

Engineer-of-Record

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Overall Stormwater Design Methodology – (ALSO REFER TO SHEET C-106 IN SITE PLAN)

All storm water facilities and stormwater Best Management Practices (BMPs) were designed in accordance with the City of Fairfield Design, Construction, and Materials Specification Handbook, Sixth Edition, dated 2020, the Ohio Department of Natural Resources Rainwater and Land Development manual, and/or the Ohio EPA General (NPDES) permit for stormwater discharges associated with construction activity (No. OHC0005). The proposed storm sewers associated with this project have been designed to properly convey stormwater runoff produced by a storm with a 10-year return period. Catch basin inlets have been selected in order to adequately accept all overland flow directed towards them, while all pipes have appropriate diameters and slopes to convey the runoff of a 10-year storm in an effective manner. The corrugated metal pipe (CMP) underground detention system (Contech 10' dia.) proposed in this project has been designed to detain the stormwater produced by a 100-year post-development storm, treat the appropriate volume of stormwater (Water Quality Volume determination detailed below), and release the stormwater at a rate equivalent to the rate of runoff produced by a 2-year pre-development storm. From the underground detention system, stormwater is conveyed via culvert to a headwall, which directs stormwater to an unnamed tributary to Mill Creek, the same destination for pre-development stormwater.

Detention Design and Applicability

Detention facilities associated with this project have been designed to capture and detain the storm water of a 100-year storm and release is at the pre-development rate for a 2-year storm. For this project, the pre-development 2-year storm produces a runoff rate of 3.99 cfs. Detention facilities will release runoff at a rate at or below 3.99 cfs, while also providing storage and a 24 hour drawdown time for the appropriate WQV. Refer to HydroCAD Printouts and detailed plan notes on C-106 of the site plan package for Detention design hydrographs and drawdown and overall watershed design criteria.

Watershed and Storm Inlet Methodology

Runoff coming from the south of the retaining wall on the southeast project boundary will be collected and routed to the existing Monmouth Real Estate detention facility via CB-09 and 12" HDPE pipe to HW-02. This water originally sheet flowed downhill directly into the existing detention facility, but the proposed retaining walls and access drive necessitate this new means of conveyance. All other stormwater runoff associated with this project site would have flowed overland to the northwest into an unnamed tributary of Mill Creek. Said water will now be routed via sheet flow and channel flow (gutters) to CB-01 – CB-07. The areas contributing to each inlet have been documented in the Storm Design iVCP spreadsheet. CB-01, CB-05, and CB-06 each anticipate an overland flow of 6-7.5 cfs and will be ODOT CB No. 3's, capable of receiving a flow of 8 cfs. CB-4 will be an ODOT CB No. 3A, capable of receiving 5 cfs while anticipating an overland flow rate of 3.8 cfs. CB-02 and CB-03 will be ODOT CB No. 2-2A capable of receiving 6 cfs, while anticipating less than 1 cfs for a 10-year storm. CS-10 is a Contech CDS hydrodynamic separator for detention pretreatment that will be fitted with a 30" dome grate inlet capable of receiving 6 cfs while anticipating an overland flow rate of less than 1 cfs.

Storm Pipe Route and Design Flow Methodology

Manning's equation has been utilized to size each storm sewer associated with this project. Each pipe has been sized and slope determined to adequately convey the stormwater runoff produced by a 10-year storm accumulatively from upstream to downstream. The Storm Design iVCP spreadsheet provides the areas draining to each inlet, along with the pipe diameters, slopes, linear footage, overall capacity of each pipe, and the velocity at which the water will travel.

Water Quality Volume Calculation and Design

This site is currently undeveloped and introduces 185971 sf of new hard surface of the 283019 sf of area draining to the detention system, leading to the following calculation:

Total Area to BMP = 283019 sf = 6.497 acres

Pre Dev Impervious = 0 sf

Post Dev Impervious = 185971 sf

Water Quality Volume (WQv):

$$WQv = Rv * P * A / 12$$

$$Rv = 0.05 + 0.9i$$

$$i = 185971 / 283019 = 0.657$$

$$Rv = 0.05 + 0.9 * 0.657 = 0.64$$

$$WQv = 0.64 * 0.9 * 6.497 / 12 = 0.31 \text{ acre-feet} = 13585 \text{ cf} + 20\%; \text{ WQv} = 16345 \text{ cf}$$

The detention facility has been outfitted with an internal stand pipe, which will drain in 24 hours, but no more than 50% of the volume will be drained in the first 8 hours.

Summary for Pond 7P: CMP

Inflow Area = 6.500 ac, 0.00% Impervious, Inflow Depth = 2.16"
 Inflow = 11.33 cfs @ 0.17 hrs, Volume= 1.170 af
 Outflow = 3.58 cfs @ 1.36 hrs, Volume= 1.170 af, Atten= 68%, Lag= 71.6 min
 Primary = 3.58 cfs @ 1.36 hrs, Volume= 1.170 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-75.00 hrs, dt= 0.01 hrs
 Peak Elev= 666.79' @ 1.36 hrs Surf.Area= 6,450 sf Storage= 42,496 cf

Plug-Flow detention time= 342.7 min calculated for 1.169 af (100% of inflow)
 Center-of-Mass det. time= 343.2 min (385.7 - 42.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	658.35'	12,169 cf	50.00'W x 129.00'L x 11.00'H Field A 70,950 cf Overall - 40,527 cf Embedded = 30,423 cf x 40.0% Voids
#2A	658.85'	40,527 cf	CMP Round 120 x 24 Inside #1 Effective Size= 120.0"W x 120.0"H => 78.54 sf x 20.00'L = 1,570.8 cf Overall Size= 120.0"W x 120.0"H x 20.00'L Row Length Adjustment= -3.00' x 78.54 sf x 4 rows 48.00' Header x 78.54 sf x 1 = 3,769.9 cf Inside
		52,696 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	658.35'	24.0" Round Culvert L= 40.7' Ke= 0.050 Inlet / Outlet Invert= 658.35' / 657.90' S= 0.0111 '/' Cc= 0.900 n= 0.012 Concrete pipe, finished, Flow Area= 3.14 sf
#2	Device 1	658.35'	2.5" Vert. Orifice/Grate C= 0.600
#3	Device 1	662.07'	7.5" Vert. Orifice/Grate C= 0.600
#4	Device 1	668.00'	30.0" W x 6.0" H Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=3.58 cfs @ 1.36 hrs HW=666.79' (Free Discharge)

- ↑ **1=Culvert** (Passes 3.58 cfs of 54.37 cfs potential flow)
- ↑ **2=Orifice/Grate** (Orifice Controls 0.47 cfs @ 13.90 fps)
- ↑ **3=Orifice/Grate** (Orifice Controls 3.10 cfs @ 10.11 fps)
- ↑ **4=Orifice/Grate** (Controls 0.00 cfs)

Pond 7P: CMP - Chamber Wizard Field A

Chamber Model = CMP Round 120 (Round Corrugated Metal Pipe)

Effective Size= 120.0"W x 120.0"H => 78.54 sf x 20.00'L = 1,570.8 cf

Overall Size= 120.0"W x 120.0"H x 20.00'L

Row Length Adjustment= -3.00' x 78.54 sf x 4 rows

120.0" Wide + 32.0" Spacing = 152.0" C-C Row Spacing

6 Chambers/Row x 20.00' Long -3.00' Row Adjustment +10.00' Header x 1 = 127.00' Row Length +12.0"

End Stone x 2 = 129.00' Base Length

4 Rows x 120.0" Wide + 32.0" Spacing x 3 + 12.0" Side Stone x 2 = 50.00' Base Width

6.0" Base + 120.0" Chamber Height + 6.0" Cover = 11.00' Field Height

24 Chambers x 1,570.8 cf -3.00' Row Adjustment x 78.54 sf x 4 Rows + 48.00' Header x 78.54 sf =
40,526.5 cf Chamber Storage

70,950.0 cf Field - 40,526.5 cf Chambers = 30,423.5 cf Stone x 40.0% Voids = 12,169.4 cf Stone Storage

Chamber Storage + Stone Storage = 52,695.9 cf = 1.210 af

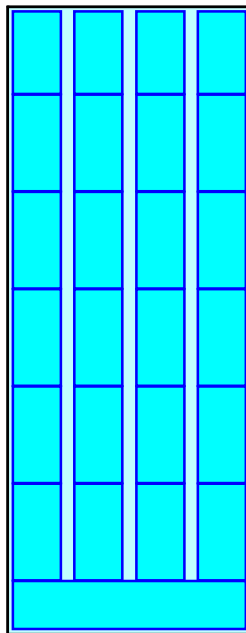
Overall Storage Efficiency = 74.3%

Overall System Size = 129.00' x 50.00' x 11.00'

24 Chambers

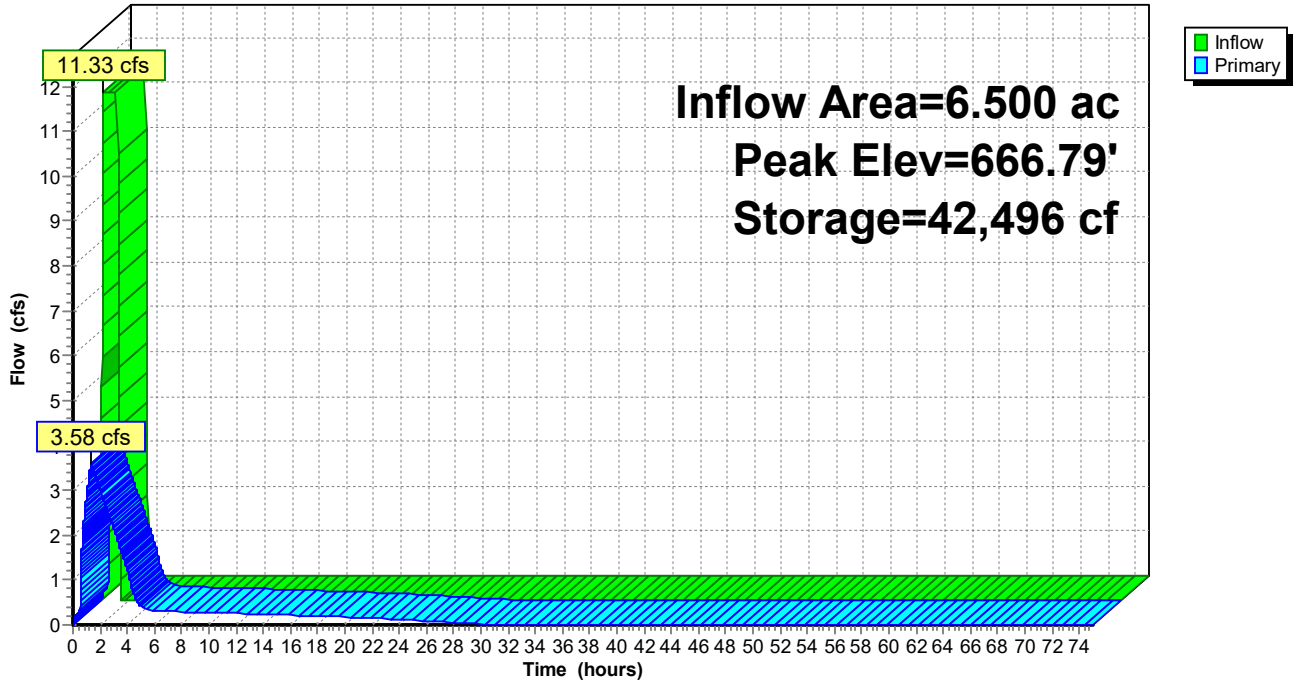
2,627.8 cy Field

1,126.8 cy Stone



Pond 7P: CMP

Hydrograph



Hydrograph for Pond 7P: CMP

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0	658.35	0.00
0.20	11.33	4,689	659.75	0.19
0.40	11.33	12,671	661.38	0.28
0.60	11.33	20,434	662.80	1.30
0.80	11.33	27,259	664.01	2.27
1.00	11.33	33,551	665.13	2.87
1.20	11.33	39,462	666.21	3.35
1.40	1.13	42,338	666.76	3.56
1.60	0.00	39,875	666.29	3.38
1.80	0.00	37,508	665.85	3.20
2.00	0.00	35,273	665.44	3.02
2.20	0.00	33,166	665.06	2.84
2.40	0.00	31,186	664.70	2.66
2.60	0.00	29,333	664.38	2.49
2.80	0.00	27,607	664.07	2.31
3.00	0.00	26,008	663.79	2.13
3.20	0.00	24,538	663.53	1.95
3.40	0.00	23,197	663.29	1.77
3.60	0.00	21,987	663.08	1.59
3.80	0.00	20,913	662.89	1.40
4.00	0.00	19,977	662.72	1.20
4.20	0.00	19,186	662.58	0.99
4.40	0.00	18,556	662.47	0.77
4.60	0.00	18,062	662.38	0.61
4.80	0.00	17,666	662.31	0.50
5.00	0.00	17,336	662.25	0.42
5.20	0.00	17,052	662.20	0.37
5.40	0.00	16,798	662.15	0.34
5.60	0.00	16,563	662.11	0.32
5.80	0.00	16,337	662.07	0.31
6.00	0.00	16,113	662.02	0.31
6.20	0.00	15,890	661.98	0.31
6.40	0.00	15,669	661.94	0.31
6.60	0.00	15,449	661.90	0.30
6.80	0.00	15,230	661.86	0.30
7.00	0.00	15,012	661.82	0.30
7.20	0.00	14,796	661.78	0.30
7.40	0.00	14,581	661.74	0.30
7.60	0.00	14,368	661.70	0.30
7.80	0.00	14,155	661.66	0.29
8.00	0.00	13,944	661.62	0.29
8.20	0.00	13,734	661.58	0.29
8.40	0.00	13,526	661.54	0.29
8.60	0.00	13,319	661.51	0.29
8.80	0.00	13,113	661.47	0.28
9.00	0.00	12,909	661.43	0.28
9.20	0.00	12,705	661.39	0.28
9.40	0.00	12,504	661.35	0.28
9.60	0.00	12,303	661.31	0.28
9.80	0.00	12,104	661.28	0.28
10.00	0.00	11,906	661.24	0.27
10.20	0.00	11,710	661.20	0.27
10.40	0.00	11,514	661.16	0.27
10.60	0.00	11,321	661.13	0.27

Hydrograph for Pond 7P: CMP (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
10.80	0.00	11,128	661.09	0.27
11.00	0.00	10,937	661.05	0.26
11.20	0.00	10,747	661.01	0.26
11.40	0.00	10,559	660.98	0.26
11.60	0.00	10,372	660.94	0.26
11.80	0.00	10,186	660.90	0.26
12.00	0.00	10,002	660.87	0.25
12.20	0.00	9,819	660.83	0.25
12.40	0.00	9,638	660.80	0.25
12.60	0.00	9,457	660.76	0.25
12.80	0.00	9,279	660.72	0.25
13.00	0.00	9,101	660.69	0.25
13.20	0.00	8,925	660.65	0.24
13.40	0.00	8,751	660.62	0.24
13.60	0.00	8,578	660.58	0.24
13.80	0.00	8,406	660.55	0.24
14.00	0.00	8,236	660.51	0.24
14.20	0.00	8,067	660.48	0.23
14.40	0.00	7,899	660.44	0.23
14.60	0.00	7,733	660.41	0.23
14.80	0.00	7,569	660.38	0.23
15.00	0.00	7,406	660.34	0.23
15.20	0.00	7,244	660.31	0.22
15.40	0.00	7,084	660.27	0.22
15.60	0.00	6,925	660.24	0.22
15.80	0.00	6,768	660.21	0.22
16.00	0.00	6,612	660.17	0.22
16.20	0.00	6,458	660.14	0.21
16.40	0.00	6,306	660.11	0.21
16.60	0.00	6,154	660.08	0.21
16.80	0.00	6,005	660.04	0.21
17.00	0.00	5,856	660.01	0.20
17.20	0.00	5,710	659.98	0.20
17.40	0.00	5,565	659.95	0.20
17.60	0.00	5,421	659.91	0.20
17.80	0.00	5,279	659.88	0.20
18.00	0.00	5,139	659.85	0.19
18.20	0.00	5,000	659.82	0.19
18.40	0.00	4,863	659.79	0.19
18.60	0.00	4,727	659.76	0.19
18.80	0.00	4,593	659.73	0.19
19.00	0.00	4,460	659.70	0.18
19.20	0.00	4,329	659.67	0.18
19.40	0.00	4,200	659.63	0.18
19.60	0.00	4,073	659.60	0.18
19.80	0.00	3,947	659.57	0.17
20.00	0.00	3,822	659.54	0.17
20.20	0.00	3,700	659.52	0.17
20.40	0.00	3,579	659.49	0.17
20.60	0.00	3,460	659.46	0.16
20.80	0.00	3,342	659.43	0.16
21.00	0.00	3,227	659.40	0.16
21.20	0.00	3,113	659.37	0.16
21.40	0.00	3,000	659.34	0.15

Hydrograph for Pond 7P: CMP (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
21.60	0.00	2,890	659.31	0.15
21.80	0.00	2,781	659.28	0.15
22.00	0.00	2,675	659.26	0.15
22.20	0.00	2,570	659.23	0.14
22.40	0.00	2,467	659.20	0.14
22.60	0.00	2,365	659.17	0.14
22.80	0.00	2,266	659.15	0.14
23.00	0.00	2,169	659.12	0.13
23.20	0.00	2,073	659.09	0.13
23.40	0.00	1,980	659.07	0.13
23.60	0.00	1,888	659.04	0.13
23.80	0.00	1,799	659.01	0.12
24.00	0.00	1,711	658.99	0.12
24.20	0.00	1,626	658.96	0.12
24.40	0.00	1,543	658.94	0.11
24.60	0.00	1,462	658.91	0.11
24.80	0.00	1,383	658.88	0.11
25.00	0.00	1,307	658.86	0.10
25.20	0.00	1,233	658.83	0.10
25.40	0.00	1,162	658.80	0.10
25.60	0.00	1,094	658.77	0.09
25.80	0.00	1,029	658.75	0.09
26.00	0.00	966	658.72	0.09
26.20	0.00	906	658.70	0.08
26.40	0.00	848	658.68	0.08
26.60	0.00	794	658.66	0.07
26.80	0.00	742	658.64	0.07
27.00	0.00	692	658.62	0.07
27.20	0.00	646	658.60	0.06
27.40	0.00	602	658.58	0.06
27.60	0.00	561	658.57	0.06
27.80	0.00	523	658.55	0.05
28.00	0.00	487	658.54	0.05
28.20	0.00	453	658.53	0.04
28.40	0.00	423	658.51	0.04
28.60	0.00	396	658.50	0.04
28.80	0.00	372	658.49	0.03
29.00	0.00	349	658.49	0.03
29.20	0.00	329	658.48	0.03
29.40	0.00	311	658.47	0.02
29.60	0.00	294	658.46	0.02
29.80	0.00	279	658.46	0.02
30.00	0.00	265	658.45	0.02
30.20	0.00	253	658.45	0.02
30.40	0.00	241	658.44	0.02
30.60	0.00	231	658.44	0.01
30.80	0.00	221	658.44	0.01
31.00	0.00	212	658.43	0.01
31.20	0.00	203	658.43	0.01
31.40	0.00	195	658.43	0.01
31.60	0.00	188	658.42	0.01
31.80	0.00	181	658.42	0.01
32.00	0.00	175	658.42	0.01
32.20	0.00	169	658.42	0.01

Hydrograph for Pond 7P: CMP (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
32.40	0.00	163	658.41	0.01
32.60	0.00	158	658.41	0.01
32.80	0.00	153	658.41	0.01
33.00	0.00	149	658.41	0.01
33.20	0.00	144	658.41	0.01
33.40	0.00	140	658.40	0.01
33.60	0.00	136	658.40	0.01
33.80	0.00	132	658.40	0.01
34.00	0.00	129	658.40	0.00
34.20	0.00	126	658.40	0.00
34.40	0.00	122	658.40	0.00
34.60	0.00	119	658.40	0.00
34.80	0.00	116	658.40	0.00
35.00	0.00	114	658.39	0.00
35.20	0.00	111	658.39	0.00
35.40	0.00	108	658.39	0.00
35.60	0.00	106	658.39	0.00
35.80	0.00	104	658.39	0.00
36.00	0.00	101	658.39	0.00
36.20	0.00	99	658.39	0.00
36.40	0.00	97	658.39	0.00
36.60	0.00	95	658.39	0.00
36.80	0.00	93	658.39	0.00
37.00	0.00	92	658.39	0.00
37.20	0.00	90	658.38	0.00
37.40	0.00	88	658.38	0.00
37.60	0.00	87	658.38	0.00
37.80	0.00	85	658.38	0.00
38.00	0.00	84	658.38	0.00
38.20	0.00	82	658.38	0.00
38.40	0.00	81	658.38	0.00
38.60	0.00	79	658.38	0.00
38.80	0.00	78	658.38	0.00
39.00	0.00	77	658.38	0.00
39.20	0.00	75	658.38	0.00
39.40	0.00	74	658.38	0.00
39.60	0.00	73	658.38	0.00
39.80	0.00	72	658.38	0.00
40.00	0.00	71	658.38	0.00
40.20	0.00	70	658.38	0.00
40.40	0.00	69	658.38	0.00
40.60	0.00	68	658.38	0.00
40.80	0.00	67	658.38	0.00
41.00	0.00	66	658.38	0.00
41.20	0.00	65	658.38	0.00
41.40	0.00	64	658.37	0.00
41.60	0.00	63	658.37	0.00
41.80	0.00	62	658.37	0.00
42.00	0.00	61	658.37	0.00
42.20	0.00	61	658.37	0.00
42.40	0.00	60	658.37	0.00
42.60	0.00	59	658.37	0.00
42.80	0.00	58	658.37	0.00
43.00	0.00	58	658.37	0.00

Hydrograph for Pond 7P: CMP (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
43.20	0.00	57	658.37	0.00
43.40	0.00	56	658.37	0.00
43.60	0.00	56	658.37	0.00
43.80	0.00	55	658.37	0.00
44.00	0.00	54	658.37	0.00
44.20	0.00	54	658.37	0.00
44.40	0.00	53	658.37	0.00
44.60	0.00	52	658.37	0.00
44.80	0.00	52	658.37	0.00
45.00	0.00	51	658.37	0.00
45.20	0.00	51	658.37	0.00
45.40	0.00	50	658.37	0.00
45.60	0.00	50	658.37	0.00
45.80	0.00	49	658.37	0.00
46.00	0.00	48	658.37	0.00
46.20	0.00	48	658.37	0.00
46.40	0.00	47	658.37	0.00
46.60	0.00	47	658.37	0.00
46.80	0.00	47	658.37	0.00
47.00	0.00	46	658.37	0.00
47.20	0.00	46	658.37	0.00
47.40	0.00	45	658.37	0.00
47.60	0.00	45	658.37	0.00
47.80	0.00	44	658.37	0.00
48.00	0.00	44	658.37	0.00
48.20	0.00	43	658.37	0.00
48.40	0.00	43	658.37	0.00
48.60	0.00	43	658.37	0.00
48.80	0.00	42	658.37	0.00
49.00	0.00	42	658.37	0.00
49.20	0.00	41	658.37	0.00
49.40	0.00	41	658.37	0.00
49.60	0.00	41	658.37	0.00
49.80	0.00	40	658.37	0.00
50.00	0.00	40	658.37	0.00
50.20	0.00	40	658.37	0.00
50.40	0.00	39	658.37	0.00
50.60	0.00	39	658.37	0.00
50.80	0.00	39	658.36	0.00
51.00	0.00	38	658.36	0.00
51.20	0.00	38	658.36	0.00
51.40	0.00	38	658.36	0.00
51.60	0.00	37	658.36	0.00
51.80	0.00	37	658.36	0.00
52.00	0.00	37	658.36	0.00
52.20	0.00	36	658.36	0.00
52.40	0.00	36	658.36	0.00
52.60	0.00	36	658.36	0.00
52.80	0.00	36	658.36	0.00
53.00	0.00	35	658.36	0.00
53.20	0.00	35	658.36	0.00
53.40	0.00	35	658.36	0.00
53.60	0.00	35	658.36	0.00
53.80	0.00	34	658.36	0.00

Hydrograph for Pond 7P: CMP (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
54.00	0.00	34	658.36	0.00
54.20	0.00	34	658.36	0.00
54.40	0.00	34	658.36	0.00
54.60	0.00	33	658.36	0.00
54.80	0.00	33	658.36	0.00
55.00	0.00	33	658.36	0.00
55.20	0.00	33	658.36	0.00
55.40	0.00	32	658.36	0.00
55.60	0.00	32	658.36	0.00
55.80	0.00	32	658.36	0.00
56.00	0.00	32	658.36	0.00
56.20	0.00	31	658.36	0.00
56.40	0.00	31	658.36	0.00
56.60	0.00	31	658.36	0.00
56.80	0.00	31	658.36	0.00
57.00	0.00	31	658.36	0.00
57.20	0.00	30	658.36	0.00
57.40	0.00	30	658.36	0.00
57.60	0.00	30	658.36	0.00
57.80	0.00	30	658.36	0.00
58.00	0.00	30	658.36	0.00
58.20	0.00	29	658.36	0.00
58.40	0.00	29	658.36	0.00
58.60	0.00	29	658.36	0.00
58.80	0.00	29	658.36	0.00
59.00	0.00	29	658.36	0.00
59.20	0.00	28	658.36	0.00
59.40	0.00	28	658.36	0.00
59.60	0.00	28	658.36	0.00
59.80	0.00	28	658.36	0.00
60.00	0.00	28	658.36	0.00
60.20	0.00	28	658.36	0.00
60.40	0.00	27	658.36	0.00
60.60	0.00	27	658.36	0.00
60.80	0.00	27	658.36	0.00
61.00	0.00	27	658.36	0.00
61.20	0.00	27	658.36	0.00
61.40	0.00	27	658.36	0.00
61.60	0.00	26	658.36	0.00
61.80	0.00	26	658.36	0.00
62.00	0.00	26	658.36	0.00
62.20	0.00	26	658.36	0.00
62.40	0.00	26	658.36	0.00
62.60	0.00	26	658.36	0.00
62.80	0.00	26	658.36	0.00
63.00	0.00	25	658.36	0.00
63.20	0.00	25	658.36	0.00
63.40	0.00	25	658.36	0.00
63.60	0.00	25	658.36	0.00
63.80	0.00	25	658.36	0.00
64.00	0.00	25	658.36	0.00
64.20	0.00	25	658.36	0.00
64.40	0.00	24	658.36	0.00
64.60	0.00	24	658.36	0.00

Hydrograph for Pond 7P: CMP (continued)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
64.80	0.00	24	658.36	0.00
65.00	0.00	24	658.36	0.00
65.20	0.00	24	658.36	0.00
65.40	0.00	24	658.36	0.00
65.60	0.00	24	658.36	0.00
65.80	0.00	24	658.36	0.00
66.00	0.00	23	658.36	0.00
66.20	0.00	23	658.36	0.00
66.40	0.00	23	658.36	0.00
66.60	0.00	23	658.36	0.00
66.80	0.00	23	658.36	0.00
67.00	0.00	23	658.36	0.00
67.20	0.00	23	658.36	0.00
67.40	0.00	23	658.36	0.00
67.60	0.00	23	658.36	0.00
67.80	0.00	22	658.36	0.00
68.00	0.00	22	658.36	0.00
68.20	0.00	22	658.36	0.00
68.40	0.00	22	658.36	0.00
68.60	0.00	22	658.36	0.00
68.80	0.00	22	658.36	0.00
69.00	0.00	22	658.36	0.00
69.20	0.00	22	658.36	0.00
69.40	0.00	22	658.36	0.00
69.60	0.00	21	658.36	0.00
69.80	0.00	21	658.36	0.00
70.00	0.00	21	658.36	0.00
70.20	0.00	21	658.36	0.00
70.40	0.00	21	658.36	0.00
70.60	0.00	21	658.36	0.00
70.80	0.00	21	658.36	0.00
71.00	0.00	21	658.36	0.00
71.20	0.00	21	658.36	0.00
71.40	0.00	21	658.36	0.00
71.60	0.00	20	658.36	0.00
71.80	0.00	20	658.36	0.00
72.00	0.00	20	658.36	0.00
72.20	0.00	20	658.36	0.00
72.40	0.00	20	658.36	0.00
72.60	0.00	20	658.36	0.00
72.80	0.00	20	658.36	0.00
73.00	0.00	20	658.36	0.00
73.20	0.00	20	658.36	0.00
73.40	0.00	20	658.36	0.00
73.60	0.00	20	658.36	0.00
73.80	0.00	20	658.36	0.00
74.00	0.00	19	658.36	0.00
74.20	0.00	19	658.36	0.00
74.40	0.00	19	658.36	0.00
74.60	0.00	19	658.36	0.00
74.80	0.00	19	658.36	0.00
75.00	0.00	19	658.36	0.00