps)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth > 3.13" for 10-year event
Inflow = 1.53 cfs @ 12.09 hrs, Volume= 0.109 af
Outflow = 1.41 cfs @ 12.12 hrs, Volume= 0.078 af, Atten= 7%, Lag= 2.1 min
Primary = 1.41 cfs @ 12.12 hrs, Volume= 0.078 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 40.74' @ 12.12 hrs Surf.Area= 1,879 sf Storage= 1,623 cf

Plug-Flow detention time= 118.3 min calculated for 0.078 af (71% of inflow)
Center-of-Mass det. time= 54.3 min (812.7 - 758.4)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Device	Routing	Invert	Outlet Devices
#1	Primary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	40.60'	**2.0" x 2.0" Horiz. cb32 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.37 cfs @ 12.12 hrs HW=40.74' (Free Discharge)
└**1=Culvert** (Passes 1.37 cfs of 2.52 cfs potential flow)
└**2=cb32** (Weir Controls 1.37 cfs @ 1.22 fps)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth > 2.22" for 10-year event
Inflow = 2.26 cfs @ 12.09 hrs, Volume= 0.153 af
Outflow = 1.55 cfs @ 12.19 hrs, Volume= 0.107 af, Atten= 31%, Lag= 5.7 min
Primary = 1.55 cfs @ 12.19 hrs, Volume= 0.107 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.90' @ 12.19 hrs Surf.Area= 2,566 sf Storage= 2,387 cf
Flood Elev= 57.00' Surf.Area= 3,839 sf Storage= 5,872 cf

Plug-Flow detention time= 114.3 min calculated for 0.107 af (70% of inflow)
Center-of-Mass det. time= 46.9 min (835.5 - 788.6)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 51.84' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	55.75'	**2.0" x 2.0" Horiz. cb25 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.53 cfs @ 12.19 hrs HW=55.90' (Free Discharge)
└**1=Culvert** (Passes 1.53 cfs of 5.52 cfs potential flow)
└**2=cb25** (Weir Controls 1.53 cfs @ 1.27 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth > 1.61" for 10-year event
Inflow = 0.38 cfs @ 12.10 hrs, Volume= 0.026 af
Outflow = 0.29 cfs @ 12.21 hrs, Volume= 0.018 af, Atten= 25%, Lag= 7.0 min
Primary = 0.29 cfs @ 12.21 hrs, Volume= 0.018 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.15' @ 12.21 hrs Surf.Area= 671 sf Storage= 366 cf
Flood Elev= 56.00' Surf.Area= 974 sf Storage= 1,061 cf

Plug-Flow detention time= 111.1 min calculated for 0.018 af (70% of inflow)
Center-of-Mass det. time= 42.5 min (849.0 - 806.5)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.56' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	55.10'	**2.0" x 2.0" Horiz. cb26 rim X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.26 cfs @ 12.21 hrs HW=55.15' (Free Discharge)
└**1=Culvert** (Passes 0.26 cfs of 2.33 cfs potential flow)
└**2=cb26 rim** (Weir Controls 0.26 cfs @ 0.71 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth > 1.61" for 10-year event
Inflow = 0.49 cfs @ 12.10 hrs, Volume= 0.033 af
Outflow = 0.49 cfs @ 12.10 hrs, Volume= 0.033 af, Atten= 0%, Lag= 0.0 min
Primary = 0.49 cfs @ 12.10 hrs, Volume= 0.033 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.00' @ 12.10 hrs Surf.Area= 601 sf Storage= 1 cf
Flood Elev= 55.00' Surf.Area= 1,257 sf Storage= 908 cf

Plug-Flow detention time= 0.0 min calculated for 0.033 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (806.5 - 806.5)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	54.60'	**2.0" x 2.0" Horiz. Catch Basin** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.17 cfs @ 12.10 hrs HW=54.00' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.17 cfs @ 6.21 fps)
└**2=Catch Basin** (Controls 0.00 cfs)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth > 2.22" for 10-year event
Inflow = 0.88 cfs @ 12.09 hrs, Volume= 0.059 af
Outflow = 0.88 cfs @ 12.09 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.0 min
Primary = 0.88 cfs @ 12.09 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.00' @ 12.09 hrs Surf.Area= 1,001 sf Storage= 1 cf
Flood Elev= 50.00' Surf.Area= 1,768 sf Storage= 1,366 cf

Plug-Flow detention time= 0.0 min calculated for 0.059 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (788.6 - 788.6)

Volume	Invert	Avail.Storage	Storage Description
#1	49.00'	1,366 cf	**gsf6 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
49.00	1,000	156.0	0	0	1,000
50.00	1,768	184.0	1,366	1,366	1,776

Device	Routing	Invert	Outlet Devices
#1	Primary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	48.20'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=8.51 cfs @ 12.09 hrs HW=49.00' (Free Discharge)
└─**1=culvert** (Inlet Controls 2.64 cfs @ 7.57 fps)
└─**2=Catch Basin** (Orifice Controls 5.87 cfs @ 4.31 fps)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth > 2.05" for 10-year event
Inflow = 1.77 cfs @ 12.09 hrs, Volume= 0.119 af
Outflow = 0.89 cfs @ 12.27 hrs, Volume= 0.079 af, Atten= 50%, Lag= 10.6 min
Primary = 0.89 cfs @ 12.27 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 54.80' @ 12.27 hrs Surf.Area= 3,158 sf Storage= 2,073 cf
Flood Elev= 56.00' Surf.Area= 5,203 sf Storage= 7,026 cf

Plug-Flow detention time= 125.6 min calculated for 0.078 af (66% of inflow)
Center-of-Mass det. time= 54.7 min (848.0 - 793.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	54.70'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.87 cfs @ 12.27 hrs HW=54.80' (Free Discharge)
└─**1=cb29** (Passes 0.87 cfs of 2.47 cfs potential flow)
└─**2=Catch Basin** (Weir Controls 0.87 cfs @ 1.05 fps)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth > 2.65" for 10-year event
Inflow = 3.35 cfs @ 12.09 hrs, Volume= 0.231 af
Outflow = 2.48 cfs @ 12.17 hrs, Volume= 0.156 af, Atten= 26%, Lag= 5.0 min
Primary = 2.48 cfs @ 12.17 hrs, Volume= 0.156 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.81' @ 12.17 hrs Surf.Area= 3,431 sf Storage= 3,937 cf
Flood Elev= 58.50' Surf.Area= 3,910 sf Storage= 6,471 cf

Plug-Flow detention time= 122.3 min calculated for 0.155 af (67% of inflow)
Center-of-Mass det. time= 54.6 min (830.0 - 775.4)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**8.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb10 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.37 cfs @ 12.17 hrs HW=57.80' (Free Discharge)
↑—**1=Culvert** (Passes 2.37 cfs of 2.58 cfs potential flow)
↑—**2=cb10** (Weir Controls 2.37 cfs @ 1.47 fps)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth > 2.84" for 10-year event
Inflow = 2.19 cfs @ 12.09 hrs, Volume= 0.153 af
Outflow = 2.20 cfs @ 12.09 hrs, Volume= 0.153 af, Atten= 0%, Lag= 0.2 min
Primary = 2.20 cfs @ 12.09 hrs, Volume= 0.153 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.51' @ 12.09 hrs Surf.Area= 1,915 sf Storage= 23 cf
Flood Elev= 65.00' Surf.Area= 3,935 sf Storage= 4,339 cf

Plug-Flow detention time= 0.2 min calculated for 0.153 af (100% of inflow)
Center-of-Mass det. time= 0.2 min (769.4 - 769.2)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	4,339 cf	**gsf9 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	1,900	437.0	0	0	1,900
64.00	2,567	446.0	1,113	1,113	2,570
65.00	3,935	465.0	3,227	4,339	4,021

Device	Routing	Invert	Outlet Devices
#1	Primary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

#2	Device 1	63.00'	**2.0" x 2.0" Horiz. cb6 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.71 cfs @ 12.09 hrs HW=63.51' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.71 cfs @ 7.77 fps)
↑**2=cb6** (Passes 2.71 cfs of 4.69 cfs potential flow)

Summary for Pond ICS1: ICS

Inflow Area =	2.584 ac,100.00% Impervious,	Inflow Depth >	3.78"	for 10-year event
Inflow =	10.34 cfs @	12.09 hrs, Volume=	0.814 af	
Outflow =	10.34 cfs @	12.09 hrs, Volume=	0.814 af, Atten= 0%, Lag= 0.0 min	
Primary =	5.81 cfs @	12.09 hrs, Volume=	0.085 af	
Secondary =	4.53 cfs @	12.09 hrs, Volume=	0.729 af	

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 66.76' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.50' / 63.27' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	66.15'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	63.95'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.95' / 63.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.54 cfs @ 12.09 hrs HW=66.74' (Free Discharge)
↑**1=Culvert** (Passes 5.54 cfs of 10.60 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 5.54 cfs @ 2.36 fps)

Secondary OutFlow Max=4.52 cfs @ 12.09 hrs HW=66.74' (Free Discharge)
↑**3=Culvert** (Inlet Controls 4.52 cfs @ 5.75 fps)

Summary for Pond ics28: ICS28

Inflow Area =	0.275 ac,100.00% Impervious,	Inflow Depth >	3.78"	for 10-year event
Inflow =	1.10 cfs @	12.09 hrs, Volume=	0.087 af	
Outflow =	1.10 cfs @	12.09 hrs, Volume=	0.087 af, Atten= 0%, Lag= 0.0 min	
Primary =	1.10 cfs @	12.09 hrs, Volume=	0.087 af	
Secondary =	0.00 cfs @	1.00 hrs, Volume=	0.000 af	

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 58.63' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert**
			L= 10.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert**
			L= 5.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.07 cfs @ 12.09 hrs HW=58.62' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.68 cfs @ 2.65 fps)
└**3=Culvert** (Barrel Controls 0.39 cfs @ 2.09 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=58.00' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af
Outflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Atten= 0%, Lag= 0.0 min
Primary = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af
Secondary = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.61' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.50'	**18.0" Round Culvert**
			L= 51.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert**
			L= 5.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.55 cfs @ 12.09 hrs HW=55.59' (Free Discharge)
└**1=Culvert** (Passes 5.55 cfs of 10.27 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 5.55 cfs @ 2.36 fps)

Secondary OutFlow Max=4.52 cfs @ 12.09 hrs HW=55.59' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.52 cfs @ 5.75 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af
Outflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Atten= 0%, Lag= 0.0 min
Primary = 5.81 cfs @ 12.09 hrs, Volume= 0.085 af
Secondary = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.61' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.54 cfs @ 12.09 hrs HW=49.59' (Free Discharge)
└**1=Culvert** (Passes 5.54 cfs of 10.91 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 5.54 cfs @ 2.36 fps)

Secondary OutFlow Max=4.52 cfs @ 12.09 hrs HW=49.59' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.52 cfs @ 5.75 fps)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af
Outflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Atten= 0%, Lag= 0.0 min
Primary = 5.83 cfs @ 12.09 hrs, Volume= 0.086 af
Secondary = 4.52 cfs @ 12.09 hrs, Volume= 0.728 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 64.79' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=5.56 cfs @ 12.09 hrs HW=64.77' (Free Discharge)
1=Culvert (Passes 5.56 cfs of 10.23 cfs potential flow)
2=Broad-Crested Rectangular Weir (Weir Controls 5.56 cfs @ 2.36 fps)

Secondary OutFlow Max=4.50 cfs @ 12.09 hrs HW=64.77' (Free Discharge)
3=Culvert (Inlet Controls 4.50 cfs @ 5.73 fps)

Summary for Pond ISC42: ICS42

Device	Routing	Invert	Outlet Devices
#1	Primary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
1=Culvert (Controls 0.00 cfs)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
3=Culvert (Controls 0.00 cfs)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 2.84 cfs @ 12.09 hrs, Volume= 0.224 af
Outflow = 1.68 cfs @ 12.20 hrs, Volume= 0.199 af, Atten= 41%, Lag= 7.1 min
Primary = 1.68 cfs @ 12.20 hrs, Volume= 0.199 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.80' @ 12.20 hrs Surf.Area= 0.179 ac Storage= 0.067 af

Plug-Flow detention time= 101.6 min calculated for 0.199 af (89% of inflow)
Center-of-Mass det. time= 63.6 min (787.2 - 723.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.68 cfs @ 12.20 hrs HW=61.80' (Free Discharge)
↑**1=Culvert** (Barrel Controls 1.68 cfs @ 2.50 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth > 3.67" for 10-year event
Inflow = 0.85 cfs @ 12.09 hrs, Volume= 0.066 af
Outflow = 0.53 cfs @ 12.20 hrs, Volume= 0.059 af, Atten= 38%, Lag= 6.7 min
Primary = 0.53 cfs @ 12.20 hrs, Volume= 0.059 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.59' @ 12.20 hrs Surf.Area= 1,935 sf Storage= 826 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 91.3 min calculated for 0.059 af (90% of inflow)
Center-of-Mass det. time= 57.5 min (789.3 - 731.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.52 cfs @ 12.20 hrs HW=56.59' (Free Discharge)
1=Culvert (Barrel Controls 0.52 cfs @ 1.98 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 3.34" for 10-year event
Inflow = 1.19 cfs @ 12.09 hrs, Volume= 0.088 af
Outflow = 0.35 cfs @ 12.42 hrs, Volume= 0.072 af, Atten= 71%, Lag= 20.1 min
Primary = 0.35 cfs @ 12.42 hrs, Volume= 0.072 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.60' @ 12.42 hrs Surf.Area= 0.074 ac Storage= 0.043 af

Plug-Flow detention time= 145.0 min calculated for 0.072 af (82% of inflow)
Center-of-Mass det. time= 95.5 min (845.0 - 749.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.34 cfs @ 12.42 hrs HW=55.60' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.34 cfs @ 2.10 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.229 ac, 83.66% Impervious, Inflow Depth > 3.34" for 10-year event
Inflow = 0.87 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.40 cfs @ 12.26 hrs, Volume= 0.057 af, Atten= 54%, Lag= 10.6 min
Primary = 0.40 cfs @ 12.26 hrs, Volume= 0.057 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.33' @ 12.26 hrs Surf.Area= 1,510 sf Storage= 972 cf

Plug-Flow detention time= 93.3 min calculated for 0.057 af (89% of inflow)
Center-of-Mass det. time= 59.6 min (809.1 - 749.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.40 cfs @ 12.26 hrs HW=55.33' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.40 cfs @ 2.18 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.310 ac, 76.43% Impervious, Inflow Depth > 3.13" for 10-year event
Inflow = 1.13 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 0.33 cfs @ 12.42 hrs, Volume= 0.066 af, Atten= 71%, Lag= 20.2 min
Primary = 0.33 cfs @ 12.42 hrs, Volume= 0.066 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.57' @ 12.42 hrs Surf.Area= 3,003 sf Storage= 1,715 cf

Plug-Flow detention time= 140.4 min calculated for 0.066 af (82% of inflow)
Center-of-Mass det. time= 90.3 min (848.7 - 758.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.33 cfs @ 12.42 hrs HW=55.56' (Free Discharge)
1=Culvert (Barrel Controls 0.33 cfs @ 2.02 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 0.35 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.19 cfs @ 12.22 hrs, Volume= 0.023 af, Atten= 47%, Lag= 8.2 min
Primary = 0.19 cfs @ 12.22 hrs, Volume= 0.023 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 34.89' @ 12.22 hrs Surf.Area= 1,289 sf Storage= 448 cf

Plug-Flow detention time= 127.1 min calculated for 0.023 af (85% of inflow)
Center-of-Mass det. time= 79.8 min (803.5 - 723.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.19 cfs @ 12.22 hrs HW=34.89' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.19 cfs @ 1.40 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 2.77 cfs @ 12.09 hrs, Volume= 0.218 af
Outflow = 1.82 cfs @ 12.18 hrs, Volume= 0.184 af, Atten= 34%, Lag= 5.8 min
Primary = 1.82 cfs @ 12.18 hrs, Volume= 0.184 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.94' @ 12.18 hrs Surf.Area= 5,946 sf Storage= 3,064 cf

Plug-Flow detention time= 118.0 min calculated for 0.184 af (84% of inflow)
Center-of-Mass det. time= 70.1 min (793.7 - 723.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.81 cfs @ 12.18 hrs HW=54.94' (Free Discharge)
└**1=Culvert** (Barrel Controls 1.81 cfs @ 1.93 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 2.42" for 10-year event
Inflow = 3.00 cfs @ 12.09 hrs, Volume= 0.242 af
Outflow = 2.24 cfs @ 12.18 hrs, Volume= 0.233 af, Atten= 25%, Lag= 5.2 min
Primary = 2.24 cfs @ 12.18 hrs, Volume= 0.233 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.68' @ 12.18 hrs Surf.Area= 1,599 sf Storage= 1,494 cf
Flood Elev= 31.78' Surf.Area= 8,586 sf Storage= 7,539 cf

Plug-Flow detention time= 36.2 min calculated for 0.233 af (96% of inflow)
Center-of-Mass det. time= 21.8 min (791.2 - 769.4)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	694 cf	**10.56'W x 76.72'L x 3.42'H Field D** 2,767 cf Overall - 1,033 cf Embedded = 1,734 cf x 40.0% Voids
#6D	29.53'	982 cf	**ACF R-Tank HD 1.5** x 155 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 5 Rows of 31 Chambers
		10,595 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.61'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.61' / 29.00' S= 0.0305 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.23 cfs @ 12.18 hrs HW=30.67' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.23 cfs @ 2.84 fps)

Summary for Pond OCS57: OCS 57

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 2.32" for 10-year event
Inflow = 2.24 cfs @ 12.18 hrs, Volume= 0.233 af
Outflow = 2.24 cfs @ 12.18 hrs, Volume= 0.233 af, Atten= 0%, Lag= 0.0 min
Primary = 2.24 cfs @ 12.18 hrs, Volume= 0.233 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.36' @ 12.18 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	29.50'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.50' / 29.30' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

#2	Device 1	30.07'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	29.53'	**2.0" Vert. Orifice/Grate X 2.00** C= 0.600
#4	Primary	29.90'	**6.0" W x 2.0" H Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=2.23 cfs @ 12.18 hrs HW=30.36' (Free Discharge)
- **1=Culvert** (Passes 1.80 cfs of 2.48 cfs potential flow)
  - **2=Broad-Crested Rectangular Weir** (Weir Controls 1.80 cfs @ 1.54 fps)
- **3=Orifice/Grate** (Orifice Controls 0.18 cfs @ 4.17 fps)
- **4=Orifice/Grate** (Orifice Controls 0.25 cfs @ 2.96 fps)

Summary for Pond SSF 36: ssf

Inflow = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af
Primary = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 37:

Inflow = 4.52 cfs @ 12.09 hrs, Volume= 0.728 af
Primary = 4.52 cfs @ 12.09 hrs, Volume= 0.728 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 38: ssf38

Inflow = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af
Primary = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 39:

Inflow = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af
Primary = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 40:

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af
Primary = 10.34 cfs @ 12.09 hrs, Volume= 0.814 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 41:

Inflow = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af
Primary = 4.53 cfs @ 12.09 hrs, Volume= 0.729 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 42:

Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 43:

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 3.78" for 10-year event
Inflow = 1.74 cfs @ 12.09 hrs, Volume= 0.137 af
Primary = 1.74 cfs @ 12.09 hrs, Volume= 0.137 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Time span=1.00-20.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth>3.24"
Tc=6.0 min CN=84 Runoff=1.60 cfs 0.110 af

Subcatchment1B: Runoff Area=34,018 sf 20.08% Impervious Runoff Depth>2.78"
Tc=6.0 min CN=79 Runoff=2.67 cfs 0.181 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth>2.87"
Tc=6.0 min CN=80 Runoff=2.51 cfs 0.170 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth>3.05"
Tc=6.0 min CN=82 Runoff=3.09 cfs 0.211 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth>2.34"
Tc=6.0 min CN=74 Runoff=0.56 cfs 0.038 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth>2.34"
Tc=6.0 min CN=74 Runoff=0.72 cfs 0.048 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth>3.05"
Tc=6.0 min CN=82 Runoff=1.20 cfs 0.082 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth>2.87"
Tc=6.0 min CN=80 Runoff=2.45 cfs 0.167 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth>3.54"
Tc=6.0 min CN=87 Runoff=4.41 cfs 0.309 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth>3.74"
Tc=6.0 min CN=89 Runoff=2.85 cfs 0.202 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=3.53 cfs 0.280 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth>3.15"
Tc=6.0 min CN=83 Runoff=3.79 cfs 0.260 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth>3.64"
Tc=6.0 min CN=88 Runoff=1.28 cfs 0.090 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth>3.34"
Tc=6.0 min CN=85 Runoff=4.18 cfs 0.289 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth>4.62"
Tc=6.0 min CN=97 Runoff=1.06 cfs 0.083 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth>2.34"
Tc=6.0 min CN=74 Runoff=0.61 cfs 0.041 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth>3.05"
Tc=6.0 min CN=82 Runoff=1.29 cfs 0.088 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth>4.28"
Tc=6.0 min CN=94 Runoff=1.46 cfs 0.109 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth>3.24"
Tc=6.0 min CN=84 Runoff=0.57 cfs 0.039 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth>3.64"
Tc=6.0 min CN=88 Runoff=0.40 cfs 0.028 af

Subcatchment19: Runoff Area=13,711 sf 81.76% Impervious Runoff Depth>4.28"
Tc=6.0 min CN=94 Runoff=1.51 cfs 0.112 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth>4.06"
Tc=6.0 min CN=92 Runoff=3.04 cfs 0.221 af

Subcatchment21: Runoff Area=9,994 sf 83.66% Impervious Runoff Depth>4.28"
Tc=6.0 min CN=94 Runoff=1.10 cfs 0.082 af

Subcatchment22: Runoff Area=13,511 sf 76.43% Impervious Runoff Depth>4.06"
Tc=6.0 min CN=92 Runoff=1.44 cfs 0.105 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth>2.69"
Tc=6.0 min CN=78 Runoff=2.17 cfs 0.146 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth>4.06"
Tc=6.0 min CN=92 Runoff=1.95 cfs 0.142 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth>2.04"
Flow Length=438' Tc=67.0 min CN=71 Runoff=2.61 cfs 0.462 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=0.44 cfs 0.035 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=0.49 cfs 0.039 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth>3.34"
Tc=6.0 min CN=85 Runoff=7.37 cfs 0.510 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=0.15 cfs 0.012 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth>4.17"
Tc=6.0 min CN=93 Runoff=3.41 cfs 0.251 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth>2.09"
Flow Length=217' Tc=12.3 min CN=71 Runoff=3.42 cfs 0.282 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth>3.74"
Tc=6.0 min CN=89 Runoff=0.47 cfs 0.034 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth>1.78"
Tc=6.0 min CN=67 Runoff=5.39 cfs 0.368 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth>1.86"
Tc=6.0 min CN=68 Runoff=1.26 cfs 0.086 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth>1.86"
Tc=6.0 min CN=68 Runoff=1.10 cfs 0.075 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=12.84 cfs 1.020 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=12.84 cfs 1.020 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=12.84 cfs 1.020 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=12.84 cfs 1.020 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=12.84 cfs 1.020 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=12.84 cfs 1.020 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=1.37 cfs 0.109 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=2.17 cfs 0.172 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth>2.08"
Flow Length=574' Tc=18.8 min CN=71 Runoff=6.62 cfs 0.636 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth>2.00"
Flow Length=307' Tc=29.9 min CN=70 Runoff=2.11 cfs 0.246 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>2.07"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.48 cfs 0.059 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth>2.42"
Flow Length=639' Tc=15.9 min CN=75 Runoff=4.09 cfs 0.366 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth>1.98"
Flow Length=377' Tc=54.0 min CN=70 Runoff=0.97 cfs 0.152 af

Subcatchment49: Runoff Area=84,173 sf 0.65% Impervious Runoff Depth>1.98"
Flow Length=470' Tc=54.1 min CN=70 Runoff=2.02 cfs 0.318 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth>4.73"
Tc=6.0 min CN=98 Runoff=3.44 cfs 0.273 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>2.26"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=32.78 cfs 7.112 af

SubcatchmentOS11: OFFSITE 3 Runoff Area=513,527 sf 23.06% Impervious Runoff Depth>2.69"
Flow Length=532' Tc=6.8 min CN=78 Runoff=38.24 cfs 2.640 af

SubcatchmentOS9: OFFSITE 1 (Below Runoff Area=702,010 sf 3.63% Impervious Runoff Depth>2.40"
Flow Length=1,353' Tc=35.1 min CN=75 Runoff=25.81 cfs 3.224 af

Reach 9R: ANALYSISPOINT 9 Inflow=25.81 cfs 3.224 af
Outflow=25.81 cfs 3.224 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=1.69' Max Vel=11.61 fps Inflow=32.78 cfs 7.112 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=32.77 cfs 7.112 af

Reach 11R: Stream 9 Inflow=38.24 cfs 2.640 af
Outflow=38.24 cfs 2.640 af

Reach 17R: untreated Inflow=1.46 cfs 0.109 af
Outflow=1.46 cfs 0.109 af

Reach 20R: untreated Inflow=3.04 cfs 0.221 af
Outflow=3.04 cfs 0.221 af

Reach 23R: sub 23 Inflow=2.17 cfs 0.146 af
Outflow=2.17 cfs 0.146 af

Reach 27R: extisting Inflow=0.49 cfs 0.039 af
Outflow=0.49 cfs 0.039 af

Reach 28R: existing Inflow=7.37 cfs 0.510 af
Outflow=7.37 cfs 0.510 af

Reach 29R: untreated Inflow=0.15 cfs 0.012 af
Outflow=0.15 cfs 0.012 af

Reach 32R: untreated Inflow=0.47 cfs 0.034 af
Outflow=0.47 cfs 0.034 af

Reach 44R: Inflow=6.62 cfs 0.636 af
Outflow=6.62 cfs 0.636 af

Reach 47R: Inflow=4.09 cfs 0.366 af
Outflow=4.09 cfs 0.366 af

Reach 48R: (new Reach) Inflow=0.97 cfs 0.152 af
Outflow=0.97 cfs 0.152 af

Reach 49R: Inflow=2.02 cfs 0.318 af
Outflow=2.02 cfs 0.318 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=2.99 cfs 0.470 af
Outflow=2.99 cfs 0.470 af

Reach PT2: ANALYSISPOINT 2 at BWD Reservoir Inflow=2.61 cfs 0.462 af
Outflow=2.61 cfs 0.462 af

Reach PT3: ANALYSISPOINT 3/4 at BWD Reservoir Inflow=3.42 cfs 0.282 af
Outflow=3.42 cfs 0.282 af

Reach PT5: all BWD reservoir Inflow=5.61 cfs 0.891 af
Outflow=5.61 cfs 0.891 af

Reach PT6: stream 9 offsite Avg. Flow Depth=1.44' Max Vel=4.45 fps Inflow=52.03 cfs 12.976 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=49.54 cfs 12.943 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.32' Max Vel=7.59 fps Inflow=2.11 cfs 0.246 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=2.10 cfs 0.246 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.04' Max Vel=3.93 fps Inflow=0.48 cfs 0.059 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.47 cfs 0.059 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=1.10' Max Vel=24.49 fps Inflow=57.73 cfs 14.193 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=57.73 cfs 14.192 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.30' Max Vel=5.33 fps Inflow=55.36 cfs 13.579 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=52.44 cfs 13.484 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.22' Max Vel=5.28 fps Inflow=55.61 cfs 13.901 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=55.32 cfs 13.878 af

Reach tank: existing clarifier Inflow=88.29 cfs 4.517 af
Outflow=88.29 cfs 4.517 af

Pond 1P: (new Pond) Peak Elev=63.69' Inflow=12.84 cfs 1.020 af
Primary=8.18 cfs 0.144 af Secondary=4.66 cfs 0.876 af Outflow=12.84 cfs 1.020 af

Pond 4P: Rtanks Peak Elev=29.86' Storage=474 cf Inflow=1.10 cfs 0.075 af
12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/' Outflow=0.76 cfs 0.073 af

Pond dmh10: dmh10 Peak Elev=58.09' Inflow=18.95 cfs 0.444 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=18.95 cfs 0.444 af

Pond dmh11: dmh11 Peak Elev=57.17' Inflow=28.86 cfs 0.842 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=28.86 cfs 0.842 af

Pond dmh13: dmh13 Peak Elev=56.73' Inflow=28.86 cfs 0.842 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=28.86 cfs 0.842 af

Pond dmh14: dmh14 Peak Elev=56.16' Inflow=31.57 cfs 1.044 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=31.57 cfs 1.044 af

Pond dmh15: dmh15 Peak Elev=56.05' Inflow=31.57 cfs 1.044 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=31.57 cfs 1.044 af

Pond dmh16: dmh16 Peak Elev=60.68' Inflow=0.11 cfs 0.029 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=0.11 cfs 0.029 af

Pond dmh17: dmh17 Peak Elev=55.68' Inflow=32.14 cfs 1.111 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=32.14 cfs 1.111 af

Pond dmh2: dmh2 Peak Elev=65.22' Inflow=8.18 cfs 0.144 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=8.18 cfs 0.144 af

Pond dmh20: dmh20 Peak Elev=55.48' Inflow=32.14 cfs 1.111 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=32.14 cfs 1.111 af

Pond dmh21: dmh21 Peak Elev=54.87' Inflow=43.44 cfs 2.112 af
36.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=43.44 cfs 2.112 af

Pond dmh22: dmh 22 Peak Elev=55.63' Inflow=8.73 cfs 0.768 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=8.73 cfs 0.768 af

Pond dmh23: dmh23 Peak Elev=64.40' Inflow=7.53 cfs 0.571 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=7.53 cfs 0.571 af

Pond dmh24: dmh24 Peak Elev=62.96' Inflow=7.53 cfs 0.571 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=7.53 cfs 0.571 af

Pond dmh24a: dmh24a Peak Elev=67.28' Inflow=3.26 cfs 0.264 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=3.26 cfs 0.264 af

Pond dmh25: dmh25 Peak Elev=60.76' Inflow=1.49 cfs 0.110 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=1.49 cfs 0.110 af

Pond dmh26: (new Pond) Peak Elev=63.39' Inflow=6.77 cfs 0.421 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=6.77 cfs 0.421 af

Pond dmh27: dmh27 Peak Elev=60.37' Inflow=9.57 cfs 0.639 af
15.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=9.57 cfs 0.639 af

Pond dmh29: dmh29 Peak Elev=59.24' Inflow=1.37 cfs 0.109 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=1.37 cfs 0.109 af

Pond dmh3: dmh3 Peak Elev=63.80' Inflow=10.75 cfs 0.300 af
18.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=10.75 cfs 0.300 af

Pond dmh30: dmh30 Peak Elev=56.13' Inflow=1.37 cfs 0.109 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=1.37 cfs 0.109 af

Pond dmh31: dmh31 Peak Elev=59.60' Inflow=8.08 cfs 0.529 af
15.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=8.08 cfs 0.529 af

Pond dmh32: dmh32 Peak Elev=55.58' Inflow=11.88 cfs 0.774 af
18.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=11.88 cfs 0.774 af

Pond dmh33: dmh33 Peak Elev=54.37' Inflow=0.43 cfs 0.096 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.43 cfs 0.096 af

Pond dmh34: dmh34 Peak Elev=53.72' Inflow=6.64 cfs 0.514 af
18.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=6.64 cfs 0.514 af

Pond dmh35: dmh35 Peak Elev=55.91' Inflow=21.15 cfs 1.452 af
24.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=21.15 cfs 1.452 af

Pond dmh36: dmh36 Peak Elev=54.27' Inflow=21.15 cfs 1.452 af
24.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=21.15 cfs 1.452 af

Pond dmh38: dmh38 Peak Elev=54.20' Inflow=8.18 cfs 0.144 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=8.18 cfs 0.144 af

Pond dmh39: dmh39 Peak Elev=53.01' Inflow=8.70 cfs 0.174 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=8.70 cfs 0.174 af

Pond dmh4: dmh4 Peak Elev=63.13' Inflow=10.75 cfs 0.300 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=10.75 cfs 0.300 af

Pond dmh40: dmh40 Peak Elev=53.08' Inflow=29.51 cfs 1.626 af
30.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=29.51 cfs 1.626 af

Pond dmh43: dmh43 Peak Elev=51.36' Inflow=29.51 cfs 1.626 af
30.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=29.51 cfs 1.626 af

Pond dmh44: dmh44 Peak Elev=49.50' Inflow=30.22 cfs 1.674 af
36.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=30.22 cfs 1.674 af

Pond dmh45: dmh45 Peak Elev=48.94' Inflow=30.22 cfs 1.674 af
36.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=30.22 cfs 1.674 af

Pond dmh47: dmh47 Peak Elev=47.52' Inflow=38.22 cfs 1.818 af
36.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=38.22 cfs 1.818 af

Pond dmh48: dmh48 Peak Elev=46.68' Inflow=40.26 cfs 2.057 af
36.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=40.26 cfs 2.057 af

Pond dmh49: dmh49 Peak Elev=46.23' Inflow=41.45 cfs 2.138 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=41.45 cfs 2.138 af

Pond dmh5: dmh5 Peak Elev=63.00' Inflow=10.75 cfs 0.300 af
18.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=10.75 cfs 0.300 af

Pond dmh50: dmh50 Peak Elev=49.05' Inflow=44.95 cfs 2.238 af
36.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=44.95 cfs 2.238 af

Pond dmh51: dmh51 Peak Elev=48.39' Inflow=44.95 cfs 2.238 af
36.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=44.95 cfs 2.238 af

Pond dmh52: dmh52 Peak Elev=44.87' Inflow=86.31 cfs 4.376 af
60.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=86.31 cfs 4.376 af

Pond dmh53: dmh53 Peak Elev=36.93' Inflow=88.10 cfs 4.487 af
60.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=88.10 cfs 4.487 af

Pond dmh54: dmh54 Peak Elev=30.93' Inflow=88.29 cfs 4.517 af
60.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=88.29 cfs 4.517 af

Pond dmh55: dhm55 Peak Elev=22.93' Inflow=88.29 cfs 4.517 af
60.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=88.29 cfs 4.517 af

Pond dmh56: dmh56 Peak Elev=16.43' Inflow=88.29 cfs 4.517 af
60.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=88.29 cfs 4.517 af

Pond dmh59: dmh59 Peak Elev=71.51' Inflow=7.94 cfs 0.646 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=7.94 cfs 0.646 af

Pond dmh6: dmh6 Peak Elev=64.52' Inflow=10.75 cfs 0.300 af
18.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=10.75 cfs 0.300 af

Pond dmh60: dhm60 Peak Elev=39.37' Inflow=86.31 cfs 4.376 af
60.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=86.31 cfs 4.376 af

Pond dmh7: dmh7 Peak Elev=61.22' Inflow=10.75 cfs 0.300 af
18.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=10.75 cfs 0.300 af

Pond dmh8: dmh8 Peak Elev=60.81' Inflow=18.95 cfs 0.444 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=18.95 cfs 0.444 af

Pond dmh9a: dmh9a Peak Elev=59.14' Inflow=18.95 cfs 0.444 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=18.95 cfs 0.444 af

Pond GSF 11: grassed soil filter Peak Elev=62.26' Storage=3,223 cf Inflow=3.79 cfs 0.260 af
Outflow=3.35 cfs 0.202 af

Pond GSF 12: grassed soil filter Peak Elev=61.63' Storage=619 cf Inflow=1.28 cfs 0.090 af
Outflow=1.24 cfs 0.079 af

Pond GSF 13: grassed soil filter Peak Elev=62.27' Storage=3,989 cf Inflow=4.18 cfs 0.289 af
Outflow=3.42 cfs 0.219 af

Pond GSF 15: grassed soil filter Peak Elev=63.78' Storage=187 cf Inflow=0.61 cfs 0.041 af
Outflow=0.59 cfs 0.038 af

Pond GSF 16: grassed soil filter Peak Elev=64.42' Storage=2,631 cf Inflow=1.29 cfs 0.088 af
Outflow=0.11 cfs 0.029 af

Pond GSF 18A: grassed soil filter Peak Elev=57.48' Storage=489 cf Inflow=0.57 cfs 0.039 af
Outflow=0.54 cfs 0.030 af

Pond GSF 18B: grassed soil filter Peak Elev=57.96' Storage=407 cf Inflow=0.40 cfs 0.028 af
Outflow=0.39 cfs 0.019 af

Pond GSF 1A: Grassed soil filter Peak Elev=65.90' Storage=244 cf Inflow=1.60 cfs 0.110 af
Outflow=1.49 cfs 0.110 af

Pond GSF 1B: grassed soil filter Peak Elev=67.11' Storage=1,039 cf Inflow=2.67 cfs 0.181 af
Outflow=2.58 cfs 0.156 af

Pond GSF 2: grassed soil filter Peak Elev=57.80' Storage=1,940 cf Inflow=2.51 cfs 0.170 af
Outflow=2.29 cfs 0.135 af

Pond GSF 24: grassed soil filter Peak Elev=40.77' Storage=1,673 cf Inflow=1.95 cfs 0.142 af
Outflow=1.83 cfs 0.110 af

Pond GSF 3: grassed soil filter Peak Elev=55.97' Storage=2,570 cf Inflow=3.09 cfs 0.211 af
Outflow=2.75 cfs 0.164 af

Pond GSF 4: grassed soil filter Peak Elev=55.18' Storage=385 cf Inflow=0.56 cfs 0.038 af
Outflow=0.57 cfs 0.030 af

Pond GSF 5: grassed soil filter Peak Elev=54.00' Storage=2 cf Inflow=0.72 cfs 0.048 af
Outflow=0.72 cfs 0.048 af

Pond GSF 6: grassed soil filter Peak Elev=49.00' Storage=1 cf Inflow=1.20 cfs 0.082 af
Outflow=1.20 cfs 0.082 af

Pond GSF 7: grassed soil filter Peak Elev=54.88' Storage=2,309 cf Inflow=2.45 cfs 0.167 af
Outflow=1.96 cfs 0.125 af

Pond GSF 8: grassed soil filter Peak Elev=58.00' Storage=4,598 cf Inflow=4.41 cfs 0.309 af
Outflow=2.64 cfs 0.233 af

Pond GSF 9: grassed soil filter Peak Elev=63.52' Storage=42 cf Inflow=2.85 cfs 0.202 af
Outflow=2.72 cfs 0.202 af

Pond ICS1: ICS Peak Elev=66.89' Inflow=12.84 cfs 1.020 af
Primary=8.18 cfs 0.144 af Secondary=4.66 cfs 0.876 af Outflow=12.84 cfs 1.020 af

Pond ics28: ICS28 Peak Elev=58.72' Inflow=1.37 cfs 0.109 af
Primary=1.37 cfs 0.109 af Secondary=0.00 cfs 0.000 af Outflow=1.37 cfs 0.109 af

Pond ICS37: ISC37 Peak Elev=55.74' Inflow=12.84 cfs 1.020 af
Primary=8.18 cfs 0.144 af Secondary=4.66 cfs 0.876 af Outflow=12.84 cfs 1.020 af

Pond ics46: ICS46 Peak Elev=49.74' Inflow=12.84 cfs 1.020 af
Primary=8.18 cfs 0.144 af Secondary=4.66 cfs 0.876 af Outflow=12.84 cfs 1.020 af

Pond ICS9: ICS9 Peak Elev=64.92' Inflow=12.84 cfs 1.020 af
Primary=8.20 cfs 0.145 af Secondary=4.64 cfs 0.875 af Outflow=12.84 cfs 1.020 af

Pond ISC42: ICS42 Peak Elev=0.00'
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af

Pond MPP 10: Rtank storage Peak Elev=61.85' Storage=0.075 af Inflow=3.53 cfs 0.280 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=2.16 cfs 0.255 af

Pond MPP 14: Rtanks Peak Elev=56.65' Storage=927 cf Inflow=1.06 cfs 0.083 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.68 cfs 0.076 af

Pond MPP 19: Rtanks Peak Elev=55.73' Storage=0.052 af Inflow=1.51 cfs 0.112 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.43 cfs 0.096 af

Pond MPP 21: Rtanks Peak Elev=55.45' Storage=1,147 cf Inflow=1.10 cfs 0.082 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.51 cfs 0.075 af

Pond MPP 22: Rtanks Peak Elev=55.70' Storage=2,091 cf Inflow=1.44 cfs 0.105 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.44 cfs 0.089 af

Pond MPP 26: Rtanks Peak Elev=34.93' Storage=499 cf Inflow=0.44 cfs 0.035 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.24 cfs 0.030 af

Pond MPP 50: Peak Elev=55.00' Storage=3,348 cf Inflow=3.44 cfs 0.273 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=2.35 cfs 0.239 af

Pond mpp30: Rtanks Peak Elev=30.84' Storage=2,006 cf Inflow=3.99 cfs 0.324 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0305 '/' Outflow=2.56 cfs 0.315 af

Pond OCS57: OCS 57 Peak Elev=30.39' Inflow=2.56 cfs 0.315 af
Outflow=2.56 cfs 0.315 af

Pond SSF 36: ssf Inflow=4.66 cfs 0.876 af
Primary=4.66 cfs 0.876 af

Pond SSF 37: Inflow=4.64 cfs 0.875 af
Primary=4.64 cfs 0.875 af

Pond SSF 38: ssf38 Inflow=4.66 cfs 0.876 af
Primary=4.66 cfs 0.876 af

Pond SSF 39: Inflow=4.66 cfs 0.876 af
Primary=4.66 cfs 0.876 af

Pond SSF 40: Inflow=12.84 cfs 1.020 af
Primary=12.84 cfs 1.020 af

Pond SSF 41: Inflow=4.66 cfs 0.876 af
Primary=4.66 cfs 0.876 af

Pond SSF 42: Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Pond SSF 43: Inflow=2.17 cfs 0.172 af
Primary=2.17 cfs 0.172 af

Total Runoff Area = 116.268 ac Runoff Volume = 27.211 af Average Runoff Depth = 2.81"
74.75% Pervious = 86.915 ac 25.25% Impervious = 29.353 ac

Summary for Subcatchment 1A:

Runoff = 1.60 cfs @ 12.09 hrs, Volume= 0.110 af, Depth> 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 2.67 cfs @ 12.09 hrs, Volume= 0.181 af, Depth> 2.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	27,186	74	>75% Grass cover, Good, HSG C
	34,018	79	Weighted Average
	27,186		79.92% Pervious Area
	6,832		20.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 2.51 cfs @ 12.09 hrs, Volume= 0.170 af, Depth> 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 3.09 cfs @ 12.09 hrs, Volume= 0.211 af, Depth> 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.56 cfs @ 12.09 hrs, Volume= 0.038 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

Area (sf)	CN	Description
8,448	74	>75% Grass cover, Good, HSG C
8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 0.72 cfs @ 12.09 hrs, Volume= 0.048 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 1.20 cfs @ 12.09 hrs, Volume= 0.082 af, Depth> 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 2.45 cfs @ 12.09 hrs, Volume= 0.167 af, Depth> 2.87"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 4.41 cfs @ 12.09 hrs, Volume= 0.309 af, Depth> 3.54"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 2.85 cfs @ 12.09 hrs, Volume= 0.202 af, Depth> 3.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 3.53 cfs @ 12.09 hrs, Volume= 0.280 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 3.79 cfs @ 12.09 hrs, Volume= 0.260 af, Depth> 3.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 1.28 cfs @ 12.09 hrs, Volume= 0.090 af, Depth> 3.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 4.18 cfs @ 12.09 hrs, Volume= 0.289 af, Depth> 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 1.06 cfs @ 12.09 hrs, Volume= 0.083 af, Depth> 4.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 0.61 cfs @ 12.09 hrs, Volume= 0.041 af, Depth> 2.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 1.29 cfs @ 12.09 hrs, Volume= 0.088 af, Depth> 3.05"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 1.46 cfs @ 12.09 hrs, Volume= 0.109 af, Depth> 4.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.57 cfs @ 12.09 hrs, Volume= 0.039 af, Depth> 3.24"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.40 cfs @ 12.09 hrs, Volume= 0.028 af, Depth> 3.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 1.51 cfs @ 12.09 hrs, Volume= 0.112 af, Depth> 4.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	11,210	98	Impervious
*	2,501	74	>75% Grass cover, Good, HSG C/D
	13,711	94	Weighted Average
	2,501		18.24% Pervious Area
	11,210		81.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 3.04 cfs @ 12.09 hrs, Volume= 0.221 af, Depth> 4.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 1.10 cfs @ 12.09 hrs, Volume= 0.082 af, Depth> 4.28"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	8,361	98	Impervious
*	1,633	74	>75% Grass cover, Good, HSG C/D
	9,994	94	Weighted Average
	1,633		16.34% Pervious Area
	8,361		83.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 1.44 cfs @ 12.09 hrs, Volume= 0.105 af, Depth> 4.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	10,326	98	Impervious
*	3,185	74	>75% Grass cover, Good, HSG C/D
	13,511	92	Weighted Average
	3,185		23.57% Pervious Area
	10,326		76.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.146 af, Depth> 2.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 1.95 cfs @ 12.09 hrs, Volume= 0.142 af, Depth> 4.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 2.61 cfs @ 12.92 hrs, Volume= 0.462 af, Depth> 2.04"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.44 cfs @ 12.09 hrs, Volume= 0.035 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.039 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 7.37 cfs @ 12.09 hrs, Volume= 0.510 af, Depth> 3.34"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 3.41 cfs @ 12.09 hrs, Volume= 0.251 af, Depth> 4.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 3.42 cfs @ 12.18 hrs, Volume= 0.282 af, Depth> 2.09"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b**
					Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c**
					Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d**
					Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.47 cfs @ 12.09 hrs, Volume= 0.034 af, Depth> 3.74"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 5.39 cfs @ 12.10 hrs, Volume= 0.368 af, Depth> 1.78"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 1.26 cfs @ 12.10 hrs, Volume= 0.086 af, Depth> 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penhouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 1.10 cfs @ 12.10 hrs, Volume= 0.075 af, Depth> 1.86"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 1.37 cfs @ 12.09 hrs, Volume= 0.109 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 2.17 cfs @ 12.09 hrs, Volume= 0.172 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 6.62 cfs @ 12.27 hrs, Volume= 0.636 af, Depth> 2.08"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 2.11 cfs @ 12.43 hrs, Volume= 0.246 af, Depth> 2.00"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9	307	Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.48 cfs @ 12.50 hrs, Volume= 0.059 af, Depth> 2.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 4.09 cfs @ 12.22 hrs, Volume= 0.366 af, Depth> 2.42"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 0.97 cfs @ 12.77 hrs, Volume= 0.152 af, Depth> 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 2.02 cfs @ 12.77 hrs, Volume= 0.318 af, Depth> 1.98"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	2,923	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	84,173	70	Weighted Average
	83,625		99.35% Pervious Area
	548		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 3.44 cfs @ 12.09 hrs, Volume= 0.273 af, Depth> 4.73"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 32.78 cfs @ 13.29 hrs, Volume= 7.112 af, Depth> 2.26"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment OS11: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 38.24 cfs @ 12.10 hrs, Volume= 2.640 af, Depth> 2.69"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	118,437	98	Impervious
*	237,621	70	Woods, Good, HSG C/D
*	157,469	74	>75% Grass cover, Good, HSG C/D
	513,527	78	Weighted Average
	395,090		76.94% Pervious Area
	118,437		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment OS9: OFFSITE 1 (Below Perkins Rd)

Runoff = 25.81 cfs @ 12.50 hrs, Volume= 3.224 af, Depth> 2.40"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 25-year Rainfall=5.20"

	Area (sf)	CN	Description
*	25,513	98	Impervious
*	532,320	74	>75% Grass cover, Good, HSG C/D
*	3,818	94	Gravel roads, HSG C/D
	6,087	74	>75% Grass cover, Good, HSG C
	72,382	70	Woods, Good, HSG C
	61,890	74	>75% Grass cover, Good, HSG C
	702,010	75	Weighted Average
	676,497		96.37% Pervious Area
	25,513		3.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	15	0.2000	2.25		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
12.6	373	0.0050	0.49		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
13.1	715	0.0170	0.91		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
9.3	250	0.0320	0.45		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
35.1	1,353	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 16.116 ac, 3.63% Impervious, Inflow Depth > 2.40" for 25-year event
Inflow = 25.81 cfs @ 12.50 hrs, Volume= 3.224 af
Outflow = 25.81 cfs @ 12.50 hrs, Volume= 3.224 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

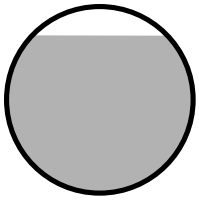
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 2.26" for 25-year event
Inflow = 32.78 cfs @ 13.29 hrs, Volume= 7.112 af
Outflow = 32.77 cfs @ 13.29 hrs, Volume= 7.112 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 11.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 7.03 fps, Avg. Travel Time= 0.1 min

Peak Storage= 71 cf @ 13.29 hrs
Average Depth at Peak Storage= 1.69'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 11.789 ac, 23.06% Impervious, Inflow Depth > 2.69" for 25-year event
Inflow = 38.24 cfs @ 12.10 hrs, Volume= 2.640 af
Outflow = 38.24 cfs @ 12.10 hrs, Volume= 2.640 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth > 4.28" for 25-year event
Inflow = 1.46 cfs @ 12.09 hrs, Volume= 0.109 af
Outflow = 1.46 cfs @ 12.09 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth > 4.06" for 25-year event
Inflow = 3.04 cfs @ 12.09 hrs, Volume= 0.221 af
Outflow = 3.04 cfs @ 12.09 hrs, Volume= 0.221 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth > 2.69" for 25-year event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.146 af
Outflow = 2.17 cfs @ 12.09 hrs, Volume= 0.146 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 0.49 cfs @ 12.09 hrs, Volume= 0.039 af
Outflow = 0.49 cfs @ 12.09 hrs, Volume= 0.039 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 28R: existing

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth > 3.34" for 25-year event
Inflow = 7.37 cfs @ 12.09 hrs, Volume= 0.510 af
Outflow = 7.37 cfs @ 12.09 hrs, Volume= 0.510 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af
Outflow = 0.15 cfs @ 12.09 hrs, Volume= 0.012 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth > 3.74" for 25-year event
Inflow = 0.47 cfs @ 12.09 hrs, Volume= 0.034 af
Outflow = 0.47 cfs @ 12.09 hrs, Volume= 0.034 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth > 2.08" for 25-year event
Inflow = 6.62 cfs @ 12.27 hrs, Volume= 0.636 af
Outflow = 6.62 cfs @ 12.27 hrs, Volume= 0.636 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth > 2.42" for 25-year event
Inflow = 4.09 cfs @ 12.22 hrs, Volume= 0.366 af
Outflow = 4.09 cfs @ 12.22 hrs, Volume= 0.366 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth > 1.98" for 25-year event
Inflow = 0.97 cfs @ 12.77 hrs, Volume= 0.152 af
Outflow = 0.97 cfs @ 12.77 hrs, Volume= 0.152 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 49R:

Inflow Area = 1.932 ac, 0.65% Impervious, Inflow Depth > 1.98" for 25-year event
Inflow = 2.02 cfs @ 12.77 hrs, Volume= 0.318 af
Outflow = 2.02 cfs @ 12.77 hrs, Volume= 0.318 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 2.855 ac, 0.44% Impervious, Inflow Depth > 1.98" for 25-year event
Inflow = 2.99 cfs @ 12.77 hrs, Volume= 0.470 af
Outflow = 2.99 cfs @ 12.77 hrs, Volume= 0.470 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at BWD Reservoir

Inflow Area = 2.714 ac, 0.00% Impervious, Inflow Depth > 2.04" for 25-year event
Inflow = 2.61 cfs @ 12.92 hrs, Volume= 0.462 af
Outflow = 2.61 cfs @ 12.92 hrs, Volume= 0.462 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at BWD Reservoir

Inflow Area = 1.621 ac, 0.00% Impervious, Inflow Depth > 2.09" for 25-year event
Inflow = 3.42 cfs @ 12.18 hrs, Volume= 0.282 af
Outflow = 3.42 cfs @ 12.18 hrs, Volume= 0.282 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 4.989 ac, 2.88% Impervious, Inflow Depth > 2.14" for 25-year event
Inflow = 5.61 cfs @ 12.15 hrs, Volume= 0.891 af
Outflow = 5.61 cfs @ 12.15 hrs, Volume= 0.891 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 65.668 ac, 6.51% Impervious, Inflow Depth > 2.37" for 25-year event
Inflow = 52.03 cfs @ 12.11 hrs, Volume= 12.976 af
Outflow = 49.54 cfs @ 12.18 hrs, Volume= 12.943 af, Atten= 5%, Lag= 3.7 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 4.45 fps, Min. Travel Time= 1.8 min
Avg. Velocity = 2.46 fps, Avg. Travel Time= 3.3 min

Peak Storage= 5,496 cf @ 12.15 hrs
Average Depth at Peak Storage= 1.44'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'

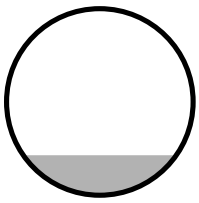
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth > 2.00" for 25-year event
Inflow = 2.11 cfs @ 12.43 hrs, Volume= 0.246 af
Outflow = 2.10 cfs @ 12.44 hrs, Volume= 0.246 af, Atten= 0%, Lag= 0.4 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 7.59 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 3.63 fps, Avg. Travel Time= 0.4 min

Peak Storage= 23 cf @ 12.44 hrs
Average Depth at Peak Storage= 0.32'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 2.07" for 25-year event
Inflow = 0.48 cfs @ 12.50 hrs, Volume= 0.059 af
Outflow = 0.47 cfs @ 12.51 hrs, Volume= 0.059 af, Atten= 0%, Lag= 0.6 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 3.93 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.58 fps, Avg. Travel Time= 0.5 min

Peak Storage= 9 cf @ 12.51 hrs
Average Depth at Peak Storage= 0.04'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'

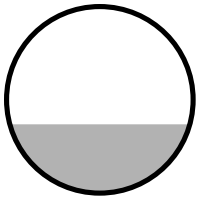
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 72.477 ac, 7.14% Impervious, Inflow Depth > 2.35" for 25-year event
Inflow = 57.73 cfs @ 12.40 hrs, Volume= 14.193 af
Outflow = 57.73 cfs @ 12.40 hrs, Volume= 14.192 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 24.49 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 9.73 fps, Avg. Travel Time= 0.2 min

Peak Storage= 219 cf @ 12.40 hrs
Average Depth at Peak Storage= 1.10'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 69.327 ac, 6.17% Impervious, Inflow Depth > 2.35" for 25-year event
Inflow = 55.36 cfs @ 12.19 hrs, Volume= 13.579 af
Outflow = 52.44 cfs @ 12.59 hrs, Volume= 13.484 af, Atten= 5%, Lag= 24.3 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.33 fps, Min. Travel Time= 4.9 min
Avg. Velocity = 2.91 fps, Avg. Travel Time= 9.1 min

Peak Storage= 15,562 cf @ 12.51 hrs
Average Depth at Peak Storage= 1.30'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'

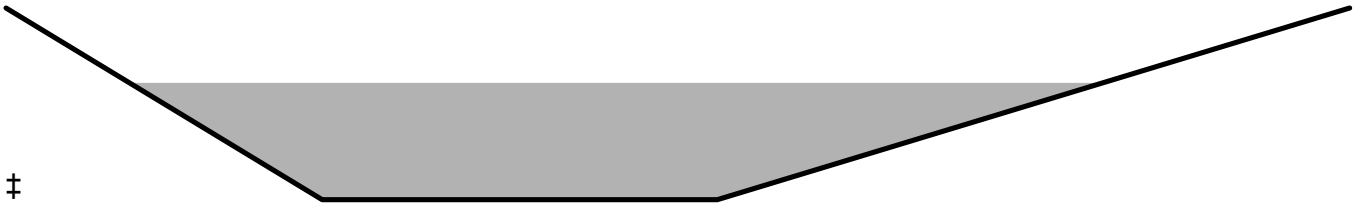
Summary for Reach S9-3: Stream 9

Inflow Area = 71.273 ac, 6.33% Impervious, Inflow Depth > 2.34" for 25-year event
Inflow = 55.61 cfs @ 12.36 hrs, Volume= 13.901 af
Outflow = 55.32 cfs @ 12.40 hrs, Volume= 13.878 af, Atten= 1%, Lag= 2.7 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.28 fps, Min. Travel Time= 1.1 min
Avg. Velocity = 2.00 fps, Avg. Travel Time= 3.0 min

Peak Storage= 3,839 cf @ 12.37 hrs
Average Depth at Peak Storage= 1.22'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



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Summary for Reach tank: existing clarifier

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.85" for 25-year event
Inflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af
Outflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: (new Pond)

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af
Outflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Atten= 0%, Lag= 0.0 min
Primary = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af
Secondary = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.69' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.85 cfs @ 12.09 hrs HW=63.67' (Free Discharge)
↑—**1=Culvert** (Passes 7.85 cfs of 10.01 cfs potential flow)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 7.85 cfs @ 2.72 fps)

Secondary OutFlow Max=4.64 cfs @ 12.09 hrs HW=63.67' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 4.64 cfs @ 5.91 fps)

Summary for Pond 4P: Rtanks

Inflow Area = 0.482 ac, 20.00% Impervious, Inflow Depth > 1.86" for 25-year event
Inflow = 1.10 cfs @ 12.10 hrs, Volume= 0.075 af
Outflow = 0.76 cfs @ 12.19 hrs, Volume= 0.073 af, Atten= 30%, Lag= 5.8 min
Primary = 0.76 cfs @ 12.19 hrs, Volume= 0.073 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 29.86' @ 12.19 hrs Surf.Area= 1,314 sf Storage= 474 cf

Plug-Flow detention time= 17.6 min calculated for 0.073 af (98% of inflow)
Center-of-Mass det. time= 11.1 min (820.9 - 809.7)

Volume	Invert	Avail.Storage	Storage Description
#1A	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field A** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#2A	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		2,931 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**12.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 29.28' / 29.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.76 cfs @ 12.19 hrs HW=29.86' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.76 cfs @ 2.35 fps)

Summary for Pond dmh10: dmh10

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.90" for 25-year event
Inflow = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af
Outflow = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af, Atten= 0%, Lag= 0.0 min
Primary = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.09' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=18.26 cfs @ 12.09 hrs HW=57.93' (Free Discharge)
└**1=Culvert** (Inlet Controls 18.26 cfs @ 5.81 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 1.09" for 25-year event
Inflow = 28.86 cfs @ 12.09 hrs, Volume= 0.842 af
Outflow = 28.86 cfs @ 12.09 hrs, Volume= 0.842 af, Atten= 0%, Lag= 0.0 min
Primary = 28.86 cfs @ 12.09 hrs, Volume= 0.842 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.17' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=27.93 cfs @ 12.09 hrs HW=57.03' (Free Discharge)
└**1=Culvert** (Inlet Controls 27.93 cfs @ 5.69 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 1.09" for 25-year event
Inflow = 28.86 cfs @ 12.09 hrs, Volume= 0.842 af
Outflow = 28.86 cfs @ 12.09 hrs, Volume= 0.842 af, Atten= 0%, Lag= 0.0 min
Primary = 28.86 cfs @ 12.09 hrs, Volume= 0.842 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.73' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=27.93 cfs @ 12.09 hrs HW=56.59' (Free Discharge)
└**1=Culvert** (Inlet Controls 27.93 cfs @ 5.69 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 1.27" for 25-year event
Inflow = 31.57 cfs @ 12.09 hrs, Volume= 1.044 af
Outflow = 31.57 cfs @ 12.09 hrs, Volume= 1.044 af, Atten= 0%, Lag= 0.0 min
Primary = 31.57 cfs @ 12.09 hrs, Volume= 1.044 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 56.16' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=30.72 cfs @ 12.09 hrs HW=56.03' (Free Discharge)
1=Culvert (Inlet Controls 30.72 cfs @ 6.26 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 1.27" for 25-year event
Inflow = 31.57 cfs @ 12.09 hrs, Volume= 1.044 af
Outflow = 31.57 cfs @ 12.09 hrs, Volume= 1.044 af, Atten= 0%, Lag= 0.0 min
Primary = 31.57 cfs @ 12.09 hrs, Volume= 1.044 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.05' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=30.62 cfs @ 12.09 hrs HW=55.89' (Free Discharge)
1=Culvert (Inlet Controls 30.62 cfs @ 6.24 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 1.00" for 25-year event
Inflow = 0.11 cfs @ 13.26 hrs, Volume= 0.029 af
Outflow = 0.11 cfs @ 13.26 hrs, Volume= 0.029 af, Atten= 0%, Lag= 0.0 min
Primary = 0.11 cfs @ 13.26 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.68' @ 13.26 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.11 cfs @ 13.26 hrs HW=60.68' (Free Discharge)
1=Culvert (Inlet Controls 0.11 cfs @ 1.13 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 1.28" for 25-year event
Inflow = 32.14 cfs @ 12.09 hrs, Volume= 1.111 af
Outflow = 32.14 cfs @ 12.09 hrs, Volume= 1.111 af, Atten= 0%, Lag= 0.0 min
Primary = 32.14 cfs @ 12.09 hrs, Volume= 1.111 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.68' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=31.21 cfs @ 12.09 hrs HW=55.53' (Free Discharge)
1=Culvert (Inlet Controls 31.21 cfs @ 6.36 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 0.67" for 25-year event
Inflow = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af
Outflow = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min
Primary = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 65.22' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.86 cfs @ 12.09 hrs HW=65.12' (Free Discharge)
1=Culvert (Inlet Controls 7.86 cfs @ 4.45 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 1.28" for 25-year event
Inflow = 32.14 cfs @ 12.09 hrs, Volume= 1.111 af
Outflow = 32.14 cfs @ 12.09 hrs, Volume= 1.111 af, Atten= 0%, Lag= 0.0 min
Primary = 32.14 cfs @ 12.09 hrs, Volume= 1.111 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.48' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert**

L= 100.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=31.21 cfs @ 12.09 hrs HW=55.33' (Free Discharge)
1=Culvert (Inlet Controls 31.21 cfs @ 6.36 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.164 ac, 80.88% Impervious, Inflow Depth > 1.79" for 25-year event
Inflow = 43.44 cfs @ 12.09 hrs, Volume= 2.112 af
Outflow = 43.44 cfs @ 12.09 hrs, Volume= 2.112 af, Atten= 0%, Lag= 0.0 min
Primary = 43.44 cfs @ 12.09 hrs, Volume= 2.112 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.87' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**36.0" Round Culvert** L= 281.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=42.47 cfs @ 12.09 hrs HW=54.76' (Free Discharge)
1=Culvert (Inlet Controls 42.47 cfs @ 6.01 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.671 ac, 64.47% Impervious, Inflow Depth > 3.45" for 25-year event
Inflow = 8.73 cfs @ 12.10 hrs, Volume= 0.768 af
Outflow = 8.73 cfs @ 12.10 hrs, Volume= 0.768 af, Atten= 0%, Lag= 0.0 min
Primary = 8.73 cfs @ 12.10 hrs, Volume= 0.768 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.63' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert** L= 93.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=8.71 cfs @ 12.10 hrs HW=55.61' (Free Discharge)
1=Culvert (Inlet Controls 8.71 cfs @ 7.10 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 3.38" for 25-year event
Inflow = 7.53 cfs @ 12.10 hrs, Volume= 0.571 af
Outflow = 7.53 cfs @ 12.10 hrs, Volume= 0.571 af, Atten= 0%, Lag= 0.0 min
Primary = 7.53 cfs @ 12.10 hrs, Volume= 0.571 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.40' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.47 cfs @ 12.10 hrs HW=64.25' (Free Discharge)
1=Culvert (Barrel Controls 7.47 cfs @ 9.51 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 3.38" for 25-year event
Inflow = 7.53 cfs @ 12.10 hrs, Volume= 0.571 af
Outflow = 7.53 cfs @ 12.10 hrs, Volume= 0.571 af, Atten= 0%, Lag= 0.0 min
Primary = 7.53 cfs @ 12.10 hrs, Volume= 0.571 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.96' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.47 cfs @ 12.10 hrs HW=62.86' (Free Discharge)
1=Culvert (Inlet Controls 7.47 cfs @ 9.51 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.817 ac, 77.70% Impervious, Inflow Depth > 3.87" for 25-year event
Inflow = 3.26 cfs @ 12.10 hrs, Volume= 0.264 af
Outflow = 3.26 cfs @ 12.10 hrs, Volume= 0.264 af, Atten= 0%, Lag= 0.0 min
Primary = 3.26 cfs @ 12.10 hrs, Volume= 0.264 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 67.28' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert**

L= 95.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.23 cfs @ 12.10 hrs HW=67.09' (Free Discharge)
1=Culvert (Barrel Controls 3.23 cfs @ 9.25 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 3.24" for 25-year event
Inflow = 1.49 cfs @ 12.12 hrs, Volume= 0.110 af
Outflow = 1.49 cfs @ 12.12 hrs, Volume= 0.110 af, Atten= 0%, Lag= 0.0 min
Primary = 1.49 cfs @ 12.12 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.76' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert**
			L= 98.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.45 cfs @ 12.12 hrs HW=60.74' (Free Discharge)
1=Culvert (Inlet Controls 1.45 cfs @ 2.32 fps)

Summary for Pond dmh26: (new Pond)

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 2.49" for 25-year event
Inflow = 6.77 cfs @ 12.14 hrs, Volume= 0.421 af
Outflow = 6.77 cfs @ 12.14 hrs, Volume= 0.421 af, Atten= 0%, Lag= 0.0 min
Primary = 6.77 cfs @ 12.14 hrs, Volume= 0.421 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.39' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert**
			L= 28.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=6.70 cfs @ 12.14 hrs HW=63.29' (Free Discharge)
1=Culvert (Inlet Controls 6.70 cfs @ 8.54 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 2.83" for 25-year event
Inflow = 9.57 cfs @ 12.12 hrs, Volume= 0.639 af
Outflow = 9.57 cfs @ 12.12 hrs, Volume= 0.639 af, Atten= 0%, Lag= 0.0 min
Primary = 9.57 cfs @ 12.12 hrs, Volume= 0.639 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.37' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**15.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=9.28 cfs @ 12.12 hrs HW=59.98' (Free Discharge)
1=Culvert (Barrel Controls 9.28 cfs @ 7.56 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 1.37 cfs @ 12.09 hrs, Volume= 0.109 af
Outflow = 1.37 cfs @ 12.09 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min
Primary = 1.37 cfs @ 12.09 hrs, Volume= 0.109 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.24' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.33 cfs @ 12.09 hrs HW=59.19' (Free Discharge)
1=Culvert (Inlet Controls 1.33 cfs @ 3.82 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.07" for 25-year event
Inflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.0 min
Primary = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.80' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**18.0" Round Culvert**

L= 125.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.38 cfs @ 12.09 hrs HW=63.64' (Free Discharge)
1=Culvert (Inlet Controls 10.38 cfs @ 5.87 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 1.37 cfs @ 12.09 hrs, Volume= 0.109 af
Outflow = 1.37 cfs @ 12.09 hrs, Volume= 0.109 af, Atten= 0%, Lag= 0.0 min
Primary = 1.37 cfs @ 12.09 hrs, Volume= 0.109 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.13' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert**
			L= 206.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.33 cfs @ 12.09 hrs HW=56.11' (Free Discharge)
1=Culvert (Barrel Controls 1.33 cfs @ 3.12 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 2.76" for 25-year event
Inflow = 8.08 cfs @ 12.12 hrs, Volume= 0.529 af
Outflow = 8.08 cfs @ 12.12 hrs, Volume= 0.529 af, Atten= 0%, Lag= 0.0 min
Primary = 8.08 cfs @ 12.12 hrs, Volume= 0.529 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.60' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**15.0" Round Culvert**
			L= 259.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=7.83 cfs @ 12.12 hrs HW=59.32' (Free Discharge)
1=Culvert (Barrel Controls 7.83 cfs @ 6.38 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 2.71" for 25-year event
Inflow = 11.88 cfs @ 12.12 hrs, Volume= 0.774 af
Outflow = 11.88 cfs @ 12.12 hrs, Volume= 0.774 af, Atten= 0%, Lag= 0.0 min
Primary = 11.88 cfs @ 12.12 hrs, Volume= 0.774 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.58' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**18.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=11.51 cfs @ 12.12 hrs HW=55.42' (Free Discharge)
1=Culvert (Inlet Controls 11.51 cfs @ 6.51 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 3.66" for 25-year event
Inflow = 0.43 cfs @ 12.35 hrs, Volume= 0.096 af
Outflow = 0.43 cfs @ 12.35 hrs, Volume= 0.096 af, Atten= 0%, Lag= 0.0 min
Primary = 0.43 cfs @ 12.35 hrs, Volume= 0.096 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.37' @ 12.35 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.43 cfs @ 12.35 hrs HW=54.37' (Free Discharge)
1=Culvert (Inlet Controls 0.43 cfs @ 1.63 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.90% Impervious, Inflow Depth > 2.03" for 25-year event
Inflow = 6.64 cfs @ 12.10 hrs, Volume= 0.514 af
Outflow = 6.64 cfs @ 12.10 hrs, Volume= 0.514 af, Atten= 0%, Lag= 0.0 min
Primary = 6.64 cfs @ 12.10 hrs, Volume= 0.514 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.72' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**18.0" Round Culvert**

L= 39.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=6.61 cfs @ 12.10 hrs HW=53.71' (Free Discharge)
1=Culvert (Inlet Controls 6.61 cfs @ 3.74 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 2.39" for 25-year event
Inflow = 21.15 cfs @ 12.12 hrs, Volume= 1.452 af
Outflow = 21.15 cfs @ 12.12 hrs, Volume= 1.452 af, Atten= 0%, Lag= 0.0 min
Primary = 21.15 cfs @ 12.12 hrs, Volume= 1.452 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.91' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**24.0" Round Culvert**
			L= 276.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=20.53 cfs @ 12.12 hrs HW=55.71' (Free Discharge)
1=Culvert (Barrel Controls 20.53 cfs @ 6.54 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 2.39" for 25-year event
Inflow = 21.15 cfs @ 12.12 hrs, Volume= 1.452 af
Outflow = 21.15 cfs @ 12.12 hrs, Volume= 1.452 af, Atten= 0%, Lag= 0.0 min
Primary = 21.15 cfs @ 12.12 hrs, Volume= 1.452 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.27' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**24.0" Round Culvert**
			L= 159.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=20.53 cfs @ 12.12 hrs HW=54.11' (Free Discharge)
1=Culvert (Inlet Controls 20.53 cfs @ 6.54 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 0.67" for 25-year event
Inflow = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af
Outflow = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min
Primary = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.20' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=7.86 cfs @ 12.09 hrs HW=54.10' (Free Discharge)
1=Culvert (Inlet Controls 7.86 cfs @ 4.45 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 0.75" for 25-year event
Inflow = 8.70 cfs @ 12.09 hrs, Volume= 0.174 af
Outflow = 8.70 cfs @ 12.09 hrs, Volume= 0.174 af, Atten= 0%, Lag= 0.0 min
Primary = 8.70 cfs @ 12.09 hrs, Volume= 0.174 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.01' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=8.43 cfs @ 12.09 hrs HW=52.92' (Free Discharge)
1=Culvert (Inlet Controls 8.43 cfs @ 4.77 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.07" for 25-year event
Inflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.0 min
Primary = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.13' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**18.0" Round Culvert**

L= 66.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.38 cfs @ 12.09 hrs HW=62.98' (Free Discharge)
1=Culvert (Inlet Controls 10.38 cfs @ 5.87 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 1.94" for 25-year event
Inflow = 29.51 cfs @ 12.11 hrs, Volume= 1.626 af
Outflow = 29.51 cfs @ 12.11 hrs, Volume= 1.626 af, Atten= 0%, Lag= 0.0 min
Primary = 29.51 cfs @ 12.11 hrs, Volume= 1.626 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 53.08' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**30.0" Round Culvert**
			L= 340.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=29.05 cfs @ 12.11 hrs HW=53.00' (Free Discharge)
1=Culvert (Inlet Controls 29.05 cfs @ 5.92 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 1.94" for 25-year event
Inflow = 29.51 cfs @ 12.11 hrs, Volume= 1.626 af
Outflow = 29.51 cfs @ 12.11 hrs, Volume= 1.626 af, Atten= 0%, Lag= 0.0 min
Primary = 29.51 cfs @ 12.11 hrs, Volume= 1.626 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 51.36' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**30.0" Round Culvert**
			L= 193.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=29.05 cfs @ 12.11 hrs HW=51.28' (Free Discharge)
1=Culvert (Inlet Controls 29.05 cfs @ 5.92 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 1.95" for 25-year event
Inflow = 30.22 cfs @ 12.11 hrs, Volume= 1.674 af
Outflow = 30.22 cfs @ 12.11 hrs, Volume= 1.674 af, Atten= 0%, Lag= 0.0 min
Primary = 30.22 cfs @ 12.11 hrs, Volume= 1.674 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.50' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**36.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=29.75 cfs @ 12.11 hrs HW=49.47' (Free Discharge)
1=Culvert (Barrel Controls 29.75 cfs @ 5.52 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 1.95" for 25-year event
Inflow = 30.22 cfs @ 12.11 hrs, Volume= 1.674 af
Outflow = 30.22 cfs @ 12.11 hrs, Volume= 1.674 af, Atten= 0%, Lag= 0.0 min
Primary = 30.22 cfs @ 12.11 hrs, Volume= 1.674 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 48.94' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**36.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=29.77 cfs @ 12.11 hrs HW=48.90' (Free Discharge)
1=Culvert (Inlet Controls 29.77 cfs @ 4.43 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 12.894 ac, 59.74% Impervious, Inflow Depth > 1.69" for 25-year event
Inflow = 38.22 cfs @ 12.10 hrs, Volume= 1.818 af
Outflow = 38.22 cfs @ 12.10 hrs, Volume= 1.818 af, Atten= 0%, Lag= 0.0 min
Primary = 38.22 cfs @ 12.10 hrs, Volume= 1.818 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 47.52' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**36.0" Round Culvert**

L= 104.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=38.13 cfs @ 12.10 hrs HW=47.51' (Free Discharge)
1=Culvert (Inlet Controls 38.13 cfs @ 5.39 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 13.587 ac, 61.79% Impervious, Inflow Depth > 1.82" for 25-year event
Inflow = 40.26 cfs @ 12.10 hrs, Volume= 2.057 af
Outflow = 40.26 cfs @ 12.10 hrs, Volume= 2.057 af, Atten= 0%, Lag= 0.0 min
Primary = 40.26 cfs @ 12.10 hrs, Volume= 2.057 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 46.68' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**36.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=40.01 cfs @ 12.10 hrs HW=46.66' (Free Discharge)
1=Culvert (Inlet Controls 40.01 cfs @ 5.66 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 13.908 ac, 61.10% Impervious, Inflow Depth > 1.85" for 25-year event
Inflow = 41.45 cfs @ 12.10 hrs, Volume= 2.138 af
Outflow = 41.45 cfs @ 12.10 hrs, Volume= 2.138 af, Atten= 0%, Lag= 0.0 min
Primary = 41.45 cfs @ 12.10 hrs, Volume= 2.138 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 46.23' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=41.27 cfs @ 12.10 hrs HW=46.21' (Free Discharge)
1=Culvert (Barrel Controls 41.27 cfs @ 5.89 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.07" for 25-year event
Inflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.0 min
Primary = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.00' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**18.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.38 cfs @ 12.09 hrs HW=62.82' (Free Discharge)
1=Culvert (Barrel Controls 10.38 cfs @ 5.87 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 1.81" for 25-year event
Inflow = 44.95 cfs @ 12.09 hrs, Volume= 2.238 af
Outflow = 44.95 cfs @ 12.09 hrs, Volume= 2.238 af, Atten= 0%, Lag= 0.0 min
Primary = 44.95 cfs @ 12.09 hrs, Volume= 2.238 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.05' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**36.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=44.18 cfs @ 12.09 hrs HW=48.95' (Free Discharge)
1=Culvert (Inlet Controls 44.18 cfs @ 6.25 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 1.81" for 25-year event
Inflow = 44.95 cfs @ 12.09 hrs, Volume= 2.238 af
Outflow = 44.95 cfs @ 12.09 hrs, Volume= 2.238 af, Atten= 0%, Lag= 0.0 min
Primary = 44.95 cfs @ 12.09 hrs, Volume= 2.238 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 48.39' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**36.0" Round Culvert**

L= 38.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=44.18 cfs @ 12.09 hrs HW=48.29' (Free Discharge)
1=Culvert (Inlet Controls 44.18 cfs @ 6.25 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 1.83" for 25-year event
Inflow = 86.31 cfs @ 12.10 hrs, Volume= 4.376 af
Outflow = 86.31 cfs @ 12.10 hrs, Volume= 4.376 af, Atten= 0%, Lag= 0.0 min
Primary = 86.31 cfs @ 12.10 hrs, Volume= 4.376 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 44.87' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**60.0" Round Culvert**
			L= 258.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=85.66 cfs @ 12.10 hrs HW=44.85' (Free Discharge)
1=Culvert (Inlet Controls 85.66 cfs @ 5.28 fps)

Summary for Pond dmh53: dmh53

Inflow Area = 29.187 ac, 69.95% Impervious, Inflow Depth > 1.84" for 25-year event
Inflow = 88.10 cfs @ 12.10 hrs, Volume= 4.487 af
Outflow = 88.10 cfs @ 12.10 hrs, Volume= 4.487 af, Atten= 0%, Lag= 0.0 min
Primary = 88.10 cfs @ 12.10 hrs, Volume= 4.487 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 36.93' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**60.0" Round Culvert**
			L= 120.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=87.53 cfs @ 12.10 hrs HW=36.91' (Free Discharge)
1=Culvert (Inlet Controls 87.53 cfs @ 5.31 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.85" for 25-year event
Inflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af
Outflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af, Atten= 0%, Lag= 0.0 min
Primary = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.93' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**60.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=87.74 cfs @ 12.10 hrs HW=30.92' (Free Discharge)
1=Culvert (Inlet Controls 87.74 cfs @ 5.32 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.85" for 25-year event
Inflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af
Outflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af, Atten= 0%, Lag= 0.0 min
Primary = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 22.93' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**60.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=87.74 cfs @ 12.10 hrs HW=22.92' (Free Discharge)
1=Culvert (Inlet Controls 87.74 cfs @ 5.32 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 1.85" for 25-year event
Inflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af
Outflow = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af, Atten= 0%, Lag= 0.0 min
Primary = 88.29 cfs @ 12.10 hrs, Volume= 4.517 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 16.43' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**60.0" Round Culvert**

L= 42.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=87.74 cfs @ 12.10 hrs HW=16.42' (Free Discharge)
1=Culvert (Inlet Controls 87.74 cfs @ 5.32 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.253 ac, 63.02% Impervious, Inflow Depth > 3.44" for 25-year event
Inflow = 7.94 cfs @ 12.10 hrs, Volume= 0.646 af
Outflow = 7.94 cfs @ 12.10 hrs, Volume= 0.646 af, Atten= 0%, Lag= 0.0 min
Primary = 7.94 cfs @ 12.10 hrs, Volume= 0.646 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 71.51' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert**
			L= 294.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.91 cfs @ 12.10 hrs HW=71.35' (Free Discharge)
1=Culvert (Barrel Controls 7.91 cfs @ 10.07 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.07" for 25-year event
Inflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.0 min
Primary = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.52' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**18.0" Round Culvert**
			L= 170.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.38 cfs @ 12.09 hrs HW=64.19' (Free Discharge)
1=Culvert (Barrel Controls 10.38 cfs @ 5.87 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 1.83" for 25-year event
Inflow = 86.31 cfs @ 12.10 hrs, Volume= 4.376 af
Outflow = 86.31 cfs @ 12.10 hrs, Volume= 4.376 af, Atten= 0%, Lag= 0.0 min
Primary = 86.31 cfs @ 12.10 hrs, Volume= 4.376 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 39.37' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**60.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=85.66 cfs @ 12.10 hrs HW=39.35' (Free Discharge)
1=Culvert (Inlet Controls 85.66 cfs @ 5.28 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.07" for 25-year event
Inflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af
Outflow = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af, Atten= 0%, Lag= 0.0 min
Primary = 10.75 cfs @ 12.09 hrs, Volume= 0.300 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.22' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**18.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=10.38 cfs @ 12.09 hrs HW=61.04' (Free Discharge)
1=Culvert (Barrel Controls 10.38 cfs @ 5.87 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.90" for 25-year event
Inflow = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af
Outflow = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af, Atten= 0%, Lag= 0.0 min
Primary = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.81' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert**

L= 296.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=18.26 cfs @ 12.09 hrs HW=60.59' (Free Discharge)
1=Culvert (Barrel Controls 18.26 cfs @ 5.81 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 0.90" for 25-year event
Inflow = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af
Outflow = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af, Atten= 0%, Lag= 0.0 min
Primary = 18.95 cfs @ 12.09 hrs, Volume= 0.444 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.14' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=18.26 cfs @ 12.09 hrs HW=58.98' (Free Discharge)
1=Culvert (Inlet Controls 18.26 cfs @ 5.81 fps)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth > 3.15" for 25-year event
Inflow = 3.79 cfs @ 12.09 hrs, Volume= 0.260 af
Outflow = 3.35 cfs @ 12.13 hrs, Volume= 0.202 af, Atten= 12%, Lag= 2.7 min
Primary = 3.35 cfs @ 12.13 hrs, Volume= 0.202 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.26' @ 12.14 hrs Surf.Area= 2,929 sf Storage= 3,223 cf
Flood Elev= 63.00' Surf.Area= 3,400 sf Storage= 5,560 cf

Plug-Flow detention time= 93.9 min calculated for 0.202 af (77% of inflow)
Center-of-Mass det. time= 38.2 min (817.0 - 778.8)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. cb19 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=3.32 cfs @ 12.13 hrs HW=62.26' (Free Discharge)
└**1=Culvert** (Passes 3.32 cfs of 5.75 cfs potential flow)
└**2=cb19** (Orifice Controls 3.32 cfs @ 2.44 fps)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth > 3.64" for 25-year event
Inflow = 1.28 cfs @ 12.09 hrs, Volume= 0.090 af
Outflow = 1.24 cfs @ 12.11 hrs, Volume= 0.079 af, Atten= 3%, Lag= 1.3 min
Primary = 1.24 cfs @ 12.11 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.63' @ 12.11 hrs Surf.Area= 1,079 sf Storage= 619 cf
Flood Elev= 62.50' Surf.Area= 1,368 sf Storage= 1,681 cf

Plug-Flow detention time= 66.8 min calculated for 0.079 af (87% of inflow)
Center-of-Mass det. time= 29.0 min (794.5 - 765.6)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Device	Routing	Invert	Outlet Devices
#1	Primary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	61.50'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.21 cfs @ 12.11 hrs HW=61.63' (Free Discharge)
└**1=Culvert** (Passes 1.21 cfs of 2.33 cfs potential flow)
└**2=Catch Basin** (Weir Controls 1.21 cfs @ 1.18 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth > 3.34" for 25-year event
Inflow = 4.18 cfs @ 12.09 hrs, Volume= 0.289 af
Outflow = 3.42 cfs @ 12.15 hrs, Volume= 0.219 af, Atten= 18%, Lag= 3.5 min
Primary = 3.42 cfs @ 12.15 hrs, Volume= 0.219 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.27' @ 12.15 hrs Surf.Area= 3,791 sf Storage= 3,989 cf
Flood Elev= 63.00' Surf.Area= 4,582 sf Storage= 7,028 cf

Plug-Flow detention time= 101.7 min calculated for 0.218 af (75% of inflow)
Center-of-Mass det. time= 43.4 min (817.2 - 773.8)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. db18 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=3.42 cfs @ 12.15 hrs HW=62.27' (Free Discharge)
↑—**1=Culvert** (Passes 3.42 cfs of 5.76 cfs potential flow)
↑—**2=db18** (Orifice Controls 3.42 cfs @ 2.51 fps)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth > 2.34" for 25-year event
Inflow = 0.61 cfs @ 12.09 hrs, Volume= 0.041 af
Outflow = 0.59 cfs @ 12.11 hrs, Volume= 0.038 af, Atten= 2%, Lag= 1.1 min
Primary = 0.59 cfs @ 12.11 hrs, Volume= 0.038 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.78' @ 12.11 hrs Surf.Area= 739 sf Storage= 187 cf
Flood Elev= 65.00' Surf.Area= 1,418 sf Storage= 1,489 cf

Plug-Flow detention time= 38.3 min calculated for 0.038 af (92% of inflow)
Center-of-Mass det. time= 13.4 min (811.4 - 798.0)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	63.70'	**2.0" x 2.0" Horiz. cb9 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.58 cfs @ 12.11 hrs HW=63.78' (Free Discharge)
↑—**1=Culvert** (Passes 0.58 cfs of 2.20 cfs potential flow)
↑—**2=cb9** (Weir Controls 0.58 cfs @ 0.92 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 3.05" for 25-year event
Inflow = 1.29 cfs @ 12.09 hrs, Volume= 0.088 af
Outflow = 0.11 cfs @ 13.26 hrs, Volume= 0.029 af, Atten= 92%, Lag= 70.0 min
Primary = 0.11 cfs @ 13.26 hrs, Volume= 0.029 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.42' @ 13.26 hrs Surf.Area= 2,212 sf Storage= 2,631 cf

Plug-Flow detention time= 246.0 min calculated for 0.029 af (33% of inflow)
Center-of-Mass det. time= 148.3 min (929.4 - 781.1)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	64.40'	**2.0" x 2.0" Horiz. Catch Basin X 49.00**

C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.10 cfs @ 13.26 hrs HW=64.42' (Free Discharge)
↑**1=Culvert** (Passes 0.10 cfs of 2.44 cfs potential flow)
↑**2=Catch Basin** (Weir Controls 0.10 cfs @ 0.51 fps)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth > 3.24" for 25-year event
Inflow = 0.57 cfs @ 12.09 hrs, Volume= 0.039 af
Outflow = 0.54 cfs @ 12.12 hrs, Volume= 0.030 af, Atten= 6%, Lag= 1.8 min
Primary = 0.54 cfs @ 12.12 hrs, Volume= 0.030 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.48' @ 12.12 hrs Surf.Area= 1,162 sf Storage= 489 cf

Plug-Flow detention time= 98.4 min calculated for 0.030 af (76% of inflow)
Center-of-Mass det. time= 40.1 min (816.4 - 776.3)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.40'	**2.0" x 2.0" Horiz. cb24 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.52 cfs @ 12.12 hrs HW=57.47' (Free Discharge)
↑**1=Culvert** (Passes 0.52 cfs of 2.35 cfs potential flow)
↑**2=cb24** (Weir Controls 0.52 cfs @ 0.89 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth > 3.64" for 25-year event
Inflow = 0.40 cfs @ 12.09 hrs, Volume= 0.028 af
Outflow = 0.39 cfs @ 12.11 hrs, Volume= 0.019 af, Atten= 2%, Lag= 1.0 min
Primary = 0.39 cfs @ 12.11 hrs, Volume= 0.019 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.96' @ 12.11 hrs Surf.Area= 573 sf Storage= 407 cf

Plug-Flow detention time= 117.5 min calculated for 0.019 af (69% of inflow)

Center-of-Mass det. time= 51.8 min (817.4 - 765.6)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.90'	**2.0" x 2.0" Horiz. cb23 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.39 cfs @ 12.11 hrs HW=57.96' (Free Discharge)
↑—**1=Culvert** (Passes 0.39 cfs of 2.53 cfs potential flow)
↑—**2=cb23** (Weir Controls 0.39 cfs @ 0.80 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 3.24" for 25-year event
Inflow = 1.60 cfs @ 12.09 hrs, Volume= 0.110 af
Outflow = 1.49 cfs @ 12.12 hrs, Volume= 0.110 af, Atten= 7%, Lag= 1.7 min
Primary = 1.49 cfs @ 12.12 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 65.90' @ 12.12 hrs Surf.Area= 1,702 sf Storage= 244 cf
Flood Elev= 68.00' Surf.Area= 3,488 sf Storage= 5,554 cf

Plug-Flow detention time= 4.8 min calculated for 0.110 af (100% of inflow)
Center-of-Mass det. time= 4.0 min (780.3 - 776.3)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.80' / 62.26' S= 0.0200 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2 Device 1 65.75' **2.0" x 2.0" Horiz. Orifice/Grate X 49.00**
C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.44 cfs @ 12.12 hrs HW=65.90' (Free Discharge)
↑**1=Culvert** (Passes 1.44 cfs of 2.21 cfs potential flow)
↑**2=Orifice/Grate** (Weir Controls 1.44 cfs @ 1.25 fps)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.781 ac, 20.08% Impervious, Inflow Depth > 2.78" for 25-year event
Inflow = 2.67 cfs @ 12.09 hrs, Volume= 0.181 af
Outflow = 2.58 cfs @ 12.09 hrs, Volume= 0.156 af, Atten= 3%, Lag= 0.0 min
Primary = 2.58 cfs @ 12.09 hrs, Volume= 0.156 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 67.11' @ 12.09 hrs Surf.Area= 1,576 sf Storage= 1,039 cf
Flood Elev= 67.00' Surf.Area= 1,576 sf Storage= 1,039 cf

Plug-Flow detention time= 63.5 min calculated for 0.156 af (86% of inflow)
Center-of-Mass det. time= 22.6 min (810.3 - 787.8)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	1,039 cf	**gsf1B (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
66.00	583	194.0	0	0	583
67.00	1,576	297.0	1,039	1,039	4,615

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert**
			L= 20.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 62.80' / 62.60' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	66.90'	**2.0" x 2.0" Horiz. CB17 grate X 49.00**
			C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.54 cfs @ 12.09 hrs HW=67.11' (Free Discharge)
↑**1=Culvert** (Passes 2.54 cfs of 2.65 cfs potential flow)
↑**2=CB17 grate** (Weir Controls 2.54 cfs @ 1.50 fps)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth > 2.87" for 25-year event
Inflow = 2.51 cfs @ 12.09 hrs, Volume= 0.170 af
Outflow = 2.29 cfs @ 12.13 hrs, Volume= 0.135 af, Atten= 9%, Lag= 2.2 min
Primary = 2.29 cfs @ 12.13 hrs, Volume= 0.135 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 57.80' @ 12.13 hrs Surf.Area= 2,219 sf Storage= 1,940 cf
Flood Elev= 59.00' Surf.Area= 3,488 sf Storage= 5,317 cf

Plug-Flow detention time= 87.3 min calculated for 0.135 af (79% of inflow)
Center-of-Mass det. time= 33.8 min (819.4 - 785.6)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Device	Routing	Invert	Outlet Devices
#1	Primary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb20 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.24 cfs @ 12.13 hrs HW=57.79' (Free Discharge)
↑**1=Culvert** (Passes 2.24 cfs of 2.49 cfs potential flow)
↑**2=cb20** (Weir Controls 2.24 cfs @ 1.44 fps)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth > 4.06" for 25-year event
Inflow = 1.95 cfs @ 12.09 hrs, Volume= 0.142 af
Outflow = 1.83 cfs @ 12.12 hrs, Volume= 0.110 af, Atten= 6%, Lag= 1.8 min
Primary = 1.83 cfs @ 12.12 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 40.77' @ 12.12 hrs Surf.Area= 1,892 sf Storage= 1,673 cf

Plug-Flow detention time= 105.0 min calculated for 0.110 af (78% of inflow)
Center-of-Mass det. time= 49.0 min (801.2 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Device	Routing	Invert	Outlet Devices
#1	Primary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	40.60'	**2.0" x 2.0" Horiz. cb32 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.77 cfs @ 12.12 hrs HW=40.77' (Free Discharge)
└**1=Culvert** (Passes 1.77 cfs of 2.53 cfs potential flow)
└**2=cb32** (Weir Controls 1.77 cfs @ 1.33 fps)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth > 3.05" for 25-year event
Inflow = 3.09 cfs @ 12.09 hrs, Volume= 0.211 af
Outflow = 2.75 cfs @ 12.13 hrs, Volume= 0.164 af, Atten= 11%, Lag= 2.4 min
Primary = 2.75 cfs @ 12.13 hrs, Volume= 0.164 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.97' @ 12.13 hrs Surf.Area= 2,631 sf Storage= 2,570 cf
Flood Elev= 57.00' Surf.Area= 3,839 sf Storage= 5,872 cf

Plug-Flow detention time= 92.6 min calculated for 0.164 af (78% of inflow)
Center-of-Mass det. time= 37.1 min (818.2 - 781.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 51.84' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	55.75'	**2.0" x 2.0" Horiz. cb25 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.69 cfs @ 12.13 hrs HW=55.97' (Free Discharge)
└**1=Culvert** (Passes 2.69 cfs of 5.58 cfs potential flow)
└**2=cb25** (Weir Controls 2.69 cfs @ 1.53 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth > 2.34" for 25-year event
Inflow = 0.56 cfs @ 12.09 hrs, Volume= 0.038 af
Outflow = 0.57 cfs @ 12.12 hrs, Volume= 0.030 af, Atten= 0%, Lag= 1.3 min
Primary = 0.57 cfs @ 12.12 hrs, Volume= 0.030 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.18' @ 12.12 hrs Surf.Area= 680 sf Storage= 385 cf
Flood Elev= 56.00' Surf.Area= 974 sf Storage= 1,061 cf

Plug-Flow detention time= 82.4 min calculated for 0.030 af (79% of inflow)
Center-of-Mass det. time= 29.0 min (827.1 - 798.0)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.56' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	55.10'	**2.0" x 2.0" Horiz. cb26 rim X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.54 cfs @ 12.12 hrs HW=55.18' (Free Discharge)
└**1=Culvert** (Passes 0.54 cfs of 2.34 cfs potential flow)
└**2=cb26 rim** (Weir Controls 0.54 cfs @ 0.90 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth > 2.34" for 25-year event
Inflow = 0.72 cfs @ 12.09 hrs, Volume= 0.048 af
Outflow = 0.72 cfs @ 12.10 hrs, Volume= 0.048 af, Atten= 0%, Lag= 0.1 min
Primary = 0.72 cfs @ 12.10 hrs, Volume= 0.048 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.00' @ 12.10 hrs Surf.Area= 602 sf Storage= 2 cf
Flood Elev= 55.00' Surf.Area= 1,257 sf Storage= 908 cf

Plug-Flow detention time= 0.0 min calculated for 0.048 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (798.1 - 798.0)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	54.60'	**2.0" x 2.0" Horiz. Catch Basin** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.17 cfs @ 12.10 hrs HW=54.00' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.17 cfs @ 6.21 fps)
└**2=Catch Basin** (Controls 0.00 cfs)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth > 3.05" for 25-year event
Inflow = 1.20 cfs @ 12.09 hrs, Volume= 0.082 af
Outflow = 1.20 cfs @ 12.09 hrs, Volume= 0.082 af, Atten= 0%, Lag= 0.0 min
Primary = 1.20 cfs @ 12.09 hrs, Volume= 0.082 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.00' @ 12.09 hrs Surf.Area= 1,001 sf Storage= 1 cf
Flood Elev= 50.00' Surf.Area= 1,768 sf Storage= 1,366 cf

Plug-Flow detention time= 0.0 min calculated for 0.082 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (781.1 - 781.1)

Volume	Invert	Avail.Storage	Storage Description
#1	49.00'	1,366 cf	**gsf6 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
49.00	1,000	156.0	0	0	1,000
50.00	1,768	184.0	1,366	1,366	1,776

Device	Routing	Invert	Outlet Devices
#1	Primary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	48.20'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=8.51 cfs @ 12.09 hrs HW=49.00' (Free Discharge)
1=culvert (Inlet Controls 2.64 cfs @ 7.57 fps)
2=Catch Basin (Orifice Controls 5.87 cfs @ 4.31 fps)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth > 2.87" for 25-year event
Inflow = 2.45 cfs @ 12.09 hrs, Volume= 0.167 af
Outflow = 1.96 cfs @ 12.16 hrs, Volume= 0.125 af, Atten= 20%, Lag= 4.1 min
Primary = 1.96 cfs @ 12.16 hrs, Volume= 0.125 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 54.88' @ 12.16 hrs Surf.Area= 3,272 sf Storage= 2,309 cf
Flood Elev= 56.00' Surf.Area= 5,203 sf Storage= 7,026 cf

Plug-Flow detention time= 100.7 min calculated for 0.125 af (75% of inflow)
Center-of-Mass det. time= 40.7 min (826.3 - 785.6)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	54.70'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.92 cfs @ 12.16 hrs HW=54.88' (Free Discharge)
1=cb29 (Passes 1.92 cfs of 2.50 cfs potential flow)
2=Catch Basin (Weir Controls 1.92 cfs @ 1.37 fps)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth > 3.54" for 25-year event
Inflow = 4.41 cfs @ 12.09 hrs, Volume= 0.309 af
Outflow = 2.64 cfs @ 12.21 hrs, Volume= 0.233 af, Atten= 40%, Lag= 7.0 min
Primary = 2.64 cfs @ 12.21 hrs, Volume= 0.233 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.00' @ 12.21 hrs Surf.Area= 3,559 sf Storage= 4,598 cf
Flood Elev= 58.50' Surf.Area= 3,910 sf Storage= 6,471 cf

Plug-Flow detention time= 105.6 min calculated for 0.233 af (75% of inflow)
Center-of-Mass det. time= 46.2 min (814.7 - 768.5)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**8.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb10 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.64 cfs @ 12.21 hrs HW=58.00' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.64 cfs @ 7.55 fps)
↑—**2=cb10** (Passes 2.64 cfs of 4.13 cfs potential flow)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth > 3.74" for 25-year event
Inflow = 2.85 cfs @ 12.09 hrs, Volume= 0.202 af
Outflow = 2.72 cfs @ 12.10 hrs, Volume= 0.202 af, Atten= 5%, Lag= 0.5 min
Primary = 2.72 cfs @ 12.10 hrs, Volume= 0.202 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.52' @ 12.10 hrs Surf.Area= 1,927 sf Storage= 42 cf
Flood Elev= 65.00' Surf.Area= 3,935 sf Storage= 4,339 cf

Plug-Flow detention time= 0.2 min calculated for 0.201 af (100% of inflow)
Center-of-Mass det. time= 0.2 min (762.7 - 762.5)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	4,339 cf	**gsf9 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	1,900	437.0	0	0	1,900
64.00	2,567	446.0	1,113	1,113	2,570
65.00	3,935	465.0	3,227	4,339	4,021

Device	Routing	Invert	Outlet Devices
#1	Primary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900

Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

#2	Device 1	63.00'	**2.0" x 2.0" Horiz. cb6 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.72 cfs @ 12.10 hrs HW=63.52' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.72 cfs @ 7.78 fps)
↑**2=cb6** (Passes 2.72 cfs of 4.73 cfs potential flow)

Summary for Pond ICS1: ICS

Inflow Area =	2.584 ac,100.00% Impervious,	Inflow Depth >	4.73"	for 25-year event
Inflow =	12.84 cfs @	12.09 hrs, Volume=	1.020 af	
Outflow =	12.84 cfs @	12.09 hrs, Volume=	1.020 af,	Atten= 0%, Lag= 0.0 min
Primary =	8.18 cfs @	12.09 hrs, Volume=	0.144 af	
Secondary =	4.66 cfs @	12.09 hrs, Volume=	0.876 af	

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 66.89' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	**18.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.50' / 63.27' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	66.15'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	63.95'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.95' / 63.90' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.85 cfs @ 12.09 hrs HW=66.87' (Free Discharge)
↑**1=Culvert** (Passes 7.85 cfs of 10.87 cfs potential flow)
↑**2=Broad-Crested Rectangular Weir** (Weir Controls 7.85 cfs @ 2.72 fps)

Secondary OutFlow Max=4.64 cfs @ 12.09 hrs HW=66.87' (Free Discharge)
↑**3=Culvert** (Inlet Controls 4.64 cfs @ 5.91 fps)

Summary for Pond ics28: ICS28

Inflow Area =	0.275 ac,100.00% Impervious,	Inflow Depth >	4.73"	for 25-year event
Inflow =	1.37 cfs @	12.09 hrs, Volume=	0.109 af	
Outflow =	1.37 cfs @	12.09 hrs, Volume=	0.109 af,	Atten= 0%, Lag= 0.0 min
Primary =	1.37 cfs @	12.09 hrs, Volume=	0.109 af	
Secondary =	0.00 cfs @	1.00 hrs, Volume=	0.000 af	

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 58.72' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert**
			L= 10.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert**
			L= 5.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.33 cfs @ 12.09 hrs HW=58.71' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.81 cfs @ 2.32 fps)
└**3=Culvert** (Barrel Controls 0.52 cfs @ 2.26 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=58.01' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af
Outflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Atten= 0%, Lag= 0.0 min
Primary = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af
Secondary = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.74' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.50'	**18.0" Round Culvert**
			L= 51.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert**
			L= 5.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.85 cfs @ 12.09 hrs HW=55.72' (Free Discharge)
└**1=Culvert** (Passes 7.85 cfs of 10.56 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 7.85 cfs @ 2.72 fps)

Secondary OutFlow Max=4.64 cfs @ 12.09 hrs HW=55.72' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.64 cfs @ 5.91 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af
Outflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Atten= 0%, Lag= 0.0 min
Primary = 8.18 cfs @ 12.09 hrs, Volume= 0.144 af
Secondary = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.74' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.85 cfs @ 12.09 hrs HW=49.72' (Free Discharge)
└**1=Culvert** (Passes 7.85 cfs of 11.18 cfs potential flow)
└**2=Broad-Crested Rectangular Weir** (Weir Controls 7.85 cfs @ 2.72 fps)

Secondary OutFlow Max=4.64 cfs @ 12.09 hrs HW=49.72' (Free Discharge)
└**3=Culvert** (Inlet Controls 4.64 cfs @ 5.91 fps)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af
Outflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Atten= 0%, Lag= 0.0 min
Primary = 8.20 cfs @ 12.09 hrs, Volume= 0.145 af
Secondary = 4.64 cfs @ 12.09 hrs, Volume= 0.875 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 64.92' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=7.86 cfs @ 12.09 hrs HW=64.90' (Free Discharge)
↑—**1=Culvert** (Passes 7.86 cfs of 10.52 cfs potential flow)
↑—**2=Broad-Crested Rectangular Weir** (Weir Controls 7.86 cfs @ 2.73 fps)

Secondary OutFlow Max=4.63 cfs @ 12.09 hrs HW=64.90' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 4.63 cfs @ 5.89 fps)

Summary for Pond ISC42: ICS42

Device	Routing	Invert	Outlet Devices
#1	Primary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
↑—**1=Culvert** (Controls 0.00 cfs)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
↑—**3=Culvert** (Controls 0.00 cfs)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 3.53 cfs @ 12.09 hrs, Volume= 0.280 af
Outflow = 2.16 cfs @ 12.20 hrs, Volume= 0.255 af, Atten= 39%, Lag= 6.7 min
Primary = 2.16 cfs @ 12.20 hrs, Volume= 0.255 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.85' @ 12.20 hrs Surf.Area= 0.179 ac Storage= 0.075 af

Plug-Flow detention time= 91.0 min calculated for 0.255 af (91% of inflow)
Center-of-Mass det. time= 57.8 min (777.9 - 720.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.16 cfs @ 12.20 hrs HW=61.85' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.16 cfs @ 2.61 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth > 4.62" for 25-year event
Inflow = 1.06 cfs @ 12.09 hrs, Volume= 0.083 af
Outflow = 0.68 cfs @ 12.19 hrs, Volume= 0.076 af, Atten= 36%, Lag= 6.2 min
Primary = 0.68 cfs @ 12.19 hrs, Volume= 0.076 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.65' @ 12.19 hrs Surf.Area= 1,935 sf Storage= 927 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 82.0 min calculated for 0.076 af (92% of inflow)
Center-of-Mass det. time= 52.1 min (779.5 - 727.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.67 cfs @ 12.19 hrs HW=56.65' (Free Discharge)
1=Culvert (Barrel Controls 0.67 cfs @ 2.11 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 4.28" for 25-year event
Inflow = 1.51 cfs @ 12.09 hrs, Volume= 0.112 af
Outflow = 0.43 cfs @ 12.35 hrs, Volume= 0.096 af, Atten= 71%, Lag= 15.8 min
Primary = 0.43 cfs @ 12.35 hrs, Volume= 0.096 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.73' @ 12.42 hrs Surf.Area= 0.074 ac Storage= 0.052 af

Plug-Flow detention time= 134.0 min calculated for 0.096 af (85% of inflow)
Center-of-Mass det. time= 90.7 min (834.6 - 743.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.43 cfs @ 12.35 hrs HW=55.73' (Free Discharge)
└**1=Culvert** (Barrel Controls 0.43 cfs @ 2.20 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.229 ac, 83.66% Impervious, Inflow Depth > 4.28" for 25-year event
Inflow = 1.10 cfs @ 12.09 hrs, Volume= 0.082 af
Outflow = 0.51 cfs @ 12.26 hrs, Volume= 0.075 af, Atten= 53%, Lag= 10.4 min
Primary = 0.51 cfs @ 12.26 hrs, Volume= 0.075 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.45' @ 12.26 hrs Surf.Area= 1,510 sf Storage= 1,147 cf

Plug-Flow detention time= 84.7 min calculated for 0.075 af (91% of inflow)
Center-of-Mass det. time= 55.5 min (799.4 - 743.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.51 cfs @ 12.26 hrs HW=55.45' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.51 cfs @ 2.61 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.310 ac, 76.43% Impervious, Inflow Depth > 4.06" for 25-year event
Inflow = 1.44 cfs @ 12.09 hrs, Volume= 0.105 af
Outflow = 0.44 cfs @ 12.41 hrs, Volume= 0.089 af, Atten= 69%, Lag= 19.0 min
Primary = 0.44 cfs @ 12.41 hrs, Volume= 0.089 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.70' @ 12.41 hrs Surf.Area= 3,003 sf Storage= 2,091 cf

Plug-Flow detention time= 128.7 min calculated for 0.089 af (85% of inflow)
Center-of-Mass det. time= 84.8 min (837.0 - 752.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.44 cfs @ 12.41 hrs HW=55.70' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 0.44 cfs @ 2.27 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 0.44 cfs @ 12.09 hrs, Volume= 0.035 af
Outflow = 0.24 cfs @ 12.21 hrs, Volume= 0.030 af, Atten= 44%, Lag= 7.6 min
Primary = 0.24 cfs @ 12.21 hrs, Volume= 0.030 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 34.93' @ 12.21 hrs Surf.Area= 1,289 sf Storage= 499 cf

Plug-Flow detention time= 114.5 min calculated for 0.030 af (88% of inflow)
Center-of-Mass det. time= 72.8 min (792.9 - 720.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.24 cfs @ 12.21 hrs HW=34.93' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 0.24 cfs @ 1.51 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 3.44 cfs @ 12.09 hrs, Volume= 0.273 af
Outflow = 2.35 cfs @ 12.18 hrs, Volume= 0.239 af, Atten= 32%, Lag= 5.3 min
Primary = 2.35 cfs @ 12.18 hrs, Volume= 0.239 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.00' @ 12.18 hrs Surf.Area= 5,946 sf Storage= 3,348 cf

Plug-Flow detention time= 105.7 min calculated for 0.238 af (87% of inflow)
Center-of-Mass det. time= 63.9 min (784.0 - 720.1)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=2.33 cfs @ 12.18 hrs HW=55.00' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.33 cfs @ 2.05 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 3.23" for 25-year event
Inflow = 3.99 cfs @ 12.10 hrs, Volume= 0.324 af
Outflow = 2.56 cfs @ 12.22 hrs, Volume= 0.315 af, Atten= 36%, Lag= 7.7 min
Primary = 2.56 cfs @ 12.22 hrs, Volume= 0.315 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.84' @ 12.22 hrs Surf.Area= 8,586 sf Storage= 2,006 cf
Flood Elev= 31.78' Surf.Area= 8,586 sf Storage= 7,539 cf

Plug-Flow detention time= 31.5 min calculated for 0.314 af (97% of inflow)
Center-of-Mass det. time= 19.8 min (784.5 - 764.6)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	694 cf	**10.56'W x 76.72'L x 3.42'H Field D** 2,767 cf Overall - 1,033 cf Embedded = 1,734 cf x 40.0% Voids
#6D	29.53'	982 cf	**ACF R-Tank HD 1.5** x 155 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 5 Rows of 31 Chambers
		10,595 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.61'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.61' / 29.00' S= 0.0305 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.55 cfs @ 12.22 hrs HW=30.84' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 2.55 cfs @ 3.25 fps)

Summary for Pond OCS57: OCS 57

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 3.14" for 25-year event
Inflow = 2.56 cfs @ 12.22 hrs, Volume= 0.315 af
Outflow = 2.56 cfs @ 12.22 hrs, Volume= 0.315 af, Atten= 0%, Lag= 0.0 min
Primary = 2.56 cfs @ 12.22 hrs, Volume= 0.315 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.39' @ 12.22 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	29.50'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.50' / 29.30' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

#2	Device 1	30.07'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	29.53'	**2.0" Vert. Orifice/Grate X 2.00** C= 0.600
#4	Primary	29.90'	**6.0" W x 2.0" H Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=2.55 cfs @ 12.22 hrs HW=30.39' (Free Discharge)
- **1=Culvert** (Passes 2.11 cfs of 2.62 cfs potential flow)
  - **2=Broad-Crested Rectangular Weir** (Weir Controls 2.11 cfs @ 1.63 fps)
- **3=Orifice/Grate** (Orifice Controls 0.19 cfs @ 4.25 fps)
- **4=Orifice/Grate** (Orifice Controls 0.26 cfs @ 3.08 fps)

Summary for Pond SSF 36: ssf

Inflow = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af
Primary = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 37:

Inflow = 4.64 cfs @ 12.09 hrs, Volume= 0.875 af
Primary = 4.64 cfs @ 12.09 hrs, Volume= 0.875 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 38: ssf38

Inflow = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af
Primary = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 39:

Inflow = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af
Primary = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 40:

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af
Primary = 12.84 cfs @ 12.09 hrs, Volume= 1.020 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 41:

Inflow = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af
Primary = 4.66 cfs @ 12.09 hrs, Volume= 0.876 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 42:

Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 43:

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 4.73" for 25-year event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.172 af
Primary = 2.17 cfs @ 12.09 hrs, Volume= 0.172 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Time span=1.00-20.00 hrs, dt=0.05 hrs, 381 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1A: Runoff Area=17,785 sf 34.88% Impervious Runoff Depth>5.03"
Tc=6.0 min CN=84 Runoff=2.43 cfs 0.171 af

Subcatchment1B: Runoff Area=34,018 sf 20.08% Impervious Runoff Depth>4.48"
Tc=6.0 min CN=79 Runoff=4.24 cfs 0.291 af

Subcatchment2: Runoff Area=31,049 sf 25.93% Impervious Runoff Depth>4.59"
Tc=6.0 min CN=80 Runoff=3.95 cfs 0.272 af

Subcatchment3: Runoff Area=36,147 sf 36.22% Impervious Runoff Depth>4.81"
Tc=6.0 min CN=82 Runoff=4.77 cfs 0.332 af

Subcatchment4: Runoff Area=8,448 sf 0.00% Impervious Runoff Depth>3.94"
Tc=6.0 min CN=74 Runoff=0.94 cfs 0.064 af

Subcatchment5: Runoff Area=10,807 sf 0.00% Impervious Runoff Depth>3.94"
Tc=6.0 min CN=74 Runoff=1.20 cfs 0.081 af

Subcatchment6: Runoff Area=13,985 sf 32.06% Impervious Runoff Depth>4.81"
Tc=6.0 min CN=82 Runoff=1.85 cfs 0.129 af

Subcatchment7: Runoff Area=30,345 sf 25.86% Impervious Runoff Depth>4.59"
Tc=6.0 min CN=80 Runoff=3.86 cfs 0.266 af

Subcatchment8: Runoff Area=45,551 sf 55.78% Impervious Runoff Depth>5.37"
Tc=6.0 min CN=87 Runoff=6.53 cfs 0.468 af

Subcatchment9: Runoff Area=28,191 sf 63.29% Impervious Runoff Depth>5.59"
Tc=6.0 min CN=89 Runoff=4.15 cfs 0.302 af

Subcatchment10: access drive north of Runoff Area=30,932 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=4.90 cfs 0.393 af

Subcatchment11: Runoff Area=43,174 sf 36.78% Impervious Runoff Depth>4.92"
Tc=6.0 min CN=83 Runoff=5.81 cfs 0.406 af

Subcatchment12: Runoff Area=12,920 sf 57.98% Impervious Runoff Depth>5.48"
Tc=6.0 min CN=88 Runoff=1.88 cfs 0.135 af

Subcatchment13: Runoff Area=45,163 sf 46.46% Impervious Runoff Depth>5.14"
Tc=6.0 min CN=85 Runoff=6.28 cfs 0.444 af

Subcatchment14: Runoff Area=9,378 sf 94.36% Impervious Runoff Depth>6.53"
Tc=6.0 min CN=97 Runoff=1.48 cfs 0.117 af

Subcatchment15: Runoff Area=9,157 sf 1.92% Impervious Runoff Depth>3.94"
Tc=6.0 min CN=74 Runoff=1.02 cfs 0.069 af

Subcatchment16: Runoff Area=15,110 sf 34.16% Impervious Runoff Depth>4.81"
Tc=6.0 min CN=82 Runoff=2.00 cfs 0.139 af

Subcatchment17: Runoff Area=13,300 sf 85.11% Impervious Runoff Depth>6.17"
Tc=6.0 min CN=94 Runoff=2.06 cfs 0.157 af

Subcatchment18A: Runoff Area=6,339 sf 40.91% Impervious Runoff Depth>5.03"
Tc=6.0 min CN=84 Runoff=0.87 cfs 0.061 af

Subcatchment18B: Runoff Area=4,023 sf 58.36% Impervious Runoff Depth>5.48"
Tc=6.0 min CN=88 Runoff=0.58 cfs 0.042 af

Subcatchment19: Runoff Area=13,711 sf 81.76% Impervious Runoff Depth>6.17"
Tc=6.0 min CN=94 Runoff=2.12 cfs 0.162 af

Subcatchment20: Runoff Area=28,459 sf 73.83% Impervious Runoff Depth>5.94"
Tc=6.0 min CN=92 Runoff=4.33 cfs 0.323 af

Subcatchment21: Runoff Area=9,994 sf 83.66% Impervious Runoff Depth>6.17"
Tc=6.0 min CN=94 Runoff=1.55 cfs 0.118 af

Subcatchment22: Runoff Area=13,511 sf 76.43% Impervious Runoff Depth>5.94"
Tc=6.0 min CN=92 Runoff=2.06 cfs 0.154 af

Subcatchment23: sub 23 Runoff Area=28,475 sf 21.95% Impervious Runoff Depth>4.37"
Tc=6.0 min CN=78 Runoff=3.47 cfs 0.238 af

Subcatchment24: Runoff Area=18,261 sf 67.19% Impervious Runoff Depth>5.94"
Tc=6.0 min CN=92 Runoff=2.78 cfs 0.208 af

Subcatchment25: Runoff Area=118,223 sf 0.00% Impervious Runoff Depth>3.55"
Flow Length=438' Tc=67.0 min CN=71 Runoff=4.55 cfs 0.802 af

Subcatchment26: Runoff Area=3,816 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=0.60 cfs 0.048 af

Subcatchment27: Runoff Area=4,262 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=0.67 cfs 0.054 af

Subcatchment28: Runoff Area=79,698 sf 27.42% Impervious Runoff Depth>5.14"
Tc=6.0 min CN=85 Runoff=11.08 cfs 0.784 af

Subcatchment29: Runoff Area=1,306 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=0.21 cfs 0.017 af

Subcatchment30: Runoff Area=31,472 sf 77.98% Impervious Runoff Depth>6.06"
Tc=6.0 min CN=93 Runoff=4.84 cfs 0.365 af

Subcatchment31: Runoff Area=70,616 sf 0.00% Impervious Runoff Depth>3.62"
Flow Length=217' Tc=12.3 min CN=71 Runoff=5.98 cfs 0.489 af

Subcatchment32: Runoff Area=4,677 sf 60.42% Impervious Runoff Depth>5.59"
Tc=6.0 min CN=89 Runoff=0.69 cfs 0.050 af

Subcatchment33: B3 green Runoff Area=107,893 sf 16.71% Impervious Runoff Depth>3.21"
Tc=6.0 min CN=67 Runoff=9.84 cfs 0.664 af

Subcatchment34: Runoff Area=24,099 sf 20.00% Impervious Runoff Depth>3.32"
Tc=6.0 min CN=68 Runoff=2.27 cfs 0.153 af

Subcatchment35: Runoff Area=20,997 sf 20.00% Impervious Runoff Depth>3.32"
Tc=6.0 min CN=68 Runoff=1.98 cfs 0.133 af

Subcatchment36: B1M1 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=17.83 cfs 1.430 af

Subcatchment37: B1M2 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=17.83 cfs 1.430 af

Subcatchment38: B1M3 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=17.83 cfs 1.430 af

Subcatchment39: B2M4 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=17.83 cfs 1.430 af

Subcatchment40: B2M5 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=17.83 cfs 1.430 af

Subcatchment41: B2M6 Runoff Area=112,560 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=17.83 cfs 1.430 af

Subcatchment42: B6 Runoff Area=12,000 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=1.90 cfs 0.152 af

Subcatchment43: B5 Runoff Area=18,983 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=3.01 cfs 0.241 af

Subcatchment44: onsite untreated Runoff Area=159,363 sf 0.00% Impervious Runoff Depth>3.61"
Flow Length=574' Tc=18.8 min CN=71 Runoff=11.51 cfs 1.101 af

Subcatchment45: Runoff Area=64,440 sf 0.00% Impervious Runoff Depth>3.49"
Flow Length=307' Tc=29.9 min CN=70 Runoff=3.71 cfs 0.431 af

Subcatchment46: SUBCAT8 Runoff Area=14,976 sf 0.00% Impervious Runoff Depth>3.59"
Flow Length=276' Tc=34.7 min CN=71 Runoff=0.83 cfs 0.103 af

Subcatchment47: Runoff Area=79,187 sf 6.00% Impervious Runoff Depth>4.03"
Flow Length=639' Tc=15.9 min CN=75 Runoff=6.80 cfs 0.611 af

Subcatchment48: Runoff Area=40,183 sf 0.00% Impervious Runoff Depth>3.46"
Flow Length=377' Tc=54.0 min CN=70 Runoff=1.71 cfs 0.266 af

Subcatchment49: Runoff Area=84,173 sf 0.65% Impervious Runoff Depth>3.46"
Flow Length=470' Tc=54.1 min CN=70 Runoff=3.57 cfs 0.557 af

Subcatchment50: Runoff Area=30,173 sf 100.00% Impervious Runoff Depth>6.64"
Tc=6.0 min CN=98 Runoff=4.78 cfs 0.383 af

SubcatchmentOS10: OFFSITE 2 (above Runoff Area=1,644,982 sf 2.57% Impervious Runoff Depth>3.82"
Flow Length=2,221' Tc=94.2 min CN=74 Runoff=55.26 cfs 12.013 af

SubcatchmentOS11: OFFSITE 3 Runoff Area=513,527 sf 23.06% Impervious Runoff Depth>4.37"
Flow Length=532' Tc=6.8 min CN=78 Runoff=61.36 cfs 4.292 af

SubcatchmentOS9: OFFSITE 1 (Below Runoff Area=702,010 sf 3.63% Impervious Runoff Depth>4.01"
Flow Length=1,353' Tc=35.1 min CN=75 Runoff=42.86 cfs 5.384 af

Reach 9R: ANALYSISPOINT 9 Inflow=42.86 cfs 5.384 af
Outflow=42.86 cfs 5.384 af

Reach 10R: Perkins Road Culvert Avg. Flow Depth=2.00' Max Vel=11.61 fps Inflow=55.26 cfs 12.013 af
24.0" Round Pipe n=0.013 L=25.0' S=0.0200 '/' Capacity=31.99 cfs Outflow=31.99 cfs 12.014 af

Reach 11R: Stream 9 Inflow=61.36 cfs 4.292 af
Outflow=61.36 cfs 4.292 af

Reach 17R: untreated Inflow=2.06 cfs 0.157 af
Outflow=2.06 cfs 0.157 af

Reach 20R: untreated Inflow=4.33 cfs 0.323 af
Outflow=4.33 cfs 0.323 af

Reach 23R: sub 23 Inflow=3.47 cfs 0.238 af
Outflow=3.47 cfs 0.238 af

Reach 27R: extisting Inflow=0.67 cfs 0.054 af
Outflow=0.67 cfs 0.054 af

Reach 28R: existing Inflow=11.08 cfs 0.784 af
Outflow=11.08 cfs 0.784 af

Reach 29R: untreated Inflow=0.21 cfs 0.017 af
Outflow=0.21 cfs 0.017 af

Reach 32R: untreated Inflow=0.69 cfs 0.050 af
Outflow=0.69 cfs 0.050 af

Reach 44R: Inflow=11.51 cfs 1.101 af
Outflow=11.51 cfs 1.101 af

Reach 47R: Inflow=6.80 cfs 0.611 af
Outflow=6.80 cfs 0.611 af

Reach 48R: (new Reach) Inflow=1.71 cfs 0.266 af
Outflow=1.71 cfs 0.266 af

Reach 49R: Inflow=3.57 cfs 0.557 af
Outflow=3.57 cfs 0.557 af

Reach PT1: ANALYSISPOINT 1 at BWD Little River Inflow=5.28 cfs 0.823 af
Outflow=5.28 cfs 0.823 af

Reach PT2: ANALYSISPOINT 2 at BWD Reservoir Inflow=4.55 cfs 0.802 af
Outflow=4.55 cfs 0.802 af

Reach PT3: ANALYSISPOINT 3/4 at BWD Reservoir Inflow=5.98 cfs 0.489 af
Outflow=5.98 cfs 0.489 af

Reach PT5: all BWD reservoir Inflow=9.71 cfs 1.529 af
Outflow=9.71 cfs 1.529 af

Reach PT6: stream 9 offsite Avg. Flow Depth=1.89' Max Vel=5.14 fps Inflow=87.55 cfs 21.689 af
n=0.040 L=483.0' S=0.0145 '/' Capacity=401.91 cfs Outflow=84.59 cfs 21.647 af

Reach PT7: ANALYSISPOINT7 at US Avg. Flow Depth=0.43' Max Vel=8.93 fps Inflow=3.71 cfs 0.431 af
18.0" Round Pipe n=0.013 L=83.0' S=0.0398 '/' Capacity=20.95 cfs Outflow=3.71 cfs 0.430 af

Reach PT8: ANALYSISPOINT 8 at US Avg. Flow Depth=0.06' Max Vel=4.90 fps Inflow=0.83 cfs 0.103 af
36.0" x 24.0" Box Pipe n=0.011 L=76.0' S=0.0632 '/' Capacity=144.91 cfs Outflow=0.82 cfs 0.103 af

Reach PT9: Analysis Point Stream 9 Avg. Flow Depth=1.48' Max Vel=28.16 fps Inflow=97.89 cfs 23.762 af
36.0" Round Pipe n=0.011 L=93.0' S=0.0645 '/' Capacity=200.22 cfs Outflow=97.88 cfs 23.760 af

Reach S9-2: Stream 9 Avg. Flow Depth=1.72' Max Vel=6.19 fps Inflow=94.48 cfs 22.748 af
n=0.040 L=1,580.0' S=0.0233 '/' Capacity=120.91 cfs Outflow=88.94 cfs 22.624 af

Reach S9-3: Stream 9 Avg. Flow Depth=1.59' Max Vel=6.11 fps Inflow=95.54 cfs 23.306 af
n=0.035 L=364.0' S=0.0199 '/' Capacity=152.29 cfs Outflow=94.87 cfs 23.276 af

Reach tank: existing clarifier Inflow=130.54 cfs 7.550 af
Outflow=130.54 cfs 7.550 af

Pond 1P: (new Pond) Peak Elev=64.72' Inflow=17.83 cfs 1.430 af
Primary=12.26 cfs 0.278 af Secondary=5.57 cfs 1.153 af Outflow=17.83 cfs 1.430 af

Pond 4P: Rtanks Peak Elev=30.12' Storage=754 cf Inflow=1.98 cfs 0.133 af
12.0" Round Culvert n=0.013 L=5.0' S=0.0000 '/' Outflow=1.51 cfs 0.132 af

Pond dmh10: dmh10 Peak Elev=61.48' Inflow=29.05 cfs 0.823 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=29.05 cfs 0.823 af

Pond dmh11: dmh11 Peak Elev=60.30' Inflow=43.86 cfs 1.467 af
30.0" Round Culvert n=0.013 L=84.0' S=0.0050 '/' Outflow=43.86 cfs 1.467 af

Pond dmh13: dmh13 Peak Elev=59.86' Inflow=43.86 cfs 1.467 af
30.0" Round Culvert n=0.013 L=201.0' S=0.0050 '/' Outflow=43.86 cfs 1.467 af

Pond dmh14: dmh14 Peak Elev=59.54' Inflow=46.62 cfs 1.769 af
30.0" Round Culvert n=0.020 L=23.0' S=0.0052 '/' Outflow=46.62 cfs 1.769 af

Pond dmh15: dmh15 Peak Elev=59.42' Inflow=46.62 cfs 1.769 af
30.0" Round Culvert n=0.013 L=90.0' S=0.0050 '/' Outflow=46.62 cfs 1.769 af

Pond dmh16: dmh16 Peak Elev=61.11' Inflow=1.06 cfs 0.079 af
12.0" Round Culvert n=0.013 L=198.0' S=0.0126 '/' Outflow=1.06 cfs 0.079 af

Pond dmh17: dmh17 Peak Elev=59.21' Inflow=47.57 cfs 1.914 af
30.0" Round Culvert n=0.013 L=35.0' S=0.0051 '/' Outflow=47.57 cfs 1.914 af

Pond dmh2: dmh2 Peak Elev=67.20' Inflow=12.51 cfs 0.280 af
18.0" Round Culvert n=0.013 L=100.0' S=0.0150 '/' Outflow=12.51 cfs 0.280 af

Pond dmh20: dmh20 Peak Elev=59.01' Inflow=47.57 cfs 1.914 af
30.0" Round Culvert n=0.013 L=100.0' S=0.0050 '/' Outflow=47.57 cfs 1.914 af

Pond dmh21: dmh21 Peak Elev=57.79' Inflow=63.26 cfs 3.471 af
36.0" Round Culvert n=0.013 L=281.0' S=0.0169 '/' Outflow=63.26 cfs 3.471 af

Pond dmh22: dmh 22 Peak Elev=59.96' Inflow=13.06 cfs 1.165 af
15.0" Round Culvert n=0.013 L=93.0' S=0.0051 '/' Outflow=13.06 cfs 1.165 af

Pond dmh23: dmh23 Peak Elev=75.54' Inflow=11.30 cfs 0.867 af
12.0" Round Culvert n=0.013 L=138.0' S=0.0050 '/' Outflow=11.30 cfs 0.867 af

Pond dmh24: dmh24 Peak Elev=70.93' Inflow=11.30 cfs 0.867 af
12.0" Round Culvert n=0.013 L=72.0' S=0.0025 '/' Outflow=11.30 cfs 0.867 af

Pond dmh24a: dmh24a Peak Elev=77.81' Inflow=4.73 cfs 0.391 af
8.0" Round Culvert n=0.013 L=95.0' S=0.0095 '/' Outflow=4.73 cfs 0.391 af

Pond dmh25: dmh25 Peak Elev=61.05' Inflow=2.23 cfs 0.171 af
12.0" Round Culvert n=0.013 L=98.0' S=0.0510 '/' Outflow=2.23 cfs 0.171 af

Pond dmh26: (new Pond) Peak Elev=67.18' Inflow=8.92 cfs 0.722 af
12.0" Round Culvert n=0.020 L=28.0' S=0.0050 '/' Outflow=8.92 cfs 0.722 af

Pond dmh27: dmh27 Peak Elev=65.89' Inflow=12.61 cfs 1.045 af
15.0" Round Culvert n=0.013 L=256.0' S=0.0050 '/' Outflow=12.61 cfs 1.045 af

Pond dmh29: dmh29 Peak Elev=60.23' Inflow=1.90 cfs 0.152 af
8.0" Round Culvert n=0.013 L=46.0' S=0.0100 '/' Outflow=1.90 cfs 0.152 af

Pond dmh3: dmh3 Peak Elev=67.35' Inflow=16.64 cfs 0.543 af
18.0" Round Culvert n=0.013 L=125.0' S=0.0053 '/' Outflow=16.64 cfs 0.543 af

Pond dmh30: dmh30 Peak Elev=56.30' Inflow=1.90 cfs 0.152 af
12.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=1.90 cfs 0.152 af

Pond dmh31: dmh31 Peak Elev=63.14' Inflow=10.39 cfs 0.874 af
15.0" Round Culvert n=0.013 L=259.0' S=0.0050 '/' Outflow=10.39 cfs 0.874 af

Pond dmh32: dmh32 Peak Elev=57.57' Inflow=15.16 cfs 1.282 af
18.0" Round Culvert n=0.013 L=36.0' S=0.0036 '/' Outflow=15.16 cfs 1.282 af

Pond dmh33: dmh33 Peak Elev=54.47' Inflow=0.66 cfs 0.144 af
12.0" Round Culvert n=0.013 L=201.0' S=0.0099 '/' Outflow=0.66 cfs 0.144 af

Pond dmh34: dmh34 Peak Elev=55.76' Inflow=11.68 cfs 0.893 af
18.0" Round Culvert n=0.013 L=39.0' S=0.0100 '/' Outflow=11.68 cfs 0.893 af

Pond dmh35: dmh35 Peak Elev=59.96' Inflow=30.45 cfs 2.460 af
24.0" Round Culvert n=0.013 L=276.0' S=0.0050 '/' Outflow=30.45 cfs 2.460 af

Pond dmh36: dmh36 Peak Elev=57.65' Inflow=30.45 cfs 2.460 af
24.0" Round Culvert n=0.013 L=159.0' S=0.0050 '/' Outflow=30.45 cfs 2.460 af

Pond dmh38: dmh38 Peak Elev=56.13' Inflow=12.42 cfs 0.279 af
18.0" Round Culvert n=0.013 L=106.0' S=0.0100 '/' Outflow=12.42 cfs 0.279 af

Pond dmh39: dmh39 Peak Elev=55.25' Inflow=13.32 cfs 0.335 af
18.0" Round Culvert n=0.013 L=58.0' S=0.0047 '/' Outflow=13.32 cfs 0.335 af

Pond dmh4: dmh4 Peak Elev=66.69' Inflow=16.64 cfs 0.543 af
18.0" Round Culvert n=0.013 L=66.0' S=0.0041 '/' Outflow=16.64 cfs 0.543 af

Pond dmh40: dmh40 Peak Elev=56.29' Inflow=43.53 cfs 2.795 af
30.0" Round Culvert n=0.013 L=340.0' S=0.0050 '/' Outflow=43.53 cfs 2.795 af

Pond dmh43: dmh43 Peak Elev=54.30' Inflow=43.53 cfs 2.795 af
30.0" Round Culvert n=0.013 L=193.0' S=0.0050 '/' Outflow=43.53 cfs 2.795 af

Pond dmh44: dmh44 Peak Elev=50.89' Inflow=44.73 cfs 2.877 af
36.0" Round Culvert n=0.013 L=82.0' S=0.0050 '/' Outflow=44.73 cfs 2.877 af

Pond dmh45: dmh45 Peak Elev=50.46' Inflow=44.73 cfs 2.877 af
36.0" Round Culvert n=0.013 L=316.0' S=0.0050 '/' Outflow=44.73 cfs 2.877 af

Pond dmh47: dmh47 Peak Elev=50.03' Inflow=57.22 cfs 3.157 af
36.0" Round Culvert n=0.013 L=104.0' S=0.0100 '/' Outflow=57.22 cfs 3.157 af

Pond dmh48: dmh48 Peak Elev=49.46' Inflow=60.18 cfs 3.505 af
36.0" Round Culvert n=0.013 L=117.0' S=0.0050 '/' Outflow=60.18 cfs 3.505 af

Pond dmh49: dmh49 Peak Elev=49.16' Inflow=62.02 cfs 3.634 af
36.0" Round Culvert n=0.013 L=14.0' S=0.0071 '/' Outflow=62.02 cfs 3.634 af

Pond dmh5: dmh5 Peak Elev=67.04' Inflow=16.64 cfs 0.543 af
18.0" Round Culvert n=0.013 L=173.0' S=0.0050 '/' Outflow=16.64 cfs 0.543 af

Pond dmh50: dmh50 Peak Elev=52.24' Inflow=65.78 cfs 3.696 af
36.0" Round Culvert n=0.013 L=64.0' S=0.0100 '/' Outflow=65.78 cfs 3.696 af

Pond dmh51: dmh51 Peak Elev=51.58' Inflow=65.78 cfs 3.696 af
36.0" Round Culvert n=0.013 L=38.0' S=0.0287 '/' Outflow=65.78 cfs 3.696 af

Pond dmh52: dmh52 Peak Elev=46.43' Inflow=127.76 cfs 7.330 af
60.0" Round Culvert n=0.013 L=258.0' S=0.0194 '/' Outflow=127.76 cfs 7.330 af

Pond dmh53: dmh53 Peak Elev=38.54' Inflow=130.24 cfs 7.506 af
60.0" Round Culvert n=0.013 L=120.0' S=0.0208 '/' Outflow=130.24 cfs 7.506 af

Pond dmh54: dmh54 Peak Elev=32.56' Inflow=130.54 cfs 7.550 af
60.0" Round Culvert n=0.013 L=152.0' S=0.0329 '/' Outflow=130.54 cfs 7.550 af

Pond dmh55: dhm55 Peak Elev=24.56' Inflow=130.54 cfs 7.550 af
60.0" Round Culvert n=0.013 L=115.0' S=0.0304 '/' Outflow=130.54 cfs 7.550 af

Pond dmh56: dmh56 Peak Elev=18.06' Inflow=130.54 cfs 7.550 af
60.0" Round Culvert n=0.013 L=42.0' S=0.0357 '/' Outflow=130.54 cfs 7.550 af

Pond dmh59: dmh59 Peak Elev=93.32' Inflow=11.87 cfs 0.978 af
12.0" Round Culvert n=0.013 L=294.0' S=0.0050 '/' Outflow=11.87 cfs 0.978 af

Pond dmh6: dmh6 Peak Elev=71.91' Inflow=16.64 cfs 0.543 af
18.0" Round Culvert n=0.020 L=170.0' S=0.0050 '/' Outflow=16.64 cfs 0.543 af

Pond dmh60: dhm60 Peak Elev=40.93' Inflow=127.76 cfs 7.330 af
60.0" Round Culvert n=0.013 L=114.0' S=0.0175 '/' Outflow=127.76 cfs 7.330 af

Pond dmh7: dmh7 Peak Elev=65.22' Inflow=16.64 cfs 0.543 af
18.0" Round Culvert n=0.013 L=170.0' S=0.0050 '/' Outflow=16.64 cfs 0.543 af

Pond dmh8: dmh8 Peak Elev=65.04' Inflow=29.05 cfs 0.823 af
24.0" Round Culvert n=0.013 L=296.0' S=0.0040 '/' Outflow=29.05 cfs 0.823 af

Pond dmh9a: dmh9a Peak Elev=62.53' Inflow=29.05 cfs 0.823 af
24.0" Round Culvert n=0.013 L=206.0' S=0.0050 '/' Outflow=29.05 cfs 0.823 af

Pond GSF 11: grassed soil filter Peak Elev=62.46' Storage=3,813 cf Inflow=5.81 cfs 0.406 af
Outflow=4.44 cfs 0.348 af

Pond GSF 12: grassed soil filter Peak Elev=61.67' Storage=662 cf Inflow=1.88 cfs 0.135 af
Outflow=1.84 cfs 0.124 af

Pond GSF 13: grassed soil filter Peak Elev=62.47' Storage=4,753 cf Inflow=6.28 cfs 0.444 af
Outflow=4.49 cfs 0.374 af

Pond GSF 15: grassed soil filter Peak Elev=63.81' Storage=212 cf Inflow=1.02 cfs 0.069 af
Outflow=1.00 cfs 0.066 af

Pond GSF 16: grassed soil filter Peak Elev=64.52' Storage=2,840 cf Inflow=2.00 cfs 0.139 af
Outflow=1.06 cfs 0.079 af

Pond GSF 18A: grassed soil filter Peak Elev=57.50' Storage=518 cf Inflow=0.87 cfs 0.061 af
Outflow=0.83 cfs 0.052 af

Pond GSF 18B: grassed soil filter Peak Elev=57.98' Storage=417 cf Inflow=0.58 cfs 0.042 af
Outflow=0.58 cfs 0.034 af

Pond GSF 1A: Grassed soil filter Peak Elev=65.95' Storage=337 cf Inflow=2.43 cfs 0.171 af
Outflow=2.23 cfs 0.171 af

Pond GSF 1B: grassed soil filter Peak Elev=72.80' Storage=1,039 cf Inflow=4.24 cfs 0.291 af
Outflow=4.13 cfs 0.263 af

Pond GSF 2: grassed soil filter Peak Elev=58.03' Storage=2,473 cf Inflow=3.95 cfs 0.272 af
Outflow=2.57 cfs 0.237 af

Pond GSF 24: grassed soil filter Peak Elev=40.82' Storage=1,774 cf Inflow=2.78 cfs 0.208 af
Outflow=2.56 cfs 0.176 af

Pond GSF 3: grassed soil filter Peak Elev=56.10' Storage=2,923 cf Inflow=4.77 cfs 0.332 af
Outflow=3.90 cfs 0.286 af

Pond GSF 4: grassed soil filter Peak Elev=55.21' Storage=405 cf Inflow=0.94 cfs 0.064 af
Outflow=0.93 cfs 0.056 af

Pond GSF 5: grassed soil filter Peak Elev=54.01' Storage=3 cf Inflow=1.20 cfs 0.081 af
Outflow=1.20 cfs 0.081 af

Pond GSF 6: grassed soil filter Peak Elev=49.00' Storage=2 cf Inflow=1.85 cfs 0.129 af
Outflow=1.85 cfs 0.129 af

Pond GSF 7: grassed soil filter Peak Elev=55.03' Storage=2,825 cf Inflow=3.86 cfs 0.266 af
Outflow=2.55 cfs 0.225 af

Pond GSF 8: grassed soil filter Peak Elev=58.44' Storage=6,241 cf Inflow=6.53 cfs 0.468 af
Outflow=2.76 cfs 0.392 af

Pond GSF 9: grassed soil filter Peak Elev=63.76' Storage=535 cf Inflow=4.15 cfs 0.302 af
Outflow=2.79 cfs 0.302 af

Pond ICS1: ICS Peak Elev=67.63' Inflow=17.83 cfs 1.430 af
Primary=12.51 cfs 0.280 af Secondary=5.32 cfs 1.151 af Outflow=17.83 cfs 1.430 af

Pond ics28: ICS28 Peak Elev=58.94' Inflow=1.90 cfs 0.152 af
Primary=1.90 cfs 0.152 af Secondary=0.00 cfs 0.000 af Outflow=1.90 cfs 0.152 af

Pond ICS37: ISC37 Peak Elev=56.59' Inflow=17.83 cfs 1.430 af
Primary=12.42 cfs 0.279 af Secondary=5.42 cfs 1.151 af Outflow=17.83 cfs 1.430 af

Pond ics46: ICS46 Peak Elev=50.37' Inflow=17.83 cfs 1.430 af
Primary=12.61 cfs 0.281 af Secondary=5.23 cfs 1.150 af Outflow=17.83 cfs 1.430 af

Pond ICS9: ICS9 Peak Elev=65.79' Inflow=17.83 cfs 1.430 af
Primary=12.42 cfs 0.280 af Secondary=5.42 cfs 1.150 af Outflow=17.83 cfs 1.430 af

Pond ISC42: ICS42 Peak Elev=0.00'
Primary=0.00 cfs 0.000 af Secondary=0.00 cfs 0.000 af

Pond MPP 10: Rtank storage Peak Elev=61.95' Storage=0.090 af Inflow=4.90 cfs 0.393 af
8.0" Round Culvert x 6.00 n=0.013 L=2.0' S=0.0400 '/' Outflow=3.15 cfs 0.366 af

Pond MPP 14: Rtanks Peak Elev=56.75' Storage=1,114 cf Inflow=1.48 cfs 0.117 af
8.0" Round Culvert x 2.00 n=0.013 L=21.0' S=0.0052 '/' Outflow=0.99 cfs 0.110 af

Pond MPP 19: Rtanks Peak Elev=56.12' Storage=0.068 af Inflow=2.12 cfs 0.162 af
6.0" Round Culvert n=0.013 L=19.0' S=0.0042 '/' Outflow=0.66 cfs 0.144 af

Pond MPP 21: Rtanks Peak Elev=55.93' Storage=1,484 cf Inflow=1.55 cfs 0.118 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.73 cfs 0.111 af

Pond MPP 22: Rtanks Peak Elev=56.10' Storage=2,782 cf Inflow=2.06 cfs 0.154 af
6.0" Round Culvert n=0.013 L=2.0' S=0.0000 '/' Outflow=0.67 cfs 0.137 af

Pond MPP 26: Rtanks Peak Elev=35.01' Storage=592 cf Inflow=0.60 cfs 0.048 af
8.0" Round Culvert n=0.013 L=8.0' S=0.0350 '/' Outflow=0.36 cfs 0.044 af

Pond MPP 50: Peak Elev=55.11' Storage=3,881 cf Inflow=4.78 cfs 0.383 af
8.0" Round Culvert x 7.00 n=0.013 L=3.0' S=0.0100 '/' Outflow=3.43 cfs 0.348 af

Pond mpp30: Rtanks Peak Elev=31.14' Storage=3,567 cf Inflow=6.08 cfs 0.496 af
12.0" Round Culvert n=0.013 L=20.0' S=0.0305 '/' Outflow=3.03 cfs 0.486 af

Pond OCS57: OCS 57 Peak Elev=30.44' Inflow=3.03 cfs 0.486 af
Outflow=3.03 cfs 0.486 af

Pond SSF 36: ssf Inflow=5.32 cfs 1.151 af
Primary=5.32 cfs 1.151 af

Pond SSF 37: Inflow=5.42 cfs 1.150 af
Primary=5.42 cfs 1.150 af

Pond SSF 38: ssf38 Inflow=5.57 cfs 1.153 af
Primary=5.57 cfs 1.153 af

Pond SSF 39: Inflow=5.42 cfs 1.151 af
Primary=5.42 cfs 1.151 af

Pond SSF 40: Inflow=17.83 cfs 1.430 af
Primary=17.83 cfs 1.430 af

Pond SSF 41: Inflow=5.23 cfs 1.150 af
Primary=5.23 cfs 1.150 af

Pond SSF 42: Inflow=0.00 cfs 0.000 af
Primary=0.00 cfs 0.000 af

Pond SSF 43: Inflow=3.01 cfs 0.241 af
Primary=3.01 cfs 0.241 af

Total Runoff Area = 116.268 ac Runoff Volume = 43.220 af Average Runoff Depth = 4.46"
74.75% Pervious = 86.915 ac 25.25% Impervious = 29.353 ac

Summary for Subcatchment 1A:

Runoff = 2.43 cfs @ 12.09 hrs, Volume= 0.171 af, Depth> 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,582	77	>75% Grass cover, Good, HSG C/D
*	6,203	98	Impervious, HSG C/D
	17,785	84	Weighted Average
	11,582		65.12% Pervious Area
	6,203		34.88% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 1B:

Runoff = 4.24 cfs @ 12.09 hrs, Volume= 0.291 af, Depth> 4.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	6,832	98	Impervious
	27,186	74	>75% Grass cover, Good, HSG C
	34,018	79	Weighted Average
	27,186		79.92% Pervious Area
	6,832		20.08% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 2:

Runoff = 3.95 cfs @ 12.09 hrs, Volume= 0.272 af, Depth> 4.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,052	98	Impervious
	5,300	74	>75% Grass cover, Good, HSG C
*	17,697	74	>75% Grass cover, Good, HSG C/D
	31,049	80	Weighted Average
	22,997		74.07% Pervious Area
	8,052		25.93% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 3:

Runoff = 4.77 cfs @ 12.09 hrs, Volume= 0.332 af, Depth> 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	13,091	98	Impervious, HSG C
*	15,516	74	>75% Grass cover, Good, HSG C/D
*	7,540	70	Woods, Good, HSG C/D
	36,147	82	Weighted Average
	23,056		63.78% Pervious Area
	13,091		36.22% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 4:

Runoff = 0.94 cfs @ 12.09 hrs, Volume= 0.064 af, Depth> 3.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
	8,448	74	>75% Grass cover, Good, HSG C
	8,448		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 5:

Runoff = 1.20 cfs @ 12.09 hrs, Volume= 0.081 af, Depth> 3.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

Area (sf)	CN	Description
10,807	74	>75% Grass cover, Good, HSG C
10,807		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 6:

Runoff = 1.85 cfs @ 12.09 hrs, Volume= 0.129 af, Depth> 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	4,484	98	Impervious
*	9,501	74	>75% Grass cover, Good, HSG C
	13,985	82	Weighted Average
	9,501		67.94% Pervious Area
	4,484		32.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 7:

Runoff = 3.86 cfs @ 12.09 hrs, Volume= 0.266 af, Depth> 4.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	7,846	98	Impervious
	3,270	74	>75% Grass cover, Good, HSG C
*	19,229	74	>75% Grass cover, Good, HSG C/D
	30,345	80	Weighted Average
	22,499		74.14% Pervious Area
	7,846		25.86% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 8:

Runoff = 6.53 cfs @ 12.09 hrs, Volume= 0.468 af, Depth> 5.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	25,409	98	Impervious
	20,142	74	>75% Grass cover, Good, HSG C
	45,551	87	Weighted Average
	20,142		44.22% Pervious Area
	25,409		55.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 9:

Runoff = 4.15 cfs @ 12.09 hrs, Volume= 0.302 af, Depth> 5.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	10,348	74	>75% Grass cover, Good, HSG C/D
*	17,843	98	Impervious
	28,191	89	Weighted Average
	10,348		36.71% Pervious Area
	17,843		63.29% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 10: access drive north of B1

Runoff = 4.90 cfs @ 12.09 hrs, Volume= 0.393 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	30,932	98	Impervious
	30,932		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 11:

Runoff = 5.81 cfs @ 12.09 hrs, Volume= 0.406 af, Depth> 4.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	15,881	98	Impervious
*	27,293	74	>75% Grass cover, Good, HSG C/D
	43,174	83	Weighted Average
	27,293		63.22% Pervious Area
	15,881		36.78% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 12:

Runoff = 1.88 cfs @ 12.09 hrs, Volume= 0.135 af, Depth> 5.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	7,491	98	Impervious, HSG C/D
	5,429	74	>75% Grass cover, Good, HSG C
	12,920	88	Weighted Average
	5,429		42.02% Pervious Area
	7,491		57.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 13:

Runoff = 6.28 cfs @ 12.09 hrs, Volume= 0.444 af, Depth> 5.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	20,981	98	Impervious
*	24,182	74	>75% Grass cover, Good, HSG C/D
	45,163	85	Weighted Average
	24,182		53.54% Pervious Area
	20,981		46.46% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 14:

Runoff = 1.48 cfs @ 12.09 hrs, Volume= 0.117 af, Depth> 6.53"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,849	98	Impervious
	529	74	>75% Grass cover, Good, HSG C
	9,378	97	Weighted Average
	529		5.64% Pervious Area
	8,849		94.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 15:

Runoff = 1.02 cfs @ 12.09 hrs, Volume= 0.069 af, Depth> 3.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	176	98	Impervious
*	4,183	74	>75% Grass cover, Good, HSG C/D
*	4,798	74	vegetated roof
	9,157	74	Weighted Average
	8,981		98.08% Pervious Area
	176		1.92% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 16:

Runoff = 2.00 cfs @ 12.09 hrs, Volume= 0.139 af, Depth> 4.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	5,161	98	Impervious
*	9,949	74	>75% Grass cover, Good, HSG C/D
	15,110	82	Weighted Average
	9,949		65.84% Pervious Area
	5,161		34.16% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 17:

Runoff = 2.06 cfs @ 12.09 hrs, Volume= 0.157 af, Depth> 6.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,320	98	Impervious
*	1,980	74	>75% Grass cover, Good, HSG C/D
	13,300	94	Weighted Average
	1,980		14.89% Pervious Area
	11,320		85.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18A:

Runoff = 0.87 cfs @ 12.09 hrs, Volume= 0.061 af, Depth> 5.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	2,593	98	Impervious
*	3,746	74	>75% Grass cover, Good, HSG C/D
	6,339	84	Weighted Average
	3,746		59.09% Pervious Area
	2,593		40.91% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 18B:

Runoff = 0.58 cfs @ 12.09 hrs, Volume= 0.042 af, Depth> 5.48"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	2,348	98	Impervious
*	1,675	74	>75% Grass cover, Good, HSG C/D
	4,023	88	Weighted Average
	1,675		41.64% Pervious Area
	2,348		58.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 19:

Runoff = 2.12 cfs @ 12.09 hrs, Volume= 0.162 af, Depth> 6.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	11,210	98	Impervious
*	2,501	74	>75% Grass cover, Good, HSG C/D
	13,711	94	Weighted Average
	2,501		18.24% Pervious Area
	11,210		81.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 20:

Runoff = 4.33 cfs @ 12.09 hrs, Volume= 0.323 af, Depth> 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	21,010	98	Impervious
*	7,449	74	>75% Grass cover, Good, HSG C/D
	28,459	92	Weighted Average
	7,449		26.17% Pervious Area
	21,010		73.83% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 21:

Runoff = 1.55 cfs @ 12.09 hrs, Volume= 0.118 af, Depth> 6.17"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	8,361	98	Impervious
*	1,633	74	>75% Grass cover, Good, HSG C/D
	9,994	94	Weighted Average
	1,633		16.34% Pervious Area
	8,361		83.66% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 22:

Runoff = 2.06 cfs @ 12.09 hrs, Volume= 0.154 af, Depth> 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	10,326	98	Impervious
*	3,185	74	>75% Grass cover, Good, HSG C/D
	13,511	92	Weighted Average
	3,185		23.57% Pervious Area
	10,326		76.43% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 23: sub 23

Runoff = 3.47 cfs @ 12.09 hrs, Volume= 0.238 af, Depth> 4.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

Area (sf)	CN	Description
6,249	98	Paved parking, HSG C
2,450	74	>75% Grass cover, Good, HSG C
10,135	74	>75% Grass cover, Good, HSG C
9,641	70	Woods, Good, HSG C
28,475	78	Weighted Average
22,226		78.05% Pervious Area
6,249		21.95% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, direct**

Summary for Subcatchment 24:

Runoff = 2.78 cfs @ 12.09 hrs, Volume= 0.208 af, Depth> 5.94"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	12,270	98	Impervious
	5,991	80	>75% Grass cover, Good, HSG D
	18,261	92	Weighted Average
	5,991		32.81% Pervious Area
	12,270		67.19% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 25:

Runoff = 4.55 cfs @ 12.90 hrs, Volume= 0.802 af, Depth> 3.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	21,818	74	>75% Grass cover, Good, HSG C/D
*	96,405	70	Woods, Good, HSG C/D
	118,223	71	Weighted Average
	118,223		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
54.4	130	0.0150	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
11.9	253	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	55	0.3000	1.37		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
67.0	438	Total			

Summary for Subcatchment 26:

Runoff = 0.60 cfs @ 12.09 hrs, Volume= 0.048 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	3,816	98	Impervious
	3,816		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 27:

Runoff = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	4,262	98	Impervious
	4,262		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 28:

Runoff = 11.08 cfs @ 12.09 hrs, Volume= 0.784 af, Depth> 5.14"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	21,852	98	Impervious
	40,598	80	>75% Grass cover, Good, HSG D
	6,418	77	Woods, Good, HSG D
	10,830	79	Woods/grass comb., Good, HSG D
	79,698	85	Weighted Average
	57,846		72.58% Pervious Area
	21,852		27.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 29:

Runoff = 0.21 cfs @ 12.09 hrs, Volume= 0.017 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	1,306	98	Impervious
	1,306		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 30:

Runoff = 4.84 cfs @ 12.09 hrs, Volume= 0.365 af, Depth> 6.06"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	24,541	98	Impervious
*	6,931	74	>75% Grass cover, Good, HSG C/D
	31,472	93	Weighted Average
	6,931		22.02% Pervious Area
	24,541		77.98% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 31:

Runoff = 5.98 cfs @ 12.17 hrs, Volume= 0.489 af, Depth> 3.62"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	24,011	74	>75% Grass cover, Good, HSG C/D
*	46,605	70	Woods, Good, HSG C/D
	70,616	71	Weighted Average
	70,616		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.4	100	0.0500	0.16		**Sheet Flow, a-b**
					Grass: Dense n= 0.240 P2= 2.90"
1.7	86	0.1200	0.87		**Shallow Concentrated Flow, b-c**
					Forest w/Heavy Litter Kv= 2.5 fps
0.2	31	0.0300	2.60		**Shallow Concentrated Flow, c-d**
					Grassed Waterway Kv= 15.0 fps
12.3	217	Total			

Summary for Subcatchment 32:

Runoff = 0.69 cfs @ 12.09 hrs, Volume= 0.050 af, Depth> 5.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	2,826	98	Impervious
*	1,851	74	>75% Grass cover, Good, HSG C/D
	4,677	89	Weighted Average
	1,851		39.58% Pervious Area
	2,826		60.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 33: B3 green

Runoff = 9.84 cfs @ 12.09 hrs, Volume= 0.664 af, Depth> 3.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	89,860	61	vegetated roof
*	18,033	98	penthouse
	107,893	67	Weighted Average
	89,860		83.29% Pervious Area
	18,033		16.71% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 34:

Runoff = 2.27 cfs @ 12.09 hrs, Volume= 0.153 af, Depth> 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	19,279	61	vegetated roof
*	4,820	98	penhouse/walks on roof
	24,099	68	Weighted Average
	19,279		80.00% Pervious Area
	4,820		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 35:

Runoff = 1.98 cfs @ 12.09 hrs, Volume= 0.133 af, Depth> 3.32"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	16,797	61	vegetated roof
*	4,200	98	penthouse/walks on roof
	20,997	68	Weighted Average
	16,797		80.00% Pervious Area
	4,200		20.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 36: B1M1

Runoff = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 37: B1M2

Runoff = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 38: B1M3

Runoff = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 39: B2M4

Runoff = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 40: B2M5

Runoff = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 41: B2M6

Runoff = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	112,560	98	Roof
	112,560		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 42: B6

Runoff = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	12,000	98	Impervious
	12,000		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 43: B5

Runoff = 3.01 cfs @ 12.09 hrs, Volume= 0.241 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	18,983	98	Impervious
	18,983		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment 44: onsite untreated

Runoff = 11.51 cfs @ 12.26 hrs, Volume= 1.101 af, Depth> 3.61"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	29,531	74	>75% Grass cover, Good, HSG C/D
*	129,832	70	Woods, Good, HSG C/D
	159,363	71	Weighted Average
	159,363		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.4	97	0.0620	0.25		**Sheet Flow, a-b** Grass: Short n= 0.150 P2= 2.90"
4.3	170	0.0090	0.66		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
1.3	97	0.0320	1.25		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
6.8	210	0.0430	0.52		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
18.8	574	Total			

Summary for Subcatchment 45:

Runoff = 3.71 cfs @ 12.42 hrs, Volume= 0.431 af, Depth> 3.49"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	5,799	74	>75% Grass cover, Good, HSG C/D
*	58,641	70	Woods, Good, HSG C/D
	64,440	70	Weighted Average
	64,440		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
26.3	79	0.0340	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
2.9	121	0.0800	0.71		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.2	34	0.0600	3.67		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
0.5	73	0.0600	2.64	10.56	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100 Earth, dense brush, high stage

29.9	307	Total

Summary for Subcatchment 46: SUBCAT 8

Runoff = 0.83 cfs @ 12.48 hrs, Volume= 0.103 af, Depth> 3.59"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	12,652	70	Woods, Good, HSG C/D
*	2,324	74	>75% Grass cover, Good, HSG C/D
	14,976	71	Weighted Average
	14,976		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
32.0	67	0.0150	0.03		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
1.1	43	0.0700	0.66		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.1	14	0.7100	2.11		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
1.5	152	0.0240	1.67	6.68	**Trap/Vee/Rect Channel Flow, d-e** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.100
34.7	276	Total			

Summary for Subcatchment 47:

Runoff = 6.80 cfs @ 12.22 hrs, Volume= 0.611 af, Depth> 4.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
	16,941	80	>75% Grass cover, Good, HSG D
*	27,433	74	>75% Grass cover, Good, HSG C/D
*	30,061	70	Woods, Good, HSG C/D
*	4,752	98	Impervious
	79,187	75	Weighted Average
	74,435		94.00% Pervious Area
	4,752		6.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
11.5	102	0.0400	0.15		**Sheet Flow, a-b** Grass: Dense n= 0.240 P2= 2.90"
0.6	30	0.1000	0.79		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.6	100	0.0300	2.60		**Shallow Concentrated Flow, c-d** Grassed Waterway Kv= 15.0 fps
3.2	407	0.0200	2.12		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
15.9	639	Total			

Summary for Subcatchment 48:

Runoff = 1.71 cfs @ 12.75 hrs, Volume= 0.266 af, Depth> 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	305	74	>75% Grass cover, Good, HSG C/D
*	36,887	70	Woods, Good, HSG C/D
	2,991	70	Woods, Good, HSG C
	40,183	70	Weighted Average
	40,183		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
47.6	127	0.0200	0.04		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
5.4	115	0.0200	0.35		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
0.7	45	0.2000	1.12		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
0.3	90	0.0880	4.45		**Shallow Concentrated Flow, d-e** Grassed Waterway Kv= 15.0 fps
54.0	377	Total			

Summary for Subcatchment 49:

Runoff = 3.57 cfs @ 12.74 hrs, Volume= 0.557 af, Depth> 3.46"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	2,923	74	>75% Grass cover, Good, HSG C/D
*	80,702	70	Woods, Good, HSG C/D
*	548	98	Impervious
	84,173	70	Weighted Average
	83,625		99.35% Pervious Area
	548		0.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
30.4	115	0.0500	0.06		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
23.7	355	0.0100	0.25		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
54.1	470	Total			

Summary for Subcatchment 50:

Runoff = 4.78 cfs @ 12.09 hrs, Volume= 0.383 af, Depth> 6.64"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	30,173	98	Impervious
	30,173		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry, a-b**

Summary for Subcatchment OS10: OFFSITE 2 (above Perkins Rd)

Runoff = 55.26 cfs @ 13.28 hrs, Volume= 12.013 af, Depth> 3.82"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	298,066	70	Woods, Good, HSG C/D
*	42,276	98	Impervious
*	1,304,640	74	>75% Grass cover, Good, HSG C/D
	1,644,982	74	Weighted Average
	1,602,706		97.43% Pervious Area
	42,276		2.57% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
45.2	141	0.0280	0.05		**Sheet Flow, a-b** Woods: Dense underbrush n= 0.800 P2= 2.90"
15.3	384	0.0280	0.42		**Shallow Concentrated Flow, b-c** Forest w/Heavy Litter Kv= 2.5 fps
2.5	227	0.0480	1.53		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
18.6	780	0.0100	0.70		**Shallow Concentrated Flow, d-e** Short Grass Pasture Kv= 7.0 fps
12.6	689	0.0170	0.91		**Shallow Concentrated Flow, e-f** Short Grass Pasture Kv= 7.0 fps
94.2	2,221	Total			

Summary for Subcatchment OS11: OFFSITE 3 (Matthew Brothers Lot)

Runoff = 61.36 cfs @ 12.10 hrs, Volume= 4.292 af, Depth> 4.37"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	118,437	98	Impervious
*	237,621	70	Woods, Good, HSG C/D
*	157,469	74	>75% Grass cover, Good, HSG C/D
	513,527	78	Weighted Average
	395,090		76.94% Pervious Area
	118,437		23.06% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	16	0.1870	2.22		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
4.7	419	0.0100	1.50		**Shallow Concentrated Flow, b-c** Grassed Waterway Kv= 15.0 fps
2.0	97	0.1000	0.79		**Shallow Concentrated Flow, c-d** Forest w/Heavy Litter Kv= 2.5 fps
6.8	532	Total			

Summary for Subcatchment OS9: OFFSITE 1 (Below Perkins Rd)

Runoff = 42.86 cfs @ 12.48 hrs, Volume= 5.384 af, Depth> 4.01"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-year Rainfall=7.20"

	Area (sf)	CN	Description
*	25,513	98	Impervious
*	532,320	74	>75% Grass cover, Good, HSG C/D
*	3,818	94	Gravel roads, HSG C/D
	6,087	74	>75% Grass cover, Good, HSG C
	72,382	70	Woods, Good, HSG C
	61,890	74	>75% Grass cover, Good, HSG C
	702,010	75	Weighted Average
	676,497		96.37% Pervious Area
	25,513		3.63% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.1	15	0.2000	2.25		**Sheet Flow, a-b** Smooth surfaces n= 0.011 P2= 2.90"
12.6	373	0.0050	0.49		**Shallow Concentrated Flow, b-c** Short Grass Pasture Kv= 7.0 fps
13.1	715	0.0170	0.91		**Shallow Concentrated Flow, c-d** Short Grass Pasture Kv= 7.0 fps
9.3	250	0.0320	0.45		**Shallow Concentrated Flow, d-e** Forest w/Heavy Litter Kv= 2.5 fps
35.1	1,353	Total			

Summary for Reach 9R: ANALYSIS POINT 9

Inflow Area = 16.116 ac, 3.63% Impervious, Inflow Depth > 4.01" for 100-year event
Inflow = 42.86 cfs @ 12.48 hrs, Volume= 5.384 af
Outflow = 42.86 cfs @ 12.48 hrs, Volume= 5.384 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

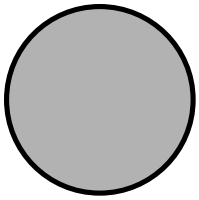
Summary for Reach 10R: Perkins Road Culvert

Inflow Area = 37.764 ac, 2.57% Impervious, Inflow Depth > 3.82" for 100-year event
Inflow = 55.26 cfs @ 13.28 hrs, Volume= 12.013 af
Outflow = 31.99 cfs @ 12.75 hrs, Volume= 12.014 af, Atten= 42%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 11.61 fps, Min. Travel Time= 0.0 min
Avg. Velocity = 7.35 fps, Avg. Travel Time= 0.1 min

Peak Storage= 79 cf @ 12.70 hrs
Average Depth at Peak Storage= 2.00'
Bank-Full Depth= 2.00' Flow Area= 3.1 sf, Capacity= 31.99 cfs

24.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 25.0' Slope= 0.0200 '/'
Inlet Invert= 75.50', Outlet Invert= 75.00'



Summary for Reach 11R: Stream 9

Inflow Area = 11.789 ac, 23.06% Impervious, Inflow Depth > 4.37" for 100-year event
Inflow = 61.36 cfs @ 12.10 hrs, Volume= 4.292 af
Outflow = 61.36 cfs @ 12.10 hrs, Volume= 4.292 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 17R: untreated

Inflow Area = 0.305 ac, 85.11% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 2.06 cfs @ 12.09 hrs, Volume= 0.157 af
Outflow = 2.06 cfs @ 12.09 hrs, Volume= 0.157 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 20R: untreated

Inflow Area = 0.653 ac, 73.83% Impervious, Inflow Depth > 5.94" for 100-year event
Inflow = 4.33 cfs @ 12.09 hrs, Volume= 0.323 af
Outflow = 4.33 cfs @ 12.09 hrs, Volume= 0.323 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 23R: sub 23

Inflow Area = 0.654 ac, 21.95% Impervious, Inflow Depth > 4.37" for 100-year event
Inflow = 3.47 cfs @ 12.09 hrs, Volume= 0.238 af
Outflow = 3.47 cfs @ 12.09 hrs, Volume= 0.238 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 27R: extisting

Inflow Area = 0.098 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af
Outflow = 0.67 cfs @ 12.09 hrs, Volume= 0.054 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 28R: existing

Inflow Area = 1.830 ac, 27.42% Impervious, Inflow Depth > 5.14" for 100-year event
Inflow = 11.08 cfs @ 12.09 hrs, Volume= 0.784 af
Outflow = 11.08 cfs @ 12.09 hrs, Volume= 0.784 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 29R: untreated

Inflow Area = 0.030 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 0.21 cfs @ 12.09 hrs, Volume= 0.017 af
Outflow = 0.21 cfs @ 12.09 hrs, Volume= 0.017 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 32R: untreated

Inflow Area = 0.107 ac, 60.42% Impervious, Inflow Depth > 5.59" for 100-year event
Inflow = 0.69 cfs @ 12.09 hrs, Volume= 0.050 af
Outflow = 0.69 cfs @ 12.09 hrs, Volume= 0.050 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 44R:

Inflow Area = 3.658 ac, 0.00% Impervious, Inflow Depth > 3.61" for 100-year event
Inflow = 11.51 cfs @ 12.26 hrs, Volume= 1.101 af
Outflow = 11.51 cfs @ 12.26 hrs, Volume= 1.101 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 47R:

Inflow Area = 1.818 ac, 6.00% Impervious, Inflow Depth > 4.03" for 100-year event
Inflow = 6.80 cfs @ 12.22 hrs, Volume= 0.611 af
Outflow = 6.80 cfs @ 12.22 hrs, Volume= 0.611 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 48R: (new Reach)

Inflow Area = 0.922 ac, 0.00% Impervious, Inflow Depth > 3.46" for 100-year event
Inflow = 1.71 cfs @ 12.75 hrs, Volume= 0.266 af
Outflow = 1.71 cfs @ 12.75 hrs, Volume= 0.266 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach 49R:

Inflow Area = 1.932 ac, 0.65% Impervious, Inflow Depth > 3.46" for 100-year event
Inflow = 3.57 cfs @ 12.74 hrs, Volume= 0.557 af
Outflow = 3.57 cfs @ 12.74 hrs, Volume= 0.557 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT1: ANALYSIS POINT 1 at BWD Little River

Inflow Area = 2.855 ac, 0.44% Impervious, Inflow Depth > 3.46" for 100-year event
Inflow = 5.28 cfs @ 12.74 hrs, Volume= 0.823 af
Outflow = 5.28 cfs @ 12.74 hrs, Volume= 0.823 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT2: ANALYSIS POINT 2 at BWD Reservoir

Inflow Area = 2.714 ac, 0.00% Impervious, Inflow Depth > 3.55" for 100-year event
Inflow = 4.55 cfs @ 12.90 hrs, Volume= 0.802 af
Outflow = 4.55 cfs @ 12.90 hrs, Volume= 0.802 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT3: ANALYSIS POINT 3/4 at BWD Reservoir

Inflow Area = 1.621 ac, 0.00% Impervious, Inflow Depth > 3.62" for 100-year event
Inflow = 5.98 cfs @ 12.17 hrs, Volume= 0.489 af
Outflow = 5.98 cfs @ 12.17 hrs, Volume= 0.489 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT5: all BWD reservoir

Inflow Area = 4.989 ac, 2.88% Impervious, Inflow Depth > 3.68" for 100-year event
Inflow = 9.71 cfs @ 12.15 hrs, Volume= 1.529 af
Outflow = 9.71 cfs @ 12.15 hrs, Volume= 1.529 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Reach PT6: stream 9 offsite

Inflow Area = 65.668 ac, 6.51% Impervious, Inflow Depth > 3.96" for 100-year event
Inflow = 87.55 cfs @ 12.11 hrs, Volume= 21.689 af
Outflow = 84.59 cfs @ 12.17 hrs, Volume= 21.647 af, Atten= 3%, Lag= 3.3 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 5.14 fps, Min. Travel Time= 1.6 min
Avg. Velocity = 2.75 fps, Avg. Travel Time= 2.9 min

Peak Storage= 8,024 cf @ 12.14 hrs
Average Depth at Peak Storage= 1.89'
Bank-Full Depth= 4.00' Flow Area= 52.0 sf, Capacity= 401.91 cfs

5.00' x 4.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 21.00'
Length= 483.0' Slope= 0.0145 '/'
Inlet Invert= 71.00', Outlet Invert= 64.00'

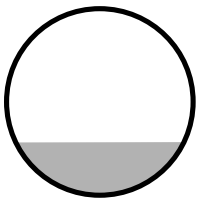
Summary for Reach PT7: ANALYSIS POINT7 at US Route 1 culvert

Inflow Area = 1.479 ac, 0.00% Impervious, Inflow Depth > 3.49" for 100-year event
Inflow = 3.71 cfs @ 12.42 hrs, Volume= 0.431 af
Outflow = 3.71 cfs @ 12.42 hrs, Volume= 0.430 af, Atten= 0%, Lag= 0.3 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 8.93 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 4.08 fps, Avg. Travel Time= 0.3 min

Peak Storage= 34 cf @ 12.42 hrs
Average Depth at Peak Storage= 0.43'
Bank-Full Depth= 1.50' Flow Area= 1.8 sf, Capacity= 20.95 cfs

18.0" Round Pipe
n= 0.013 Corrugated PE, smooth interior
Length= 83.0' Slope= 0.0398 '/'
Inlet Invert= 21.60', Outlet Invert= 18.30'



Summary for Reach PT8: ANALYSIS POINT 8 at US Route 1 culvert

Inflow Area = 0.344 ac, 0.00% Impervious, Inflow Depth > 3.59" for 100-year event
Inflow = 0.83 cfs @ 12.48 hrs, Volume= 0.103 af
Outflow = 0.82 cfs @ 12.49 hrs, Volume= 0.103 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Max. Velocity= 4.90 fps, Min. Travel Time= 0.3 min
Avg. Velocity = 2.66 fps, Avg. Travel Time= 0.5 min

Peak Storage= 13 cf @ 12.49 hrs
Average Depth at Peak Storage= 0.06'
Bank-Full Depth= 2.00' Flow Area= 6.0 sf, Capacity= 144.91 cfs

36.0" W x 24.0" H Box Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 76.0' Slope= 0.0632 '/'
Inlet Invert= 23.40', Outlet Invert= 18.60'

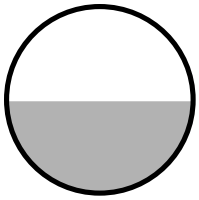
Summary for Reach PT9: Analysis Point Stream 9 at US Route 1 culvert

Inflow Area = 72.477 ac, 7.14% Impervious, Inflow Depth > 3.93" for 100-year event
Inflow = 97.89 cfs @ 12.36 hrs, Volume= 23.762 af
Outflow = 97.88 cfs @ 12.36 hrs, Volume= 23.760 af, Atten= 0%, Lag= 0.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 28.16 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 11.61 fps, Avg. Travel Time= 0.1 min

Peak Storage= 323 cf @ 12.36 hrs
Average Depth at Peak Storage= 1.48'
Bank-Full Depth= 3.00' Flow Area= 7.1 sf, Capacity= 200.22 cfs

36.0" Round Pipe
n= 0.011 Concrete pipe, straight & clean
Length= 93.0' Slope= 0.0645 '/'
Inlet Invert= 20.00', Outlet Invert= 14.00'



Summary for Reach S9-2: Stream 9

Inflow Area = 69.327 ac, 6.17% Impervious, Inflow Depth > 3.94" for 100-year event
Inflow = 94.48 cfs @ 12.17 hrs, Volume= 22.748 af
Outflow = 88.94 cfs @ 12.33 hrs, Volume= 22.624 af, Atten= 6%, Lag= 9.1 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.19 fps, Min. Travel Time= 4.3 min
Avg. Velocity = 3.26 fps, Avg. Travel Time= 8.1 min

Peak Storage= 22,877 cf @ 12.25 hrs
Average Depth at Peak Storage= 1.72'
Bank-Full Depth= 2.00' Flow Area= 18.0 sf, Capacity= 120.91 cfs

5.00' x 2.00' deep channel, n= 0.040 Winding stream, pools & shoals
Side Slope Z-value= 2.0 '/' Top Width= 13.00'
Length= 1,580.0' Slope= 0.0233 '/'
Inlet Invert= 64.00', Outlet Invert= 27.25'

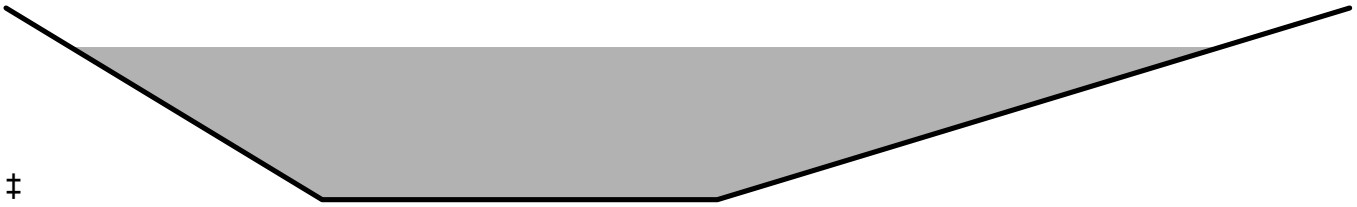
Summary for Reach S9-3: Stream 9

Inflow Area = 71.273 ac, 6.33% Impervious, Inflow Depth > 3.92" for 100-year event
Inflow = 95.54 cfs @ 12.32 hrs, Volume= 23.306 af
Outflow = 94.87 cfs @ 12.36 hrs, Volume= 23.276 af, Atten= 1%, Lag= 2.5 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 6.11 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 2.42 fps, Avg. Travel Time= 2.5 min

Peak Storage= 5,664 cf @ 12.33 hrs
Average Depth at Peak Storage= 1.59'
Bank-Full Depth= 2.00' Flow Area= 22.0 sf, Capacity= 152.29 cfs

5.00' x 2.00' deep channel, n= 0.035 Earth, dense weeds
Side Slope Z-value= 2.0 4.0 '/' Top Width= 17.00'
Length= 364.0' Slope= 0.0199 '/'
Inlet Invert= 27.25', Outlet Invert= 20.00'



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Summary for Reach tank: existing clarifier

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 3.09" for 100-year event
Inflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af
Outflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond 1P: (new Pond)

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af
Outflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Atten= 0%, Lag= 0.0 min
Primary = 12.26 cfs @ 12.09 hrs, Volume= 0.278 af
Secondary = 5.57 cfs @ 12.09 hrs, Volume= 1.153 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.72' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**18.0" Round Culvert** L= 4.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.15' S= 0.1375 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	62.95'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	60.75'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.75' / 60.72' S= 0.0060 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=11.88 cfs @ 12.09 hrs HW=64.58' (Free Discharge)
└**1=Culvert** (Inlet Controls 11.88 cfs @ 6.72 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 11.88 cfs of 27.61 cfs potential flow)

Secondary OutFlow Max=5.47 cfs @ 12.09 hrs HW=64.61' (Free Discharge)
└**3=Culvert** (Inlet Controls 5.47 cfs @ 6.97 fps)

Summary for Pond 4P: Rtanks

Inflow Area = 0.482 ac, 20.00% Impervious, Inflow Depth > 3.32" for 100-year event
Inflow = 1.98 cfs @ 12.09 hrs, Volume= 0.133 af
Outflow = 1.51 cfs @ 12.17 hrs, Volume= 0.132 af, Atten= 24%, Lag= 4.5 min
Primary = 1.51 cfs @ 12.17 hrs, Volume= 0.132 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.12' @ 12.17 hrs Surf.Area= 1,314 sf Storage= 754 cf

Plug-Flow detention time= 14.5 min calculated for 0.131 af (99% of inflow)
Center-of-Mass det. time= 9.8 min (806.6 - 796.8)

Volume	Invert	Avail.Storage	Storage Description
#1A	29.28'	968 cf	**17.12'W x 76.72'L x 3.42'H Field A** 4,487 cf Overall - 2,066 cf Embedded = 2,420 cf x 40.0% Voids
#2A	29.53'	1,963 cf	**ACF R-Tank HD 1.5** x 310 Inside #1 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 10 Rows of 31 Chambers
		2,931 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.28'	**12.0" Round Culvert** L= 5.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 29.28' / 29.28' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.48 cfs @ 12.17 hrs HW=30.11' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 1.48 cfs @ 2.87 fps)

Summary for Pond dmh10: dmh10

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 1.66" for 100-year event
Inflow = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af
Outflow = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af, Atten= 0%, Lag= 0.0 min
Primary = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.48' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.59'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.59' / 53.56' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=28.15 cfs @ 12.09 hrs HW=61.15' (Free Discharge)
└**1=Culvert** (Inlet Controls 28.15 cfs @ 8.96 fps)

Summary for Pond dmh11: dmh11

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 1.91" for 100-year event
Inflow = 43.86 cfs @ 12.09 hrs, Volume= 1.467 af
Outflow = 43.86 cfs @ 12.09 hrs, Volume= 1.467 af, Atten= 0%, Lag= 0.0 min
Primary = 43.86 cfs @ 12.09 hrs, Volume= 1.467 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.30' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.54'	**30.0" Round Culvert** L= 84.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.54' / 53.12' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=42.70 cfs @ 12.09 hrs HW=60.03' (Free Discharge)
└**1=Culvert** (Inlet Controls 42.70 cfs @ 8.70 fps)

Summary for Pond dmh13: dmh13

Inflow Area = 9.243 ac, 93.25% Impervious, Inflow Depth > 1.91" for 100-year event
Inflow = 43.86 cfs @ 12.09 hrs, Volume= 1.467 af
Outflow = 43.86 cfs @ 12.09 hrs, Volume= 1.467 af, Atten= 0%, Lag= 0.0 min
Primary = 43.86 cfs @ 12.09 hrs, Volume= 1.467 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.86' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.10'	**30.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.10' / 52.09' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=42.70 cfs @ 12.09 hrs HW=59.59' (Free Discharge)
└**1=Culvert** (Inlet Controls 42.70 cfs @ 8.70 fps)

Summary for Pond dmh14: dmh14

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 2.15" for 100-year event
Inflow = 46.62 cfs @ 12.09 hrs, Volume= 1.769 af
Outflow = 46.62 cfs @ 12.09 hrs, Volume= 1.769 af, Atten= 0%, Lag= 0.0 min
Primary = 46.62 cfs @ 12.09 hrs, Volume= 1.769 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 59.54' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.07'	**30.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.07' / 51.95' S= 0.0052 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 4.91 sf

Primary OutFlow Max=45.46 cfs @ 12.09 hrs HW=59.26' (Free Discharge)
1=Culvert (Inlet Controls 45.46 cfs @ 9.26 fps)

Summary for Pond dmh15: dmh15

Inflow Area = 9.890 ac, 91.29% Impervious, Inflow Depth > 2.15" for 100-year event
Inflow = 46.62 cfs @ 12.09 hrs, Volume= 1.769 af
Outflow = 46.62 cfs @ 12.09 hrs, Volume= 1.769 af, Atten= 0%, Lag= 0.0 min
Primary = 46.62 cfs @ 12.09 hrs, Volume= 1.769 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.42' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.95'	**30.0" Round Culvert** L= 90.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.95' / 51.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=45.46 cfs @ 12.09 hrs HW=59.14' (Free Discharge)
1=Culvert (Inlet Controls 45.46 cfs @ 9.26 fps)

Summary for Pond dmh16: dmh16

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 2.74" for 100-year event
Inflow = 1.06 cfs @ 12.24 hrs, Volume= 0.079 af
Outflow = 1.06 cfs @ 12.24 hrs, Volume= 0.079 af, Atten= 0%, Lag= 0.0 min
Primary = 1.06 cfs @ 12.24 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.11' @ 12.24 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**12.0" Round Culvert** L= 198.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.50' / 58.00' S= 0.0126 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.05 cfs @ 12.24 hrs HW=61.11' (Free Discharge)
1=Culvert (Inlet Controls 1.05 cfs @ 2.09 fps)

Summary for Pond dmh17: dmh17

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 2.20" for 100-year event
Inflow = 47.57 cfs @ 12.09 hrs, Volume= 1.914 af
Outflow = 47.57 cfs @ 12.09 hrs, Volume= 1.914 af, Atten= 0%, Lag= 0.0 min
Primary = 47.57 cfs @ 12.09 hrs, Volume= 1.914 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.21' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.48'	**30.0" Round Culvert** L= 35.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.48' / 51.30' S= 0.0051 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=46.47 cfs @ 12.09 hrs HW=58.93' (Free Discharge)
1=Culvert (Inlet Controls 46.47 cfs @ 9.47 fps)

Summary for Pond dmh2: dmh2

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 1.30" for 100-year event
Inflow = 12.51 cfs @ 12.08 hrs, Volume= 0.280 af
Outflow = 12.51 cfs @ 12.08 hrs, Volume= 0.280 af, Atten= 0%, Lag= 0.0 min
Primary = 12.51 cfs @ 12.08 hrs, Volume= 0.280 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 67.20' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.00'	**18.0" Round Culvert** L= 100.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 63.00' / 61.50' S= 0.0150 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=12.10 cfs @ 12.08 hrs HW=67.00' (Free Discharge)
1=Culvert (Inlet Controls 12.10 cfs @ 6.85 fps)

Summary for Pond dmh20: dmh20

Inflow Area = 10.447 ac, 87.59% Impervious, Inflow Depth > 2.20" for 100-year event
Inflow = 47.57 cfs @ 12.09 hrs, Volume= 1.914 af
Outflow = 47.57 cfs @ 12.09 hrs, Volume= 1.914 af, Atten= 0%, Lag= 0.0 min
Primary = 47.57 cfs @ 12.09 hrs, Volume= 1.914 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.01' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.28'	**30.0" Round Culvert**

L= 100.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.28' / 50.78' S= 0.0050 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=46.47 cfs @ 12.09 hrs HW=58.73' (Free Discharge)
1=Culvert (Inlet Controls 46.47 cfs @ 9.47 fps)

Summary for Pond dmh21: dmh21

Inflow Area = 14.164 ac, 80.88% Impervious, Inflow Depth > 2.94" for 100-year event
Inflow = 63.26 cfs @ 12.09 hrs, Volume= 3.471 af
Outflow = 63.26 cfs @ 12.09 hrs, Volume= 3.471 af, Atten= 0%, Lag= 0.0 min
Primary = 63.26 cfs @ 12.09 hrs, Volume= 3.471 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.79' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.76'	**36.0" Round Culvert**
			L= 281.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 50.76' / 46.00' S= 0.0169 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=62.07 cfs @ 12.09 hrs HW=57.60' (Free Discharge)
1=Culvert (Inlet Controls 62.07 cfs @ 8.78 fps)

Summary for Pond dmh22: dmh 22

Inflow Area = 2.671 ac, 64.47% Impervious, Inflow Depth > 5.23" for 100-year event
Inflow = 13.06 cfs @ 12.10 hrs, Volume= 1.165 af
Outflow = 13.06 cfs @ 12.10 hrs, Volume= 1.165 af, Atten= 0%, Lag= 0.0 min
Primary = 13.06 cfs @ 12.10 hrs, Volume= 1.165 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.96' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.50'	**15.0" Round Culvert**
			L= 93.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.50' / 51.03' S= 0.0051 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=12.98 cfs @ 12.10 hrs HW=59.86' (Free Discharge)
1=Culvert (Inlet Controls 12.98 cfs @ 10.57 fps)

Summary for Pond dmh23: dmh23

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 5.14" for 100-year event
Inflow = 11.30 cfs @ 12.09 hrs, Volume= 0.867 af
Outflow = 11.30 cfs @ 12.09 hrs, Volume= 0.867 af, Atten= 0%, Lag= 0.0 min
Primary = 11.30 cfs @ 12.09 hrs, Volume= 0.867 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 75.54' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.19'	**12.0" Round Culvert** L= 138.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.19' / 54.50' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=11.17 cfs @ 12.09 hrs HW=75.09' (Free Discharge)
1=Culvert (Barrel Controls 11.17 cfs @ 14.23 fps)

Summary for Pond dmh24: dmh24

Inflow Area = 2.024 ac, 60.68% Impervious, Inflow Depth > 5.14" for 100-year event
Inflow = 11.30 cfs @ 12.09 hrs, Volume= 0.867 af
Outflow = 11.30 cfs @ 12.09 hrs, Volume= 0.867 af, Atten= 0%, Lag= 0.0 min
Primary = 11.30 cfs @ 12.09 hrs, Volume= 0.867 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 70.93' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.10'	**12.0" Round Culvert** L= 72.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.10' / 55.92' S= 0.0025 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=11.17 cfs @ 12.09 hrs HW=70.61' (Free Discharge)
1=Culvert (Inlet Controls 11.17 cfs @ 14.23 fps)

Summary for Pond dmh24a: dmh24a

Inflow Area = 0.817 ac, 77.70% Impervious, Inflow Depth > 5.74" for 100-year event
Inflow = 4.73 cfs @ 12.10 hrs, Volume= 0.391 af
Outflow = 4.73 cfs @ 12.10 hrs, Volume= 0.391 af, Atten= 0%, Lag= 0.0 min
Primary = 4.73 cfs @ 12.10 hrs, Volume= 0.391 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 77.81' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert**

L= 95.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 58.00' / 57.10' S= 0.0095 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=4.70 cfs @ 12.10 hrs HW=77.51' (Free Discharge)
1=Culvert (Barrel Controls 4.70 cfs @ 13.46 fps)

Summary for Pond dmh25: dmh25

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 5.02" for 100-year event
Inflow = 2.23 cfs @ 12.12 hrs, Volume= 0.171 af
Outflow = 2.23 cfs @ 12.12 hrs, Volume= 0.171 af, Atten= 0%, Lag= 0.0 min
Primary = 2.23 cfs @ 12.12 hrs, Volume= 0.171 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.05' @ 12.12 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.00'	**12.0" Round Culvert**
			L= 98.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 60.00' / 55.00' S= 0.0510 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=2.18 cfs @ 12.12 hrs HW=61.03' (Free Discharge)
1=Culvert (Inlet Controls 2.18 cfs @ 2.77 fps)

Summary for Pond dmh26: (new Pond)

Inflow Area = 2.028 ac, 41.73% Impervious, Inflow Depth > 4.27" for 100-year event
Inflow = 8.92 cfs @ 12.17 hrs, Volume= 0.722 af
Outflow = 8.92 cfs @ 12.17 hrs, Volume= 0.722 af, Atten= 0%, Lag= 0.0 min
Primary = 8.92 cfs @ 12.17 hrs, Volume= 0.722 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 67.18' @ 12.17 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.75'	**12.0" Round Culvert**
			L= 28.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 57.75' / 57.61' S= 0.0050 '/' Cc= 0.900
			n= 0.020 Corrugated PE, corrugated interior, Flow Area= 0.79 sf

Primary OutFlow Max=8.85 cfs @ 12.17 hrs HW=67.04' (Free Discharge)
1=Culvert (Inlet Controls 8.85 cfs @ 11.27 fps)

Summary for Pond dmh27: dmh27

Inflow Area = 2.712 ac, 46.62% Impervious, Inflow Depth > 4.62" for 100-year event
Inflow = 12.61 cfs @ 12.13 hrs, Volume= 1.045 af
Outflow = 12.61 cfs @ 12.13 hrs, Volume= 1.045 af, Atten= 0%, Lag= 0.0 min
Primary = 12.61 cfs @ 12.13 hrs, Volume= 1.045 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 65.89' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	53.03'	**15.0" Round Culvert** L= 256.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.03' / 51.75' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=12.48 cfs @ 12.13 hrs HW=65.64' (Free Discharge)
1=Culvert (Barrel Controls 12.48 cfs @ 10.17 fps)

Summary for Pond dmh29: dmh29

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af
Outflow = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af, Atten= 0%, Lag= 0.0 min
Primary = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 60.23' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.85'	**8.0" Round Culvert** L= 46.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.85' / 57.39' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.85 cfs @ 12.09 hrs HW=60.13' (Free Discharge)
1=Culvert (Inlet Controls 1.85 cfs @ 5.30 fps)

Summary for Pond dmh3: dmh3

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.94" for 100-year event
Inflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af
Outflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af, Atten= 0%, Lag= 0.0 min
Primary = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 67.35' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	60.50'	**18.0" Round Culvert**

L= 125.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 60.50' / 59.84' S= 0.0053 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.13 cfs @ 12.09 hrs HW=67.02' (Free Discharge)
1=Culvert (Inlet Controls 16.13 cfs @ 9.13 fps)

Summary for Pond dmh30: dmh30

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af
Outflow = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af, Atten= 0%, Lag= 0.0 min
Primary = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.30' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.40'	**12.0" Round Culvert**
			L= 206.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 55.40' / 54.37' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=1.85 cfs @ 12.09 hrs HW=56.28' (Free Discharge)
1=Culvert (Barrel Controls 1.85 cfs @ 3.35 fps)

Summary for Pond dmh31: dmh31

Inflow Area = 2.303 ac, 48.70% Impervious, Inflow Depth > 4.55" for 100-year event
Inflow = 10.39 cfs @ 12.14 hrs, Volume= 0.874 af
Outflow = 10.39 cfs @ 12.14 hrs, Volume= 0.874 af, Atten= 0%, Lag= 0.0 min
Primary = 10.39 cfs @ 12.14 hrs, Volume= 0.874 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.14' @ 12.14 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.35'	**15.0" Round Culvert**
			L= 259.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 54.35' / 53.05' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf

Primary OutFlow Max=10.33 cfs @ 12.14 hrs HW=63.03' (Free Discharge)
1=Culvert (Barrel Controls 10.33 cfs @ 8.42 fps)

Summary for Pond dmh32: dmh32

Inflow Area = 3.424 ac, 42.31% Impervious, Inflow Depth > 4.49" for 100-year event
Inflow = 15.16 cfs @ 12.13 hrs, Volume= 1.282 af
Outflow = 15.16 cfs @ 12.13 hrs, Volume= 1.282 af, Atten= 0%, Lag= 0.0 min
Primary = 15.16 cfs @ 12.13 hrs, Volume= 1.282 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.57' @ 12.13 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**18.0" Round Culvert** L= 36.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.60' S= 0.0036 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=15.04 cfs @ 12.13 hrs HW=57.49' (Free Discharge)
1=Culvert (Inlet Controls 15.04 cfs @ 8.51 fps)

Summary for Pond dmh33: dmh33

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 5.50" for 100-year event
Inflow = 0.66 cfs @ 12.40 hrs, Volume= 0.144 af
Outflow = 0.66 cfs @ 12.40 hrs, Volume= 0.144 af, Atten= 0%, Lag= 0.0 min
Primary = 0.66 cfs @ 12.40 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.47' @ 12.40 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**12.0" Round Culvert** L= 201.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 52.01' S= 0.0099 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.66 cfs @ 12.40 hrs HW=54.47' (Free Discharge)
1=Culvert (Inlet Controls 0.66 cfs @ 1.84 fps)

Summary for Pond dmh34: dmh34

Inflow Area = 3.030 ac, 25.90% Impervious, Inflow Depth > 3.54" for 100-year event
Inflow = 11.68 cfs @ 12.10 hrs, Volume= 0.893 af
Outflow = 11.68 cfs @ 12.10 hrs, Volume= 0.893 af, Atten= 0%, Lag= 0.0 min
Primary = 11.68 cfs @ 12.10 hrs, Volume= 0.893 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.76' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.99'	**18.0" Round Culvert**

L= 39.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 51.99' / 51.60' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=11.60 cfs @ 12.10 hrs HW=55.72' (Free Discharge)
1=Culvert (Inlet Controls 11.60 cfs @ 6.56 fps)

Summary for Pond dmh35: dmh35

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 4.05" for 100-year event
Inflow = 30.45 cfs @ 12.11 hrs, Volume= 2.460 af
Outflow = 30.45 cfs @ 12.11 hrs, Volume= 2.460 af, Atten= 0%, Lag= 0.0 min
Primary = 30.45 cfs @ 12.11 hrs, Volume= 2.460 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 59.96' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.55'	**24.0" Round Culvert**
			L= 276.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 51.55' / 50.17' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=30.07 cfs @ 12.11 hrs HW=59.77' (Free Discharge)
1=Culvert (Barrel Controls 30.07 cfs @ 9.57 fps)

Summary for Pond dmh36: dmh36

Inflow Area = 7.284 ac, 34.79% Impervious, Inflow Depth > 4.05" for 100-year event
Inflow = 30.45 cfs @ 12.11 hrs, Volume= 2.460 af
Outflow = 30.45 cfs @ 12.11 hrs, Volume= 2.460 af, Atten= 0%, Lag= 0.0 min
Primary = 30.45 cfs @ 12.11 hrs, Volume= 2.460 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.65' @ 12.11 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.15'	**24.0" Round Culvert**
			L= 159.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 50.15' / 49.35' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=30.07 cfs @ 12.11 hrs HW=57.49' (Free Discharge)
1=Culvert (Inlet Controls 30.07 cfs @ 9.57 fps)

Summary for Pond dmh38: dmh38

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth = 1.30" for 100-year event
Inflow = 12.42 cfs @ 12.08 hrs, Volume= 0.279 af
Outflow = 12.42 cfs @ 12.08 hrs, Volume= 0.279 af, Atten= 0%, Lag= 0.0 min
Primary = 12.42 cfs @ 12.08 hrs, Volume= 0.279 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.13' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**18.0" Round Culvert** L= 106.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 50.92' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=12.02 cfs @ 12.08 hrs HW=55.93' (Free Discharge)
1=Culvert (Inlet Controls 12.02 cfs @ 6.80 fps)

Summary for Pond dmh39: dmh39

Inflow Area = 2.778 ac, 93.02% Impervious, Inflow Depth > 1.45" for 100-year event
Inflow = 13.32 cfs @ 12.09 hrs, Volume= 0.335 af
Outflow = 13.32 cfs @ 12.09 hrs, Volume= 0.335 af, Atten= 0%, Lag= 0.0 min
Primary = 13.32 cfs @ 12.09 hrs, Volume= 0.335 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.25' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	50.59'	**18.0" Round Culvert** L= 58.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 50.59' / 50.32' S= 0.0047 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=12.92 cfs @ 12.09 hrs HW=55.04' (Free Discharge)
1=Culvert (Inlet Controls 12.92 cfs @ 7.31 fps)

Summary for Pond dmh4: dmh4

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.94" for 100-year event
Inflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af
Outflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af, Atten= 0%, Lag= 0.0 min
Primary = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 66.69' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.84'	**18.0" Round Culvert**

L= 66.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 59.84' / 59.57' S= 0.0041 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.13 cfs @ 12.09 hrs HW=66.36' (Free Discharge)
1=Culvert (Inlet Controls 16.13 cfs @ 9.13 fps)

Summary for Pond dmh40: dmh40

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 3.33" for 100-year event
Inflow = 43.53 cfs @ 12.10 hrs, Volume= 2.795 af
Outflow = 43.53 cfs @ 12.10 hrs, Volume= 2.795 af, Atten= 0%, Lag= 0.0 min
Primary = 43.53 cfs @ 12.10 hrs, Volume= 2.795 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.29' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	49.33'	**30.0" Round Culvert**
			L= 340.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 49.33' / 47.63' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=43.46 cfs @ 12.10 hrs HW=56.27' (Free Discharge)
1=Culvert (Barrel Controls 43.46 cfs @ 8.85 fps)

Summary for Pond dmh43: dmh43

Inflow Area = 10.062 ac, 50.87% Impervious, Inflow Depth > 3.33" for 100-year event
Inflow = 43.53 cfs @ 12.10 hrs, Volume= 2.795 af
Outflow = 43.53 cfs @ 12.10 hrs, Volume= 2.795 af, Atten= 0%, Lag= 0.0 min
Primary = 43.53 cfs @ 12.10 hrs, Volume= 2.795 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.30' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	47.61'	**30.0" Round Culvert**
			L= 193.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 47.61' / 46.64' S= 0.0050 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 4.91 sf

Primary OutFlow Max=43.46 cfs @ 12.10 hrs HW=54.29' (Free Discharge)
1=Culvert (Inlet Controls 43.46 cfs @ 8.85 fps)

Summary for Pond dmh44: dmh44

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 3.35" for 100-year event
Inflow = 44.73 cfs @ 12.10 hrs, Volume= 2.877 af
Outflow = 44.73 cfs @ 12.10 hrs, Volume= 2.877 af, Atten= 0%, Lag= 0.0 min
Primary = 44.73 cfs @ 12.10 hrs, Volume= 2.877 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 50.89' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.62'	**36.0" Round Culvert** L= 82.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.62' / 46.21' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=44.64 cfs @ 12.10 hrs HW=50.88' (Free Discharge)
1=Culvert (Inlet Controls 44.64 cfs @ 6.31 fps)

Summary for Pond dmh45: dmh45

Inflow Area = 10.310 ac, 49.64% Impervious, Inflow Depth > 3.35" for 100-year event
Inflow = 44.73 cfs @ 12.10 hrs, Volume= 2.877 af
Outflow = 44.73 cfs @ 12.10 hrs, Volume= 2.877 af, Atten= 0%, Lag= 0.0 min
Primary = 44.73 cfs @ 12.10 hrs, Volume= 2.877 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 50.46' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.19'	**36.0" Round Culvert** L= 316.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.19' / 44.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=44.64 cfs @ 12.10 hrs HW=50.45' (Free Discharge)
1=Culvert (Inlet Controls 44.64 cfs @ 6.31 fps)

Summary for Pond dmh47: dmh47

Inflow Area = 12.894 ac, 59.74% Impervious, Inflow Depth > 2.94" for 100-year event
Inflow = 57.22 cfs @ 12.09 hrs, Volume= 3.157 af
Outflow = 57.22 cfs @ 12.09 hrs, Volume= 3.157 af, Atten= 0%, Lag= 0.0 min
Primary = 57.22 cfs @ 12.09 hrs, Volume= 3.157 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 50.03' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.00'	**36.0" Round Culvert**

L= 104.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.00' / 42.96' S= 0.0100 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=56.60 cfs @ 12.09 hrs HW=49.94' (Free Discharge)
1=Culvert (Inlet Controls 56.60 cfs @ 8.01 fps)

Summary for Pond dmh48: dmh48

Inflow Area = 13.587 ac, 61.79% Impervious, Inflow Depth > 3.10" for 100-year event
Inflow = 60.18 cfs @ 12.10 hrs, Volume= 3.505 af
Outflow = 60.18 cfs @ 12.10 hrs, Volume= 3.505 af, Atten= 0%, Lag= 0.0 min
Primary = 60.18 cfs @ 12.10 hrs, Volume= 3.505 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.46' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.94'	**36.0" Round Culvert** L= 117.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.94' / 42.35' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=59.78 cfs @ 12.10 hrs HW=49.39' (Free Discharge)
1=Culvert (Inlet Controls 59.78 cfs @ 8.46 fps)

Summary for Pond dmh49: dmh49

Inflow Area = 13.908 ac, 61.10% Impervious, Inflow Depth > 3.14" for 100-year event
Inflow = 62.02 cfs @ 12.10 hrs, Volume= 3.634 af
Outflow = 62.02 cfs @ 12.10 hrs, Volume= 3.634 af, Atten= 0%, Lag= 0.0 min
Primary = 62.02 cfs @ 12.10 hrs, Volume= 3.634 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.16' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	42.33'	**36.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 42.33' / 42.23' S= 0.0071 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=61.58 cfs @ 12.10 hrs HW=49.08' (Free Discharge)
1=Culvert (Inlet Controls 61.58 cfs @ 8.71 fps)

Summary for Pond dmh5: dmh5

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.94" for 100-year event
Inflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af
Outflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af, Atten= 0%, Lag= 0.0 min
Primary = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 67.04' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	59.48'	**18.0" Round Culvert** L= 173.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 59.48' / 58.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.13 cfs @ 12.09 hrs HW=66.66' (Free Discharge)
1=Culvert (Barrel Controls 16.13 cfs @ 9.13 fps)

Summary for Pond dmh50: dmh50

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 2.98" for 100-year event
Inflow = 65.78 cfs @ 12.09 hrs, Volume= 3.696 af
Outflow = 65.78 cfs @ 12.09 hrs, Volume= 3.696 af, Atten= 0%, Lag= 0.0 min
Primary = 65.78 cfs @ 12.09 hrs, Volume= 3.696 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 52.24' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.75'	**36.0" Round Culvert** L= 64.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.75' / 44.11' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=64.60 cfs @ 12.09 hrs HW=52.03' (Free Discharge)
1=Culvert (Inlet Controls 64.60 cfs @ 9.14 fps)

Summary for Pond dmh51: dmh51

Inflow Area = 14.860 ac, 78.30% Impervious, Inflow Depth > 2.98" for 100-year event
Inflow = 65.78 cfs @ 12.09 hrs, Volume= 3.696 af
Outflow = 65.78 cfs @ 12.09 hrs, Volume= 3.696 af, Atten= 0%, Lag= 0.0 min
Primary = 65.78 cfs @ 12.09 hrs, Volume= 3.696 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 51.58' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	44.09'	**36.0" Round Culvert**

L= 38.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 44.09' / 43.00' S= 0.0287 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 7.07 sf

Primary OutFlow Max=64.60 cfs @ 12.09 hrs HW=51.37' (Free Discharge)
1=Culvert (Inlet Controls 64.60 cfs @ 9.14 fps)

Summary for Pond dmh52: dmh52

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 3.06" for 100-year event
Inflow = 127.76 cfs @ 12.09 hrs, Volume= 7.330 af
Outflow = 127.76 cfs @ 12.09 hrs, Volume= 7.330 af, Atten= 0%, Lag= 0.0 min
Primary = 127.76 cfs @ 12.09 hrs, Volume= 7.330 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 46.43' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	41.00'	**60.0" Round Culvert**
			L= 258.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 41.00' / 36.00' S= 0.0194 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=126.01 cfs @ 12.09 hrs HW=46.35' (Free Discharge)
1=Culvert (Inlet Controls 126.01 cfs @ 6.42 fps)

Summary for Pond dmh53: dmh53

Inflow Area = 29.187 ac, 69.95% Impervious, Inflow Depth > 3.09" for 100-year event
Inflow = 130.24 cfs @ 12.09 hrs, Volume= 7.506 af
Outflow = 130.24 cfs @ 12.09 hrs, Volume= 7.506 af, Atten= 0%, Lag= 0.0 min
Primary = 130.24 cfs @ 12.09 hrs, Volume= 7.506 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 38.54' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	33.00'	**60.0" Round Culvert**
			L= 120.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 33.00' / 30.50' S= 0.0208 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=128.65 cfs @ 12.09 hrs HW=38.47' (Free Discharge)
1=Culvert (Inlet Controls 128.65 cfs @ 6.55 fps)

Summary for Pond dmh54: dmh54

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 3.09" for 100-year event
Inflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af
Outflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af, Atten= 0%, Lag= 0.0 min
Primary = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 32.56' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	27.00'	**60.0" Round Culvert** L= 152.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 27.00' / 22.00' S= 0.0329 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=128.96 cfs @ 12.09 hrs HW=32.49' (Free Discharge)
1=Culvert (Inlet Controls 128.96 cfs @ 6.57 fps)

Summary for Pond dmh55: dhm55

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 3.09" for 100-year event
Inflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af
Outflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af, Atten= 0%, Lag= 0.0 min
Primary = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 24.56' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	19.00'	**60.0" Round Culvert** L= 115.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 19.00' / 15.50' S= 0.0304 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=128.96 cfs @ 12.09 hrs HW=24.49' (Free Discharge)
1=Culvert (Inlet Controls 128.96 cfs @ 6.57 fps)

Summary for Pond dmh56: dmh56

Inflow Area = 29.275 ac, 70.04% Impervious, Inflow Depth > 3.09" for 100-year event
Inflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af
Outflow = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af, Atten= 0%, Lag= 0.0 min
Primary = 130.54 cfs @ 12.09 hrs, Volume= 7.550 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 18.06' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	12.50'	**60.0" Round Culvert**

L= 42.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 12.50' / 11.00' S= 0.0357 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=128.96 cfs @ 12.09 hrs HW=17.99' (Free Discharge)
1=Culvert (Inlet Controls 128.96 cfs @ 6.57 fps)

Summary for Pond dmh59: dmh59

Inflow Area = 2.253 ac, 63.02% Impervious, Inflow Depth > 5.21" for 100-year event
Inflow = 11.87 cfs @ 12.10 hrs, Volume= 0.978 af
Outflow = 11.87 cfs @ 12.10 hrs, Volume= 0.978 af, Atten= 0%, Lag= 0.0 min
Primary = 11.87 cfs @ 12.10 hrs, Volume= 0.978 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 93.32' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	54.30'	**12.0" Round Culvert** L= 294.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.30' / 52.83' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=11.78 cfs @ 12.10 hrs HW=92.73' (Free Discharge)
1=Culvert (Barrel Controls 11.78 cfs @ 15.00 fps)

Summary for Pond dmh6: dmh6

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.94" for 100-year event
Inflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af
Outflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af, Atten= 0%, Lag= 0.0 min
Primary = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 71.91' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.58'	**18.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.58' / 57.73' S= 0.0050 '/' Cc= 0.900 n= 0.020 Corrugated PE, corrugated interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.13 cfs @ 12.09 hrs HW=71.21' (Free Discharge)
1=Culvert (Barrel Controls 16.13 cfs @ 9.13 fps)

Summary for Pond dmh60: dhm60

Inflow Area = 28.768 ac, 69.99% Impervious, Inflow Depth > 3.06" for 100-year event
Inflow = 127.76 cfs @ 12.09 hrs, Volume= 7.330 af
Outflow = 127.76 cfs @ 12.09 hrs, Volume= 7.330 af, Atten= 0%, Lag= 0.0 min
Primary = 127.76 cfs @ 12.09 hrs, Volume= 7.330 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 40.93' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	35.50'	**60.0" Round Culvert** L= 114.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 35.50' / 33.50' S= 0.0175 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 19.63 sf

Primary OutFlow Max=126.01 cfs @ 12.09 hrs HW=40.85' (Free Discharge)
1=Culvert (Inlet Controls 126.01 cfs @ 6.42 fps)

Summary for Pond dmh7: dmh7

Inflow Area = 3.365 ac, 81.45% Impervious, Inflow Depth > 1.94" for 100-year event
Inflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af
Outflow = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af, Atten= 0%, Lag= 0.0 min
Primary = 16.64 cfs @ 12.09 hrs, Volume= 0.543 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 65.22' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	57.71'	**18.0" Round Culvert** L= 170.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 57.71' / 56.86' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

Primary OutFlow Max=16.13 cfs @ 12.09 hrs HW=64.84' (Free Discharge)
1=Culvert (Barrel Controls 16.13 cfs @ 9.13 fps)

Summary for Pond dmh8: dmh8

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 1.66" for 100-year event
Inflow = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af
Outflow = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af, Atten= 0%, Lag= 0.0 min
Primary = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 65.04' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	56.84'	**24.0" Round Culvert**

L= 296.0' CPP, projecting, no headwall, Ke= 0.900
Inlet / Outlet Invert= 56.84' / 55.66' S= 0.0040 '/' Cc= 0.900
n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=28.15 cfs @ 12.09 hrs HW=64.63' (Free Discharge)
1=Culvert (Barrel Controls 28.15 cfs @ 8.96 fps)

Summary for Pond dmh9a: dmh9a

Inflow Area = 5.949 ac, 89.51% Impervious, Inflow Depth > 1.66" for 100-year event
Inflow = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af
Outflow = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af, Atten= 0%, Lag= 0.0 min
Primary = 29.05 cfs @ 12.09 hrs, Volume= 0.823 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.53' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	55.64'	**24.0" Round Culvert** L= 206.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.64' / 54.61' S= 0.0050 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 3.14 sf

Primary OutFlow Max=28.15 cfs @ 12.09 hrs HW=62.20' (Free Discharge)
1=Culvert (Inlet Controls 28.15 cfs @ 8.96 fps)

Summary for Pond GSF 11: grassed soil filter

Inflow Area = 0.991 ac, 36.78% Impervious, Inflow Depth > 4.92" for 100-year event
Inflow = 5.81 cfs @ 12.09 hrs, Volume= 0.406 af
Outflow = 4.44 cfs @ 12.16 hrs, Volume= 0.348 af, Atten= 24%, Lag= 4.3 min
Primary = 4.44 cfs @ 12.16 hrs, Volume= 0.348 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.46' @ 12.16 hrs Surf.Area= 3,051 sf Storage= 3,813 cf
Flood Elev= 63.00' Surf.Area= 3,400 sf Storage= 5,560 cf

Plug-Flow detention time= 74.7 min calculated for 0.348 af (86% of inflow)
Center-of-Mass det. time= 32.2 min (800.4 - 768.1)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	5,560 cf	**gsf11 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,200	181.0	0	0	2,200
62.00	2,771	200.0	2,480	2,480	2,807
63.00	3,400	219.0	3,080	5,560	3,474

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. cb19 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=4.40 cfs @ 12.16 hrs HW=62.45' (Free Discharge)
└**1=Culvert** (Passes 4.40 cfs of 5.90 cfs potential flow)
└**2=cb19** (Orifice Controls 4.40 cfs @ 3.24 fps)

Summary for Pond GSF 12: grassed soil filter

Inflow Area = 0.297 ac, 57.98% Impervious, Inflow Depth > 5.48" for 100-year event
Inflow = 1.88 cfs @ 12.09 hrs, Volume= 0.135 af
Outflow = 1.84 cfs @ 12.11 hrs, Volume= 0.124 af, Atten= 2%, Lag= 1.1 min
Primary = 1.84 cfs @ 12.11 hrs, Volume= 0.124 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.67' @ 12.11 hrs Surf.Area= 1,092 sf Storage= 662 cf
Flood Elev= 62.50' Surf.Area= 1,368 sf Storage= 1,681 cf

Plug-Flow detention time= 53.7 min calculated for 0.124 af (92% of inflow)
Center-of-Mass det. time= 25.0 min (780.8 - 755.8)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	1,681 cf	**gsf12 (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	886	151.0	0	0	886
62.00	1,201	164.0	1,040	1,040	1,248
62.50	1,368	170.0	642	1,681	1,428

Device	Routing	Invert	Outlet Devices
#1	Primary	58.20'	**8.0" Round Culvert** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.20' / 58.10' S= 0.0048 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	61.50'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.80 cfs @ 12.11 hrs HW=61.67' (Free Discharge)
└**1=Culvert** (Passes 1.80 cfs of 2.35 cfs potential flow)
└**2=Catch Basin** (Weir Controls 1.80 cfs @ 1.34 fps)

Summary for Pond GSF 13: grassed soil filter

Inflow Area = 1.037 ac, 46.46% Impervious, Inflow Depth > 5.14" for 100-year event
Inflow = 6.28 cfs @ 12.09 hrs, Volume= 0.444 af
Outflow = 4.49 cfs @ 12.17 hrs, Volume= 0.374 af, Atten= 28%, Lag= 4.9 min
Primary = 4.49 cfs @ 12.17 hrs, Volume= 0.374 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 62.47' @ 12.17 hrs Surf.Area= 3,997 sf Storage= 4,753 cf
Flood Elev= 63.00' Surf.Area= 4,582 sf Storage= 7,028 cf

Plug-Flow detention time= 82.1 min calculated for 0.373 af (84% of inflow)
Center-of-Mass det. time= 37.1 min (800.6 - 763.5)

Volume	Invert	Avail.Storage	Storage Description
#1	61.00'	7,028 cf	**gsf13 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
61.00	2,500	328.0	0	0	2,500
62.00	3,513	347.0	2,992	2,992	3,575
63.00	4,582	366.0	4,036	7,028	4,710

Device	Routing	Invert	Outlet Devices
#1	Primary	58.05'	**12.0" Round Culvert** L= 23.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 58.05' / 57.82' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	62.00'	**2.0" x 2.0" Horiz. db18 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=4.45 cfs @ 12.17 hrs HW=62.46' (Free Discharge)
└**1=Culvert** (Passes 4.45 cfs of 5.90 cfs potential flow)
└**2=db18** (Orifice Controls 4.45 cfs @ 3.27 fps)

Summary for Pond GSF 15: grassed soil filter

Inflow Area = 0.210 ac, 1.92% Impervious, Inflow Depth > 3.94" for 100-year event
Inflow = 1.02 cfs @ 12.09 hrs, Volume= 0.069 af
Outflow = 1.00 cfs @ 12.11 hrs, Volume= 0.066 af, Atten= 2%, Lag= 1.0 min
Primary = 1.00 cfs @ 12.11 hrs, Volume= 0.066 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.81' @ 12.11 hrs Surf.Area= 756 sf Storage= 212 cf
Flood Elev= 65.00' Surf.Area= 1,418 sf Storage= 1,489 cf

Plug-Flow detention time= 27.1 min calculated for 0.066 af (95% of inflow)
Center-of-Mass det. time= 11.0 min (797.1 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	1,489 cf	**gsf15 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	600	168.0	0	0	600
64.00	858	177.0	363	363	862
65.00	1,418	196.0	1,126	1,489	1,456

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 18.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.52' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	63.70'	**2.0" x 2.0" Horiz. cb9 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.98 cfs @ 12.11 hrs HW=63.81' (Free Discharge)
↑—**1=Culvert** (Passes 0.98 cfs of 2.21 cfs potential flow)
↑—**2=cb9** (Weir Controls 0.98 cfs @ 1.09 fps)

Summary for Pond GSF 16: grassed soil filter

Inflow Area = 0.347 ac, 34.16% Impervious, Inflow Depth > 4.81" for 100-year event
Inflow = 2.00 cfs @ 12.09 hrs, Volume= 0.139 af
Outflow = 1.06 cfs @ 12.24 hrs, Volume= 0.079 af, Atten= 47%, Lag= 9.2 min
Primary = 1.06 cfs @ 12.24 hrs, Volume= 0.079 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 64.52' @ 12.24 hrs Surf.Area= 2,293 sf Storage= 2,840 cf

Plug-Flow detention time= 149.0 min calculated for 0.079 af (57% of inflow)
Center-of-Mass det. time= 72.7 min (843.1 - 770.3)

Volume	Invert	Avail.Storage	Storage Description
#1	62.75'	4,054 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
62.75	1,000	215.0	0	0	1,000
63.00	1,165	220.0	270	270	1,181
64.00	1,858	241.0	1,498	1,768	1,986
65.00	2,741	270.0	2,285	4,054	3,192

Device	Routing	Invert	Outlet Devices
#1	Primary	60.70'	**8.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 60.70' / 60.54' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	64.40'	**2.0" x 2.0" Horiz. Catch Basin X 49.00**

C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=1.04 cfs @ 12.24 hrs HW=64.52' (Free Discharge)
↑**1=Culvert** (Passes 1.04 cfs of 2.48 cfs potential flow)
↑**2=Catch Basin** (Weir Controls 1.04 cfs @ 1.12 fps)

Summary for Pond GSF 18A: grassed soil filter

Inflow Area = 0.146 ac, 40.91% Impervious, Inflow Depth > 5.03" for 100-year event
Inflow = 0.87 cfs @ 12.09 hrs, Volume= 0.061 af
Outflow = 0.83 cfs @ 12.11 hrs, Volume= 0.052 af, Atten= 4%, Lag= 1.5 min
Primary = 0.83 cfs @ 12.11 hrs, Volume= 0.052 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.50' @ 12.12 hrs Surf.Area= 1,177 sf Storage= 518 cf

Plug-Flow detention time= 77.3 min calculated for 0.051 af (84% of inflow)
Center-of-Mass det. time= 33.4 min (799.3 - 765.9)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	1,183 cf	**gsf18a (Irregular)**Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	900	183.0	0	0	900
58.00	1,490	202.0	1,183	1,183	1,513

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.40'	**2.0" x 2.0" Horiz. cb24 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.81 cfs @ 12.11 hrs HW=57.50' (Free Discharge)
↑**1=Culvert** (Passes 0.81 cfs of 2.36 cfs potential flow)
↑**2=cb24** (Weir Controls 0.81 cfs @ 1.02 fps)

Summary for Pond GSF 18B: grassed soil filter

Inflow Area = 0.092 ac, 58.36% Impervious, Inflow Depth > 5.48" for 100-year event
Inflow = 0.58 cfs @ 12.09 hrs, Volume= 0.042 af
Outflow = 0.58 cfs @ 12.10 hrs, Volume= 0.034 af, Atten= 1%, Lag= 0.9 min
Primary = 0.58 cfs @ 12.10 hrs, Volume= 0.034 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 57.98' @ 12.10 hrs Surf.Area= 580 sf Storage= 417 cf

Plug-Flow detention time= 96.8 min calculated for 0.034 af (80% of inflow)

Center-of-Mass det. time= 43.1 min (798.8 - 755.8)

Volume	Invert	Avail.Storage	Storage Description
#1	57.00'	430 cf	**gsf18a (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
57.00	290	88.0	0	0	290
58.00	587	107.0	430	430	601

Device	Routing	Invert	Outlet Devices
#1	Primary	54.00'	**8.0" Round Culvert** L= 11.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.00' / 53.95' S= 0.0045 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.90'	**2.0" x 2.0" Horiz. cb23 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.57 cfs @ 12.10 hrs HW=57.98' (Free Discharge)
↑—**1=Culvert** (Passes 0.57 cfs of 2.53 cfs potential flow)
↑—**2=cb23** (Weir Controls 0.57 cfs @ 0.91 fps)

Summary for Pond GSF 1A: Grassed soil filter

Inflow Area = 0.408 ac, 34.88% Impervious, Inflow Depth > 5.03" for 100-year event
Inflow = 2.43 cfs @ 12.09 hrs, Volume= 0.171 af
Outflow = 2.23 cfs @ 12.12 hrs, Volume= 0.171 af, Atten= 8%, Lag= 1.9 min
Primary = 2.23 cfs @ 12.12 hrs, Volume= 0.171 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 65.95' @ 12.12 hrs Surf.Area= 1,740 sf Storage= 337 cf
Flood Elev= 68.00' Surf.Area= 3,488 sf Storage= 5,554 cf

Plug-Flow detention time= 4.6 min calculated for 0.170 af (100% of inflow)
Center-of-Mass det. time= 3.6 min (769.5 - 765.9)

Volume	Invert	Avail.Storage	Storage Description
#1	65.75'	5,554 cf	**Grassed Underdrain Soil Filter (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
65.75	1,600	234.0	0	0	1,600
66.00	1,775	239.0	422	422	1,797
67.00	2,525	261.0	2,139	2,561	2,708
68.00	3,488	286.0	2,994	5,554	3,830

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert** L= 27.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.80' / 62.26' S= 0.0200 '/' Cc= 0.900

n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2 Device 1 65.75' **2.0" x 2.0" Horiz. Orifice/Grate X 49.00**
C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.23 cfs @ 12.12 hrs HW=65.95' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.23 cfs @ 6.38 fps)
└**2=Orifice/Grate** (Passes 2.23 cfs of 2.30 cfs potential flow)

Summary for Pond GSF 1B: grassed soil filter

Inflow Area = 0.781 ac, 20.08% Impervious, Inflow Depth > 4.48" for 100-year event
Inflow = 4.24 cfs @ 12.09 hrs, Volume= 0.291 af
Outflow = 4.13 cfs @ 12.09 hrs, Volume= 0.263 af, Atten= 3%, Lag= 0.0 min
Primary = 4.13 cfs @ 12.09 hrs, Volume= 0.263 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 72.80' @ 12.09 hrs Surf.Area= 1,576 sf Storage= 1,039 cf
Flood Elev= 67.00' Surf.Area= 1,576 sf Storage= 1,039 cf

Plug-Flow detention time= 49.9 min calculated for 0.263 af (90% of inflow)
Center-of-Mass det. time= 18.9 min (795.5 - 776.6)

Volume	Invert	Avail.Storage	Storage Description
#1	66.00'	1,039 cf	**gsf1B (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
66.00	583	194.0	0	0	583
67.00	1,576	297.0	1,039	1,039	4,615

Device	Routing	Invert	Outlet Devices
#1	Primary	62.80'	**8.0" Round Culvert**
			L= 20.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 62.80' / 62.60' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	66.90'	**2.0" x 2.0" Horiz. CB17 grate X 49.00**
			C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=4.04 cfs @ 12.09 hrs HW=72.40' (Free Discharge)
└**1=Culvert** (Inlet Controls 4.04 cfs @ 11.57 fps)
└**2=CB17 grate** (Passes 4.04 cfs of 15.37 cfs potential flow)

Summary for Pond GSF 2: grassed soil filter

Inflow Area = 0.713 ac, 25.93% Impervious, Inflow Depth > 4.59" for 100-year event
Inflow = 3.95 cfs @ 12.09 hrs, Volume= 0.272 af
Outflow = 2.57 cfs @ 12.19 hrs, Volume= 0.237 af, Atten= 35%, Lag= 6.0 min
Primary = 2.57 cfs @ 12.19 hrs, Volume= 0.237 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 58.03' @ 12.19 hrs Surf.Area= 2,400 sf Storage= 2,473 cf
Flood Elev= 59.00' Surf.Area= 3,488 sf Storage= 5,317 cf

Plug-Flow detention time= 67.2 min calculated for 0.236 af (87% of inflow)
Center-of-Mass det. time= 28.1 min (802.7 - 774.6)

Volume	Invert	Avail.Storage	Storage Description
#1	56.75'	5,317 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.75	1,500	218.0	0	0	1,500
57.00	1,669	223.0	396	396	1,684
58.00	2,371	245.0	2,010	2,406	2,536
59.00	3,488	283.0	2,912	5,317	4,154

Device	Routing	Invert	Outlet Devices
#1	Primary	53.95'	**8.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.95' / 53.76' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb20 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.57 cfs @ 12.19 hrs HW=58.02' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.57 cfs @ 7.35 fps)
↑**2=cb20** (Passes 2.57 cfs of 4.27 cfs potential flow)

Summary for Pond GSF 24: grassed soil filter

Inflow Area = 0.419 ac, 67.19% Impervious, Inflow Depth > 5.94" for 100-year event
Inflow = 2.78 cfs @ 12.09 hrs, Volume= 0.208 af
Outflow = 2.56 cfs @ 12.12 hrs, Volume= 0.176 af, Atten= 8%, Lag= 2.2 min
Primary = 2.56 cfs @ 12.12 hrs, Volume= 0.176 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 40.82' @ 12.12 hrs Surf.Area= 1,920 sf Storage= 1,774 cf

Plug-Flow detention time= 88.8 min calculated for 0.176 af (85% of inflow)
Center-of-Mass det. time= 43.5 min (786.9 - 743.4)

Volume	Invert	Avail.Storage	Storage Description
#1	39.75'	4,479 cf	**gsf24 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
39.75	1,400	150.0	0	0	1,400
40.00	1,516	156.0	364	364	1,551
41.00	2,013	176.0	1,759	2,123	2,105
42.00	2,717	200.0	2,356	4,479	2,847

Device	Routing	Invert	Outlet Devices
#1	Primary	36.80'	**8.0" Round Culvert** L= 40.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 36.80' / 36.00' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	40.60'	**2.0" x 2.0" Horiz. cb32 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.55 cfs @ 12.12 hrs HW=40.82' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.55 cfs @ 7.30 fps)
└**2=cb32** (Passes 2.55 cfs of 2.65 cfs potential flow)

Summary for Pond GSF 3: grassed soil filter

Inflow Area = 0.830 ac, 36.22% Impervious, Inflow Depth > 4.81" for 100-year event
Inflow = 4.77 cfs @ 12.09 hrs, Volume= 0.332 af
Outflow = 3.90 cfs @ 12.15 hrs, Volume= 0.286 af, Atten= 18%, Lag= 3.5 min
Primary = 3.90 cfs @ 12.15 hrs, Volume= 0.286 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 56.10' @ 12.15 hrs Surf.Area= 2,769 sf Storage= 2,923 cf
Flood Elev= 57.00' Surf.Area= 3,839 sf Storage= 5,872 cf

Plug-Flow detention time= 72.6 min calculated for 0.286 af (86% of inflow)
Center-of-Mass det. time= 30.7 min (801.1 - 770.3)

Volume	Invert	Avail.Storage	Storage Description
#1	54.75'	5,872 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.75	1,600	268.0	0	0	1,600
55.00	1,804	274.0	425	425	1,868
56.00	2,657	295.0	2,217	2,642	2,860
57.00	3,839	332.0	3,230	5,872	4,733

Device	Routing	Invert	Outlet Devices
#1	Primary	51.98'	**12.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.98' / 51.84' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf
#2	Device 1	55.75'	**2.0" x 2.0" Horiz. cb25 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=3.89 cfs @ 12.15 hrs HW=56.10' (Free Discharge)
└**1=Culvert** (Passes 3.89 cfs of 5.68 cfs potential flow)
└**2=cb25** (Orifice Controls 3.89 cfs @ 2.86 fps)

Summary for Pond GSF 4: grassed soil filter

Inflow Area = 0.194 ac, 0.00% Impervious, Inflow Depth > 3.94" for 100-year event
Inflow = 0.94 cfs @ 12.09 hrs, Volume= 0.064 af
Outflow = 0.93 cfs @ 12.11 hrs, Volume= 0.056 af, Atten= 1%, Lag= 0.9 min
Primary = 0.93 cfs @ 12.11 hrs, Volume= 0.056 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.21' @ 12.11 hrs Surf.Area= 690 sf Storage= 405 cf
Flood Elev= 56.00' Surf.Area= 974 sf Storage= 1,061 cf

Plug-Flow detention time= 58.7 min calculated for 0.056 af (88% of inflow)
Center-of-Mass det. time= 21.3 min (807.4 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.50'	1,061 cf	**gsf4 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.50	457	163.0	0	0	457
55.00	623	169.0	269	269	636
56.00	974	182.0	792	1,061	1,039

Device	Routing	Invert	Outlet Devices
#1	Primary	51.73'	**8.0" Round Culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.73' / 51.56' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	55.10'	**2.0" x 2.0" Horiz. cb26 rim X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=0.91 cfs @ 12.11 hrs HW=55.21' (Free Discharge)
└**1=Culvert** (Passes 0.91 cfs of 2.35 cfs potential flow)
└**2=cb26 rim** (Weir Controls 0.91 cfs @ 1.07 fps)

Summary for Pond GSF 5: grassed soil filter

Inflow Area = 0.248 ac, 0.00% Impervious, Inflow Depth > 3.94" for 100-year event
Inflow = 1.20 cfs @ 12.09 hrs, Volume= 0.081 af
Outflow = 1.20 cfs @ 12.09 hrs, Volume= 0.081 af, Atten= 0%, Lag= 0.1 min
Primary = 1.20 cfs @ 12.09 hrs, Volume= 0.081 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 54.01' @ 12.09 hrs Surf.Area= 603 sf Storage= 3 cf
Flood Elev= 55.00' Surf.Area= 1,257 sf Storage= 908 cf

Plug-Flow detention time= 0.0 min calculated for 0.081 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (786.2 - 786.1)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	908 cf	**gsf5 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	600	210.0	0	0	600
55.00	1,257	228.0	908	908	1,265

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.95' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	54.60'	**2.0" x 2.0" Horiz. Catch Basin** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.17 cfs @ 12.09 hrs HW=54.01' (Free Discharge)
└**1=Culvert** (Inlet Controls 2.17 cfs @ 6.21 fps)
└**2=Catch Basin** (Controls 0.00 cfs)

Summary for Pond GSF 6: grassed soil filter

Inflow Area = 0.321 ac, 32.06% Impervious, Inflow Depth > 4.81" for 100-year event
Inflow = 1.85 cfs @ 12.09 hrs, Volume= 0.129 af
Outflow = 1.85 cfs @ 12.09 hrs, Volume= 0.129 af, Atten= 0%, Lag= 0.0 min
Primary = 1.85 cfs @ 12.09 hrs, Volume= 0.129 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 49.00' @ 12.09 hrs Surf.Area= 1,001 sf Storage= 2 cf
Flood Elev= 50.00' Surf.Area= 1,768 sf Storage= 1,366 cf

Plug-Flow detention time= 0.0 min calculated for 0.128 af (100% of inflow)
Center-of-Mass det. time= 0.0 min (770.4 - 770.3)

Volume	Invert	Avail.Storage	Storage Description
#1	49.00'	1,366 cf	**gsf6 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
49.00	1,000	156.0	0	0	1,000
50.00	1,768	184.0	1,366	1,366	1,776

Device	Routing	Invert	Outlet Devices
#1	Primary	44.70'	**8.0" Round culvert** L= 17.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 44.70' / 44.53' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Primary	48.20'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=8.51 cfs @ 12.09 hrs HW=49.00' (Free Discharge)
1=culvert (Inlet Controls 2.64 cfs @ 7.57 fps)
2=Catch Basin (Orifice Controls 5.87 cfs @ 4.31 fps)

Summary for Pond GSF 7: grassed soil filter

Inflow Area = 0.697 ac, 25.86% Impervious, Inflow Depth > 4.59" for 100-year event
Inflow = 3.86 cfs @ 12.09 hrs, Volume= 0.266 af
Outflow = 2.55 cfs @ 12.19 hrs, Volume= 0.225 af, Atten= 34%, Lag= 5.8 min
Primary = 2.55 cfs @ 12.19 hrs, Volume= 0.225 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs / 2
Peak Elev= 55.03' @ 12.19 hrs Surf.Area= 3,514 sf Storage= 2,825 cf
Flood Elev= 56.00' Surf.Area= 5,203 sf Storage= 7,026 cf

Plug-Flow detention time= 76.9 min calculated for 0.225 af (85% of inflow)
Center-of-Mass det. time= 32.3 min (806.9 - 774.6)

Volume	Invert	Avail.Storage	Storage Description
#1	54.00'	7,026 cf	**gsf7 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
54.00	2,037	220.0	0	0	2,037
55.00	3,467	289.0	2,720	2,720	4,843
56.00	5,203	357.0	4,306	7,026	8,354

Device	Routing	Invert	Outlet Devices
#1	Primary	51.00'	**8.0" Round cb29** L= 26.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 51.00' / 50.48' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	54.70'	**2.0" x 2.0" Horiz. Catch Basin X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.55 cfs @ 12.19 hrs HW=55.03' (Free Discharge)
1=cb29 (Inlet Controls 2.55 cfs @ 7.31 fps)
2=Catch Basin (Passes 2.55 cfs of 3.75 cfs potential flow)

Summary for Pond GSF 8: grassed soil filter

Inflow Area = 1.046 ac, 55.78% Impervious, Inflow Depth > 5.37" for 100-year event
Inflow = 6.53 cfs @ 12.09 hrs, Volume= 0.468 af
Outflow = 2.76 cfs @ 12.30 hrs, Volume= 0.392 af, Atten= 58%, Lag= 12.4 min
Primary = 2.76 cfs @ 12.30 hrs, Volume= 0.392 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 58.44' @ 12.30 hrs Surf.Area= 3,868 sf Storage= 6,241 cf
Flood Elev= 58.50' Surf.Area= 3,910 sf Storage= 6,471 cf

Plug-Flow detention time= 88.9 min calculated for 0.391 af (84% of inflow)
Center-of-Mass det. time= 43.1 min (801.5 - 758.4)

Volume	Invert	Avail.Storage	Storage Description
#1	56.50'	6,471 cf	**Grassed Underdrain (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
56.50	2,600	200.0	0	0	2,600
57.50	3,227	218.0	2,908	2,908	3,234
58.50	3,910	237.0	3,563	6,471	3,959

Device	Routing	Invert	Outlet Devices
#1	Primary	53.50'	**8.0" Round Culvert** L= 57.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 53.50' / 52.93' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	57.60'	**2.0" x 2.0" Horiz. cb10 X 49.00** C= 0.600 in 24.0" x 24.0" Grate Limited to weir flow at low heads

Primary OutFlow Max=2.76 cfs @ 12.30 hrs HW=58.44' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 2.76 cfs @ 7.92 fps)
↑—**2=cb10** (Passes 2.76 cfs of 6.01 cfs potential flow)

Summary for Pond GSF 9: grassed soil filter

Inflow Area = 0.647 ac, 63.29% Impervious, Inflow Depth > 5.59" for 100-year event
Inflow = 4.15 cfs @ 12.09 hrs, Volume= 0.302 af
Outflow = 2.79 cfs @ 12.18 hrs, Volume= 0.302 af, Atten= 33%, Lag= 5.5 min
Primary = 2.79 cfs @ 12.18 hrs, Volume= 0.302 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 63.76' @ 12.18 hrs Surf.Area= 2,233 sf Storage= 535 cf
Flood Elev= 65.00' Surf.Area= 3,935 sf Storage= 4,339 cf

Plug-Flow detention time= (not calculated: outflow precedes inflow)
Center-of-Mass det. time= 0.6 min (753.6 - 752.9)

Volume	Invert	Avail.Storage	Storage Description
#1	63.50'	4,339 cf	**gsf9 (Irregular)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
63.50	1,900	437.0	0	0	1,900
64.00	2,567	446.0	1,113	1,113	2,570
65.00	3,935	465.0	3,227	4,339	4,021

Device	Routing	Invert	Outlet Devices
#1	Primary	59.00'	**8.0" Round Culvert** L= 54.0' CPP, projecting, no headwall, Ke= 0.900

			Inlet / Outlet Invert= 59.00' / 57.92' S= 0.0200 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Device 1	63.00'	**2.0" x 2.0" Horiz. cb6 X 49.00** C= 0.600 in 24.0" x 24.0" Grate
			Limited to weir flow at low heads

Primary OutFlow Max=2.79 cfs @ 12.18 hrs HW=63.75' (Free Discharge)
↑**1=Culvert** (Inlet Controls 2.79 cfs @ 7.99 fps)
↑**2=cb6** (Passes 2.79 cfs of 5.69 cfs potential flow)

Summary for Pond ICS1: ICS

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af
Outflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Atten= 0%, Lag= 0.0 min
Primary = 12.51 cfs @ 12.08 hrs, Volume= 0.280 af
Secondary = 5.32 cfs @ 12.09 hrs, Volume= 1.151 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 67.63' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	63.50'	**18.0" Round Culvert**
			L= 23.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 63.50' / 63.27' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	66.15'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	63.95'	**12.0" Round Culvert**
			L= 5.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 63.95' / 63.90' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=12.10 cfs @ 12.08 hrs HW=67.50' (Free Discharge)
↑**1=Culvert** (Inlet Controls 12.10 cfs @ 6.85 fps)
↑**2=Broad-Crested Rectangular Weir** (Passes 12.10 cfs of 20.74 cfs potential flow)

Secondary OutFlow Max=5.27 cfs @ 12.09 hrs HW=67.56' (Free Discharge)
↑**3=Culvert** (Inlet Controls 5.27 cfs @ 6.71 fps)

Summary for Pond ics28: ICS28

Inflow Area = 0.275 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af
Outflow = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af, Atten= 0%, Lag= 0.0 min
Primary = 1.90 cfs @ 12.09 hrs, Volume= 0.152 af
Secondary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 58.94' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	58.00'	**8.0" Round Culvert**
			L= 10.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.00' / 57.90' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf
#2	Secondary	60.50'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	58.15'	**8.0" Round Culvert**
			L= 5.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 58.15' / 58.12' S= 0.0060 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=1.85 cfs @ 12.09 hrs HW=58.92' (Free Discharge)
└**1=Culvert** (Inlet Controls 1.01 cfs @ 2.91 fps)
└**3=Culvert** (Barrel Controls 0.84 cfs @ 2.60 fps)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=58.04' (Free Discharge)
└**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Summary for Pond ICS37: ISC37

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af
Outflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Atten= 0%, Lag= 0.0 min
Primary = 12.42 cfs @ 12.08 hrs, Volume= 0.279 af
Secondary = 5.42 cfs @ 12.09 hrs, Volume= 1.151 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.59' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	52.50'	**18.0" Round Culvert**
			L= 51.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 52.50' / 52.00' S= 0.0098 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert**
			L= 5.0' CPP, projecting, no headwall, Ke= 0.900
			Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900
			n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=12.02 cfs @ 12.08 hrs HW=56.45' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.02 cfs @ 6.80 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 12.02 cfs of 23.22 cfs potential flow)

Secondary OutFlow Max=5.34 cfs @ 12.09 hrs HW=56.50' (Free Discharge)
└**3=Culvert** (Inlet Controls 5.34 cfs @ 6.80 fps)

Summary for Pond ics46: ICS46

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af
Outflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Atten= 0%, Lag= 0.0 min
Primary = 12.61 cfs @ 12.08 hrs, Volume= 0.281 af
Secondary = 5.23 cfs @ 12.10 hrs, Volume= 1.150 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 50.37' @ 12.10 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	46.20'	**18.0" Round Culvert** L= 22.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.20' / 46.00' S= 0.0091 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	49.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	46.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 46.80' / 46.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=12.19 cfs @ 12.08 hrs HW=50.24' (Free Discharge)
└**1=Culvert** (Inlet Controls 12.19 cfs @ 6.90 fps)
└**2=Broad-Crested Rectangular Weir** (Passes 12.19 cfs of 18.37 cfs potential flow)

Secondary OutFlow Max=5.20 cfs @ 12.10 hrs HW=50.33' (Free Discharge)
└**3=Culvert** (Inlet Controls 5.20 cfs @ 6.61 fps)

Summary for Pond ICS9: ICS9

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af
Outflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Atten= 0%, Lag= 0.0 min
Primary = 12.42 cfs @ 12.08 hrs, Volume= 0.280 af
Secondary = 5.42 cfs @ 12.09 hrs, Volume= 1.150 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Peak Elev= 65.79' @ 12.09 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	61.70'	**18.0" Round Culvert** L= 14.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 61.70' / 61.00' S= 0.0500 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	64.18'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	62.00'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 62.00' / 61.65' S= 0.0700 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=12.02 cfs @ 12.08 hrs HW=65.65' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 12.02 cfs @ 6.80 fps)
↑—**2=Broad-Crested Rectangular Weir** (Passes 12.02 cfs of 23.72 cfs potential flow)

Secondary OutFlow Max=5.34 cfs @ 12.09 hrs HW=65.70' (Free Discharge)
↑—**3=Culvert** (Inlet Controls 5.34 cfs @ 6.80 fps)

Summary for Pond ISC42: ICS42

Device	Routing	Invert	Outlet Devices
#1	Primary	52.20'	**18.0" Round Culvert** L= 16.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.20' / 51.88' S= 0.0200 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf
#2	Device 1	55.37'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Secondary	52.80'	**12.0" Round Culvert** L= 5.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 52.80' / 52.75' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
↑—**1=Culvert** (Controls 0.00 cfs)
↑—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Secondary OutFlow Max=0.00 cfs @ 1.00 hrs HW=0.00' (Free Discharge)
↑—**3=Culvert** (Controls 0.00 cfs)

Summary for Pond MPP 10: Rtank storage

Inflow Area = 0.710 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 4.90 cfs @ 12.09 hrs, Volume= 0.393 af
Outflow = 3.15 cfs @ 12.19 hrs, Volume= 0.366 af, Atten= 36%, Lag= 6.1 min
Primary = 3.15 cfs @ 12.19 hrs, Volume= 0.366 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 61.95' @ 12.19 hrs Surf.Area= 0.179 ac Storage= 0.090 af

Plug-Flow detention time= 76.1 min calculated for 0.366 af (93% of inflow)
Center-of-Mass det. time= 49.3 min (764.9 - 715.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	61.23'	0.091 af	**6.25'W x 1,248.97'L x 1.94'H Field A** 0.347 af Overall - 0.118 af Embedded = 0.229 af x 40.0% Voids
#2A	61.48'	0.112 af	**ACF R-Tank HD 0.5** x 2128 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 4 Rows of 532 Chambers
		0.204 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	61.48'	**8.0" Round Culvert X 6.00** L= 2.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 61.48' / 61.40' S= 0.0400 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.13 cfs @ 12.19 hrs HW=61.95' (Free Discharge)
↑—**1=Culvert** (Barrel Controls 3.13 cfs @ 2.81 fps)

Summary for Pond MPP 14: Rtanks

Inflow Area = 0.215 ac, 94.36% Impervious, Inflow Depth > 6.53" for 100-year event
Inflow = 1.48 cfs @ 12.09 hrs, Volume= 0.117 af
Outflow = 0.99 cfs @ 12.18 hrs, Volume= 0.110 af, Atten= 33%, Lag= 5.6 min
Primary = 0.99 cfs @ 12.18 hrs, Volume= 0.110 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.75' @ 12.18 hrs Surf.Area= 1,935 sf Storage= 1,114 cf
Flood Elev= 60.50' Surf.Area= 1,935 sf Storage= 2,354 cf

Plug-Flow detention time= 69.2 min calculated for 0.110 af (94% of inflow)
Center-of-Mass det. time= 44.8 min (766.3 - 721.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	55.98'	1,011 cf	**15.44'W x 125.33'L x 2.04'H Field A** 3,941 cf Overall - 1,413 cf Embedded = 2,528 cf x 40.0% Voids
#2A	56.23'	1,343 cf	**ACF R-Tank HD 0.5** x 583 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 11 Rows of 53 Chambers
		2,354 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	56.23'	**8.0" Round Culvert X 2.00** L= 21.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 56.23' / 56.12' S= 0.0052 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.98 cfs @ 12.18 hrs HW=56.75' (Free Discharge)
↑**1=Culvert** (Barrel Controls 0.98 cfs @ 2.31 fps)

Summary for Pond MPP 19: Rtanks

Inflow Area = 0.315 ac, 81.76% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 2.12 cfs @ 12.09 hrs, Volume= 0.162 af
Outflow = 0.66 cfs @ 12.40 hrs, Volume= 0.144 af, Atten= 69%, Lag= 18.5 min
Primary = 0.66 cfs @ 12.40 hrs, Volume= 0.144 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.12' @ 12.40 hrs Surf.Area= 0.074 ac Storage= 0.068 af

Plug-Flow detention time= 120.4 min calculated for 0.144 af (89% of inflow)
Center-of-Mass det. time= 84.6 min (820.5 - 735.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.83'	0.033 af	**18.06'W x 179.28'L x 1.84'H Field A** 0.137 af Overall - 0.055 af Embedded = 0.082 af x 40.0% Voids
#2A	55.08'	0.052 af	**ACF R-Tank HD 0.5** x 988 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 76 Chambers
		0.085 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.08'	**6.0" Round Culvert** L= 19.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.08' / 55.00' S= 0.0042 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.66 cfs @ 12.40 hrs HW=56.11' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.66 cfs @ 3.37 fps)

Summary for Pond MPP 21: Rtanks

Inflow Area = 0.229 ac, 83.66% Impervious, Inflow Depth > 6.17" for 100-year event
Inflow = 1.55 cfs @ 12.09 hrs, Volume= 0.118 af
Outflow = 0.73 cfs @ 12.26 hrs, Volume= 0.111 af, Atten= 53%, Lag= 10.2 min
Primary = 0.73 cfs @ 12.26 hrs, Volume= 0.111 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.93' @ 12.26 hrs Surf.Area= 1,510 sf Storage= 1,484 cf

Plug-Flow detention time= 73.3 min calculated for 0.110 af (93% of inflow)
Center-of-Mass det. time= 49.8 min (785.7 - 735.9)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.48'	818 cf	**16.75'W x 90.14'L x 2.09'H Field A** 3,151 cf Overall - 1,105 cf Embedded = 2,046 cf x 40.0% Voids
#2A	54.73'	1,050 cf	**ACF R-Tank HD 0.5** x 456 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 38 Chambers
		1,868 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.73'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.73' / 54.73' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.73 cfs @ 12.26 hrs HW=55.93' (Free Discharge)
└**1=Culvert** (Inlet Controls 0.73 cfs @ 3.70 fps)

Summary for Pond MPP 22: Rtanks

Inflow Area = 0.310 ac, 76.43% Impervious, Inflow Depth > 5.94" for 100-year event
Inflow = 2.06 cfs @ 12.09 hrs, Volume= 0.154 af
Outflow = 0.67 cfs @ 12.38 hrs, Volume= 0.137 af, Atten= 67%, Lag= 17.7 min
Primary = 0.67 cfs @ 12.38 hrs, Volume= 0.137 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 56.10' @ 12.38 hrs Surf.Area= 3,003 sf Storage= 2,782 cf

Plug-Flow detention time= 113.7 min calculated for 0.136 af (89% of inflow)
Center-of-Mass det. time= 78.2 min (821.6 - 743.4)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.80'	1,262 cf	**16.75'W x 179.28'L x 1.79'H Field A** 5,367 cf Overall - 2,211 cf Embedded = 3,156 cf x 40.0% Voids
#2A	55.05'	2,100 cf	**ACF R-Tank HD 0.5** x 912 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 12 Rows of 76 Chambers
		3,363 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	55.05'	**6.0" Round Culvert** L= 2.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 55.05' / 55.05' S= 0.0000 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.20 sf

Primary OutFlow Max=0.67 cfs @ 12.38 hrs HW=56.10' (Free Discharge)
1=Culvert (Inlet Controls 0.67 cfs @ 3.40 fps)

Summary for Pond MPP 26: Rtanks

Inflow Area = 0.088 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 0.60 cfs @ 12.09 hrs, Volume= 0.048 af
Outflow = 0.36 cfs @ 12.20 hrs, Volume= 0.044 af, Atten= 40%, Lag= 7.0 min
Primary = 0.36 cfs @ 12.20 hrs, Volume= 0.044 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 35.01' @ 12.20 hrs Surf.Area= 1,289 sf Storage= 592 cf

Plug-Flow detention time= 96.3 min calculated for 0.044 af (90% of inflow)
Center-of-Mass det. time= 62.8 min (778.4 - 715.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	34.37'	492 cf	**18.06'W x 71.37'L x 1.69'H Field A** 2,175 cf Overall - 945 cf Embedded = 1,230 cf x 40.0% Voids
#2A	34.62'	898 cf	**ACF R-Tank HD 0.5** x 390 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 13 Rows of 30 Chambers
		1,390 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	34.62'	**8.0" Round Culvert** L= 8.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 34.62' / 34.34' S= 0.0350 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=0.36 cfs @ 12.20 hrs HW=35.01' (Free Discharge)
1=Culvert (Inlet Controls 0.36 cfs @ 1.69 fps)

Summary for Pond MPP 50:

Inflow Area = 0.693 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 4.78 cfs @ 12.09 hrs, Volume= 0.383 af
Outflow = 3.43 cfs @ 12.17 hrs, Volume= 0.348 af, Atten= 28%, Lag= 5.0 min
Primary = 3.43 cfs @ 12.17 hrs, Volume= 0.348 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 55.11' @ 12.17 hrs Surf.Area= 5,946 sf Storage= 3,881 cf

Plug-Flow detention time= 88.3 min calculated for 0.347 af (90% of inflow)
Center-of-Mass det. time= 54.7 min (770.3 - 715.6)

Volume	Invert	Avail.Storage	Storage Description
#1A	54.33'	2,878 cf	**4.94'W x 1,204.40'L x 1.84'H Field A** 10,925 cf Overall - 3,731 cf Embedded = 7,195 cf x 40.0% Voids
#2A	54.33'	3,544 cf	**ACF R-Tank HD 0.5** x 1539 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 3 Rows of 513 Chambers
		6,422 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	54.58'	**8.0" Round Culvert X 7.00** L= 3.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 54.58' / 54.55' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.35 sf

Primary OutFlow Max=3.37 cfs @ 12.17 hrs HW=55.10' (Free Discharge)
1=Culvert (Barrel Controls 3.37 cfs @ 2.25 fps)

Summary for Pond mpp30: Rtanks

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 4.94" for 100-year event
Inflow = 6.08 cfs @ 12.10 hrs, Volume= 0.496 af
Outflow = 3.03 cfs @ 12.32 hrs, Volume= 0.486 af, Atten= 50%, Lag= 13.1 min
Primary = 3.03 cfs @ 12.32 hrs, Volume= 0.486 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 31.14' @ 12.32 hrs Surf.Area= 8,586 sf Storage= 3,567 cf
Flood Elev= 31.78' Surf.Area= 8,586 sf Storage= 7,539 cf

Plug-Flow detention time= 27.5 min calculated for 0.486 af (98% of inflow)
Center-of-Mass det. time= 18.8 min (776.3 - 757.5)

Volume	Invert	Avail.Storage	Storage Description
#1B	30.73'	4,011 cf	**8.56'W x 815.99'L x 2.04'H Field B** 14,234 cf Overall - 4,206 cf Embedded = 10,028 cf x 40.0% Voids
#2B	30.98'	3,995 cf	**ACF R-Tank HD 0.5** x 1735 Inside #1 Inside= 15.7"W x 9.4"H => 0.98 sf x 2.35'L = 2.3 cf Outside= 15.7"W x 9.4"H => 1.03 sf x 2.35'L = 2.4 cf 5 Rows of 347 Chambers
#3C	29.28'	259 cf	**10.56'W x 74.72'L x 1.69'H Field C** 1,337 cf Overall - 689 cf Embedded = 648 cf x 40.0% Voids
#4C	29.53'	654 cf	**ACF R-Tank HD 1.0** x 155 Inside #3 Inside= 15.7"W x 17.3"H => 1.80 sf x 2.35'L = 4.2 cf Outside= 15.7"W x 17.3"H => 1.89 sf x 2.35'L = 4.4 cf 5 Rows of 31 Chambers
#5D	29.28'	694 cf	**10.56'W x 76.72'L x 3.42'H Field D** 2,767 cf Overall - 1,033 cf Embedded = 1,734 cf x 40.0% Voids
#6D	29.53'	982 cf	**ACF R-Tank HD 1.5** x 155 Inside #5 Inside= 15.7"W x 26.0"H => 2.70 sf x 2.35'L = 6.3 cf Outside= 15.7"W x 26.0"H => 2.84 sf x 2.35'L = 6.7 cf 5 Rows of 31 Chambers
		10,595 cf	Total Available Storage

Storage Group B created with Chamber Wizard
Storage Group C created with Chamber Wizard
Storage Group D created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	29.61'	**12.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.61' / 29.00' S= 0.0305 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 0.79 sf

Primary OutFlow Max=3.03 cfs @ 12.32 hrs HW=31.14' (Free Discharge)
↑—**1=Culvert** (Inlet Controls 3.03 cfs @ 3.86 fps)

Summary for Pond OCS57: OCS 57

Inflow Area = 1.205 ac, 54.78% Impervious, Inflow Depth > 4.84" for 100-year event
Inflow = 3.03 cfs @ 12.32 hrs, Volume= 0.486 af
Outflow = 3.03 cfs @ 12.32 hrs, Volume= 0.486 af, Atten= 0%, Lag= 0.0 min
Primary = 3.03 cfs @ 12.32 hrs, Volume= 0.486 af

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 30.44' @ 12.32 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	29.50'	**18.0" Round Culvert** L= 20.0' CPP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 29.50' / 29.30' S= 0.0100 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.77 sf

#2	Device 1	30.07'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir**
			Head (feet) 0.20 0.40 0.60 0.80 1.00
			Coef. (English) 2.80 2.92 3.08 3.30 3.32
#3	Primary	29.53'	**2.0" Vert. Orifice/Grate X 2.00** C= 0.600
#4	Primary	29.90'	**6.0" W x 2.0" H Vert. Orifice/Grate** C= 0.600

Primary OutFlow Max=3.03 cfs @ 12.32 hrs HW=30.44' (Free Discharge)
- **1=Culvert** (Passes 2.57 cfs of 2.84 cfs potential flow)
  - **2=Broad-Crested Rectangular Weir** (Weir Controls 2.57 cfs @ 1.75 fps)
- **3=Orifice/Grate** (Orifice Controls 0.19 cfs @ 4.37 fps)
- **4=Orifice/Grate** (Orifice Controls 0.27 cfs @ 3.24 fps)

Summary for Pond SSF 36: ssf

Inflow = 5.32 cfs @ 12.09 hrs, Volume= 1.151 af
Primary = 5.32 cfs @ 12.09 hrs, Volume= 1.151 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 37:

Inflow = 5.42 cfs @ 12.09 hrs, Volume= 1.150 af
Primary = 5.42 cfs @ 12.09 hrs, Volume= 1.150 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 38: ssf38

Inflow = 5.57 cfs @ 12.09 hrs, Volume= 1.153 af
Primary = 5.57 cfs @ 12.09 hrs, Volume= 1.153 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 39:

Inflow = 5.42 cfs @ 12.09 hrs, Volume= 1.151 af
Primary = 5.42 cfs @ 12.09 hrs, Volume= 1.151 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 40:

Inflow Area = 2.584 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af
Primary = 17.83 cfs @ 12.09 hrs, Volume= 1.430 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 41:

Inflow = 5.23 cfs @ 12.10 hrs, Volume= 1.150 af
Primary = 5.23 cfs @ 12.10 hrs, Volume= 1.150 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 42:

Inflow = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af
Primary = 0.00 cfs @ 1.00 hrs, Volume= 0.000 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

Summary for Pond SSF 43:

Inflow Area = 0.436 ac,100.00% Impervious, Inflow Depth > 6.64" for 100-year event
Inflow = 3.01 cfs @ 12.09 hrs, Volume= 0.241 af
Primary = 3.01 cfs @ 12.09 hrs, Volume= 0.241 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind method, Time Span= 1.00-20.00 hrs, dt= 0.05 hrs

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PROJECT NO. 171.05027 SITE NAP
SHEET NO. 1 OF
CALCULATED BY MPM DATE 4/1/19
CHECKED BY SJB DATE 4/18/19
SCALE N/A

Post Development conditions

Off-site conditions are primarily the same as in the pre-development state. Difference in Subcatch No.9 where a portion of the northern boundary is added to the subcatchment area. This is the location of the off-site stormwater interceptor trench/channel. The channel itself does not represent the most hydraulically remote location for the Tc path so the path from pre-Development remains

Additional Area:

Grass/channel: 61,830 sf
woods/woodsline: 72,380 sf

Post-Development: On-site Areas. w/ Grassed underdrain soil filter

Subcatch 1A (prev. part of subcatch #1):

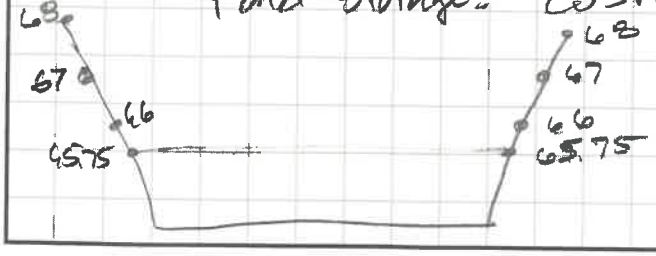
Area contributing to GSP-1A:

11582 sf	>75% grass HSG C/D
6203 sf	impervious (access Rd)
17785 sf	

Tc Path: Direct entry of 6 min.

Pond storage: custom stage

elev.	Area	Perimeter
65.75	1600	234
66.0	1775	239
67.0	2525	261
68.0	3488	286



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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 2 OF
CALCULATED BY MPM/MH DATE
CHECKED BY SJB DATE 4/16/19
SCALE N/A

Pond outlet is a complex outlet w/a stand pipe/CB.

Culvert/pipe to closed system

Pipe= 8" HDPE; l=27', s=0.02 to DMH 25

CB Rim= 66.3 assume 2'x2' box or 2'Ø Beehive
6" INV. in = 63.10
8" INV. out = 62.80

CB Rim was calculated above WQv. Assume that WQv sits on filter, filters through in 24-48 hrs. ∴ WQv is not in peak but is a second peak when treatment systems are discharging later.

Model complex outlet w/ final first i.e. culvert then Rate thru orifice/grate through Reduce 1, leaves WQv out

SUBCATCHMENT 1B: (part of subcatch #1)

Areas:

6832	impervious (roadway)
15476	>75% grass, HSG C/D
22308	

T_c = 6 min, direct entry

Pond storage:

E	A	P
66.0	553	194
67.0	1576	297

Use 2x2' grate w/ 29 2"x8" holes

CB Rim= 66.90 (CB17)
Pipe/culvert: 8" pipe (CB17 to DMH 3)
l= 20ft, 62.50 to 62.60

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 3 OF
CALCULATED BY MH DATE 2/13/19
CHECKED BY MPM DATE 4/1/19
SCALE N/A SJB 4/15/19

C. Subcatchment 3

1. Area (sq ft)	CN	Description
13091	98	Impervious (road)
15516	74	>75% grass, HSG C/D
7540	70	Good weeds, HSC C/D

Total: 36147

2. Tc Path
a-b direct entry (to GSF 3)
Tc = 6 min

D. Subcatchment 4

1. Area (sq ft)	CN	Description
0	98	Impervious (road)
9707	74	>75% grass, HSG C/D

Total: 9707

2. Tc Path
a-b direct entry (to BCF 4)
Tc = 6 min

E. Subcatchment 5

1. Area (sq ft)	CN	Description
0	98	Impervious (road)
10807	74	>75% grass, HSG C/D

Total: 10807

2. Tc Path
a-b direct entry (to BCF 5)
Tc = 6 min

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 4 OF
CALCULATED BY MPM DATE 4/1/19
CHECKED BY DATE
SCALE N/A SJB 4/18/19

Subcatchment 2: Area contributing

8052 impervious (Roadway)
5300 >75% grass, HSG C
17697 >75% grass, HSG C/D
31,049

Pond storage:

E	A	P
56.75	1500	218
57.0	1669	223
58.0	2371	245
59.0	3488	283

Pipe/culvert: CB20 to DMH 32 ; 8" pipe; L = 19'
53.95 to 53.76

CB Rim: 57.60

Ponding for subcatchment 3:

Custom Stage

E	A	P
54.75	1600	268
55.0	1804	274
56.0	2657	295
57.0	3839	282

Pipe/culvert: CB 25 to DMH 36 ; 12" pipe
51.98 to 51.84 L = 14'

CB Rim: 55.75

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 5 OF
CALCULATED BY MPM DATE 4/1/19
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SCALE N/A SJB 4/18/19

• Ponding Storage for subcatchment 4.

Custom Stage:

E	A	P
54.50	457	163
55.0	623	169
56.0	974	182

Pipe/culvert: CB 26 TO DMH 39
51.73 TO 51.56
8" l = 17'

CBRm = 55.10

• Ponding Storage for subcatchment #5
custom stage

E	A	P
54	600	210
55	1257	228

Pipe/culvert: CB 27 TO DMH 44
51.00 50.95
8" l = 5'

CBRm = 54.60

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PROJECT NO. 171.05027 SITE NAE
SHEET NO. 6 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE
SCALE N/A SJB 4/10/19

F. Subcatchment 6

1.

Area (sq. ft.)	CN	Description
4484	98	Impervious
0	74	>75% grass, HSG C/D
9501	74	>75% grass, HSG C
Total: 13,985		

2. Tc Path
a-b direct entry (to BCF 6)
Tc = 6 min

G. Subcatchment 7

1.

Area (sq. ft.)	CN	Description
7846	98	Impervious
3270	74	>75% grass, HSG C
19229	74	>75% grass, HSG C/D
Total: 30,345		

2. Tc Path
a-b direct entry (to GSF 7)
Tc = 6 min

H. Subcatchment 8

1.

Area (sq. ft.)	CN	Description
26621	98	Impervious
5472	74	>75% grass, HSG C
13458	74	>75% grass, HSG C/D
Total: 45,551		

2. Tc Path
a-b direct flow (to GSF 8)
Tc = 6 min

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PROJECT NO. 171.050007 SITE
SHEET NO. 7 OF
CALCULATED BY MPM DATE 4/11/19
CHECKED BY DATE
SCALE NA SJB 4/18/19

Ponding storage for subcatchment #6
custom stage

E	A	P
49.0	1000	156
50.0	1767	184

pipe/culvert: CB28 to DMH49
44.7 44.53
8" l = 17'

CB Rim = 48.20

Ponding Storage for subcatchment #7
custom stage

E	A	P
54	2057	220
55	3467	289
56	5203	357

Pipe/culvert: CB 29 to DMH 50
51.0 50.48
8' l = 26'

CB Rim = 54.70

Ponding Storage for subcatchment #8
custom stage

E	A	P
54.50	2000	200
57.50	3227	218
58.50	3410	237

Piping/culvert: CB10 to Pipe 22
53.50 52.93
8" l = 57'

CB Rim = 57.60

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 8 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY WPM DATE 4/1/19
SCALE N/A SJB 4/18/19

I Subcatchment 9

1.

Area (sq. ft.)	CN	Description
9103	74	>75% grass, HSG C/D
17996	98	Impervious (parking lot + road)

Total: 27099

2. T_c Path

a-b direct flow (to BUF 9)

T_c = 6 min

J. Subcatchment 10

1.

Area (sq. ft.)	CN	Description
30932	98	Impervious, HSG C/D

2. T_c Path

a-b direct flow (to MPP 10)

T_c = 6 min

~~Subcatchment 10~~

~~1.~~

~~Area (sq. ft.)~~	~~CN~~	~~Description~~
~~21,523~~	~~98~~	~~Impervious, HSG C/D~~
~~6,673~~	~~77~~	~~>75% grass, HSG C/D~~
~~44785~~	~~74~~	~~>75% grass, HSG C~~

~~Total: 72,981~~

MKH

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PROJECT NO. 171.05027 SITE NAE
SHEET NO. 9 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE
SCALE N/A SJB 4/18/19

~~Subcatchment 10~~
~~2. Tc Path~~
~~a-b direct flow (Porous Pavers)~~
~~T_c = 6 min~~
MKH

K. Subcatchment 11

1. Area (sq. ft.)	CN	Description
15,881	98	Impervious
27,293	74	>75% grass, HSG. C/D
Total: 43174		

2. Tc Path
a-b direct entry (to GSF 11)
T_c = 6 min

L. Subcatchment 12

1. Area (sq. ft.)	CN	Description
7205	98	Impervious
5715	74	75% grass, HSG C/D
Total: 12920		

2. Tc Path
a-b direct flow (to BUF 12)
T_c = 6 min

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PROJECT NO. 121.05027 SITE UAF
SHEET NO. 10 OF
CALCULATED BY HPM DATE 4/13/19
CHECKED BY DATE
SCALE N/A SJB 4/18/19

• Ponding / Storage for GSP 9
custom stage

E	A	P
63.50	1900	437
64	2567	446
65	3935	465

Pipe/culvert: CB6 to P18
59.0 57.92
8" l = 54'
CB Rim = 63.0

• Ponding / Storage for GSP 11
custom stage

E	A	P
61	2200	181
62	2771	200
63	3400	219

Pipe/culvert: CB-19 to DMH26
58.05 57.82
12" l = 27'
CB Rim = 62.00

• Ponding storage for GSP 13
custom storage

E	A	P
61	2500	328
62	3513	347
63	4582	366

Pipe/culvert: CB-18 to DMH26
58.05 57.82
12" l = 23
CB Rim = 62.0

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PROJECT NO. 171.05027 SITE NAR
SHEET NO. 11 OF
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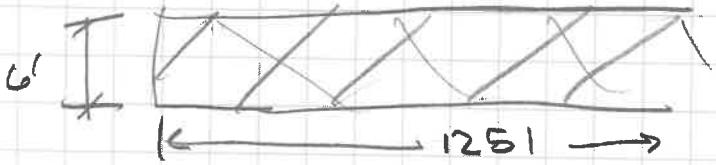
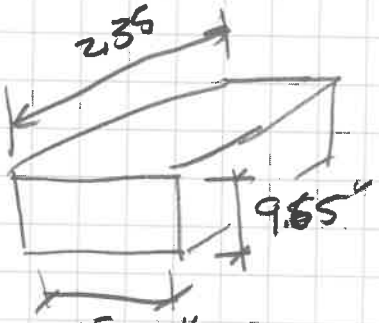
SCALE N/A

• SW catch ID - Man made pervious power system (MPP)

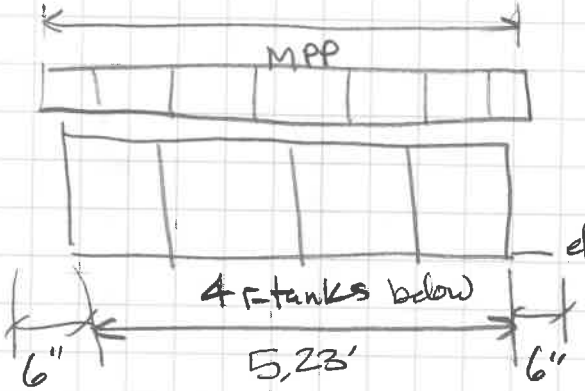


mini. R-Tanks



15.7" ÷ 1.308'

6/1.308 = 4 rows X
125'/2.35 = 532 units/row
4 rows x 532 units
= 2128 units



MPP storage beneath filter system. CBs are piped right to R-Tanks. R-Tanks piped to drain line that passes by - drop into top of pipe. @MPP ID there are 6 discharges from R-Tanks to pipe

8" l = 3'
(R-tank to pipe)

Stone cover above filter for WQv = 0.9ft. = 10.8 inches

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PROJECT NO. 171.05027 SITE NAR
SHEET NO. 12 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE
SCALE N/A SJB 4/18/19

M. Subcatchment 13

1. Area (sq. ft.)	CN	Description
20981	98	Impervious (road, parking lot)
2482	74	>75% grass, HSG C/D
Total: 45,163		

2. T_c Path

a-b direct entry (to GSF 13)

T_c = 6 min

b-c Shallow Conc. flow (to bioret 13A)

Short grass pasture
Vel. Factor = 7 ft/s
Flow Length = 222 ft
Slope = 0.018
(y_2 = 66 ft, y_1 = 62 ft)

T_t b-c = $\frac{222 \text{ ft}}{3600 \text{ v}}$ = 3.9 min

MKH

T_c = 6 + 3.9

T_c = 9.9 min

N. Subcatchment 14

1. Area (Sq. ft.)	CN	Description
8849	98	Impervious (Parking lot / Road)
529	74	>75% grass, HSG C/D
Total: 9378		

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SCALE N/A SJB 4/18/19

N. Subcatchment 14

2. Tc Path
a-b direct entry (to MPP 14)
Tc = 6 min

O. Subcatchment 15

1.

Area (sq. ft.)	CN	Description
235	98	Impervious (Parking lot/road)
3184	74	>75% grass, HSG C/D
Total: 3,419		

2. Tc Path
a-b direct entry (to BCF 15)
Tc = 6 min.

P. Subcatchment 16

1.

Area (sq. ft.)	CN	Description
6793	98	Impervious
9412	74	>75% grass, HSG C/D
Total: 16205		

2. Tc Path
a-b direct entry (to GrSF 16)
Tc = 6 min

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 14 OF
CALCULATED BY MPM DATE 4/11/19
CHECKED BY DATE
SCALE N/A SJB 4/15/19

- Pond Storage for Subcatchment 12

Custom Stage:

E	A	P
61	886	151
62	1201	164
63	1368	170

Pipe/culvert: CB15A to DMH-24A
8" L = 21' 58.20 58.10
CB Rim = 61.90

- Pond Storage for Subcatchment 15

Custom Stage

E	A	P
63.5	600	168
64	858	177
65	1418	196

8" l = 18'
Pipe/culvert: CB9 to DMH-17
60.70 60.52
CB Rim = 63.70

- Pond Storage for Subcatchment 16

Custom Stage

E	A	P
62.75	1000	215
63.0	1165	220
64.0	1853	241
65.0	2741	270

Pipe/culvert: 60.70 to 60.54; 8" pipe; l = 16'
CB8 to DMH16
CB Rim = 64.40

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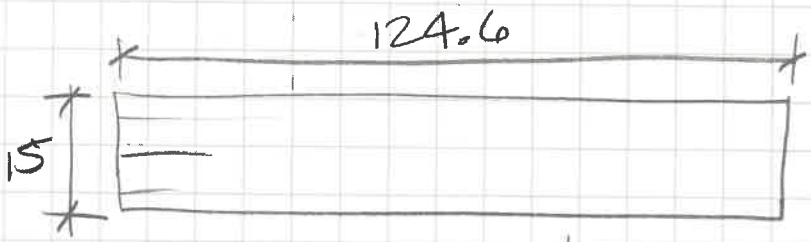
PROJECT NO. 171.05027 SITE NAF
SHEET NO. 15 OF
CALCULATED BY MPM DATE 4/13/19
CHECKED BY DATE
SCALE N/A SJB 4/18/19

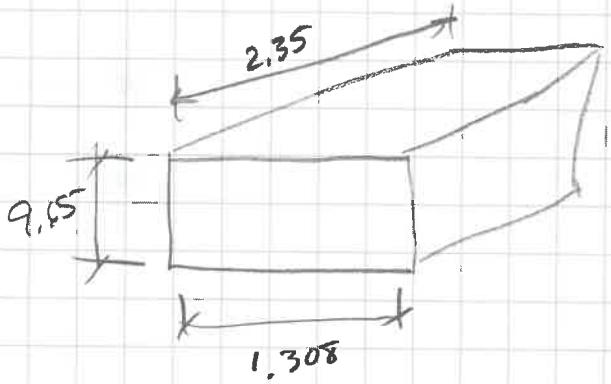
- Subcatch 14 - Man made pavers

Area: width: 15' / 1.308 = 11 units w/6" crushed

length: 124.6 / 2.35 = 53 units

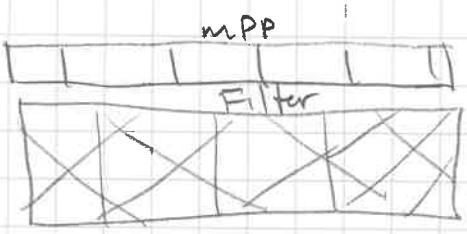
11 rows x 53/row
= 583 units





mini R-Tank

MPP 14 has 2 CBs piped directly into Tanks



CB15 to DMH24

elev. = 56.23

Piping from R-Tanks to DMH 24 and Pipe between 24 & 23
Bring all flow into DMH 24 w/8" pipe x 2
l = 21'
Stone cover above filter = 12"

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 16 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE
SCALE N/A SJB 4/18/19

Subcatchment 16

$$T_{t\ a-b} = \frac{0.007 (nL)^{0.8}}{(P_2)^{0.5} (S)^{0.4}}$$

$$= \frac{0.007 (0.011 \times 38\ ft)^{0.8} (60)}{(2.9)^{0.5} (0.005)^{0.4}}$$

$T_{t\ a-b} = 1$ min

b-c Shallow conc. flow (to biocell 16A)
Grassed waterway
Vel. Factor: 1.5 ft/s
Flow length: 82 ft
Slope: 0.005 (assumed b/c grading will change)

$$T_{t\ b-c} = \frac{82\ ft}{3600\ V} = 1.3\ min$$

$T_c = 1 + 1.3$
$T_c = 2.3$ min

MKH

Q. Subcatchment 17 (untreated)

1. Area (sq. ft)	CN	Description
11,320	98	Impervious
1,980	74	>75% grass, HSG C/D
Total: 13,300		

2. T_c Path
a-b direct flow (.)
$T_c = 6$ min

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 17 OF
CALCULATED BY MKH DATE 2/13/19
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SCALE N/A SJB 4/15/19

R. Subcatchment 18A

1.

Area (Sq. ft.)	CN	Description
2593	98	Impervious (Road)
3746	74	>75% grass, C/D
Total: 6339		

2. Tc Path
a-b direct (to BCF 18A)
Tc = 6 min

2R. Subcatchment 18A

1.

Area (ft²)	CN	Description
2348	98	Impervious
1675	74	>75% grass C/D
Total: 4023		

2. Tc Path
a-b direct (to BCF 18B)
Tc = 6 min

S. Subcatchment 19

1.

Area (sq ft)	CN	Description
11,210	98	Impervious (parking lot/road)
2,501	74	>75% grass, HSG C/D
Total: 13,711		

2. Tc Path
a-b direct entry (to MPP 19)
Tc = 6 min

T. Subcatchment 20 (untreated)

1.

Area (sq. ft.)	CN	Description
2110	98	Impervious
7449	74	>75% grass, HSG C/D
Total: 28459		

2. Tc Path
a-b direct entry (
Tc = 6 min

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PROJECT NO. 171.05027 SITE NAP
SHEET NO. 18 OF
CALCULATED BY MPM DATE 4/13/19
CHECKED BY DATE
SCALE N/A SJB 4/15/19

- Pond storage for subcatch 18A
  custom stage

E	A	P
57	900	183
58	1490	202

Pipe/culvert: CB-24 to Pipe 36 (drop in)
Bring to DMH 34 in Hydrocad

Elev. out of CB-24 = 54.00 Rim = 57.40

8" Pipe length = 11'

S = 0.005

∴ drop into pipe @ elev. = 53.95

- Pond storage for subcatch 18B
  custom stage

E	A	P
57	290	88
58	587	107

Pipe/culvert: CB-23 to Pipe 36 (drop in)
Bring to DMH 34 in hydrocad

Elev. out of CB-23 = 54.0 Rim = 57.90

8" Pipe length = 11'

S = 0.005

∴ drop elev. = 53.95

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 19 OF
CALCULATED BY MPM DATE 4/11/19
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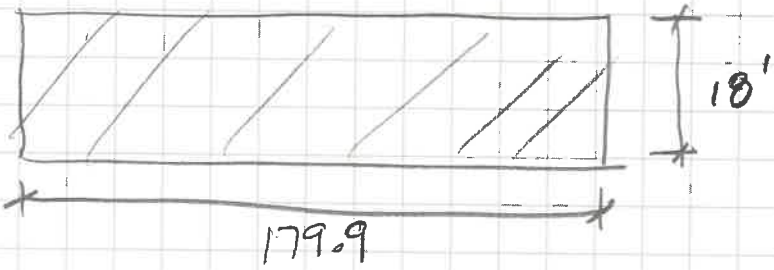
SCALE N/A SJB 4/18/19

- Subcatch 19: man made pavers (MPP)



Area: width = 18' / 1.308 = 13 units w/ 6" on sides

length = 179.9 / 2.35 = 76 units w/ 6" on ends

13 rows w/ 76 units/row = 988 mini R-Tanks

MPP 19 has 2 CBs which discharge directly to R-tanks. R-tanks discharge directly into DMH 33 w/ pipe stub

CB 22 to DMH 33

6" pipe = 19'

Stone cover above filter = 0.8' = 9.6"

elev. into DMH 33 = 55.0

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PROJECT NO. 171.05007 SITE NAF
SHEET NO. 20 OF
CALCULATED BY MKH DATE 4/11/19
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SCALE N/A SJB 4/18/19

U. Subcatchment 21

1.

Area (sq. ft.)	CN	Description
8361	98	Impervious
1633	74	>75% grass, HSG C/D
Total: 9994		

2. Tc Path
a-b direct entry (MPP 21)
Tc = 6 min

V. Subcatchment 22

1.

Area (sq. ft.)	CN	Description
10,326	98	Impervious (parking lot/road)
3185	74	>75% grass, HSG C/D
Total: 13,511		

2. Tc Path
a-b direct entry (MPP 22)
Tc = 6 min

W. Subcatchment 23

1.

Area (sq. ft.)	CN	Description
6249	98	Impervious (road)
2450	74	>75% grass, HSG C
10135	74	>75% grass, HSG C/D
9641	70	Good woods, HSG C/D
Total: 28475		

2. Tc Path
a-b direct entry (to GSF 23)
Tc = 6 min

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PROJECT NO. 171.0507 SITE NAF
SHEET NO. 21 OF
CALCULATED BY MPM DATE 4/11/19
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SCALE N/A SJB 4/15/19

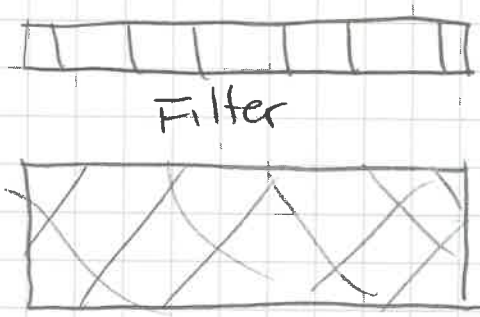
- Subcatch 21 - MMP

Area: width = 18'/1.308 = 13 units w/6" on sides
length = 90/2.35 = 38 units w/6" on sides

13 rows x 38 units/row = 494 units mini R-Tanks

MPP 21 has 2 cbs which discharge directly into R-tank system

Drain line between DMH 23 and DMH59 goes beneath/thru R-tanks
2' Pipe stub directly into 12" pipe



stone cover above filter
= 1.05ft. = 12.6"

DMH 23 to DMH59
55.19 54.50

Remove 1 row of units to put pipe down middle.

For hydrocad purposes
add all flow to DMH 59
w/ discharge multiplier of 2

13 rows @ 38/row = 456

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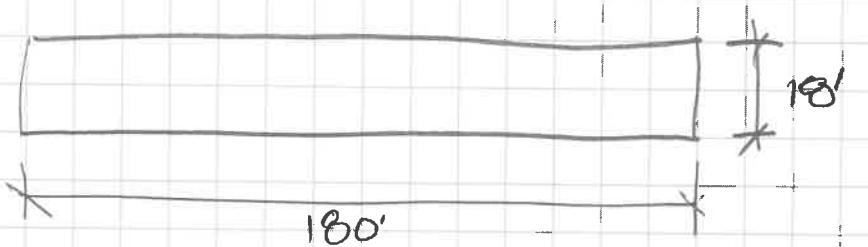
PROJECT NO. 171.05027 SITE NAF
SHEET NO. 22 OF
CALCULATED BY MPM DATE 4/11/19
CHECKED BY DATE
SCALE N/A SJB 4/18/19

- Subcatch 22 - man made pervas pavers



Area: width = 18'/1.308 = 13 units w/6" on sides

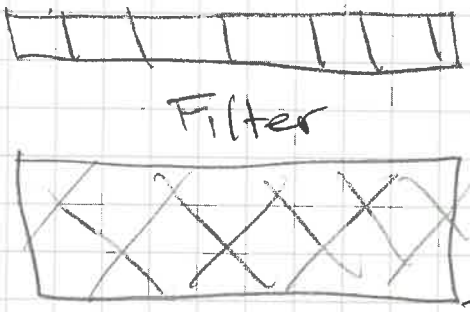
length = 180/2.35 = 76 units w/6" on ends

13 rows @ 76 units/row = 988 Mini R tanks

MPP 22 has 2 CBs which discharge directly to R tank system

Drainline between DMH 59 to DMH 22 goes beneath

2' Pipe stub directly into 12" pipe



Stone cover above filter = 0.75' = 9"

For hydrocad purposes, add all flow to DMH 22 w/ multiplier of 2

DMH 59 54.3 to DMH 22 52.83

Remove 1 row of units to allow pipe to go under/ through
12 x 76 = 912 units

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PROJECT NO. 171.05027 SITE NAR
SHEET NO. 23 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE
SCALE N/A SJB 4/18/19

Subcatchment 23

$$T_{t\ a-b} = \frac{0.007(0.011 \times 18)^{0.8}}{(2.9\ in)^{0.5}(0.02)^{0.4}} = 0.3\ min$$

b-c Shallow Conc. flow
Grassed waterway
Vel. Factor: 15 ft/s
Flow Length: 232 ft
Slope: 0.026
(y_2 = 52.5, y_1 = 44 ft)

$$T_{t\ b-c} = \frac{232\ ft}{3600\ V} = 1.4\ min$$

$T_c = 0.3 + 1.4$
$T_c = 1.7\ min$

MKH

X. Subcatchment 24

1. Area (sq. ft.)	CN	Description
12276	98	Impervious (road)
5302	80	>75% grass, HSG D
689	74	>75% grass, HSG C/D
Total: 18,261		

2. T_c Path
a-b direct entry (to GSF 24)
T_c = 6 min

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 24 OF
CALCULATED BY MPM DATE 4/11/19
CHECKED BY DATE
SCALE N/A SJB 4/18/19

• Pond storage for subcatchment 24 (65P)

Custom Stage

E	A	P
39.75	1400	150
40	1516	156
41	2013	176
42	2717	200

Pipe/culvert: CB 32 TO DMH53
36.80 36.00

8" l = 40'

CB Rim = 40.60

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PROJECT NO. 1105027 SITE NAF
SHEET NO. 25 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY M.PM DATE 4/11/19
SCALE N/A SJB 4/18/19

Y. Subcatchment 25 (untreated)

1.

Area (sq. ft.)	CN	Description
21818	74	75% grass, HSG C/D
96405	70	Good woods, HSG C/D
Total: 118223		

2. Tc Path

a-b Sheet flow
Woods: dense underbrush
Flow length: 130 ft
Slope: $\frac{57-55}{130} = 0.015$

$T_{t_{a-b}} = 54.4$ min

b-c Shallow conc. flow
Forest w/ heavy litter
Flow length: 253 ft
Slope: $\frac{55-49}{253} = 0.02$

$T_{t_{b-c}} = 11.9$ min

c-d Shallow conc. flow
Forest w/ heavy litter
Flow length: 55 ft
Slope: $\frac{49-32}{55} = 0.3$

$T_{t_{c-d}} = 0.7$ min

$T_c = 67.0$ min

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 26 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE 4/11/19
SCALE N/A SJB 4/18/19

Y. Subcatchment 25 (untreated area)

1. Area (sq. ft.)	CN	Description
0	98	Impervious (Road)
21818	74	75% grass, HSG C/D
96405	70	Good woods, HSG C/D
Total: 118223		

MKH

Z. Subcatchment 26

1. Area (sq. ft.)	CN	Description
3816	98	Impervious (parking lot / road)

2. Tc Path
a-b direct entry (MPP 26)
Tc = 6 min.

AA Subcatchment 27 (existing untreated area)

1. Area (sq. ft.)	CN	Description
4262	98	Impervious (road + buildings)

2. Tc Path
a-b direct entry
Tc = 6 min

BB. Subcatchment 28 (existing untreated area)

1. Area (sq. ft.)	CN	Description
21852	98	Impervious
40598	80	75% grass, HSG D
6418	77	Good woods, HSG D
10830	79	Woods grass combo, HSG D
Total: 79,698		

2. Tc = 6 min

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 27 OF
CALCULATED BY MPM DATE 4/11/19
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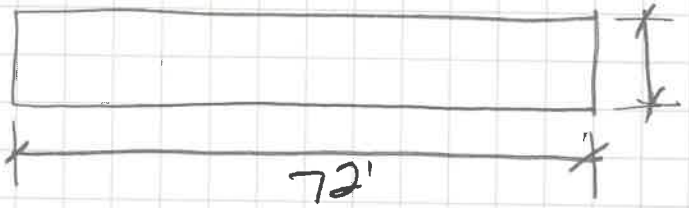
- Subcatchment 24 - manmade pervious pavers (MPP) w/ R Tanks



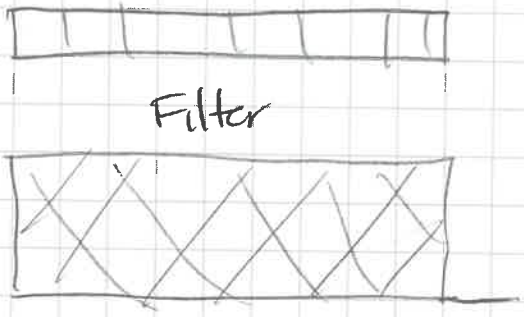
Area: width = 18'/1.308 = 13 Rows w/ 6" sides

length = 72/2.35 = 30 units w/ 6" ends

13 rows @ 30 units/row
= 390 mini units

MPP 24 has 1 CB that discharges to R tank system.

R tank discharges to DMH 54 w/ 8" pipe



Stone cover above filter = 0.65 ft
= 7.8 inches

Discharge from R Tanks @ elev. = 34.62

@ DMH 54 = 34.34

8" pipe @ 8'

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PROJECT NO. 171.03027 SITE NAF
SHEET NO. 28 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE 4/11/19
SCALE N/A SJB 4/18/19

CC. Subcatchment 29 (untreated area)

1.

Area (sq. ft.)	CN	Description
1306	98	Impervious

2. Tc Path
a-b direct entry **Tc = 6 min**

DD. Subcatchment 30

1.

Area (sq. ft.)	CN	Description
24541	98	Impervious
6931	74	>75% grass, HSG C/D
Total: 31,472		

2. Tc Path
a-b direct entry (to MPP 30)
Tc = 6 min

See page 32 for MPP storage

EE. Subcatchment 31 (untreated area)

1.

Area (sq. ft.)	CN	Description
0	98	Impervious
24011	74	>75% grass, HSG C/D
46605	70	Good woods, HSG C/D
Total: 70616		

2. Tc Path
a-b Sheet flow
Dense Grass
Slope = $\frac{57-52}{100} = 0.05$

$T_{t_{a-b}} = 10.4$ min

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SHEET NO. 29 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE 4/11/19
SCALE N/A SJB 4/15/19

EE. Subcatchment 31

b-c Shallow conc. flow
Forest w/ heavy Litter
$S = \frac{52-42}{86} \doteq 0.12$
$T_{t_{b-c}} = 1.7$ min

c-d Shallow conc. flow
Grassed Waterway
$S = \frac{42-41}{31} = 0.03$
$T_{t_{c-d}} = 0.2$ min

$T_c = 12.3$ min

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PROJECT NO. 171.0S027 SITE NAF
SHEET NO. 30 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE 4/11/19
SCALE N/A SJB 4/18/19

FF Subcatchment 32 (untreated area)

1.

Area (sq. ft.)	CN	Description
2,826	98	Impervious
1,851	74	>75% grass, HSG C/D
Total: 4,677		

2. Tc Path
a-b direct entry
Tc = 6 min

b-c Shallow conc. flow
Grassed Waterway
Vel. Factor: 1.5 ft/s
Length: 239 ft
Slope: 0.023
(y_2 = 34.5, y_1 = 29 ft)

$T_{t_{b-c}} = \frac{239 \text{ ft}}{3600 \text{ V}}$
= 1.8 min

Tc = 1 min + 1.8 min
Tc = 2.8 min

MKH

GG Subcatchment 33 (Green roof)

1.

Area (sq. ft.)	CN	Description
86314	61	>75% grass, HSG B
(20%) 21579	98	Impervious (penthouses)
Total: 107893		

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PROJECT NO. 171.05027 SITE UAF
SHEET NO. 31 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE
SCALE N/A SJB 4/18/19

Subcatchment 33 (Green roof)

2. Tc Path
a-b direct entry
Tc = 6 min

Roof discharge to DMH 34

Literature identifies up to 70% Retained w/ no flow to storm drain system due to evapotranspiration

Assume time of travel based on impervious roof but use 80% roof area as >75% grass in HSG B soils 20% as impervious

HH. Subcatchment 34 (Green roof)

1. Area (sq. ft.)	CN	Description
19279	61	>75% grass, HSG B
(20%) 4820	98	Impervious
Total: 24099		

2. Tc Path
a-b direct entry
Tc = 6 min

Roof discharge to DMH 24

II. Subcatchment 35 (Green roof)

1. Area (sq. ft.)	CN	Description
16,797	61	>75% grass, HSG B
(20%) 4200	98	Impervious
Total: 20,997		

2. Tc Path
a-b direct entry
Tc = 6 min

Roof Discharge to R Tanks
see page 32

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 32 OF
CALCULATED BY MPM DATE 4/11/19
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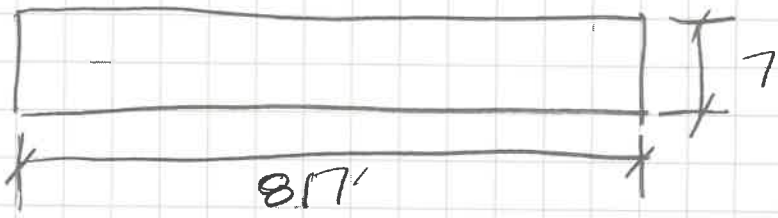
Subcatchment 30 - man made (MPP) Pervious and and Subcatchment 35 R-tanks

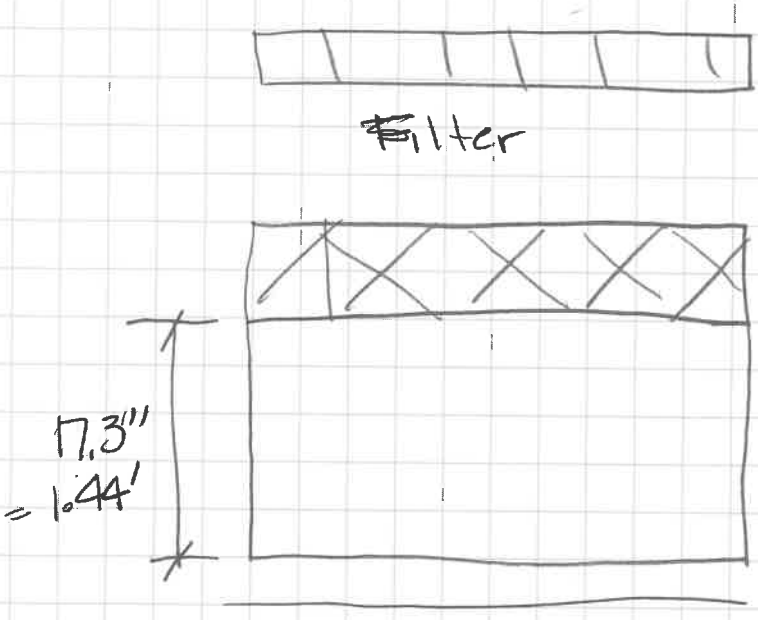


Area: width = 7'/1.308 = 5 w/12" sides

length = 817/2.35 = 347 w/12" ends

= 1735 units mini R tanks

MPP 30 has 8 CBs that can discharge directly to the R tank system



Stone cover above filter = 1 ft. = 12"

Add 5 rows of 31 units as Pond B under minis @ S/R end of parking

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SHEET NO. 33 OF
CALCULATED BY MPM DATE 4/11/19
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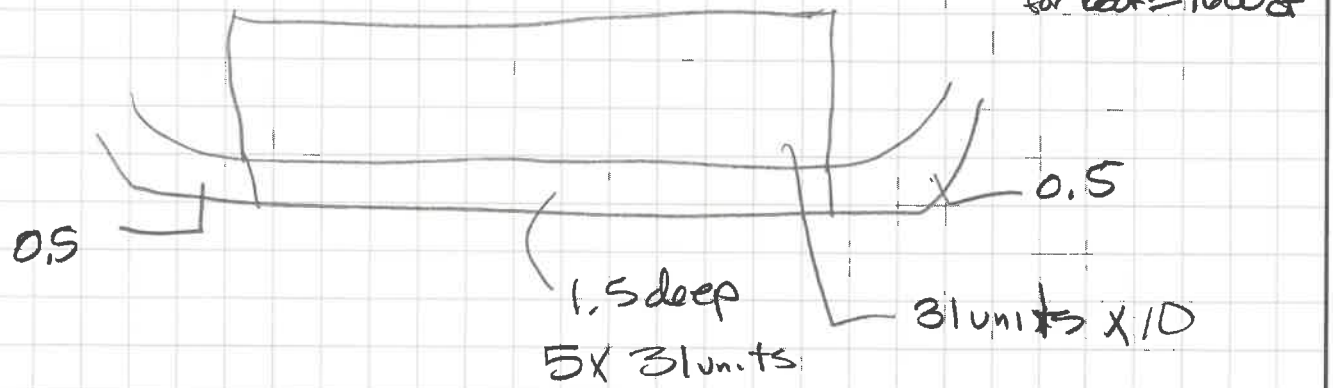
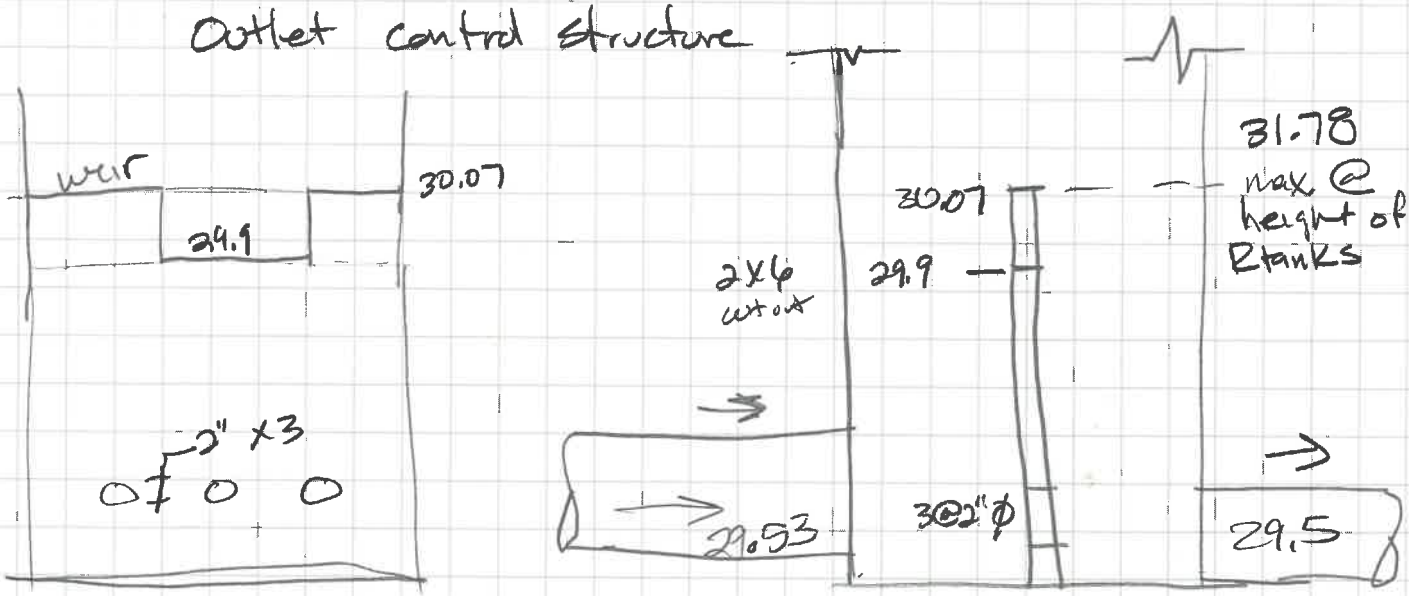
Rtanks for Roof & parking cont.

use 1.5 Rtank system adjacent to the ones in parking

Volume of 100yr storm for Roof = 1600 cf



Outlet control structure



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SHEET NO. 34 OF
CALCULATED BY MKH DATE 2/13/19
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SCALE N/A SJB 4/18/19

JJ. Subcatchment 36 (to SSF 36)

1. Area (sq.ft.)	CN	Description
112,560	98	Impervious (Roof)

2. Tc Path
a-b direct entry
Tc = 6 min

See sheet 35 for Routing

KK. Subcatchment 37 (to SSF 37)

1. Area (sq.ft.)	CN	Description
112,560	98	Impervious (Roof)

2. Tc Path
a-b direct entry
Tc = 6 min

LL. Subcatchment 38 (to SSF 38)

1. Area (sq.ft.)	CN	Description
112,560	98	Impervious (Roof)

2. Tc Path
a-b direct entry
Tc = 6 min

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PROJECT NO. 11.05027 SITE NAF
SHEET NO. 35 OF
CALCULATED BY NPM DATE 4/11/19
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SCALE N/A SJB 4/18/19

Roof Runoff from Module construction on Buildings 1 and 2 use subsurface sand filter for treatment

Runoff is initially routed through an inlet control structure with an overflow weir. Weir is set so that Roof runoff will enter the chamber/filter system up to the Water Quality volume.

Larger events pass over the weir. Filters have a 24-48 hr lag time and therefore will not play a role in peak discharge.

Hydrocad Routing Looks at these as ponds with

Per design calculations: SSF36 weir is set @ 66.15

12" HDPE w/ inv. @63.95

18" HDPE other side of weir @63.5

storage is secondary routing 5x31 units

Assume Filter will be routed through system, but there will be a 24-48 hr Lag.

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PROJECT NO. 171.0502 SITE NAR
SHEET NO. 36 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE 4/11/19
SCALE N/A SJB 4/18/19

MM. Subcatchment 39 (Roof runoff to SSF 39)

	1. Area (sq. ft.)	CN	Description
	112560	98	Impervious (Roof)

2. Tc = 6 min direct entry

NN. Subcatchment 40 (Roof runoff to SSF 40)

	1. Area (sq. ft.)	CN	Description
	112560	98	Impervious (Roof)

2. Tc = 6 min direct entry

OO. Subcatchment 41 (Roof runoff to SSF 41)

	1. Area (sq ft)	CN	Description
	112560	98	Impervious (Roof)

2. Tc = 6 min direct entry

PP. Subcatchment 42 (Roof runoff to SSF 42)

	1. Area (sq. ft.)	CN	Description
	12,000	98	Impervious (Roof)

2. Tc = 6 min

QQ. Subcatchment 43 (SSF 43)

	1. Area (sq. ft.)	CN	Description	2. Tc Path
	18983	98	Imperv.	Tc = 6 min

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PROJECT NO. 171.05027 SITE UAF
SHEET NO. 37 OF
CALCULATED BY MPM DATE 4/4/19
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SCALE N/A SJB 4/18/19

Refer to page 35

SSF 37- 1659 to DMH8

weir @ elevation = 64.18

12" pipe inv. out = 62.0 @ isolator = 61.95

18" pipe inv. out = 61.7

SSF 38 1CS 12 to DMH 11

weir elev. = 62.95

12" pipe inv. out = 60.75 @ isolator = 60.70

18" pipe inv. = 60.7

SSF 39 1CS 37 to DMH 38

weir elev. = 55.0

12" inv. out = 52.80 @ isolator = 52.75

18" inv. out = 52.50

SSF 40 1CS 42 to DMH 43

weir elev. = 55.37

12" inv. out = 52.8 @ isolator = 52.75

18" inv. out = 52.2

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PROJECT NO. 171.05027 SITE NAF
SHEET NO. 39 OF
CALCULATED BY MPM DATE 4/11/19
CHECKED BY SJB DATE 4/18/19
SCALE N/A

SSF 41 ICS46 to DMH 47

weir elev. = 49.0

12" inv. out = 46.8 @ isolator = 46.75

18" inv. out = 46.2

SSF 43 ICS to DMH

weir elev = 60.25

8" inv. out = 57.81 @ isolator = 57.8

12" inv. out = 57.8

SSF 42 ICS28 to DMH 29

weir elev. = 60.50

8" inv. out = 58.15 @ isolator = 58.12

8" inv. out = 58.0

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SHEET NO. 39 OF
CALCULATED BY MPM DATE 4/11/19
CHECKED BY DATE
SCALE N/A SJB 4/15/19

Sub catchment 44

352606 >75% grass, HSG C/D
129632 Good woods, HSG C/D
165098

Tc 1.

a-b = 97 ft.
grass slope
S = 6/97 = 0.062

b-c = 170 ft.
grass
S = 1.5/170 = 0.009

c-d = 97
short grass pasture
S = 0.032

d-e = 210
channel 5' bottom 2:1 slopes 2' deep
forest heavy litter ~~earth dense brush~~
S = 0.043

Discharge to Stream 9 @ S9-2

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PROJECT NO. 171.05027 SITE NAP
SHEET NO. 40 OF
CALCULATED BY MPM DATE 4/4/19
CHECKED BY SJB DATE 4/18/19
SCALE N/A

SS. Subcatchment 4S existing/untreated

1.

Area (sq.ft.)	CN	Description
5,799	74	~~7~~ 75% grass, HSG C/D
58,641	70	Good woods, HSG C/D

Total: 64,440

2. Tc Path

a-b Sheet flow
Woods: Dense Underbrush

$S = \frac{41 - 38}{79} = 0.034$

$T_{t\ a-b} = 28.9$ min

b-c Shallow conc. flow
Forest w/ heavy litter

$S = \frac{38 - 28}{121} = 0.08$

$T_{t\ b-c} = 2.9$ min

c-d Shallow conc. flow
Grassed waterway

S = 28 − ~~23~~ 26 / ~~107~~ 33 = ~~0.046~~ 0.06

$T_{t\ c-d}$ = ~~0.6~~ 0.2 min

~~Tc = 32.4 min~~

Tc = 32.5

d-e
Channel
2' bottom
2:1 sides
earth, dense
l = 73'
S = 0.06
Tt = 0.5 min

26' to 21.6 @ culvert

Discharge through 18" culvert under Rt. 1
inv. in = 21.6
inv. out = 15.3
l = 83'

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SHEET NO. 41 OF
CALCULATED BY MKH DATE 2/13/19
CHECKED BY MPM DATE
SCALE N/A SJB 4/18/19

TT. Subcatchment 46 (existing)

1.

Area (sq. ft.)	CN	Description
2410	74	>75% grass, HSG C/D
13198	70	Good woods, HSG C/D
15608		

2. T_c Path

Same as preconditions (see precondition calcs)

$T_c = \frac{34.7}{33.7}$ min

UU. Subcatchment 47

1.

Area (sq. ft.)	CN	Description
16941	80	>75% grass, HSG D
27433	74	>75% grass, HSG C/D
30061	70	Good woods, HSG C/D
4752	98	Impervious

Total: 79187

2. T_c Path

a-b Sheet flow
Grass: Dense
$s = \frac{40-36}{102} = 0.04$

$T_{t_{a-b}} = 11.5$ min

b-c Shallow conc. flow
Forest w/ heavy litter
$s = \frac{36-33}{30} = 0.1$

$T_{t_{b-c}} = 0.6$ min

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c-d Shallow conc. flow
Forest w/ heavy Litter
$S = \frac{33-30}{100} = 0.03$
T_t = 0.6 min
c-d

d-e Shallow conc. flow
Grassed waterway
$S = \frac{30-20}{407} = 0.02$
T_t = 3.2 min
d-e

T_c = 15.9 min

W. Subcatchment 48

1.

Area (Sq. Ft.)	CN	Description
305	74	75% grass, HSG C/D
36887	70	Good woods, HSG C/D
2991	70	Good woods, HSG C
Total: 40183		

2. T_c Path
a-b sheet flow
Woods: Dense underbrush
$S = \frac{68-65}{127} = 0.02$
T_t (a-b) = 47.6 min

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VV. Subcatchment 48

b-c Shallow conc. flow
Forest w/ heavy litter
$S = \frac{65-62}{115} = 0.02$
$T_{t_{b-c}} = 5.4$ min

c-d Shallow conc. flow
$S = \frac{62-53}{45} = 0.2$
$T_{t_{c-d}} = 0.7$ min

d-e Shallow conc. flow
Grassed Waterway
$S = \frac{53-45}{90} = 0.088$
$T_{t_{d-e}} = 0.3$ min

$T_c = 54$ min

WW. Subcatchment 49

1.

Area (sq. ft.)	CN	Description
2923	74	75% grass, HSG C/D
80702	70	Good woods, HSG C/D
548	98	Impervious (gravel driveway?)
Total: 84173 ✓		

2. T_c Path
a-b Sheet flow
Woods: Dense
$S = \frac{80-74}{115} = 0.05$ ✓ $T_{t_{a-b}} = 30.4$ min

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SCALE N/A SJB 4/18/19

WW. Subcatchment 49

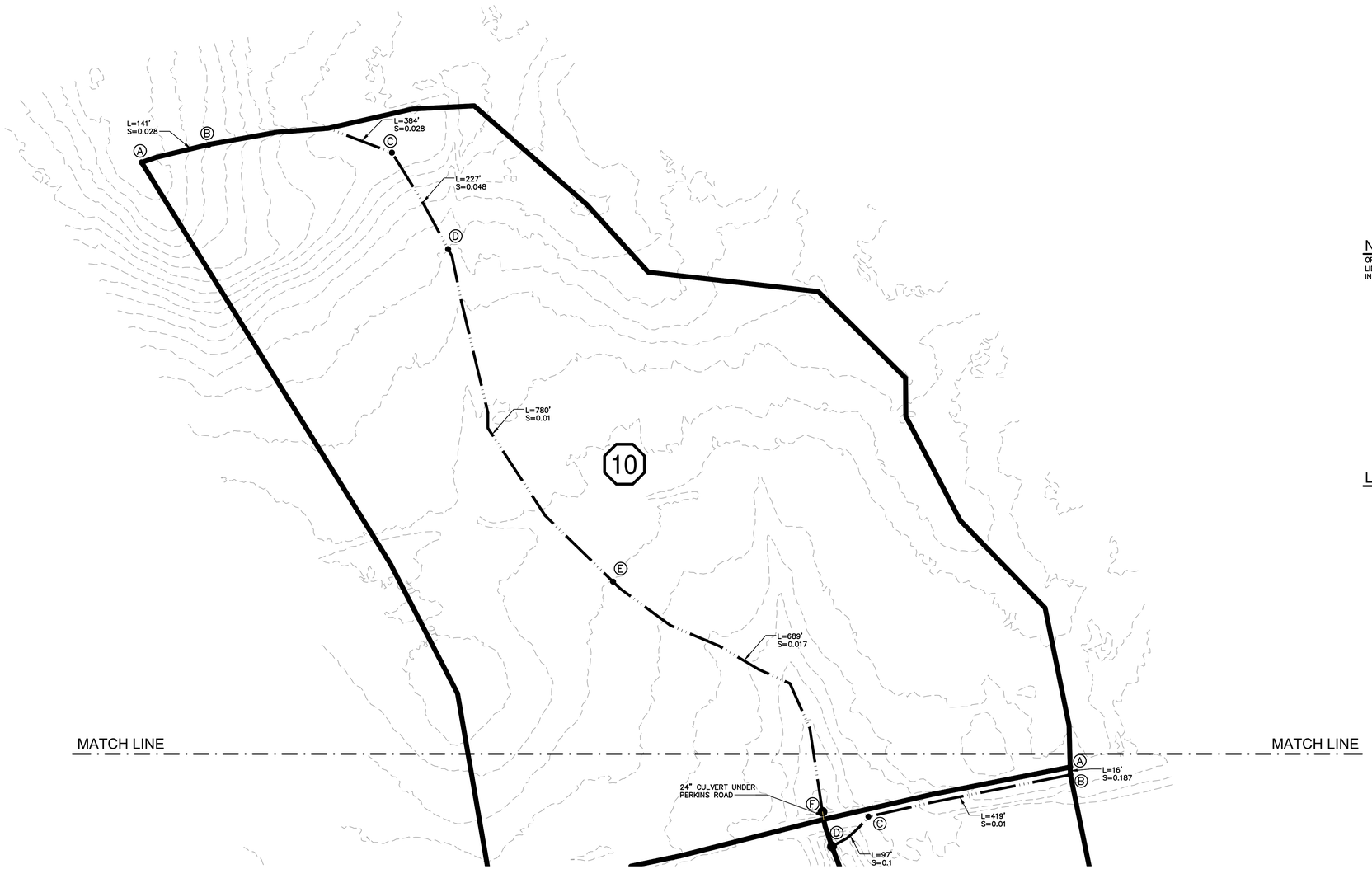
b-c Shallow conc. flow
Forest w/ heavy litter
$S = \frac{74-69}{355} = 0.01$
$T_{t_{b-c}} = 23.7$ min
$T_c = 54.1$ min

XX. Subcatchment 50 (to MPP 50)

1.

Area (sq. ft.)	CN	Description
30173	98	Impervious

2. Tc Path
a-b direct entry
$T_c = 6$ min



NOTE

OFF-SITE TOPOGRAPHY PROVIDED BY LIDAR SURVEY. CONTOURS ARE AT 2' INTERVALS.

LEGEND

- SUBCATCHMENT BOUNDARY
- 9 — SUBCATCHMENT ID
- A — FLOW LINE BREAK POINTS
- HYDRAULIC FLOW LINE
- PT — ANALYSIS POINT

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NORDIC AQUAFARMS MULTIPHASE PROJECT

158 HIGH STREET, BELFAST, MAINE

POST-DEVELOPMENT WATERSHED PLAN - OFF-SITE AREAS

0 60 120 240

SCALE in FEET
1"=120'

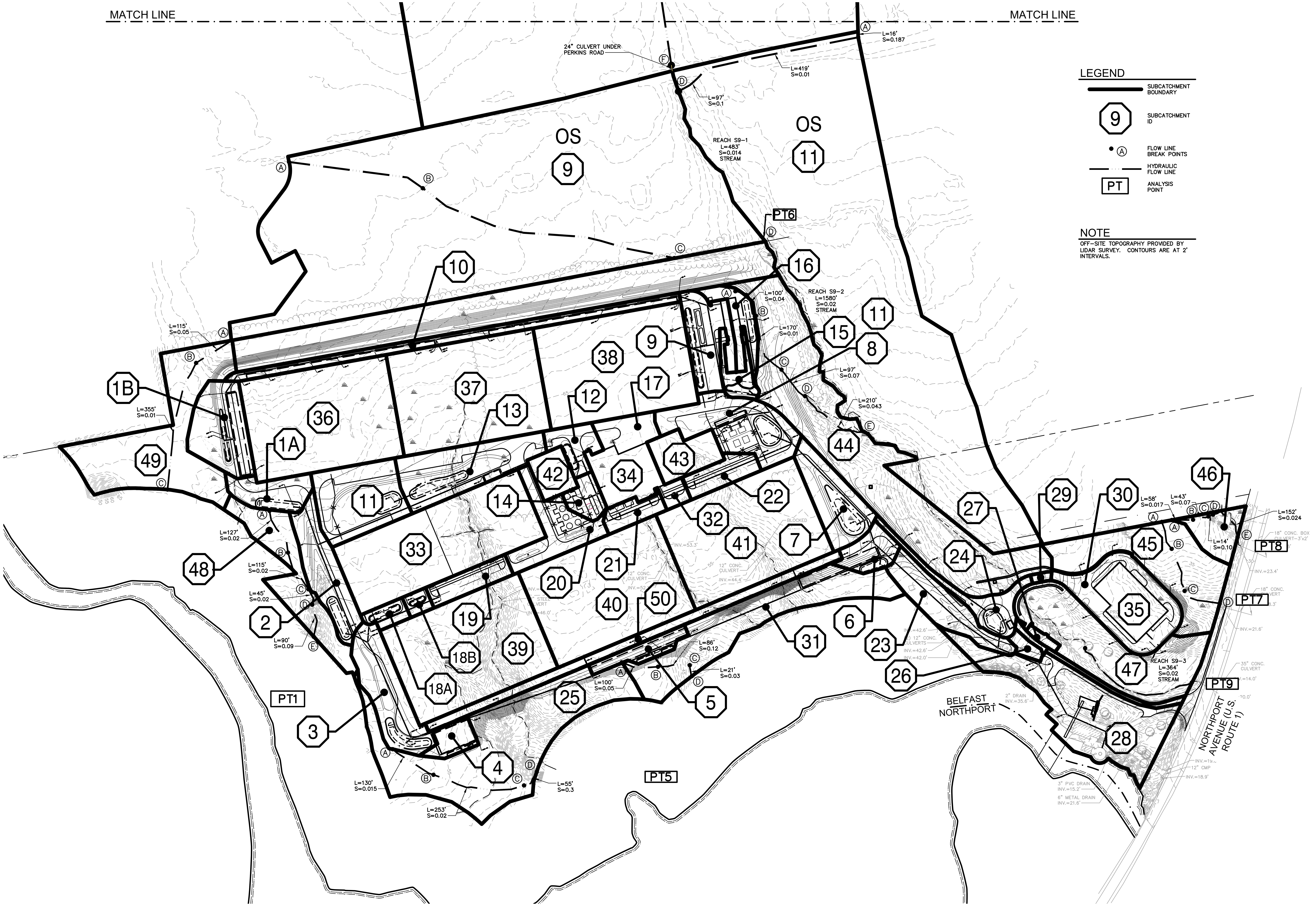
PROJECT MANAGER: MPM | PROJECT NO: 171.05027

DRAWN BY: JAR

CW-103

NOT FOR CONSTRUCTION

24x36


MATCH LINE
MATCH LINE
24" CULVERT UNDER PERKINS ROAD
L=16' S=0.187
L=419' S=0.01
L=97' S=0.1
REACH S9-1 L=483' S=0.014 STREAM
OS
9
OS
11
LEGEND
SUBCATCHMENT BOUNDARY
SUBCATCHMENT ID
FLOW LINE BREAK POINTS
HYDRAULIC FLOW LINE
PT
ANALYSIS POINT
NOTE
OFF-SITE TOPOGRAPHY PROVIDED BY LIDAR SURVEY. CONTOURS ARE AT 2' INTERVALS.
PT6
REACH S9-2 L=1580' S=0.02 STREAM
L=100' S=0.04
L=170' S=0.01
L=97' S=0.07
L=210' S=0.043
L=115' S=0.05
L=355' S=0.01
L=127' S=0.02
L=115' S=0.02
L=45' S=0.02
L=90' S=0.09
L=86' S=0.12
L=21' S=0.03
L=100' S=0.05
L=130' S=0.015
L=253' S=0.02
L=55' S=0.3
L=58' S=0.017
L=43' S=0.07
L=14' S=0.10
L=152' S=0.024
REACH S9-3 L=364' S=0.02 STREAM
PT1
PT5
PT7
PT8
PT9
BELFAST
NORTHPORT
NORTHPORT AVENUE (U.S. ROUTE 1)
1A
1B
2
3
4
5
6
7
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9
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WATERSHED PLAN -
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SCALE in FEET 1"=120' (0 60 120 240)

PROJECT MANAGER:	MPM	PROJECT NO:	171.05027
DRAWN BY:	JAR	CW-104	

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