

WWHM2012
PROJECT REPORT

General Model Information

Project Name: 5'PermeableSidewalk
Site Name:
Site Address:
City:
Report Date: 1/23/2018
Gage:
Data Start: 10/01/1901
Data End: 09/30/2059
Timestep: 15 Minute
Precip Scale: 1.000
Version Date: 2017/10/31
Version: 4.2.13

POC Thresholds

Low Flow Threshold for POC1:	50 Percent of the 2 Year
High Flow Threshold for POC1:	50 Year

Landuse Basin Data

Predeveloped Land Use

Basin 1

Bypass: No

GroundWater: No

Pervious Land Use acre
C, Forest, Flat 0.064

Pervious Total 0.064

Impervious Land Use acre

Impervious Total 0

Basin Total 0.064

Element Flows To:		
Surface	Interflow	Groundwater

Mitigated Land Use

Lateral Basin 1

Bypass: No

GroundWater: No

Pervious Land Use acre

C, Lawn, Mod .024

Element Flows To:

Surface	Interflow	Groundwater
Permeable Pavement	Permeable Pavement	1

Routing Elements

Predeveloped Routing

Mitigated Routing

Permeable Pavement 1

Pavement Area:0.0402 acre.Pavement Length:5.00 ft.
Pavement Width: 350.00 ft.
Pavement slope 1:0.02 To 1
Pavement thickness: 0
Pour Space of Pavement: 0
Material thickness of second layer: 0.5
Pour Space of material for second layer: 0.2
Material thickness of third layer: 0
Pour Space of material for third layer: 0
Infiltration On
Infiltration rate: 0.2
Infiltration safety factor: 1
Total Volume Infiltrated (ac-ft.): 18.371
Total Volume Through Riser (ac-ft.): 0
Total Volume Through Facility (ac-ft.): 18.371
Percent Infiltrated: 100
Total Precip Applied to Facility: 0
Total Evap From Facility: 1.844
Element Flows To:
Outlet 1 Outlet 2

Permeable Pavement Hydraulic Table

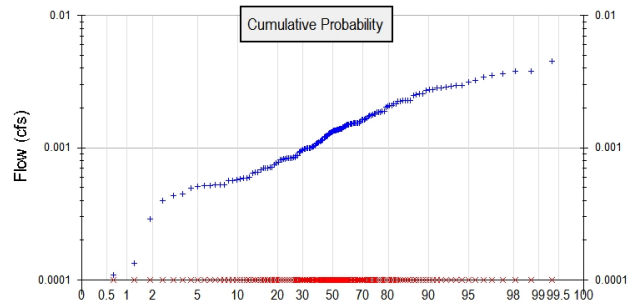
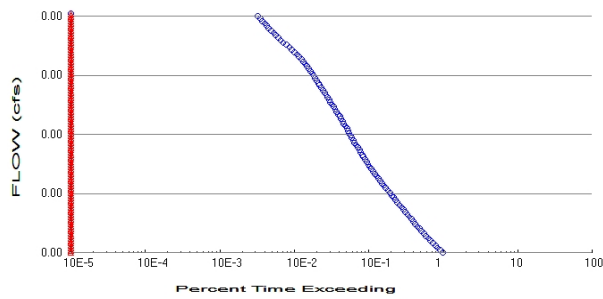
Stage(feet)	Area(ac.)	Volume(ac-ft.)	Discharge(cfs)	Infilt(cfs)
0.0000	0.040	0.000	0.000	0.000
0.0167	0.040	0.000	0.000	0.008
0.0333	0.040	0.000	0.000	0.008
0.0500	0.040	0.000	0.000	0.008
0.0667	0.040	0.000	0.000	0.008
0.0833	0.040	0.000	0.000	0.008
0.1000	0.040	0.000	0.000	0.008
0.1167	0.040	0.000	0.000	0.008
0.1333	0.040	0.001	0.000	0.008
0.1500	0.040	0.001	0.000	0.008
0.1667	0.040	0.001	0.000	0.008
0.1833	0.040	0.001	0.000	0.008
0.2000	0.040	0.001	0.000	0.008
0.2167	0.040	0.001	0.000	0.008
0.2333	0.040	0.001	0.000	0.008
0.2500	0.040	0.002	0.000	0.008
0.2667	0.040	0.002	0.000	0.008
0.2833	0.040	0.002	0.000	0.008
0.3000	0.040	0.002	0.000	0.008
0.3167	0.040	0.002	0.000	0.008
0.3333	0.040	0.002	0.000	0.008
0.3500	0.040	0.002	0.000	0.008
0.3667	0.040	0.003	0.000	0.008
0.3833	0.040	0.003	0.000	0.008
0.4000	0.040	0.003	0.000	0.008
0.4167	0.040	0.003	0.000	0.008
0.4333	0.040	0.003	0.000	0.008
0.4500	0.040	0.003	0.000	0.008
0.4667	0.040	0.003	0.000	0.008

0.4833	0.040	0.003	0.000	0.008
0.5000	0.040	0.004	0.000	0.008
0.5167	0.040	0.004	0.000	0.008
0.5333	0.040	0.005	0.000	0.008
0.5500	0.040	0.006	0.000	0.008
0.5667	0.040	0.006	0.000	0.008
0.5833	0.040	0.007	0.000	0.008
0.6000	0.040	0.008	0.000	0.008
0.6167	0.040	0.008	0.035	0.008
0.6333	0.040	0.009	0.101	0.008
0.6500	0.040	0.010	0.186	0.008
0.6667	0.040	0.010	0.286	0.008
0.6833	0.040	0.011	0.400	0.008
0.7000	0.040	0.012	0.526	0.008
0.7167	0.040	0.012	0.663	0.008
0.7333	0.040	0.013	0.810	0.008
0.7500	0.040	0.014	0.967	0.008
0.7667	0.040	0.014	1.132	0.008
0.7833	0.040	0.015	1.307	0.008
0.8000	0.040	0.016	1.489	0.008
0.8167	0.040	0.016	1.679	0.008
0.8333	0.040	0.017	1.876	0.008
0.8500	0.040	0.018	2.081	0.008
0.8667	0.040	0.018	2.292	0.008
0.8833	0.040	0.019	2.511	0.008
0.9000	0.040	0.020	2.735	0.008
0.9167	0.040	0.020	2.967	0.008
0.9333	0.040	0.021	3.204	0.008
0.9500	0.040	0.022	3.447	0.008
0.9667	0.040	0.022	3.696	0.008
0.9833	0.040	0.023	3.951	0.008
1.0000	0.040	0.024	4.212	0.008
1.0167	0.040	0.024	4.478	0.008
1.0333	0.040	0.025	4.749	0.008
1.0500	0.040	0.026	5.026	0.008
1.0667	0.040	0.026	5.307	0.008
1.0833	0.040	0.027	5.594	0.008
1.1000	0.040	0.028	5.886	0.008
1.1167	0.040	0.029	6.183	0.008
1.1333	0.040	0.029	6.485	0.008
1.1500	0.040	0.030	6.791	0.008
1.1667	0.040	0.031	7.102	0.008
1.1833	0.040	0.031	7.418	0.008
1.2000	0.040	0.032	7.738	0.008
1.2167	0.040	0.033	8.062	0.008
1.2333	0.040	0.033	8.391	0.008
1.2500	0.040	0.034	8.725	0.008
1.2667	0.040	0.035	9.063	0.008
1.2833	0.040	0.035	9.405	0.008
1.3000	0.040	0.036	9.751	0.008
1.3167	0.040	0.037	10.10	0.008
1.3333	0.040	0.037	10.45	0.008
1.3500	0.040	0.038	10.81	0.008
1.3667	0.040	0.039	11.17	0.008
1.3833	0.040	0.039	11.54	0.008
1.4000	0.040	0.040	11.91	0.008
1.4167	0.040	0.041	12.28	0.008
1.4333	0.040	0.041	12.66	0.008

1.4500	0.040	0.042	13.04	0.008
1.4667	0.040	0.043	13.43	0.008
1.4833	0.040	0.043	13.82	0.008
1.5000	0.040	0.044	14.21	0.008

Analysis Results

POC 1



+ Predeveloped x Mitigated

Predeveloped Landuse Totals for POC #1

Total Pervious Area: 0.064
Total Impervious Area: 0

Mitigated Landuse Totals for POC #1

Total Pervious Area: 0.024
Total Impervious Area: 0.040174

Flow Frequency Method: Log Pearson Type III 17B

Flow Frequency Return Periods for Predeveloped. POC #1

Return Period	Flow(cfs)
2 year	0.001349
5 year	0.002098
10 year	0.002505
25 year	0.00292
50 year	0.003166
100 year	0.003369

Flow Frequency Return Periods for Mitigated. POC #1

Return Period	Flow(cfs)
2 year	0
5 year	0
10 year	0
25 year	0
50 year	0
100 year	0

Annual Peaks

Annual Peaks for Predeveloped and Mitigated. POC #1

Year	Predeveloped	Mitigated
1902	0.001	0.000
1903	0.001	0.000
1904	0.001	0.000
1905	0.001	0.000
1906	0.000	0.000
1907	0.002	0.000
1908	0.002	0.000
1909	0.002	0.000
1910	0.002	0.000
1911	0.001	0.000

1912	0.004	0.000
1913	0.002	0.000
1914	0.001	0.000
1915	0.001	0.000
1916	0.001	0.000
1917	0.000	0.000
1918	0.001	0.000
1919	0.001	0.000
1920	0.001	0.000
1921	0.002	0.000
1922	0.002	0.000
1923	0.001	0.000
1924	0.001	0.000
1925	0.001	0.000
1926	0.001	0.000
1927	0.001	0.000
1928	0.001	0.000
1929	0.002	0.000
1930	0.001	0.000
1931	0.001	0.000
1932	0.001	0.000
1933	0.001	0.000
1934	0.003	0.000
1935	0.001	0.000
1936	0.001	0.000
1937	0.002	0.000
1938	0.001	0.000
1939	0.000	0.000
1940	0.001	0.000
1941	0.001	0.000
1942	0.002	0.000
1943	0.001	0.000
1944	0.002	0.000
1945	0.002	0.000
1946	0.001	0.000
1947	0.001	0.000
1948	0.003	0.000
1949	0.002	0.000
1950	0.001	0.000
1951	0.001	0.000
1952	0.004	0.000
1953	0.003	0.000
1954	0.001	0.000
1955	0.001	0.000
1956	0.000	0.000
1957	0.002	0.000
1958	0.004	0.000
1959	0.002	0.000
1960	0.001	0.000
1961	0.002	0.000
1962	0.001	0.000
1963	0.001	0.000
1964	0.001	0.000
1965	0.003	0.000
1966	0.001	0.000
1967	0.001	0.000
1968	0.001	0.000
1969	0.001	0.000

1970	0.002	0.000
1971	0.003	0.000
1972	0.002	0.000
1973	0.002	0.000
1974	0.001	0.000
1975	0.003	0.000
1976	0.002	0.000
1977	0.001	0.000
1978	0.003	0.000
1979	0.001	0.000
1980	0.001	0.000
1981	0.001	0.000
1982	0.001	0.000
1983	0.002	0.000
1984	0.001	0.000
1985	0.002	0.000
1986	0.001	0.000
1987	0.003	0.000
1988	0.002	0.000
1989	0.001	0.000
1990	0.002	0.000
1991	0.001	0.000
1992	0.002	0.000
1993	0.002	0.000
1994	0.003	0.000
1995	0.001	0.000
1996	0.003	0.000
1997	0.001	0.000
1998	0.001	0.000
1999	0.000	0.000
2000	0.001	0.000
2001	0.001	0.000
2002	0.002	0.000
2003	0.002	0.000
2004	0.002	0.000
2005	0.003	0.000
2006	0.001	0.000
2007	0.001	0.000
2008	0.001	0.000
2009	0.001	0.000
2010	0.001	0.000
2011	0.001	0.000
2012	0.001	0.000
2013	0.001	0.000
2014	0.001	0.000
2015	0.001	0.000
2016	0.000	0.000
2017	0.002	0.000
2018	0.004	0.000
2019	0.004	0.000
2020	0.001	0.000
2021	0.002	0.000
2022	0.001	0.000
2023	0.002	0.000
2024	0.003	0.000
2025	0.001	0.000
2026	0.002	0.000
2027	0.001	0.000

2028	0.001	0.000
2029	0.002	0.000
2030	0.003	0.000
2031	0.001	0.000
2032	0.001	0.000
2033	0.001	0.000
2034	0.001	0.000
2035	0.003	0.000
2036	0.002	0.000
2037	0.000	0.000
2038	0.001	0.000
2039	0.000	0.000
2040	0.001	0.000
2041	0.001	0.000
2042	0.003	0.000
2043	0.002	0.000
2044	0.002	0.000
2045	0.001	0.000
2046	0.002	0.000
2047	0.001	0.000
2048	0.002	0.000
2049	0.001	0.000
2050	0.001	0.000
2051	0.001	0.000
2052	0.001	0.000
2053	0.001	0.000
2054	0.002	0.000
2055	0.001	0.000
2056	0.001	0.000
2057	0.001	0.000
2058	0.001	0.000
2059	0.002	0.000

Ranked Annual Peaks

Ranked Annual Peaks for Predeveloped and Mitigated. POC #1

Rank	Predeveloped	Mitigated
1	0.0045	0.0000
2	0.0038	0.0000
3	0.0038	0.0000
4	0.0037	0.0000
5	0.0035	0.0000
6	0.0034	0.0000
7	0.0032	0.0000
8	0.0031	0.0000
9	0.0030	0.0000
10	0.0030	0.0000
11	0.0029	0.0000
12	0.0029	0.0000
13	0.0029	0.0000
14	0.0028	0.0000
15	0.0028	0.0000
16	0.0027	0.0000
17	0.0027	0.0000
18	0.0026	0.0000
19	0.0026	0.0000
20	0.0025	0.0000
21	0.0025	0.0000
22	0.0023	0.0000

23	0.0023	0.0000
24	0.0023	0.0000
25	0.0023	0.0000
26	0.0023	0.0000
27	0.0023	0.0000
28	0.0022	0.0000
29	0.0021	0.0000
30	0.0021	0.0000
31	0.0021	0.0000
32	0.0021	0.0000
33	0.0020	0.0000
34	0.0019	0.0000
35	0.0019	0.0000
36	0.0019	0.0000
37	0.0019	0.0000
38	0.0019	0.0000
39	0.0018	0.0000
40	0.0018	0.0000
41	0.0018	0.0000
42	0.0017	0.0000
43	0.0017	0.0000
44	0.0017	0.0000
45	0.0017	0.0000
46	0.0017	0.0000
47	0.0016	0.0000
48	0.0016	0.0000
49	0.0016	0.0000
50	0.0016	0.0000
51	0.0015	0.0000
52	0.0015	0.0000
53	0.0015	0.0000
54	0.0015	0.0000
55	0.0015	0.0000
56	0.0015	0.0000
57	0.0015	0.0000
58	0.0015	0.0000
59	0.0015	0.0000
60	0.0015	0.0000
61	0.0015	0.0000
62	0.0015	0.0000
63	0.0015	0.0000
64	0.0014	0.0000
65	0.0014	0.0000
66	0.0014	0.0000
67	0.0014	0.0000
68	0.0014	0.0000
69	0.0014	0.0000
70	0.0014	0.0000
71	0.0014	0.0000
72	0.0014	0.0000
73	0.0014	0.0000
74	0.0014	0.0000
75	0.0014	0.0000
76	0.0013	0.0000
77	0.0013	0.0000
78	0.0013	0.0000
79	0.0013	0.0000
80	0.0013	0.0000

81	0.0013	0.0000
82	0.0013	0.0000
83	0.0013	0.0000
84	0.0013	0.0000
85	0.0012	0.0000
86	0.0012	0.0000
87	0.0012	0.0000
88	0.0012	0.0000
89	0.0012	0.0000
90	0.0012	0.0000
91	0.0011	0.0000
92	0.0011	0.0000
93	0.0011	0.0000
94	0.0011	0.0000
95	0.0011	0.0000
96	0.0011	0.0000
97	0.0011	0.0000
98	0.0011	0.0000
99	0.0011	0.0000
100	0.0010	0.0000
101	0.0010	0.0000
102	0.0010	0.0000
103	0.0010	0.0000
104	0.0010	0.0000
105	0.0010	0.0000
106	0.0010	0.0000
107	0.0010	0.0000
108	0.0010	0.0000
109	0.0010	0.0000
110	0.0010	0.0000
111	0.0010	0.0000
112	0.0009	0.0000
113	0.0009	0.0000
114	0.0009	0.0000
115	0.0009	0.0000
116	0.0008	0.0000
117	0.0008	0.0000
118	0.0008	0.0000
119	0.0008	0.0000
120	0.0008	0.0000
121	0.0008	0.0000
122	0.0008	0.0000
123	0.0008	0.0000
124	0.0008	0.0000
125	0.0008	0.0000
126	0.0008	0.0000
127	0.0008	0.0000
128	0.0007	0.0000
129	0.0007	0.0000
130	0.0007	0.0000
131	0.0007	0.0000
132	0.0007	0.0000
133	0.0007	0.0000
134	0.0007	0.0000
135	0.0007	0.0000
136	0.0006	0.0000
137	0.0006	0.0000
138	0.0006	0.0000

139	0.0006	0.0000
140	0.0006	0.0000
141	0.0006	0.0000
142	0.0006	0.0000
143	0.0006	0.0000
144	0.0006	0.0000
145	0.0005	0.0000
146	0.0005	0.0000
147	0.0005	0.0000
148	0.0005	0.0000
149	0.0005	0.0000
150	0.0005	0.0000
151	0.0005	0.0000
152	0.0004	0.0000
153	0.0004	0.0000
154	0.0004	0.0000
155	0.0003	0.0000
156	0.0001	0.0000
157	0.0001	0.0000
158	0.0001	0.0000

Duration Flows

The Facility PASSED

Flow(cfs)	Predev	Mit	Percentage	Pass/Fail
0.0007	54354	0	0	Pass
0.0007	50243	0	0	Pass
0.0007	46658	0	0	Pass
0.0008	43290	0	0	Pass
0.0008	40260	0	0	Pass
0.0008	37462	0	0	Pass
0.0008	34941	0	0	Pass
0.0009	32609	0	0	Pass
0.0009	30376	0	0	Pass
0.0009	28254	0	0	Pass
0.0009	26426	0	0	Pass
0.0010	24792	0	0	Pass
0.0010	23307	0	0	Pass
0.0010	21950	0	0	Pass
0.0010	20664	0	0	Pass
0.0011	19407	0	0	Pass
0.0011	18282	0	0	Pass
0.0011	17224	0	0	Pass
0.0011	16166	0	0	Pass
0.0012	15158	0	0	Pass
0.0012	14293	0	0	Pass
0.0012	13440	0	0	Pass
0.0012	12659	0	0	Pass
0.0013	11944	0	0	Pass
0.0013	11246	0	0	Pass
0.0013	10582	0	0	Pass
0.0013	9989	0	0	Pass
0.0014	9374	0	0	Pass
0.0014	8847	0	0	Pass
0.0014	8332	0	0	Pass
0.0014	7867	0	0	Pass
0.0015	7468	0	0	Pass
0.0015	7041	0	0	Pass
0.0015	6609	0	0	Pass
0.0015	6271	0	0	Pass
0.0016	5978	0	0	Pass
0.0016	5706	0	0	Pass
0.0016	5445	0	0	Pass
0.0016	5201	0	0	Pass
0.0017	4939	0	0	Pass
0.0017	4703	0	0	Pass
0.0017	4513	0	0	Pass
0.0017	4339	0	0	Pass
0.0018	4159	0	0	Pass
0.0018	3958	0	0	Pass
0.0018	3763	0	0	Pass
0.0018	3577	0	0	Pass
0.0019	3414	0	0	Pass
0.0019	3265	0	0	Pass
0.0019	3135	0	0	Pass
0.0019	3028	0	0	Pass
0.0020	2924	0	0	Pass
0.0020	2814	0	0	Pass

0.0020	2682	0	0	Pass
0.0020	2556	0	0	Pass
0.0021	2454	0	0	Pass
0.0021	2363	0	0	Pass
0.0021	2255	0	0	Pass
0.0021	2140	0	0	Pass
0.0022	2039	0	0	Pass
0.0022	1952	0	0	Pass
0.0022	1862	0	0	Pass
0.0022	1779	0	0	Pass
0.0023	1688	0	0	Pass
0.0023	1619	0	0	Pass
0.0023	1561	0	0	Pass
0.0023	1483	0	0	Pass
0.0024	1408	0	0	Pass
0.0024	1340	0	0	Pass
0.0024	1270	0	0	Pass
0.0024	1217	0	0	Pass
0.0025	1163	0	0	Pass
0.0025	1103	0	0	Pass
0.0025	1057	0	0	Pass
0.0025	1007	0	0	Pass
0.0026	963	0	0	Pass
0.0026	919	0	0	Pass
0.0026	872	0	0	Pass
0.0026	815	0	0	Pass
0.0027	775	0	0	Pass
0.0027	738	0	0	Pass
0.0027	694	0	0	Pass
0.0027	636	0	0	Pass
0.0028	601	0	0	Pass
0.0028	556	0	0	Pass
0.0028	517	0	0	Pass
0.0028	478	0	0	Pass
0.0029	433	0	0	Pass
0.0029	394	0	0	Pass
0.0029	363	0	0	Pass
0.0029	340	0	0	Pass
0.0030	310	0	0	Pass
0.0030	297	0	0	Pass
0.0030	273	0	0	Pass
0.0030	252	0	0	Pass
0.0031	237	0	0	Pass
0.0031	223	0	0	Pass
0.0031	206	0	0	Pass
0.0031	195	0	0	Pass
0.0032	180	0	0	Pass

Water Quality

Water Quality BMP Flow and Volume for POC #1

On-line facility volume: 0 acre-feet

On-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

Off-line facility target flow: 0 cfs.

Adjusted for 15 min: 0 cfs.

LID Report

LID Technique	Used for Treatment ?	Total Volume Needs Treatment (ac-ft)	Volume Through Facility (ac-ft)	Infiltration Volume (ac-ft)	Cumulative Volume Infiltration Credit	Percent Volume Infiltrated	Water Quality	Percent Water Quality Treated	Comment
Permeable Pavement 1 POC	<input type="checkbox"/>	16.72			<input type="checkbox"/>	100.00			
Total Volume Infiltrated		16.72	0.00	0.00		100.00	0.00	0%	No Treat. Credit
Compliance with LID Standard 8% of 2-yr to 50% of 2-yr									Duration Analysis Result = Passed

Model Default Modifications

Total of 0 changes have been made.

PERLND Changes

No PERLND changes have been made.

IMPLND Changes

No IMPLND changes have been made.

Appendix

Predeveloped Schematic



Basin 1
10.06ac

Mitigated Schematic



Lateral
Basin 1
0.02ac

SI



Permeable
Pavement
1

Predeveloped UCI File

RUN

GLOBAL

```
WWM4 model simulation
START      1901 10 01      END      2059 09 30
RUN INTERP OUTPUT LEVEL    3      0
RESUME     0 RUN          1
UNIT SYSTEM      1
END GLOBAL
```

FILES

```
<File>  <Un#>  <-----File Name----->***
<-ID->                                     ***
WDM      26     5'PermeableSidewalk.wdm
MESSU    25     Pre5'PermeableSidewalk.MES
          27     Pre5'PermeableSidewalk.L61
          28     Pre5'PermeableSidewalk.L62
          30     POC5'PermeableSidewalk1.dat
```

END FILES

OPN SEQUENCE

INGRP INDELT 00:15

```
PERLND    10
COPY       501
DISPLY     1
```

END INGRP

END OPN SEQUENCE

DISPLY

DISPLY-INFO1

```
# - #<-----Title----->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
1      Basin 1      MAX      1      2      30      9
```

END DISPLY-INFO1

END DISPLY

COPY

TIMESERIES

```
# - # NPT NMN ***
1      1      1
501    1      1
```

END TIMESERIES

END COPY

GENER

OPCODE

```
#      # OPCD ***
```

END OPCODE

PARM

```
#      #      K ***
```

END PARM

END GENER

PERLND

GEN-INFO

```
<PLS ><-----Name----->NBLKS      Unit-systems      Printer ***
# - #      User      t-series      Engl Metr ***
                        in out      ***
10      C, Forest, Flat      1      1      1      1      27      0
```

END GEN-INFO

*** Section PWATER***

ACTIVITY

```
<PLS > ***** Active Sections *****
# - # ATMP SNOW PWAT  SED  PST  PWG  PQAL MSTL PEST NITR PHOS TRAC ***
10      0      0      1      0      0      0      0      0      0      0      0
```

END ACTIVITY

PRINT-INFO

```
<PLS > ***** Print-flags ***** PIVL  PYR
# - # ATMP SNOW PWAT  SED  PST  PWG  PQAL MSTL PEST NITR PHOS TRAC *****
10      0      0      4      0      0      0      0      0      0      0      0      1      9
```

END PRINT-INFO

```

PWAT-PARM1
<PLS > PWATER variable monthly parameter value flags ***
# - # CSNO RTOP UZFG VCS VUZ VNN VIFW VIRC VLE INFC HWT ***
10      0      0      0      0      0      0      0      0      0      0      0
END PWAT-PARM1

PWAT-PARM2
<PLS > PWATER input info: Part 2 ***
# - # ***FOREST LZSN INFILT LSUR SLSUR KVARV AGWRC
10      0      4.5      0.08      400      0.05      0.5      0.996
END PWAT-PARM2

PWAT-PARM3
<PLS > PWATER input info: Part 3 ***
# - # ***PETMAX PETMIN INFEXP INFILD DEEPFR BASETP AGWETP
10      0      0      2      2      0      0      0
END PWAT-PARM3

PWAT-PARM4
<PLS > PWATER input info: Part 4 ***
# - # CEPSC UZSN NSUR INTFW IRC LZETP ***
10      0.2      0.5      0.35      6      0.5      0.7
END PWAT-PARM4

PWAT-STATE1
<PLS > *** Initial conditions at start of simulation
ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
# - # *** CEPS SURS UZS IFWS LZS AGWS GWVS
10      0      0      0      0      2.5      1      0
END PWAT-STATE1

END PERLND

IMPLND
GEN-INFO
<PLS ><-----Name-----> Unit-systems Printer ***
# - # User t-series Engl Metr ***
in out ***

END GEN-INFO
*** Section IWATER***

ACTIVITY
<PLS > ***** Active Sections *****
# - # ATMP SNOW IWAT SLD IWG IQAL ***
END ACTIVITY

PRINT-INFO
<ILS > ***** Print-flags ***** PIVL PYR
# - # ATMP SNOW IWAT SLD IWG IQAL *****
END PRINT-INFO

IWAT-PARM1
<PLS > IWATER variable monthly parameter value flags ***
# - # CSNO RTOP VRS VNN RTLI ***
END IWAT-PARM1

IWAT-PARM2
<PLS > IWATER input info: Part 2 ***
# - # *** LSUR SLSUR NSUR RETSC
END IWAT-PARM2

IWAT-PARM3
<PLS > IWATER input info: Part 3 ***
# - # ***PETMAX PETMIN
END IWAT-PARM3

IWAT-STATE1
<PLS > *** Initial conditions at start of simulation
# - # *** RETS SURS
END IWAT-STATE1

```


END IMPLND

SCHEMATIC

<-Source->		<--Area-->		<-Target->	MBLK	***
<Name>	#	<-factor->		<Name>	#	Tbl#
Basin	1***					
PERLND	10	0.064		COPY	501	12
PERLND	10	0.064		COPY	501	13

*****Routing*****

END SCHEMATIC

NETWORK

<-Volume->	<-Grp>	<-Member->	<--Mult-->	Tran	<-Target vols>	<-Grp>	<-Member->	***
<Name>	#	<Name>	#	#<-factor->strg	<Name>	#	#	<Name>
COPY	501	OUTPUT	MEAN	1 1	48.4	DISPLY	1	INPUT
								TIMSER 1

<-Volume->	<-Grp>	<-Member->	<--Mult-->	Tran	<-Target vols>	<-Grp>	<-Member->	***
<Name>	#	<Name>	#	#<-factor->strg	<Name>	#	#	<Name>

END NETWORK

RCHRES

GEN-INFO

RCHRES	Name	Nexits	Unit Systems	Printer	***
# - #	<----->	<---->	User T-series	Engl Metr LKFG	***
			in out		***

END GEN-INFO

*** Section RCHRES***

ACTIVITY

<PLS > ***** Active Sections *****

# - #	HYFG	ADFG	CNFG	HTFG	SDFG	GQFG	OXFG	NUFG	PKFG	PHFG	***
-------	------	------	------	------	------	------	------	------	------	------	-----

END ACTIVITY

PRINT-INFO

<PLS > ***** Print-flags ***** PIVL PYR

# - #	HYDR	ADCA	CONS	HEAT	SED	GQL	OXRX	NUTR	PLNK	PHCB	PIVL	PYR	*****
-------	------	------	------	------	-----	-----	------	------	------	------	------	-----	-------

END PRINT-INFO

HYDR-PARM1

RCHRES	Flags for each HYDR Section	***	ODGTFG for each	FUNCT for each	***
# - #	VC A1 A2 A3	ODFVFG for each	***	ODGTFG for each	FUNCT for each
	FG FG FG FG	possible exit	***	possible exit	possible exit
	* * * *	* * * *		* * * *	***

END HYDR-PARM1

HYDR-PARM2

# - #	FTABNO	LEN	DELTH	STCOR	KS	DB50	***
<----->	<----->	<----->	<----->	<----->	<----->	<----->	***

END HYDR-PARM2

HYDR-INIT

RCHRES	Initial conditions for each HYDR section	***
# - #	*** VOL Initial value of COLIND Initial value of OUTDGT	
	*** ac-ft for each possible exit for each possible exit	
<----->	<----->	<---><---><---><---><---> *** <---><---><---><---><--->

END HYDR-INIT

END RCHRES

SPEC-ACTIONS

END SPEC-ACTIONS

FTABLES

END FTABLES

EXT SOURCES

<-Volume->	<Member>	SsysSgap	<--Mult-->	Tran	<-Target vols>	<-Grp>	<-Member->	***
<Name>	#	<Name>	#	tem strg	<-factor->strg	<Name>	#	<Name>
WDM	2	PREC	ENGL	1	PERLND	1	999	EXTNL
WDM	2	PREC	ENGL	1	IMPLND	1	999	EXTNL

WDM	1	EVAP	ENGL	1	PERLND	1	999	EXTNL	PETINP
WDM	1	EVAP	ENGL	1	IMPLND	1	999	EXTNL	PETINP

END EXT SOURCES

EXT TARGETS

<-Volume->	<-Grp>	<-Member->	<--Mult-->	Tran	<-Volume->	<Member>	Tsys	Tgap	Amd	***
<Name>	#	<Name>	#	#<-factor->	strg	<Name>	#	<Name>	tem	strg strg***
COPY	501	OUTPUT	MEAN	1 1	48.4	WDM	501	FLOW	ENGL	REPL

END EXT TARGETS

MASS-LINK

<Volume>	<-Grp>	<-Member->	<--Mult-->	<Target>	<-Grp>	<-Member->	***
<Name>		<Name>	# #<-factor->	<Name>		<Name>	# #***
MASS-LINK		12					
PERLND	PWATER	SURO	0.083333	COPY	INPUT	MEAN	
END MASS-LINK		12					

MASS-LINK		13					
PERLND	PWATER	IFWO	0.083333	COPY	INPUT	MEAN	
END MASS-LINK		13					

END MASS-LINK

END RUN

Mitigated UCI File

RUN

GLOBAL

```
WWMH4 model simulation
START      1901 10 01      END      2059 09 30
RUN INTERP OUTPUT LEVEL    3      0
RESUME     0 RUN          1          UNIT SYSTEM      1
END GLOBAL
```

FILES

```
<File>  <Un#>  <-----File Name----->***
<-ID->                                     ***
WDM      26     5'PermeableSidewalk.wdm
MESSU    25     Mit5'PermeableSidewalk.MES
          27     Mit5'PermeableSidewalk.L61
          28     Mit5'PermeableSidewalk.L62
          30     POC5'PermeableSidewalk1.dat
END FILES
```

OPN SEQUENCE

```
INGRP          INDELT 00:15
  PERLND        38
  IMPLND        19
  RCHRES        1
  COPY          1
  COPY          501
  DISPLY        1
END INGRP
```

END OPN SEQUENCE

DISPLY

```
DISPLY-INFO1
# - #<-----Title----->***TRAN PIVL DIG1 FIL1  PYR DIG2 FIL2 YRND
1      Permeable Pavement  1      MAX      1      2      30      9
END DISPLY-INFO1
```

END DISPLY

COPY

```
TIMESERIES
# - # NPT NMN ***
1      1      1
501     1      1
END TIMESERIES
```

END COPY

GENER

```
OPCODE
#      # OPCD ***
END OPCODE
PARM
#      #      K ***
END PARM
```

END GENER

PERLND

```
GEN-INFO
<PLS ><-----Name----->NBLKS  Unit-systems  Printer ***
# - #      User  t-series  Engl Metr ***
          in  out      ***
38      C, Lawn, Mod      1      1      1      1      27      0
END GEN-INFO
*** Section PWATER***
```

ACTIVITY

```
<PLS > ***** Active Sections *****
# - # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC ***
38      0      0      1      0      0      0      0      0      0      0      0
END ACTIVITY
```

PRINT-INFO

```
<PLS > ***** Print-flags ***** PIVL  PYR
# - # ATMP SNOW PWAT  SED  PST  PWG PQAL MSTL PEST NITR PHOS TRAC  *****
```

```

38      0      0      4      0      0      0      0      0      0      0      0      0      1      9
END PRINT-INFO

PWAT-PARM1
<PLS >  PWATER variable monthly parameter value flags ***
# - # CSNO RTOP UZFG VCS VUZ VNN VIFW VIRC VLE INFC HWT ***
38      0      0      0      0      0      0      0      0      0      0      0
END PWAT-PARM1

PWAT-PARM2
<PLS >  PWATER input info: Part 2 ***
# - # ***FOREST LZSN INFILT LSUR SLSUR KVARV AGWRC
38      0      4.5      0.03      400      0.1      0.5      0.996
END PWAT-PARM2

PWAT-PARM3
<PLS >  PWATER input info: Part 3 ***
# - # ***PETMAX PETMIN INFEXP INFILD DEEPFR BASETP AGWETP
38      0      0      2      2      0      0      0
END PWAT-PARM3
PWAT-PARM4
<PLS >  PWATER input info: Part 4 ***
# - # CEPSC UZSN NSUR INTFW IRC LZETP ***
38      0.1      0.25      0.25      6      0.5      0.25
END PWAT-PARM4

PWAT-STATE1
<PLS > *** Initial conditions at start of simulation
ran from 1990 to end of 1992 (pat 1-11-95) RUN 21 ***
# - # *** CEPS SURS UZS IFWS LZS AGWS GWVS
38      0      0      0      0      2.5      1      0
END PWAT-STATE1

END PERLND

IMPLND
GEN-INFO
<PLS ><-----Name-----> Unit-systems Printer ***
# - # User t-series Engr Metr ***
in out ***
19 Porous Pavement 1 1 1 27 0
END GEN-INFO
*** Section IWATER***

ACTIVITY
<PLS > ***** Active Sections *****
# - # ATMP SNOW IWAT SLD IWG IQAL ***
19      0      0      1      0      0      0
END ACTIVITY

PRINT-INFO
<ILS > ***** Print-flags ***** PIVL PYR
# - # ATMP SNOW IWAT SLD IWG IQAL *****
19      0      0      4      0      0      0      1      9
END PRINT-INFO

IWAT-PARM1
<PLS >  IWATER variable monthly parameter value flags ***
# - # CSNO RTOP VRS VNN RTLI ***
19      0      0      0      0      0
END IWAT-PARM1

IWAT-PARM2
<PLS >  IWATER input info: Part 2 ***
# - # *** LSUR SLSUR NSUR RETSC
19      400      0.01      0.1      0.1
END IWAT-PARM2

IWAT-PARM3
<PLS >  IWATER input info: Part 3 ***

```

```

# - # ***PETMAX      PETMIN
19      0      0
END IWAT-PARM3

IWAT-STATE1
<PLS > *** Initial conditions at start of simulation
# - # *** RETS      SURS
19      0      0
END IWAT-STATE1

END IMPLND

SCHEMATIC
<-Source->          <--Area-->      <-Target->      MBLK      ***
<Name> #          <-factor->      <Name> #      Tbl#      ***
IMPLND 19          0.0402      RCHRES 1      5
Lateral Basin 1***
PERLND 38          0.5974      IMPLND 19      54
PERLND 38          0.5974      IMPLND 19      55

*****Routing*****
PERLND 38          0.024      COPY 1      12
PERLND 38          0.024      COPY 1      13
RCHRES 1          1      COPY 501      17
END SCHEMATIC

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> #          <Name> # #<-factor->strg <Name> # #          <Name> # # ***
COPY 501 OUTPUT MEAN 1 1 48.4      DISPLY 1      INPUT TIMSER 1

<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> #          <Name> # #<-factor->strg <Name> # #          <Name> # # ***
END NETWORK

RCHRES
GEN-INFO
RCHRES      Name      Nexits      Unit Systems      Printer      ***
# - #<-----><----> User T-series      Engl Metr LKFG      ***
in out
1      Permeable Paveme-009      2      1      1      1      28      0      1
END GEN-INFO
*** Section RCHRES***

ACTIVITY
<PLS > ***** Active Sections *****
# - # HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUFG PKFG PHFG ***
1      1      0      0      0      0      0      0      0      0
END ACTIVITY

PRINT-INFO
<PLS > ***** Print-flags ***** PIVL      PYR
# - # HYDR ADCA CONS HEAT SED GQL OXRX NUTR PLNK PHCB PIVL      PYR *****
1      4      0      0      0      0      0      0      0      0      1      9
END PRINT-INFO

HYDR-PARM1
RCHRES      Flags for each HYDR Section      ***
# - # VC A1 A2 A3 ODFVFG for each *** ODGTFG for each      FUNCT for each
FG FG FG FG possible exit *** possible exit      possible exit
* * * * * * * * * * * * * * * * * * * * * *
1      0      1      0      0      4      5      0      0      0      0      0      0      0      0      2      2      2      2      2
END HYDR-PARM1

HYDR-PARM2
# - # FTABNO      LEN      DELTH      STCOR      KS      DB50      ***
<-----><-----><-----><-----><-----><-----><----->
1      1      0.01      0.0      0.0      0.5      0.0

```

```

END HYDR-PARM2
HYDR-INIT
  RCHRES Initial conditions for each HYDR section ***
  # - # *** VOL Initial value of COLIND Initial value of OUTDGT
        *** ac-ft for each possible exit for each possible exit
<-----><-----> <---><---><---><---><---> *** <---><---><---><---><--->
1 0 4.0 5.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
END HYDR-INIT
END RCHRES

SPEC-ACTIONS
END SPEC-ACTIONS
FTABLES
  FTABLE 1
    91 5
    Depth Area Volume Outflow1 Outflow2 Velocity Travel Time***
      (ft) (acres) (acre-ft) (cfs) (cfs) (ft/sec) (Minutes)***
0.000000 0.040174 0.000000 0.000000 0.000000
0.016667 0.040174 0.000134 0.000000 0.008102
0.033333 0.040174 0.000268 0.000000 0.008102
0.050000 0.040174 0.000402 0.000000 0.008102
0.066667 0.040174 0.000536 0.000000 0.008102
0.083333 0.040174 0.000670 0.000000 0.008102
0.100000 0.040174 0.000803 0.000000 0.008102
0.116667 0.040174 0.000937 0.000000 0.008102
0.133333 0.040174 0.001071 0.000000 0.008102
0.150000 0.040174 0.001205 0.000000 0.008102
0.166667 0.040174 0.001339 0.000000 0.008102
0.183333 0.040174 0.001473 0.000000 0.008102
0.200000 0.040174 0.001607 0.000000 0.008102
0.216667 0.040174 0.001741 0.000000 0.008102
0.233333 0.040174 0.001875 0.000000 0.008102
0.250000 0.040174 0.002009 0.000000 0.008102
0.266667 0.040174 0.002143 0.000000 0.008102
0.283333 0.040174 0.002277 0.000000 0.008102
0.300000 0.040174 0.002410 0.000000 0.008102
0.316667 0.040174 0.002544 0.000000 0.008102
0.333333 0.040174 0.002678 0.000000 0.008102
0.350000 0.040174 0.002812 0.000000 0.008102
0.366667 0.040174 0.002946 0.000000 0.008102
0.383333 0.040174 0.003080 0.000000 0.008102
0.400000 0.040174 0.003214 0.000000 0.008102
0.416667 0.040174 0.003348 0.000000 0.008102
0.433333 0.040174 0.003482 0.000000 0.008102
0.450000 0.040174 0.003616 0.000000 0.008102
0.466667 0.040174 0.003750 0.000000 0.008102
0.483333 0.040174 0.003884 0.000000 0.008102
0.500000 0.040174 0.004017 0.000000 0.008102
0.516667 0.040174 0.004687 0.000000 0.008102
0.533333 0.040174 0.005357 0.000000 0.008102
0.550000 0.040174 0.006026 0.000000 0.008102
0.566667 0.040174 0.006696 0.000000 0.008102
0.583333 0.040174 0.007365 0.000000 0.008102
0.600000 0.040174 0.008035 0.000000 0.008102
0.616667 0.040174 0.008704 0.035825 0.008102
0.633333 0.040174 0.009374 0.101329 0.008102
0.650000 0.040174 0.010044 0.186153 0.008102
0.666667 0.040174 0.010713 0.286601 0.008102
0.683333 0.040174 0.011383 0.400537 0.008102
0.700000 0.040174 0.012052 0.526519 0.008102
0.716667 0.040174 0.012722 0.663490 0.008102
0.733333 0.040174 0.013391 0.810629 0.008102
0.750000 0.040174 0.014061 0.967278 0.008102
0.766667 0.040174 0.014731 1.132889 0.008102
0.783333 0.040174 0.015400 1.307002 0.008102
0.800000 0.040174 0.016070 1.489221 0.008102
0.816667 0.040174 0.016739 1.679200 0.008102
0.833333 0.040174 0.017409 1.876633 0.008102
0.850000 0.040174 0.018079 2.081250 0.008102
0.866667 0.040174 0.018748 2.292806 0.008102

```

0.883333	0.040174	0.019418	2.511081	0.008102
0.900000	0.040174	0.020087	2.735874	0.008102
0.916667	0.040174	0.020757	2.967001	0.008102
0.933333	0.040174	0.021426	3.204294	0.008102
0.950000	0.040174	0.022096	3.447595	0.008102
0.966667	0.040174	0.022766	3.696761	0.008102
0.983333	0.040174	0.023435	3.951656	0.008102
1.000000	0.040174	0.024105	4.212154	0.008102
1.016667	0.040174	0.024774	4.478137	0.008102
1.033333	0.040174	0.025444	4.749494	0.008102
1.050000	0.040174	0.026113	5.026122	0.008102
1.066667	0.040174	0.026783	5.307920	0.008102
1.083333	0.040174	0.027453	5.594797	0.008102
1.100000	0.040174	0.028122	5.886664	0.008102
1.116667	0.040174	0.028792	6.183436	0.008102
1.133333	0.040174	0.029461	6.485035	0.008102
1.150000	0.040174	0.030131	6.791384	0.008102
1.166667	0.040174	0.030800	7.102410	0.008102
1.183333	0.040174	0.031470	7.418044	0.008102
1.200000	0.040174	0.032140	7.738221	0.008102
1.216667	0.040174	0.032809	8.062875	0.008102
1.233333	0.040174	0.033479	8.391947	0.008102
1.250000	0.040174	0.034148	8.725378	0.008102
1.266667	0.040174	0.034818	9.063112	0.008102
1.283333	0.040174	0.035487	9.405094	0.008102
1.300000	0.040174	0.036157	9.751273	0.008102
1.316667	0.040174	0.036827	10.10160	0.008102
1.333333	0.040174	0.037496	10.45602	0.008102
1.350000	0.040174	0.038166	10.81449	0.008102
1.366667	0.040174	0.038835	11.17697	0.008102
1.383333	0.040174	0.039505	11.54341	0.008102
1.400000	0.040174	0.040174	11.91377	0.008102
1.416667	0.040174	0.040844	12.28801	0.008102
1.433333	0.040174	0.041514	12.66608	0.008102
1.450000	0.040174	0.042183	13.04796	0.008102
1.466667	0.040174	0.042853	13.43360	0.008102
1.483333	0.040174	0.043522	13.82296	0.008102
1.500000	0.040174	0.044192	14.21602	0.008102

END FTABLE 1
END FTABLES

EXT SOURCES

<-Volume->	<Member>	SsysSgap<--Mult-->	Tran	<-Target	vols>	<-Grp>	<-Member->	***
<Name>	#	<Name>	#	tem strg<-factor->	strg	<Name>	#	#
WDM	2	PREC	ENGL	1	PERLND	1	999	EXTNL
WDM	2	PREC	ENGL	1	IMPLND	1	999	EXTNL
WDM	1	EVAP	ENGL	1	PERLND	1	999	EXTNL
WDM	1	EVAP	ENGL	1	IMPLND	1	999	EXTNL
WDM	1	EVAP	ENGL	1	RCHRES	1		EXTNL

END EXT SOURCES

EXT TARGETS

<-Volume->	<-Grp>	<-Member->	<--Mult-->	Tran	<-Volume->	<Member>	Tsys	Tgap	Amd	***
<Name>	#	<Name>	#	#<-factor->	strg	<Name>	#	<Name>	tem strg	strg***
COPY	1	OUTPUT	MEAN	1	1	48.4	WDM	701	FLOW	ENGL
COPY	501	OUTPUT	MEAN	1	1	48.4	WDM	801	FLOW	ENGL

END EXT TARGETS

MASS-LINK

<Volume>	<-Grp>	<-Member->	<--Mult-->	<Target>	<-Grp>	<-Member->	***
<Name>	#	<Name>	#	#<-factor->	<Name>	#	#
MASS-LINK	5						
IMPLND	IWATER	SURO	0.083333	RCHRES	INFLOW	IVOL	
END MASS-LINK	5						
MASS-LINK	12						
PERLND	PWATER	SURO	0.083333	COPY	INPUT	MEAN	
END MASS-LINK	12						

MASS-LINK	13					
PERLND	PWATER	IFWO	0.083333	COPY	INPUT	MEAN
END MASS-LINK	13					
MASS-LINK	17					
RCHRES	OFLOW	OVOL	1	COPY	INPUT	MEAN
END MASS-LINK	17					
MASS-LINK	54					
PERLND	PWATER	SURO		IMPLND	EXTNL	SURLI
END MASS-LINK	54					
MASS-LINK	55					
PERLND	PWATER	IFWO		IMPLND	EXTNL	SURLI
END MASS-LINK	55					
END MASS-LINK						
END RUN						

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