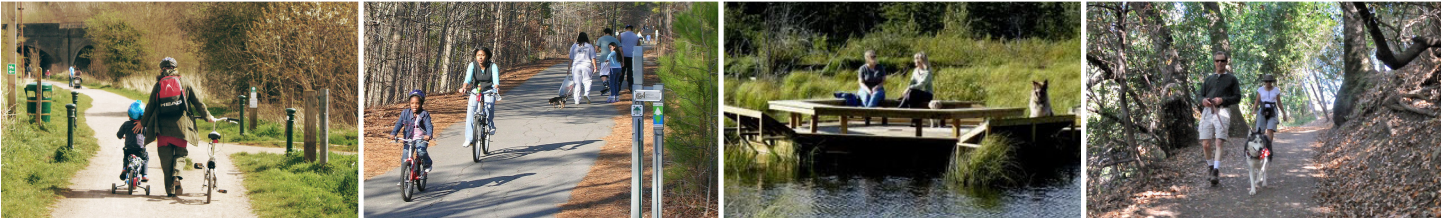


# Miller Creek Greenway Concept Report



APPENDIX  
DRAFT

DECEMBER 18, 2009



Prepared for:  
City of Burien  
400 SW 152nd Street  
Suite 300  
Burien, WA 98166



Prepared by: Otak, Inc.  
10230 NE Points Drive, Suite 400  
Kirkland, WA 98033



# Miller Creek Greenway Concept Report



APPENDIX

A

**MGS FLOOD  
PROJECT REPORT**

Program Version: 3.12

Run Date: 11/10/2009 10:40 AM

**Input File Name:** pond1.fld  
**Project Name:** Burien NERA  
**Analysis Title:** Combined Stormwater Wetland and Detention Pond 1  
**Comments:** 95% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*  
 \*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

-----Area(Acres)-----

-----Developed-----

			Predeveloped	To Node	Bypass Node
<b>Till Forest</b>	45.592	0.000	0.000		
Till Pasture	0.000	0.000	0.000		
Till Grass	0.000	0.019	0.000		
Outwash Forest	0.000	0.000	0.000		
Outwash Pasture	0.000	0.000	0.000		
Outwash Grass	0.000	5.016	0.000		
Wetland	0.000	2.108	0.000		
Impervious	0.000	38.449	0.000		
<b>Subbasin Total</b>	<b>45.592</b>	<b>45.592</b>	<b>0.000</b>		

-----Lateral Flow

Connections-----

-----Predeveloped-----

-----Developed-----

Interflow	Grnd Water		Surface	Interflow	Grnd Water	Surface
<b>Till Forest</b>	Node	Node	Node	Node		
Till Pasture	Node	Node	Node	Node		
Till Grass	Node	Node	Node	Node		
Outwash Forest	Node	Node	Node	Node		
Outwash Pasture	Node	Node	Node	Node		
Outwash Grass	Node	Node	Node	Node		
Wetland	Node	Node	Node	Node		



Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 103.34 ft  
 Length : 2.16 in  
 Height : 31.95 in  
 Orientation : Vertical  
 Elbow : No

\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\*

Postdeveloped Link: 1  
 Elev (ft) Storage (ac-ft) Discharge (cfs) Infiltr Discharge (cfs)

Elev (ft)	Storage (ac-ft)	Discharge (cfs)	Infiltr Discharge (cfs)
100.000	0.000	0.000	0.000
100.025	0.062	0.040	0.000
100.050	0.125	0.057	0.000
100.100	0.250	0.080	0.000
100.200	0.500	0.114	0.000
100.300	0.752	0.139	0.000
100.400	1.004	0.161	0.000
100.500	1.258	0.180	0.000
100.600	1.512	0.197	0.000
100.700	1.768	0.213	0.000
100.800	2.024	0.228	0.000
100.900	2.281	0.241	0.000
101.000	2.540	0.254	0.000
101.100	2.799	0.267	0.000
101.200	3.059	0.279	0.000
101.300	3.321	0.290	0.000
101.400	3.583	0.301	0.000
101.500	3.846	0.312	0.000
101.600	4.110	0.322	0.000
101.700	4.376	0.332	0.000
101.800	4.642	0.341	0.000
101.900	4.909	0.351	0.000
102.000	5.177	0.360	0.000
102.100	5.447	0.369	0.000
102.200	5.717	0.377	0.000
102.300	5.988	0.386	0.000
102.400	6.260	0.394	0.000
102.500	6.533	0.402	0.000
102.600	6.808	0.410	0.000
102.700	7.083	0.418	0.000
102.800	7.359	0.426	0.000
102.900	7.636	0.433	0.000
103.000	7.915	0.441	0.000
103.100	8.194	0.448	0.000
103.200	8.474	0.455	0.000
103.234	8.570	0.458	0.000
103.269	8.667	0.460	0.000
103.303	8.764	0.463	0.000
103.337	8.860	0.465	0.000
103.362	8.931	0.469	0.000
103.387	9.002	0.475	0.000
103.412	9.072	0.481	0.000
103.437	9.143	0.489	0.000
103.537	9.427	0.522	0.000
103.637	9.711	0.564	0.000

103.737	9.997	0.613	0.000
103.837	10.284	0.668	0.000
103.937	10.572	0.728	0.000
104.037	10.861	0.792	0.000
104.137	11.150	0.861	0.000
104.237	11.441	0.933	0.000
104.337	11.733	1.010	0.000
104.437	12.026	1.090	0.000
104.537	12.320	1.173	0.000
104.637	12.615	1.259	0.000
104.737	12.911	1.349	0.000
104.837	13.208	1.441	0.000
104.937	13.507	1.536	0.000
105.037	13.806	1.635	0.000
105.137	14.106	1.735	0.000
105.237	14.407	1.839	0.000
105.337	14.710	1.945	0.000
105.437	15.013	2.053	0.000
105.537	15.317	2.164	0.000
105.637	15.623	2.278	0.000
105.737	15.929	2.393	0.000
105.837	16.237	2.511	0.000
105.878	16.363	2.560	0.000
105.919	16.488	2.609	0.000
105.959	16.614	2.658	0.000
106.000	16.740	2.708	0.000
106.025	16.818	2.862	0.000
106.050	16.895	3.119	0.000
106.075	16.973	3.442	0.000
106.100	17.051	3.819	0.000
106.125	17.128	4.242	0.000
106.150	17.206	4.706	0.000
106.175	17.284	5.208	0.000
106.200	17.362	5.744	0.000
106.300	17.675	8.186	0.000
106.400	17.988	11.009	0.000
106.500	18.303	14.104	0.000
106.600	18.619	17.361	0.000
106.700	18.935	20.667	0.000
106.800	19.253	23.910	0.000
106.900	19.572	26.979	0.000
107.000	19.892	29.778	0.000
107.100	20.213	32.205	0.000
107.200	20.536	34.199	0.000
107.300	20.859	35.803	0.000
107.400	21.183	37.072	0.000
107.500	21.508	38.138	0.000
107.600	21.835	39.689	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

**Postdeveloped Pond Water Surface Elevation Statistics**  
**Annual Maxima Water Surface Elevation (ft)**

Link: 1

Max Date	WSEL (ft)
12/07/1939	103.621
01/18/1941	102.101
12/20/1941	102.792
11/23/1942	103.995
10/17/1943	101.908
02/07/1945	103.621
02/05/1946	102.432
12/05/1946	103.140
10/19/1947	103.831
02/22/1949	103.100
01/22/1950	103.735
02/09/1951	104.439
10/03/1951	102.545
01/12/1953	103.967
01/22/1954	102.776
11/19/1954	102.764
01/06/1956	104.453
02/26/1957	103.171
01/17/1958	103.111
01/13/1959	103.926
11/21/1959	103.666
11/24/1960	104.121
12/24/1961	102.418
11/30/1962	102.451
11/14/1963	102.578
12/01/1964	103.198
01/07/1966	103.270
12/13/1966	103.921
10/27/1967	102.945
12/11/1968	103.271
01/27/1970	103.787
12/07/1970	103.563
03/05/1972	105.277
12/26/1972	104.309
03/02/1974	103.302
12/27/1974	102.938
02/27/1976	103.497
08/26/1977	102.367
12/15/1977	104.042
03/05/1979	102.332
12/18/1979	105.254
12/30/1980	103.277
10/06/1981	105.008
03/09/1983	103.530
03/21/1984	102.566
11/11/1984	102.667
01/19/1986	103.829
11/24/1986	105.012
04/06/1988	103.299
04/05/1989	103.463
01/09/1990	105.136
11/24/1990	105.497
01/31/1992	103.856
04/11/1993	102.256
03/03/1994	102.556
12/27/1994	104.069
02/09/1996	105.623
01/02/1997	105.270
10/08/1997	102.606
11/26/1998	105.336
02/28/2000	103.404
05/05/2001	102.473
11/15/2001	102.324
11/26/2002	105.011
10/24/2003	103.282
02/08/2005	102.418
11/28/2005	103.864
11/27/2006	103.308
01/07/2008	103.703
02/18/2009	105.103
01/10/2010	103.795
11/17/2010	104.600
10/02/2011	103.548
01/20/2013	105.568
01/28/2014	103.389
03/30/2015	102.502
01/04/2016	104.948
11/01/2016	103.082
01/31/2018	103.180
01/12/2019	103.744
04/21/2020	102.622
11/24/2020	104.488
12/21/2021	103.068
03/30/2023	103.338

01/25/2024	103.773
12/22/2024	104.916
01/03/2026	104.354
01/29/2027	102.801
02/23/2028	103.253
12/11/2028	103.258
01/26/2030	104.555
03/04/2031	103.254
01/21/2032	104.047
12/23/2032	103.121
11/16/2033	105.238
02/19/2035	103.366
02/27/2036	103.562
08/25/2037	101.576
12/15/2037	103.888
12/04/2038	102.178
01/14/2040	103.350
12/25/2040	103.802
04/15/2042	103.771
02/26/2043	103.476
03/21/2044	103.006
03/27/2045	103.341
02/17/2046	103.092
02/02/2047	102.810
12/10/2047	104.220
03/17/2049	102.862
12/04/2049	102.689
04/09/2051	102.519
04/17/2052	102.073
12/10/2052	102.684
12/11/2053	102.895
11/01/2054	105.001
02/07/2056	105.639
11/19/2056	105.107
05/21/2058	103.067
11/26/2058	104.448
01/23/2060	102.436
10/27/2060	103.686
01/03/2062	103.101
12/30/2062	103.308
12/23/2063	104.540
12/01/2064	102.920
01/13/2066	102.039
12/15/2066	104.347
01/19/2068	104.295
09/23/2069	102.292
12/14/2069	102.194
12/19/2070	102.159
11/03/2071	102.884
12/25/2072	106.141
12/15/2073	103.868
11/20/2074	102.433
10/30/2075	104.444
08/26/2077	101.786
12/02/2077	102.926
02/25/2079	102.258
12/17/2079	105.495
11/21/2080	104.652
02/19/2082	104.233
02/20/2083	104.189
11/26/2083	104.823
12/14/2084	103.781
11/01/2085	103.236
11/23/2086	103.723
12/09/2087	103.041
11/05/2088	103.857
11/10/2089	103.580
12/09/2090	104.881
01/31/2092	104.594
11/07/2092	102.277
12/14/2093	102.565
12/27/2094	103.503
12/14/2095	103.823
10/28/2096	104.190



**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs)      Link: 1**

---

1.00	101.576
1.01	101.786
1.02	101.908
1.02	102.039
1.03	102.073
1.04	102.101
1.04	102.159
1.05	102.178
1.06	102.194
1.06	102.256
1.07	102.258
1.08	102.277
1.09	102.292
1.09	102.324
1.10	102.332
1.11	102.367
1.12	102.418
1.12	102.418
1.13	102.432
1.14	102.433
1.15	102.436
1.16	102.451
1.17	102.473
1.18	102.502
1.18	102.519
1.19	102.545
1.20	102.556
1.21	102.565
1.22	102.566
1.23	102.578
1.24	102.606
1.25	102.622
1.26	102.667
1.27	102.684
1.28	102.689
1.29	102.764
1.30	102.776
1.31	102.792
1.32	102.801
1.33	102.810
1.35	102.862
1.36	102.884
1.37	102.895
1.38	102.920
1.39	102.926
1.40	102.938
1.42	102.945
1.43	103.006
1.44	103.041
1.46	103.067
1.47	103.068
1.48	103.082
1.50	103.092
1.51	103.100
1.53	103.101
1.54	103.111
1.56	103.121
1.57	103.140
1.59	103.171
1.60	103.180
1.62	103.198
1.64	103.236
1.65	103.253
1.67	103.254
1.69	103.258
1.71	103.270
1.73	103.271
1.75	103.277
1.77	103.282
1.79	103.299
1.81	103.302
1.83	103.308
1.85	103.308
1.87	103.338
1.89	103.341
1.92	103.350
1.94	103.366
1.96	103.389
1.99	103.404
2.01	103.463
2.04	103.476
2.07	103.497
2.09	103.503
2.12	103.530
2.15	103.548
2.18	103.562
2.21	103.563
2.24	103.580
2.27	103.621

2.31	103.621
2.34	103.666
2.38	103.686
2.41	103.703
2.45	103.723
2.49	103.735
2.53	103.744
2.57	103.771
2.61	103.773
2.65	103.781
2.70	103.787
2.75	103.795
2.80	103.802
2.85	103.823
2.90	103.829
2.95	103.831
3.01	103.856
3.07	103.857
3.13	103.864
3.19	103.868
3.26	103.888
3.32	103.921
3.40	103.926
3.47	103.967
3.55	103.995
3.63	104.042
3.72	104.047
3.80	104.069
3.90	104.121
4.00	104.189
4.10	104.190
4.21	104.220
4.32	104.233
4.45	104.295
4.58	104.309
4.71	104.347
4.86	104.354
5.01	104.439
5.17	104.444
5.35	104.448
5.54	104.453
5.74	104.488
5.95	104.540
6.19	104.555
6.44	104.594
6.71	104.600
7.01	104.652
7.33	104.823
7.69	104.881
8.08	104.916
8.52	104.948
9.00	105.001
9.55	105.008
10.16	105.011
10.86	105.012
11.66	105.103
12.59	105.107
13.68	105.136
14.97	105.238
16.54	105.254
18.47	105.270
20.92	105.277
24.10	105.336
28.44	105.495
34.68	105.497
44.42	105.568
61.77	105.623
101.36	105.639
282.36	106.141

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
**Tr (yrs)                      Link: 1**

---

1.05-Year	102.179
1.11-Year	102.382
1.25-Year	102.624
2.00-Year	103.434
3.33-Year	103.923
5-Year	104.435
10-Year	105.011
25-Year	105.275
50-Year	105.600
100-Year	105.639

**Postdeveloped Infiltrated Water Statistics**

Volume Statistics Computed for Entire Simulation

Statistic Link: 1

Total Inflow Volume (ac-ft)	16943.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

**\*\*\*\*\*Water Quality Facility Data \*\*\*\*\***

**Node No: 1**

2-Year Discharge Rate : 10.027 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 36425. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 54637. cu-ft  
 2-Year Discharge Rate : 0.488 cfs

**\*\*\*\*\*Compliance Point Results \*\*\*\*\***

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

**\*\*Point of Compliance Annual Maxima Flow Data \*\***

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	1.233	12/07/1939	0.557
01/31/1941	0.473	01/18/1941	0.369
12/15/1941	1.239	12/20/1941	0.425
02/10/1943	0.493	11/23/1942	0.765
01/23/1944	0.370	10/17/1943	0.351
02/07/1945	1.536	02/07/1945	0.557
02/05/1946	0.942	02/05/1946	0.397
02/02/1947	0.961	12/05/1946	0.451
03/21/1948	1.660	10/19/1947	0.665
02/22/1949	0.834	02/22/1949	0.448
03/03/1950	3.432	01/22/1950	0.612
02/09/1951	1.374	02/09/1951	1.091
01/24/1952	0.361	10/03/1951	0.406
01/11/1953	0.513	01/12/1953	0.747
01/22/1954	0.833	01/22/1954	0.424
04/12/1955	0.389	11/19/1954	0.423
03/04/1956	0.893	01/06/1956	1.103
02/25/1957	0.740	02/26/1957	0.453
01/16/1958	0.898	01/17/1958	0.449
01/12/1959	0.965	01/13/1959	0.721
12/15/1959	1.032	11/21/1959	0.578
02/14/1961	0.883	11/24/1960	0.850
03/04/1962	0.473	12/24/1961	0.396
02/03/1963	0.525	11/30/1962	0.398
01/01/1964	0.839	11/14/1963	0.409
02/26/1965	1.040	12/01/1964	0.455
01/06/1966	0.641	01/07/1966	0.460
01/19/1967	1.623	12/13/1966	0.718
02/03/1968	0.840	10/27/1967	0.437
12/03/1968	0.901	12/11/1968	0.460
01/13/1970	0.698	01/27/1970	0.641
12/06/1970	0.794	12/07/1970	0.532
02/28/1972	2.141	03/05/1972	1.881
01/13/1973	0.773	12/26/1972	0.988
02/18/1974	1.155	03/02/1974	0.462
12/26/1974	1.398	12/27/1974	0.436
01/27/1976	0.968	02/27/1976	0.508
05/31/1977	0.136	08/26/1977	0.392
12/10/1977	0.820	12/15/1977	0.796
03/04/1979	0.806	03/05/1979	0.389
12/17/1979	1.298	12/18/1979	1.857
12/26/1980	0.515	12/30/1980	0.461
10/06/1981	1.646	10/06/1981	1.606

01/05/1983	0.924	03/09/1983	0.519
03/14/1984	0.882	03/21/1984	0.408
02/11/1985	0.589	11/11/1984	0.416
01/18/1986	1.941	01/19/1986	0.664
11/24/1986	1.711	11/24/1986	1.610
04/06/1988	0.855	04/06/1988	0.462
04/05/1989	0.943	04/05/1989	0.497
01/09/1990	3.111	01/09/1990	1.734
11/24/1990	2.651	11/24/1990	2.120
01/27/1992	0.810	01/31/1992	0.679
06/09/1993	0.683	04/11/1993	0.382
03/03/1994	0.520	03/03/1994	0.407
02/19/1995	1.089	12/27/1994	0.814
02/09/1996	2.523	02/09/1996	2.262
01/02/1997	1.578	01/02/1997	1.874
02/28/1998	0.580	10/08/1997	0.411
11/25/1998	1.552	11/26/1998	1.944
03/26/2000	0.869	02/28/2000	0.479
05/05/2001	0.666	05/05/2001	0.400
05/03/2002	2.377	11/15/2001	0.388
03/31/2003	1.820	11/26/2002	1.608
01/23/2004	0.444	10/24/2003	0.461
02/07/2005	0.766	02/08/2005	0.396
02/27/2006	0.984	11/28/2005	0.684
12/14/2006	0.728	11/27/2006	0.463
03/21/2008	1.210	01/07/2008	0.596
02/17/2009	1.877	02/18/2009	1.701
01/10/2010	1.261	01/10/2010	0.645
11/17/2010	1.637	11/17/2010	1.227
01/31/2012	1.042	10/02/2011	0.526
01/20/2013	2.379	01/20/2013	2.199
12/06/2013	1.001	01/28/2014	0.475
03/30/2015	0.607	03/30/2015	0.402
01/04/2016	1.730	01/04/2016	1.547
03/07/2017	0.501	11/01/2016	0.447
01/31/2018	0.933	01/31/2018	0.454
03/30/2019	0.924	01/12/2019	0.617
04/14/2020	0.607	04/21/2020	0.412
02/10/2021	1.498	11/24/2020	1.132
03/26/2022	0.442	12/21/2021	0.446
03/30/2023	1.068	03/30/2023	0.465
01/19/2024	0.839	01/25/2024	0.633
12/22/2024	1.752	12/22/2024	1.516
03/09/2026	1.113	01/03/2026	1.023
01/27/2027	0.970	01/29/2027	0.426
02/19/2028	1.202	02/23/2028	0.459
12/04/2028	0.931	12/11/2028	0.459
02/16/2030	1.243	01/26/2030	1.188
12/30/2030	1.163	03/04/2031	0.459
01/20/2032	1.867	01/21/2032	0.799
03/01/2033	0.526	12/23/2032	0.450
01/15/2034	2.110	11/16/2033	1.840
02/19/2035	1.031	02/19/2035	0.470
03/24/2036	0.973	02/27/2036	0.532
03/09/2037	0.040	08/25/2037	0.319
12/15/2037	0.711	12/15/2037	0.699
02/07/2039	0.514	12/04/2038	0.376
01/14/2040	1.929	01/14/2040	0.467
12/25/2040	1.093	12/25/2040	0.649
02/20/2042	1.147	04/15/2042	0.632
03/31/2043	1.718	02/26/2043	0.502
05/01/2044	0.678	03/21/2044	0.441
02/11/2045	0.784	03/27/2045	0.466
02/16/2046	0.987	02/17/2046	0.447
02/01/2047	0.620	02/02/2047	0.427
04/21/2048	0.551	12/10/2047	0.921
03/16/2049	0.619	03/17/2049	0.431
12/04/2049	1.045	12/04/2049	0.417
04/06/2051	0.812	04/09/2051	0.404
04/17/2052	0.488	04/17/2052	0.366
06/04/2053	1.872	12/10/2052	0.417
04/08/2054	0.348	12/11/2053	0.433
02/17/2055	1.592	11/01/2054	1.599
02/07/2056	2.896	02/07/2056	2.280
11/19/2056	3.169	11/19/2056	1.705
01/24/2058	1.099	05/21/2058	0.446
12/28/2058	1.263	11/26/2058	1.098
01/19/2060	0.473	01/23/2060	0.397
01/10/2061	1.026	10/27/2060	0.588
02/03/2062	3.904	01/03/2062	0.448
12/29/2062	0.826	12/30/2062	0.463
12/23/2063	1.490	12/23/2063	1.175
11/30/2064	0.712	12/01/2064	0.435
01/13/2066	0.391	01/13/2066	0.363
01/19/2067	0.994	12/15/2066	1.018
01/18/2068	2.045	01/19/2068	0.978
01/04/2069	0.550	09/23/2069	0.385
04/09/2070	0.464	12/14/2069	0.377
02/14/2071	0.509	12/19/2070	0.374
02/27/2072	0.545	11/03/2071	0.432
12/25/2072	2.280	12/25/2072	4.533
03/16/2074	1.226	12/15/2073	0.687
01/23/2075	0.265	11/20/2074	0.397
03/24/2076	1.361	10/30/2075	1.095
03/02/2077	0.153	08/26/2077	0.340

12/02/2077	0.513	12/02/2077	0.435
02/25/2079	0.687	02/25/2079	0.382
12/17/2079	2.545	12/17/2079	2.117
11/21/2080	1.123	11/21/2080	1.272
02/13/2082	1.402	02/19/2082	0.931
02/19/2083	0.860	02/20/2083	0.899
11/26/2083	1.042	11/26/2083	1.428
12/14/2084	0.721	12/14/2084	0.637
01/18/2086	1.016	11/01/2085	0.458
12/21/2086	0.953	11/23/2086	0.606
01/14/2088	0.627	12/09/2087	0.444
11/05/2088	1.115	11/05/2088	0.680
01/07/2090	0.524	11/10/2089	0.540
12/04/2090	0.968	12/09/2090	1.483
04/28/2092	1.661	01/31/2092	1.222
03/22/2093	0.467	11/07/2092	0.384
03/01/2094	0.391	12/14/2093	0.408
02/18/2095	0.618	12/27/2094	0.510
01/14/2096	0.779	12/14/2095	0.660
01/29/2097	1.712	10/28/2096	0.899

**\*\*\*\*Point of Compliance Ranked Maxima Flow Data \*\*\*\***

Tr (yrs)	Predevelopment Q (cfs)	Tr (yrs)	Postdevelopment Q (cfs)
1.00	0.040	1.00	0.319
1.01	0.136	1.01	0.340
1.02	0.153	1.02	0.351
1.02	0.265	1.02	0.363
1.03	0.348	1.03	0.366
1.04	0.361	1.04	0.369
1.04	0.370	1.04	0.374
1.05	0.389	1.05	0.376
1.06	0.391	1.06	0.377
1.06	0.391	1.06	0.382
1.07	0.442	1.07	0.382
1.08	0.444	1.08	0.384
1.09	0.464	1.09	0.385
1.09	0.467	1.09	0.388
1.10	0.473	1.10	0.389
1.11	0.473	1.11	0.392
1.12	0.473	1.12	0.396
1.12	0.488	1.12	0.396
1.13	0.493	1.13	0.397
1.14	0.501	1.14	0.397
1.15	0.509	1.15	0.397
1.16	0.513	1.16	0.398
1.17	0.513	1.17	0.400
1.18	0.514	1.18	0.402
1.18	0.515	1.18	0.404
1.19	0.520	1.19	0.406
1.20	0.524	1.20	0.407
1.21	0.525	1.21	0.408
1.22	0.526	1.22	0.408
1.23	0.545	1.23	0.409
1.24	0.550	1.24	0.411
1.25	0.551	1.25	0.412
1.26	0.580	1.26	0.416
1.27	0.589	1.27	0.417
1.28	0.607	1.28	0.417
1.29	0.607	1.29	0.423
1.30	0.618	1.30	0.424
1.31	0.619	1.31	0.425
1.32	0.620	1.32	0.426
1.33	0.627	1.33	0.427
1.35	0.641	1.35	0.431
1.36	0.666	1.36	0.432
1.37	0.678	1.37	0.433
1.38	0.683	1.38	0.435
1.39	0.687	1.39	0.435
1.40	0.698	1.40	0.436
1.42	0.711	1.42	0.437
1.43	0.712	1.43	0.441
1.44	0.721	1.44	0.444
1.46	0.728	1.46	0.446
1.47	0.740	1.47	0.446
1.48	0.766	1.48	0.447
1.50	0.773	1.50	0.447
1.51	0.779	1.51	0.448
1.53	0.784	1.53	0.448
1.54	0.794	1.54	0.449
1.56	0.806	1.56	0.450
1.57	0.810	1.57	0.451
1.59	0.812	1.59	0.453
1.60	0.820	1.60	0.454
1.62	0.826	1.62	0.455
1.64	0.833	1.64	0.458
1.65	0.834	1.65	0.459
1.67	0.839	1.67	0.459

1.69	0.839	1.69	0.459
1.71	0.840	1.71	0.460
1.73	0.855	1.73	0.460
1.75	0.860	1.75	0.461
1.77	0.869	1.77	0.461
1.79	0.882	1.79	0.462
1.81	0.883	1.81	0.462
1.83	0.893	1.83	0.463
1.85	0.898	1.85	0.463
1.87	0.901	1.87	0.465
1.89	0.924	1.89	0.466
1.92	0.924	1.92	0.467
1.94	0.931	1.94	0.470
1.96	0.933	1.96	0.475
1.99	0.942	1.99	0.479
2.01	0.943	2.01	0.497
2.04	0.953	2.04	0.502
2.07	0.961	2.07	0.508
2.09	0.965	2.09	0.510
2.12	0.968	2.12	0.519
2.15	0.968	2.15	0.526
2.18	0.970	2.18	0.532
2.21	0.973	2.21	0.532
2.24	0.984	2.24	0.540
2.27	0.987	2.27	0.557
2.31	0.994	2.31	0.557
2.34	1.001	2.34	0.578
2.38	1.016	2.38	0.588
2.41	1.026	2.41	0.596
2.45	1.031	2.45	0.606
2.49	1.032	2.49	0.612
2.53	1.040	2.53	0.617
2.57	1.042	2.57	0.632
2.61	1.042	2.61	0.633
2.65	1.045	2.65	0.637
2.70	1.068	2.70	0.641
2.75	1.089	2.75	0.645
2.80	1.093	2.80	0.649
2.85	1.099	2.85	0.660
2.90	1.113	2.90	0.664
2.95	1.115	2.95	0.665
3.01	1.123	3.01	0.679
3.07	1.147	3.07	0.680
3.13	1.155	3.13	0.684
3.19	1.163	3.19	0.687
3.26	1.202	3.26	0.699
3.32	1.210	3.32	0.718
3.40	1.226	3.40	0.721
3.47	1.233	3.47	0.747
3.55	1.239	3.55	0.765
3.63	1.243	3.63	0.796
3.72	1.261	3.72	0.799
3.80	1.263	3.80	0.814
3.90	1.298	3.90	0.850
4.00	1.361	4.00	0.899
4.10	1.374	4.10	0.899
4.21	1.398	4.21	0.921
4.32	1.402	4.32	0.931
4.45	1.490	4.45	0.978
4.58	1.498	4.58	0.988
4.71	1.536	4.71	1.018
4.86	1.552	4.86	1.023
5.01	1.578	5.01	1.091
5.17	1.592	5.17	1.095
5.35	1.623	5.35	1.098
5.54	1.637	5.54	1.103
5.74	1.646	5.74	1.132
5.95	1.660	5.95	1.175
6.19	1.661	6.19	1.188
6.44	1.711	6.44	1.222
6.71	1.712	6.71	1.227
7.01	1.718	7.01	1.272
7.33	1.730	7.33	1.428
7.69	1.752	7.69	1.483
8.08	1.820	8.08	1.516
8.52	1.867	8.52	1.547
9.00	1.872	9.00	1.599
9.55	1.877	9.55	1.606
10.16	1.929	10.16	1.608
10.86	1.941	10.86	1.610
11.66	2.045	11.66	1.701
12.59	2.110	12.59	1.705
13.68	2.141	13.68	1.734
14.97	2.280	14.97	1.840
16.54	2.377	16.54	1.857
18.47	2.379	18.47	1.874
20.92	2.523	20.92	1.881
24.10	2.545	24.10	1.944
28.44	2.651	28.44	2.117
34.68	2.896	34.68	2.120
44.42	3.111	44.42	2.199
61.77	3.169	61.77	2.262
101.36	3.432	101.36	2.280
282.36	3.904	282.36	4.533



**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff		Postdevelopment Runoff	
Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	0.943	2-Year	0.488
5-Year	1.576	5-Year	1.087
10-Year	1.915	10-Year	1.608
25-Year	2.568	25-Year	1.982
50-Year	3.132	50-Year	2.222
100-Year	3.425	100-Year	2.280
200-Year	3.746	200-Year	3.775

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Predevelopment Runoff		Postdevelopment Runoff	
Discharge (cfs)	Exceedance Probability	Discharge (cfs)	Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
0.020	2.3680E-01	0.023	6.9306E-01
0.039	1.8183E-01	0.045	6.6497E-01
0.059	1.4869E-01	0.068	6.2358E-01
0.078	1.2486E-01	0.091	5.7953E-01
0.098	1.0625E-01	0.113	5.3614E-01
0.117	9.1206E-02	0.136	4.8838E-01
0.137	7.8997E-02	0.159	4.4063E-01
0.156	6.8893E-02	0.181	3.9204E-01
0.176	6.0447E-02	0.204	3.4317E-01
0.195	5.3261E-02	0.227	2.9479E-01
0.215	4.7175E-02	0.249	2.4634E-01
0.234	4.1832E-02	0.272	2.0108E-01
0.254	3.7205E-02	0.295	1.5944E-01
0.273	3.3133E-02	0.317	1.2365E-01
0.293	2.9638E-02	0.340	9.2267E-02
0.312	2.6430E-02	0.363	6.7646E-02
0.332	2.3649E-02	0.385	4.7856E-02
0.351	2.1262E-02	0.408	3.2208E-02
0.371	1.9150E-02	0.431	2.0919E-02
0.390	1.7267E-02	0.453	1.2621E-02
0.410	1.5521E-02	0.471	8.9706E-03
0.429	1.4036E-02	0.499	7.3175E-03
0.449	1.2639E-02	0.521	6.4041E-03
0.471	1.1278E-02	0.544	5.7486E-03
0.488	1.0348E-02	0.567	5.1565E-03
0.508	9.4640E-03	0.589	4.7009E-03
0.527	8.5860E-03	0.612	4.2844E-03
0.547	7.8178E-03	0.635	3.9039E-03
0.566	7.1543E-03	0.657	3.5486E-03
0.586	6.5998E-03	0.680	3.2627E-03
0.605	6.0489E-03	0.703	3.0071E-03
0.625	5.5507E-03	0.725	2.7515E-03
0.644	5.1067E-03	0.748	2.5479E-03
0.664	4.7255E-03	0.771	2.3674E-03
0.683	4.3558E-03	0.793	2.1833E-03
0.703	4.0223E-03	0.816	2.0180E-03
0.722	3.7104E-03	0.839	1.8873E-03
0.742	3.4331E-03	0.861	1.7472E-03
0.761	3.1833E-03	0.884	1.6274E-03
0.781	2.9472E-03	0.907	1.5155E-03
0.800	2.7284E-03	0.929	1.3927E-03
0.820	2.5234E-03	0.943	1.3427E-03
0.839	2.3581E-03	0.975	1.2332E-03
0.859	2.1942E-03	0.997	1.1668E-03
0.879	2.0324E-03	1.020	1.0982E-03
0.898	1.9003E-03	1.043	1.0361E-03
0.918	1.7624E-03	1.065	9.7326E-04
0.943	1.6051E-03	1.088	9.1694E-04
0.957	1.5285E-03	1.111	8.6135E-04
0.976	1.4180E-03	1.133	8.1730E-04
0.996	1.3350E-03	1.156	7.6965E-04
1.015	1.2722E-03	1.179	7.2489E-04
1.035	1.2043E-03	1.201	6.8012E-04

1.054	1.1350E-03	1.224	6.3825E-04
1.074	1.0729E-03	1.247	6.0070E-04
1.093	1.0130E-03	1.269	5.7471E-04
1.113	9.6532E-04	1.292	5.3933E-04
1.132	9.1478E-04	1.315	5.1190E-04
1.152	8.6712E-04	1.337	4.8230E-04
1.171	8.1225E-04	1.360	4.5991E-04
1.191	7.6388E-04	1.383	4.4114E-04
1.210	7.2489E-04	1.405	4.2020E-04
1.230	6.8807E-04	1.428	3.9349E-04
1.249	6.5124E-04	1.451	3.7472E-04
1.269	6.2092E-04	1.473	3.5306E-04
1.288	5.8915E-04	1.496	3.3284E-04
1.308	5.6749E-04	1.519	3.1046E-04
1.328	5.4511E-04	1.541	2.8952E-04
1.347	5.2562E-04	1.564	2.7147E-04
1.367	5.0251E-04	1.576	2.6368E-04
1.386	4.7796E-04	1.609	2.3248E-04
1.406	4.5197E-04	1.632	2.1299E-04
1.425	4.3609E-04	1.655	1.9783E-04
1.445	4.1154E-04	1.677	1.8194E-04
1.464	3.9349E-04	1.700	1.6317E-04
1.484	3.6894E-04	1.723	1.5306E-04
1.503	3.5450E-04	1.745	1.4007E-04
1.523	3.3573E-04	1.768	1.3068E-04
1.542	3.1985E-04	1.791	1.1841E-04
1.562	3.0252E-04	1.813	1.0830E-04
1.576	2.9160E-04	1.836	9.8192E-05
1.601	2.7653E-04	1.859	8.3752E-05
1.620	2.6281E-04	1.881	7.7976E-05
1.640	2.5198E-04	1.904	6.9312E-05
1.659	2.3609E-04	1.927	6.7868E-05
1.679	2.2599E-04	1.949	5.9204E-05
1.698	2.1371E-04	1.972	5.4872E-05
1.718	2.0360E-04	1.995	5.0540E-05
1.737	1.9638E-04	2.017	4.6208E-05
1.757	1.8339E-04	2.040	4.2598E-05
1.777	1.7689E-04	2.063	3.7544E-05
1.796	1.6245E-04	2.085	3.4656E-05
1.816	1.5306E-04	2.108	2.7436E-05
1.835	1.4440E-04	2.131	2.2382E-05
1.855	1.3140E-04	2.153	2.1660E-05
1.874	1.2563E-04	2.176	1.8050E-05
1.894	1.1552E-04	2.199	1.7328E-05
1.913	1.0830E-04	2.221	1.4440E-05
1.933	1.0108E-04	2.244	1.3718E-05
1.952	9.3860E-05	2.267	1.1552E-05
1.972	8.9528E-05	2.289	1.0108E-05
1.991	8.1586E-05	2.312	9.3860E-06
2.011	7.4366E-05	2.335	8.6640E-06
2.030	7.1478E-05	2.357	8.6640E-06
2.050	6.5702E-05	2.380	7.9420E-06
2.069	6.2814E-05	2.403	7.9420E-06
2.089	5.9926E-05	2.425	7.9420E-06
2.108	5.7760E-05	2.448	7.2200E-06
2.128	5.0540E-05	2.471	7.2200E-06
2.147	4.7652E-05	2.493	7.2200E-06
2.167	4.2598E-05	2.516	7.2200E-06
2.187	3.8266E-05	2.539	6.4980E-06
2.206	3.4656E-05	2.561	5.7760E-06
2.226	3.2490E-05	2.584	5.7760E-06
2.245	3.0324E-05	2.607	5.0540E-06
2.265	2.8158E-05	2.629	5.0540E-06
2.284	2.4548E-05	2.652	5.0540E-06
2.304	2.3826E-05	2.675	4.3320E-06
2.323	2.1660E-05	2.697	4.3320E-06
2.343	1.9494E-05	2.720	4.3320E-06
2.362	1.8772E-05	2.743	4.3320E-06
2.382	1.5162E-05	2.765	4.3320E-06
2.401	1.4440E-05	2.788	3.6100E-06
2.421	1.3718E-05	2.811	3.6100E-06
2.440	1.2274E-05	2.833	3.6100E-06
2.460	1.1552E-05	2.856	3.6100E-06
2.479	1.0830E-05	2.879	2.8880E-06
2.499	1.0830E-05	2.901	2.8880E-06
2.518	1.0108E-05	2.924	2.8880E-06
2.538	8.6640E-06	2.947	2.8880E-06
2.557	7.9420E-06	2.969	2.8880E-06
2.577	7.9420E-06	2.992	2.8880E-06
2.596	7.9420E-06	3.015	2.8880E-06
2.616	7.9420E-06	3.037	2.8880E-06
2.636	7.9420E-06	3.060	2.8880E-06
2.655	7.2200E-06	3.083	2.8880E-06
2.675	7.2200E-06	3.105	2.8880E-06
2.694	7.2200E-06	3.132	2.8880E-06
2.714	7.2200E-06	3.151	2.8880E-06
2.733	7.2200E-06	3.173	2.8880E-06
2.753	7.2200E-06	3.196	2.8880E-06
2.772	7.2200E-06	3.219	2.8880E-06
2.792	7.2200E-06	3.241	2.8880E-06
2.811	7.2200E-06	3.264	2.8880E-06
2.831	7.2200E-06	3.287	2.8880E-06
2.850	6.4980E-06	3.309	2.8880E-06
2.870	6.4980E-06	3.332	2.8880E-06
2.889	6.4980E-06	3.355	2.8880E-06

2.909	5.7760E-06	3.377	2.8880E-06
2.928	5.0540E-06	3.400	2.8880E-06
2.948	5.0540E-06	3.423	2.8880E-06
2.967	5.0540E-06	3.445	2.8880E-06
2.987	5.0540E-06	3.468	2.8880E-06
3.006	4.3320E-06	3.491	2.8880E-06
3.026	4.3320E-06	3.513	2.8880E-06
3.045	4.3320E-06	3.536	2.8880E-06
3.065	3.6100E-06	3.559	2.1660E-06
3.085	3.6100E-06	3.581	2.1660E-06
3.104	3.6100E-06	3.604	2.1660E-06
3.132	2.8016E-06	3.627	2.1660E-06
3.143	2.8880E-06	3.649	2.1660E-06
3.163	2.8880E-06	3.672	2.1660E-06
3.182	2.1660E-06	3.695	2.1660E-06
3.202	2.1660E-06	3.717	2.1660E-06
3.221	2.1660E-06	3.740	2.1660E-06
3.241	2.1660E-06	3.763	2.1660E-06
3.260	2.1660E-06	3.785	2.1660E-06
3.280	2.1660E-06	3.808	2.1660E-06
3.299	2.1660E-06	3.831	2.1660E-06
3.319	2.1660E-06	3.853	2.1660E-06
3.338	2.1660E-06	3.876	2.1660E-06
3.358	2.1660E-06	3.899	1.4440E-06
3.377	2.1660E-06	3.921	1.4440E-06
3.397	2.1660E-06	3.944	1.4440E-06
3.416	2.1660E-06	3.967	1.4440E-06
3.436	7.2200E-07	3.989	1.4440E-06
3.455	7.2200E-07	4.012	1.4440E-06
3.475	7.2200E-07	4.035	1.4440E-06
3.494	7.2200E-07	4.057	1.4440E-06
3.514	7.2200E-07	4.080	1.4440E-06
3.534	7.2200E-07	4.103	1.4440E-06
3.553	7.2200E-07	4.125	1.4440E-06
3.573	7.2200E-07	4.148	1.4440E-06
3.592	7.2200E-07	4.171	1.4440E-06
3.612	7.2200E-07	4.193	1.4440E-06
3.631	7.2200E-07	4.216	1.4440E-06
3.651	7.2200E-07	4.239	1.4440E-06
3.670	7.2200E-07	4.261	1.4440E-06
3.690	7.2200E-07	4.284	7.2200E-07
3.709	7.2200E-07	4.307	7.2200E-07
3.729	7.2200E-07	4.329	7.2200E-07
3.748	7.2200E-07	4.352	7.2200E-07
3.768	7.2200E-07	4.375	7.2200E-07
3.787	7.2200E-07	4.397	7.2200E-07
3.807	7.2200E-07	4.420	7.2200E-07
3.826	7.2200E-07	4.443	7.2200E-07
3.846	7.2200E-07	4.465	7.2200E-07
3.865	7.2200E-07	4.488	7.2200E-07
3.885	7.2200E-07	4.511	7.2200E-07
3.904	7.2200E-07	4.533	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped ½Q2 (Must be Less Than 0%):		-23.5%	PASS
Maximum Excursion from ½Q2 to Q2 (Must be Less Than 0%):		-16.2%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	3.1%		PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.9%		PASS

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**\* POND MEETS ALL DURATION DESIGN CRITERIA:                      PASS**

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**MGS FLOOD  
PROJECT REPORT**

Program Version: 3.12

Run Date: 11/17/2009 5:36 PM

**Input File Name:** pond2.fld  
**Project Name:** Burien NERA  
**Analysis Title:** Combined Stormwater Wetland and Detention Pond 2  
**Comments:** 95% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	Area(Acres)	-----Developed-----	
		Predeveloped	To Node
<b>Till Forest</b>	17.134	0.000	0.000
Till Pasture	0.000	0.000	0.000
Till Grass	0.000	0.000	0.000
Outwash Forest	0.000	0.000	0.000
Outwash Pasture	0.000	0.000	0.000
Outwash Grass	0.000	1.948	0.000
Wetland	0.000	1.086	0.000
Impervious	0.000	14.100	0.000
<b>Subbasin Total</b>	<b>17.134</b>	<b>17.134</b>	<b>0.000</b>

-----Lateral Flow Connections-----

	Node	-----Predeveloped-----			-----Developed-----		
		Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node	
Till Pasture	Node	Node	Node	Node	Node	Node	
Till Grass	Node	Node	Node	Node	Node	Node	
Outwash Forest	Node	Node	Node	Node	Node	Node	
Outwash Pasture	Node	Node	Node	Node	Node	Node	
Outwash Grass	Node	Node	Node	Node	Node	Node	
Wetland	Node	Node	Node	Node	Node	Node	
Impervious	Node	Node	Node	Node	Node	Node	
Lateral 1							
Lateral 2							

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2
<b>Predeveloped Compliance Node:</b>		1
<b>Postdeveloped Compliance Node:</b>		2

\*\*\* Predeveloped Structure Summary \*\*\*

\*\*\* Postdeveloped Structure Summary \*\*\*

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation	: 100.00	ft
Riser Crest Elevation	: 104.00	ft
Max Pond Elevation	: 104.50	ft
Max Storage Depth	:	4.00 ft
Pond Bottom Length	: 247.1	ft

Pond Bottom Width : 247.1 ft  
 Pond Side Slopes : L1= 3.00 L2= 3.00 W1= 3.00 W2= 3.00 ft/ft  
 Pond Bottom Area : 61060. sq-ft  
 Area at Riser Crest El : 73,497. sq-ft  
 : 1.687 acres  
 Volume at Riser Crest : 268,731. cu-ft  
 : 6.169 ac-ft  
 Area at Max Elevation : 75133. sq-ft  
 : 1.725 acres  
 Vol at Max Elevation : 305,888. cu-ft  
 : 7.022 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 24.00 in  
 Common Length : 0.120 ft  
 Riser Crest Elevation : 104.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1---

Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 2.10 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 102.22 ft  
 Length : 1.44 in  
 Height : 21.41 in  
 Orientation : Vertical  
 Elbow : No

\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\*

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infil Discharge (cfs)
100.000		0.000	0.000	0.000
100.018		0.024	0.016	0.000
100.035		0.049	0.022	0.000
100.070		0.098	0.031	0.000
100.140		0.195	0.044	0.000
100.210		0.294	0.054	0.000
100.280		0.392	0.062	0.000
100.350		0.491	0.069	0.000
100.420		0.590	0.076	0.000
100.490		0.690	0.082	0.000
100.560		0.790	0.088	0.000
100.630		0.890	0.093	0.000
100.700		0.991	0.098	0.000
100.770		1.091	0.103	0.000
100.840		1.193	0.108	0.000
100.910		1.294	0.112	0.000
100.980		1.396	0.116	0.000
101.050		1.498	0.120	0.000
101.120		1.601	0.124	0.000
101.190		1.704	0.128	0.000
101.260		1.807	0.132	0.000
101.330		1.911	0.135	0.000
101.400		2.015	0.139	0.000
101.470		2.119	0.142	0.000
101.540		2.224	0.146	0.000
101.610		2.329	0.149	0.000
101.680		2.434	0.152	0.000
101.750		2.540	0.155	0.000
101.820		2.646	0.158	0.000
101.890		2.752	0.161	0.000
101.960		2.859	0.164	0.000
102.030		2.966	0.167	0.000
102.100		3.074	0.170	0.000
102.129		3.118	0.171	0.000
102.158		3.163	0.172	0.000
102.187		3.208	0.174	0.000
102.216		3.253	0.175	0.000
102.234		3.280	0.176	0.000
102.251		3.307	0.179	0.000
102.269		3.334	0.181	0.000
102.286		3.361	0.184	0.000
102.356		3.470	0.197	0.000
102.426		3.579	0.213	0.000
102.496		3.688	0.233	0.000
102.566		3.798	0.254	0.000
102.636		3.908	0.277	0.000
102.706		4.019	0.302	0.000
102.776		4.129	0.329	0.000
102.846		4.241	0.357	0.000

102.916	4.352	0.387	0.000
102.986	4.464	0.418	0.000
103.056	4.576	0.451	0.000
103.126	4.689	0.484	0.000
103.196	4.802	0.519	0.000
103.266	4.915	0.555	0.000
103.336	5.029	0.592	0.000
103.406	5.143	0.630	0.000
103.476	5.257	0.670	0.000
103.546	5.372	0.710	0.000
103.616	5.487	0.751	0.000
103.686	5.603	0.794	0.000
103.756	5.718	0.837	0.000
103.826	5.835	0.881	0.000
103.896	5.951	0.926	0.000
103.922	5.995	0.943	0.000
103.948	6.038	0.960	0.000
103.974	6.081	0.977	0.000
104.000	6.125	0.994	0.000
104.018	6.154	1.054	0.000
104.035	6.183	1.154	0.000
104.053	6.213	1.280	0.000
104.070	6.242	1.427	0.000
104.088	6.272	1.592	0.000
104.105	6.301	1.773	0.000
104.123	6.331	1.968	0.000
104.140	6.360	2.177	0.000
104.210	6.478	3.128	0.000
104.280	6.597	4.225	0.000
104.350	6.716	5.422	0.000
104.420	6.835	6.672	0.000
104.490	6.955	7.929	0.000
104.560	7.075	9.144	0.000
104.630	7.195	10.274	0.000
104.700	7.316	11.281	0.000
104.770	7.437	12.117	0.000
104.840	7.559	12.790	0.000
104.910	7.681	13.317	0.000
104.980	7.803	13.742	0.000
105.050	7.926	14.310	0.000
105.050	6.442	14.617	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date	WSEL (ft)
12/07/1939	102.387
01/18/1941	101.382
12/20/1941	101.830
11/23/1942	102.617
10/17/1943	101.247
02/07/1945	102.393
02/05/1946	101.598
12/05/1946	102.036
10/19/1947	102.532
02/22/1949	102.055
01/22/1950	102.454
02/09/1951	102.949
10/03/1951	101.666
01/12/1953	102.612
01/22/1954	101.821
11/19/1954	101.804
01/06/1956	102.951
02/26/1957	102.103
01/17/1958	102.049
01/13/1959	102.581
11/21/1959	102.427
11/24/1960	102.718
12/24/1961	101.575
11/30/1962	101.599
11/14/1963	101.676
12/01/1964	102.102
01/07/1966	102.133
12/13/1966	102.574
10/27/1967	101.925
12/11/1968	102.143
01/27/1970	102.493
12/07/1970	102.332
03/05/1972	103.528
12/26/1972	102.864
03/01/1974	102.174
12/27/1974	101.931
02/27/1976	102.308
08/26/1977	101.559
12/15/1977	102.659
03/05/1979	101.526
12/18/1979	103.493
12/30/1980	102.153
10/06/1981	103.316
03/09/1983	102.314



03/21/1984	101.690
11/11/1984	101.740
01/19/1986	102.538
11/24/1986	103.320
04/06/1988	102.163
04/05/1989	102.274
01/09/1990	103.433
11/24/1990	103.654
01/31/1992	102.555
04/11/1993	101.469
03/03/1994	101.670
12/27/1994	102.665
02/09/1996	103.759
01/02/1997	103.518
10/08/1997	101.698
11/26/1998	103.529
02/28/2000	102.224
05/05/2001	101.632
11/15/2001	101.530
11/26/2002	103.324
10/24/2003	102.161
02/08/2005	101.588
11/28/2005	102.540
11/27/2006	102.160
01/07/2008	102.442
02/18/2009	103.406
01/10/2010	102.505
11/17/2010	103.044
10/02/2011	102.346
01/20/2013	103.698
01/28/2014	102.237
03/30/2015	101.647
01/04/2016	103.287
11/01/2016	102.015
01/31/2018	102.091
01/12/2019	102.469
04/21/2020	101.714
11/24/2020	102.963
12/21/2021	102.018
03/30/2023	102.213
01/25/2024	102.476
12/22/2024	103.253
01/03/2026	102.879
01/29/2027	101.839
02/23/2028	102.143
12/11/2028	102.145
01/26/2030	103.032
03/04/2031	102.133
01/21/2032	102.695
12/23/2032	102.050
11/16/2033	103.477
02/19/2035	102.208
02/27/2036	102.350
08/25/2037	101.035
12/15/2037	102.547
12/04/2038	101.420
01/14/2040	102.202
12/25/2040	102.506
04/15/2042	102.498
02/26/2043	102.286
03/21/2044	101.983
03/27/2045	102.212
02/17/2046	102.044
02/02/2047	101.844
12/10/2047	102.793
03/17/2049	101.865
12/04/2049	101.774
04/09/2051	101.661
04/17/2052	101.355
12/10/2052	101.753
12/11/2053	101.896
11/01/2054	103.318
02/07/2056	103.774
11/19/2056	103.404
05/21/2058	102.026
11/26/2058	102.930
01/23/2060	101.593
10/27/2060	102.420
01/03/2062	102.036
12/30/2062	102.183
12/23/2063	103.005
12/01/2064	101.929
01/13/2066	101.337
12/15/2066	102.857
01/19/2068	102.858
09/23/2069	101.503
12/14/2069	101.436
12/19/2070	101.400
11/03/2071	101.891
12/25/2072	104.101
12/15/2073	102.537
11/20/2074	101.588
10/30/2075	102.925
08/26/2077	101.173
12/02/2077	101.922

02/25/2079	101.484
12/17/2079	103.656
11/21/2080	103.076
02/19/2082	102.818
02/20/2083	102.783
11/26/2083	103.213
12/14/2084	102.484
11/01/2085	102.106
11/23/2086	102.453
12/09/2087	101.979
11/05/2088	102.547
11/10/2089	102.341
12/09/2090	103.245
01/31/2092	103.060
11/07/2092	101.479
12/14/2093	101.666
12/27/2094	102.294
12/14/2095	102.500
10/28/2096	102.748

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

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1.00	101.035
1.01	101.173
1.02	101.247
1.02	101.337
1.03	101.355
1.04	101.382
1.04	101.400
1.05	101.420
1.06	101.436
1.06	101.469
1.07	101.479
1.08	101.484
1.09	101.503
1.09	101.526
1.10	101.530
1.11	101.559
1.12	101.575
1.12	101.588
1.13	101.588
1.14	101.593
1.15	101.598
1.16	101.599
1.17	101.632
1.18	101.647
1.18	101.661
1.19	101.666
1.20	101.666
1.21	101.670
1.22	101.676
1.23	101.690
1.24	101.698
1.25	101.714
1.26	101.740
1.27	101.753
1.28	101.774
1.29	101.804
1.30	101.821
1.31	101.830
1.32	101.839
1.33	101.844
1.35	101.865
1.36	101.891
1.37	101.896
1.38	101.922
1.39	101.925
1.40	101.929
1.42	101.931
1.43	101.979
1.44	101.983
1.46	102.015
1.47	102.018
1.48	102.026
1.50	102.036
1.51	102.036
1.53	102.044
1.54	102.049
1.56	102.050
1.57	102.055
1.59	102.091
1.60	102.102
1.62	102.103
1.64	102.106
1.65	102.133
1.67	102.133
1.69	102.143
1.71	102.143
1.73	102.145
1.75	102.153
1.77	102.160
1.79	102.161
1.81	102.163

1.83	102.174
1.85	102.183
1.87	102.202
1.89	102.208
1.92	102.212
1.94	102.213
1.96	102.224
1.99	102.237
2.01	102.274
2.04	102.286
2.07	102.294
2.09	102.308
2.12	102.314
2.15	102.332
2.18	102.341
2.21	102.346
2.24	102.350
2.27	102.387
2.31	102.393
2.34	102.420
2.38	102.427
2.41	102.442
2.45	102.453
2.49	102.454
2.53	102.469
2.57	102.476
2.61	102.484
2.65	102.493
2.70	102.498
2.75	102.500
2.80	102.505
2.85	102.506
2.90	102.532
2.95	102.537
3.01	102.538
3.07	102.540
3.13	102.547
3.19	102.547
3.26	102.555
3.32	102.574
3.40	102.581
3.47	102.612
3.55	102.617
3.63	102.659
3.72	102.665
3.80	102.695
3.90	102.718
4.00	102.748
4.10	102.783
4.21	102.793
4.32	102.818
4.45	102.857
4.58	102.858
4.71	102.864
4.86	102.879
5.01	102.925
5.17	102.930
5.35	102.949
5.54	102.951
5.74	102.963
5.95	103.005
6.19	103.032
6.44	103.044
6.71	103.060
7.01	103.076
7.33	103.213
7.69	103.245
8.08	103.253
8.52	103.287
9.00	103.316
9.55	103.318
10.16	103.320
10.86	103.324
11.66	103.404
12.59	103.406
13.68	103.433
14.97	103.477
16.54	103.493
18.47	103.518
20.92	103.528
24.10	103.529
28.44	103.654
34.68	103.656
44.42	103.698
61.77	103.759
101.36	103.774
282.36	104.101

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
 Tr (yrs) Link: 1

1.05-Year	101.425
1.11-Year	101.564
1.25-Year	101.716
2.00-Year	102.256
3.33-Year	102.575
5-Year	102.923
10-Year	103.320
25-Year	103.529
50-Year	103.727
100-Year	103.774

**Postdeveloped Infiltrated Water Statistics**  
 Volume Statistics Computed for Entire Simulation  
 Statistic Link: 1

Total Inflow Volume (ac-ft)	6234.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data\*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 3.680 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 13569. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 20354. cu-ft  
 2-Year Discharge Rate : 0.179 cfs

\*\*\*\*\*Compliance Point Results\*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data\*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	0.463	12/07/1939	0.204
01/31/1941	0.178	01/18/1941	0.138
12/15/1941	0.466	12/20/1941	0.159
02/10/1943	0.185	11/23/1942	0.271
01/23/1944	0.139	10/17/1943	0.131
02/07/1945	0.577	02/07/1945	0.206
02/05/1946	0.354	02/05/1946	0.148
02/02/1947	0.361	12/05/1946	0.167
03/21/1948	0.624	10/19/1947	0.244
02/22/1949	0.313	02/22/1949	0.168
03/03/1950	1.290	01/22/1950	0.221
02/09/1951	0.516	02/09/1951	0.402
01/24/1952	0.136	10/03/1951	0.151
01/11/1953	0.193	01/12/1953	0.269
01/22/1954	0.313	01/22/1954	0.158
04/12/1955	0.146	11/19/1954	0.158
03/04/1956	0.336	01/06/1956	0.403
02/25/1957	0.278	02/26/1957	0.170
01/16/1958	0.337	01/17/1958	0.168
01/12/1959	0.363	01/13/1959	0.259
12/15/1959	0.388	11/21/1959	0.214
02/14/1961	0.332	11/24/1960	0.307
03/04/1962	0.178	12/24/1961	0.147
02/03/1963	0.197	11/30/1962	0.148
01/01/1964	0.315	11/14/1963	0.152
02/26/1965	0.391	12/01/1964	0.170
01/06/1966	0.241	01/07/1966	0.171
01/19/1967	0.610	12/13/1966	0.257
02/03/1968	0.315	10/27/1967	0.163
12/03/1968	0.339	12/11/1968	0.172
01/13/1970	0.262	01/27/1970	0.232
12/06/1970	0.298	12/07/1970	0.192
02/28/1972	0.805	03/05/1972	0.700
01/13/1973	0.290	12/26/1972	0.365
02/18/1974	0.434	03/01/1974	0.173
12/26/1974	0.525	12/27/1974	0.163
01/27/1976	0.364	02/27/1976	0.188
05/31/1977	0.051	08/26/1977	0.147
12/10/1977	0.308	12/15/1977	0.285
03/04/1979	0.303	03/05/1979	0.145
12/17/1979	0.488	12/18/1979	0.679
12/26/1980	0.193	12/30/1980	0.172
10/06/1981	0.618	10/06/1981	0.582
01/05/1983	0.347	03/09/1983	0.189
03/14/1984	0.331	03/21/1984	0.153

02/11/1985	0.221	11/11/1984	0.155
01/18/1986	0.729	01/19/1986	0.245
11/24/1986	0.643	11/24/1986	0.584
04/06/1988	0.321	04/06/1988	0.173
04/05/1989	0.354	04/05/1989	0.182
01/09/1990	1.169	01/09/1990	0.645
11/24/1990	0.996	11/24/1990	0.774
01/27/1992	0.304	01/31/1992	0.251
06/09/1993	0.257	04/11/1993	0.142
03/03/1994	0.195	03/03/1994	0.152
02/19/1995	0.409	12/27/1994	0.288
02/09/1996	0.948	02/09/1996	0.839
01/02/1997	0.593	01/02/1997	0.694
02/28/1998	0.218	10/08/1997	0.153
11/25/1998	0.583	11/26/1998	0.700
03/26/2000	0.327	02/28/2000	0.175
05/05/2001	0.250	05/05/2001	0.150
05/03/2002	0.893	11/15/2001	0.145
03/31/2003	0.684	11/26/2002	0.586
01/23/2004	0.167	10/24/2003	0.173
02/07/2005	0.288	02/08/2005	0.148
02/27/2006	0.370	11/28/2005	0.246
12/14/2006	0.274	11/27/2006	0.172
03/21/2008	0.455	01/07/2008	0.218
02/17/2009	0.706	02/18/2009	0.630
01/10/2010	0.474	01/10/2010	0.235
11/17/2010	0.615	11/17/2010	0.445
01/31/2012	0.391	10/02/2011	0.195
01/20/2013	0.894	01/20/2013	0.801
12/06/2013	0.376	01/28/2014	0.177
03/30/2015	0.228	03/30/2015	0.151
01/04/2016	0.650	01/04/2016	0.566
03/07/2017	0.188	11/01/2016	0.167
01/31/2018	0.351	01/31/2018	0.170
03/30/2019	0.347	01/12/2019	0.225
04/14/2020	0.228	04/21/2020	0.154
02/10/2021	0.563	11/24/2020	0.408
03/26/2022	0.166	12/21/2021	0.167
03/30/2023	0.401	03/30/2023	0.175
01/19/2024	0.315	01/25/2024	0.227
12/22/2024	0.659	12/22/2024	0.548
03/09/2026	0.418	01/03/2026	0.371
01/27/2027	0.364	01/29/2027	0.159
02/19/2028	0.452	02/23/2028	0.172
12/04/2028	0.350	12/11/2028	0.172
02/16/2030	0.467	01/26/2030	0.439
12/30/2030	0.437	03/04/2031	0.171
01/20/2032	0.702	01/21/2032	0.299
03/01/2033	0.198	12/23/2032	0.168
01/15/2034	0.793	11/16/2033	0.670
02/19/2035	0.387	02/19/2035	0.174
03/24/2036	0.366	02/27/2036	0.196
03/09/2037	0.015	08/25/2037	0.119
12/15/2037	0.267	12/15/2037	0.248
02/07/2039	0.193	12/04/2038	0.140
01/14/2040	0.725	01/14/2040	0.174
12/25/2040	0.411	12/25/2040	0.236
02/20/2042	0.431	04/15/2042	0.233
03/31/2043	0.646	02/26/2043	0.184
05/01/2044	0.255	03/21/2044	0.165
02/11/2045	0.295	03/27/2045	0.175
02/16/2046	0.371	02/17/2046	0.168
02/01/2047	0.233	02/02/2047	0.159
04/21/2048	0.207	12/10/2047	0.336
03/16/2049	0.233	03/17/2049	0.160
12/04/2049	0.393	12/04/2049	0.156
04/06/2051	0.305	04/09/2051	0.151
04/17/2052	0.183	04/17/2052	0.137
06/04/2053	0.703	12/10/2052	0.155
04/08/2054	0.131	12/11/2053	0.162
02/17/2055	0.598	11/01/2054	0.582
02/07/2056	1.088	02/07/2056	0.848
11/19/2056	1.191	11/19/2056	0.629
01/24/2058	0.413	05/21/2058	0.167
12/28/2058	0.475	11/26/2058	0.393
01/19/2060	0.178	01/23/2060	0.148
01/10/2061	0.386	10/27/2060	0.212
02/03/2062	1.467	01/03/2062	0.167
12/29/2062	0.310	12/30/2062	0.173
12/23/2063	0.560	12/23/2063	0.427
11/30/2064	0.268	12/01/2064	0.163
01/13/2066	0.147	01/13/2066	0.136
01/19/2067	0.373	12/15/2066	0.362
01/18/2068	0.769	01/19/2068	0.362
01/04/2069	0.207	09/23/2069	0.144
04/09/2070	0.174	12/14/2069	0.141
02/14/2071	0.191	12/19/2070	0.139
02/27/2072	0.205	11/03/2071	0.161
12/25/2072	0.857	12/25/2072	1.726
03/16/2074	0.461	12/15/2073	0.245
01/23/2075	0.100	11/20/2074	0.148
03/24/2076	0.512	10/30/2075	0.391
03/02/2077	0.057	08/26/2077	0.127
12/02/2077	0.193	12/02/2077	0.163
02/25/2079	0.258	02/25/2079	0.143

12/17/2079	0.956	12/17/2079	0.775
11/21/2080	0.422	11/21/2080	0.460
02/13/2082	0.527	02/19/2082	0.346
02/19/2083	0.323	02/20/2083	0.332
11/26/2083	0.392	11/26/2083	0.528
12/14/2084	0.271	12/14/2084	0.229
01/18/2086	0.382	11/01/2085	0.170
12/21/2086	0.358	11/23/2086	0.221
01/14/2088	0.236	12/09/2087	0.165
11/05/2088	0.419	11/05/2088	0.248
01/07/2090	0.197	11/10/2089	0.194
12/04/2090	0.364	12/09/2090	0.544
04/28/2092	0.624	01/31/2092	0.453
03/22/2093	0.175	11/07/2092	0.143
03/01/2094	0.147	12/14/2093	0.152
02/18/2095	0.232	12/27/2094	0.185
01/14/2096	0.293	12/14/2095	0.234
01/29/2097	0.644	10/28/2096	0.319

\*\*\*Point of Compliance Ranked Maxima Flow Data\*\*\*

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.015	1.00	0.119
1.01	0.051	1.01	0.127
1.02	0.057	1.02	0.131
1.02	0.100	1.02	0.136
1.03	0.131	1.03	0.137
1.04	0.136	1.04	0.138
1.04	0.139	1.04	0.139
1.05	0.146	1.05	0.140
1.06	0.147	1.06	0.141
1.06	0.147	1.06	0.142
1.07	0.166	1.07	0.143
1.08	0.167	1.08	0.143
1.09	0.174	1.09	0.144
1.09	0.175	1.09	0.145
1.10	0.178	1.10	0.145
1.11	0.178	1.11	0.147
1.12	0.178	1.12	0.147
1.12	0.183	1.12	0.148
1.13	0.185	1.13	0.148
1.14	0.188	1.14	0.148
1.15	0.191	1.15	0.148
1.16	0.193	1.16	0.148
1.17	0.193	1.17	0.150
1.18	0.193	1.18	0.151
1.18	0.193	1.18	0.151
1.19	0.195	1.19	0.151
1.20	0.197	1.20	0.152
1.21	0.197	1.21	0.152
1.22	0.198	1.22	0.152
1.23	0.205	1.23	0.153
1.24	0.207	1.24	0.153
1.25	0.207	1.25	0.154
1.26	0.218	1.26	0.155
1.27	0.221	1.27	0.155
1.28	0.228	1.28	0.156
1.29	0.228	1.29	0.158
1.30	0.232	1.30	0.158
1.31	0.233	1.31	0.159
1.32	0.233	1.32	0.159
1.33	0.236	1.33	0.159
1.35	0.241	1.35	0.160
1.36	0.250	1.36	0.161
1.37	0.255	1.37	0.162
1.38	0.257	1.38	0.163
1.39	0.258	1.39	0.163
1.40	0.262	1.40	0.163
1.42	0.267	1.42	0.163
1.43	0.268	1.43	0.165
1.44	0.271	1.44	0.165
1.46	0.274	1.46	0.167
1.47	0.278	1.47	0.167
1.48	0.288	1.48	0.167
1.50	0.290	1.50	0.167
1.51	0.293	1.51	0.167
1.53	0.295	1.53	0.168
1.54	0.298	1.54	0.168
1.56	0.303	1.56	0.168
1.57	0.304	1.57	0.168
1.59	0.305	1.59	0.170
1.60	0.308	1.60	0.170
1.62	0.310	1.62	0.170
1.64	0.313	1.64	0.170
1.65	0.313	1.65	0.171
1.67	0.315	1.67	0.171
1.69	0.315	1.69	0.172
1.71	0.315	1.71	0.172
1.73	0.321	1.73	0.172
1.75	0.323	1.75	0.172
1.77	0.327	1.77	0.172



1.79	0.331	1.79	0.173
1.81	0.332	1.81	0.173
1.83	0.336	1.83	0.173
1.85	0.337	1.85	0.173
1.87	0.339	1.87	0.174
1.89	0.347	1.89	0.174
1.92	0.347	1.92	0.175
1.94	0.350	1.94	0.175
1.96	0.351	1.96	0.175
1.99	0.354	1.99	0.177
2.01	0.354	2.01	0.182
2.04	0.358	2.04	0.184
2.07	0.361	2.07	0.185
2.09	0.363	2.09	0.188
2.12	0.364	2.12	0.189
2.15	0.364	2.15	0.192
2.18	0.364	2.18	0.194
2.21	0.366	2.21	0.195
2.24	0.370	2.24	0.196
2.27	0.371	2.27	0.204
2.31	0.373	2.31	0.206
2.34	0.376	2.34	0.212
2.38	0.382	2.38	0.214
2.41	0.386	2.41	0.218
2.45	0.387	2.45	0.221
2.49	0.388	2.49	0.221
2.53	0.391	2.53	0.225
2.57	0.391	2.57	0.227
2.61	0.392	2.61	0.229
2.65	0.393	2.65	0.232
2.70	0.401	2.70	0.233
2.75	0.409	2.75	0.234
2.80	0.411	2.80	0.235
2.85	0.413	2.85	0.236
2.90	0.418	2.90	0.244
2.95	0.419	2.95	0.245
3.01	0.422	3.01	0.245
3.07	0.431	3.07	0.246
3.13	0.434	3.13	0.248
3.19	0.437	3.19	0.248
3.26	0.452	3.26	0.251
3.32	0.455	3.32	0.257
3.40	0.461	3.40	0.259
3.47	0.463	3.47	0.269
3.55	0.466	3.55	0.271
3.63	0.467	3.63	0.285
3.72	0.474	3.72	0.288
3.80	0.475	3.80	0.299
3.90	0.488	3.90	0.307
4.00	0.512	4.00	0.319
4.10	0.516	4.10	0.332
4.21	0.525	4.21	0.336
4.32	0.527	4.32	0.346
4.45	0.560	4.45	0.362
4.58	0.563	4.58	0.362
4.71	0.577	4.71	0.365
4.86	0.583	4.86	0.371
5.01	0.593	5.01	0.391
5.17	0.598	5.17	0.393
5.35	0.610	5.35	0.402
5.54	0.615	5.54	0.403
5.74	0.618	5.74	0.408
5.95	0.624	5.95	0.427
6.19	0.624	6.19	0.439
6.44	0.643	6.44	0.445
6.71	0.644	6.71	0.453
7.01	0.646	7.01	0.460
7.33	0.650	7.33	0.528
7.69	0.659	7.69	0.544
8.08	0.684	8.08	0.548
8.52	0.702	8.52	0.566
9.00	0.703	9.00	0.582
9.55	0.706	9.55	0.582
10.16	0.725	10.16	0.584
10.86	0.729	10.86	0.586
11.66	0.769	11.66	0.629
12.59	0.793	12.59	0.630
13.68	0.805	13.68	0.645
14.97	0.857	14.97	0.670
16.54	0.893	16.54	0.679
18.47	0.894	18.47	0.694
20.92	0.948	20.92	0.700
24.10	0.956	24.10	0.700
28.44	0.996	28.44	0.774
34.68	1.088	34.68	0.775
44.42	1.169	44.42	0.801
61.77	1.191	61.77	0.839
101.36	1.290	101.36	0.848
282.36	1.467	282.36	1.726

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	0.354	2-Year	0.179
5-Year	0.592	5-Year	0.390
10-Year	0.720	10-Year	0.583
25-Year	0.965	25-Year	0.716
50-Year	1.177	50-Year	0.815
100-Year	1.287	100-Year	0.848
200-Year	1.408	200-Year	1.431

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
7.337E-03	2.3680E-01	8.630E-03	6.8658E-01
0.015	1.8183E-01	0.017	6.5773E-01
0.022	1.4869E-01	0.026	6.1508E-01
0.029	1.2486E-01	0.035	5.6984E-01
0.037	1.0625E-01	0.043	5.2479E-01
0.044	9.1206E-02	0.052	4.7584E-01
0.051	7.8997E-02	0.060	4.2710E-01
0.059	6.8893E-02	0.069	3.7780E-01
0.066	6.0447E-02	0.078	3.2818E-01
0.073	5.3261E-02	0.086	2.7870E-01
0.081	4.7175E-02	0.095	2.3036E-01
0.088	4.1832E-02	0.104	1.8592E-01
0.095	3.7205E-02	0.112	1.4580E-01
0.103	3.3133E-02	0.121	1.1122E-01
0.110	2.9638E-02	0.129	8.1647E-02
0.117	2.6430E-02	0.138	5.9340E-02
0.125	2.3649E-02	0.147	4.1025E-02
0.132	2.1262E-02	0.155	2.7371E-02
0.139	1.9150E-02	0.164	1.7379E-02
0.147	1.7267E-02	0.173	1.0167E-02
0.154	1.5521E-02	0.177	8.4551E-03
0.161	1.4036E-02	0.190	6.6684E-03
0.169	1.2639E-02	0.198	5.8352E-03
0.177	1.1278E-02	0.207	5.2251E-03
0.183	1.0348E-02	0.216	4.6908E-03
0.191	9.4640E-03	0.224	4.2714E-03
0.198	8.5860E-03	0.233	3.8678E-03
0.205	7.8178E-03	0.242	3.5198E-03
0.213	7.1543E-03	0.250	3.2079E-03
0.220	6.5998E-03	0.259	2.9436E-03
0.227	6.0489E-03	0.268	2.6996E-03
0.235	5.5507E-03	0.276	2.4794E-03
0.242	5.1067E-03	0.285	2.3082E-03
0.249	4.7255E-03	0.293	2.1176E-03
0.257	4.3558E-03	0.302	1.9660E-03
0.264	4.0223E-03	0.311	1.8339E-03
0.271	3.7104E-03	0.319	1.6989E-03
0.279	3.4331E-03	0.328	1.5769E-03
0.286	3.1833E-03	0.337	1.4527E-03
0.293	2.9472E-03	0.345	1.3473E-03
0.301	2.7284E-03	0.354	1.2616E-03
0.308	2.5234E-03	0.362	1.1906E-03
0.315	2.3581E-03	0.371	1.1198E-03
0.323	2.1942E-03	0.380	1.0534E-03
0.330	2.0324E-03	0.388	9.8698E-04
0.337	1.9003E-03	0.397	9.2633E-04
0.345	1.7624E-03	0.406	8.7362E-04
0.354	1.6051E-03	0.414	8.2886E-04
0.359	1.5285E-03	0.423	7.7904E-04
0.367	1.4180E-03	0.432	7.3572E-04
0.374	1.3350E-03	0.440	6.8518E-04
0.382	1.2722E-03	0.449	6.4114E-04
0.389	1.2043E-03	0.457	6.0359E-04
0.396	1.1350E-03	0.466	5.7038E-04
0.404	1.0729E-03	0.475	5.4078E-04
0.411	1.0130E-03	0.483	5.0396E-04
0.418	9.6532E-04	0.492	4.7869E-04
0.426	9.1478E-04	0.501	4.5558E-04
0.433	8.6712E-04	0.509	4.3609E-04
0.440	8.1225E-04	0.518	4.1010E-04
0.448	7.6388E-04	0.526	3.8699E-04
0.455	7.2489E-04	0.535	3.6172E-04
0.462	6.8807E-04	0.544	3.4006E-04
0.470	6.5124E-04	0.552	3.1624E-04
0.477	6.2092E-04	0.561	3.0180E-04
0.484	5.8915E-04	0.570	2.7797E-04
0.492	5.6749E-04	0.578	2.6209E-04

0.499	5.4511E-04	0.587	2.4259E-04
0.506	5.2562E-04	0.592	2.2757E-04
0.514	5.0251E-04	0.604	2.0360E-04
0.521	4.7796E-04	0.613	1.8700E-04
0.528	4.5197E-04	0.621	1.7400E-04
0.536	4.3609E-04	0.630	1.5812E-04
0.543	4.1154E-04	0.639	1.4584E-04
0.550	3.9349E-04	0.647	1.3213E-04
0.558	3.6894E-04	0.656	1.1913E-04
0.565	3.5450E-04	0.665	1.0902E-04
0.572	3.3573E-04	0.673	9.7470E-05
0.580	3.1985E-04	0.682	8.6640E-05
0.587	3.0252E-04	0.690	7.7254E-05
0.592	2.9160E-04	0.699	7.0034E-05
0.602	2.7653E-04	0.708	6.3536E-05
0.609	2.6281E-04	0.716	5.8482E-05
0.616	2.5198E-04	0.725	5.4150E-05
0.624	2.3609E-04	0.734	4.9818E-05
0.631	2.2599E-04	0.742	4.5486E-05
0.638	2.1371E-04	0.751	4.1154E-05
0.646	2.0360E-04	0.759	3.8266E-05
0.653	1.9638E-04	0.768	3.4656E-05
0.660	1.8339E-04	0.777	2.8880E-05
0.668	1.7689E-04	0.785	2.3104E-05
0.675	1.6245E-04	0.794	2.0938E-05
0.682	1.5306E-04	0.803	1.7328E-05
0.690	1.4440E-04	0.811	1.6606E-05
0.697	1.3140E-04	0.820	1.5884E-05
0.704	1.2563E-04	0.829	1.3718E-05
0.712	1.1552E-04	0.837	1.2274E-05
0.719	1.0830E-04	0.846	1.0108E-05
0.726	1.0108E-04	0.854	9.3860E-06
0.734	9.3860E-05	0.863	8.6640E-06
0.741	8.9528E-05	0.872	7.9420E-06
0.748	8.1586E-05	0.880	7.9420E-06
0.756	7.4366E-05	0.889	7.9420E-06
0.763	7.1478E-05	0.898	7.9420E-06
0.770	6.5702E-05	0.906	7.2200E-06
0.778	6.2814E-05	0.915	7.2200E-06
0.785	5.9926E-05	0.923	7.2200E-06
0.792	5.7760E-05	0.932	6.4980E-06
0.800	5.0540E-05	0.941	6.4980E-06
0.807	4.7652E-05	0.949	5.7760E-06
0.814	4.2598E-05	0.958	5.0540E-06
0.822	3.8266E-05	0.967	5.0540E-06
0.829	3.4656E-05	0.975	5.0540E-06
0.836	3.2490E-05	0.984	4.3320E-06
0.844	3.0324E-05	0.992	4.3320E-06
0.851	2.8158E-05	1.001	4.3320E-06
0.858	2.4548E-05	1.010	4.3320E-06
0.866	2.3826E-05	1.018	4.3320E-06
0.873	2.1660E-05	1.027	4.3320E-06
0.880	1.9494E-05	1.036	4.3320E-06
0.888	1.8772E-05	1.044	4.3320E-06
0.895	1.5162E-05	1.053	3.6100E-06
0.902	1.4440E-05	1.062	2.8880E-06
0.910	1.3718E-05	1.070	2.8880E-06
0.917	1.2274E-05	1.079	2.8880E-06
0.924	1.1552E-05	1.087	2.8880E-06
0.932	1.0830E-05	1.096	2.8880E-06
0.939	1.0830E-05	1.105	2.8880E-06
0.946	1.0108E-05	1.113	2.8880E-06
0.954	8.6640E-06	1.122	2.8880E-06
0.961	7.9420E-06	1.131	2.8880E-06
0.968	7.9420E-06	1.139	2.8880E-06
0.976	7.9420E-06	1.148	2.8880E-06
0.983	7.9420E-06	1.156	2.8880E-06
0.990	7.9420E-06	1.165	2.8880E-06
0.998	7.2200E-06	1.177	2.8880E-06
1.005	7.2200E-06	1.182	2.8880E-06
1.012	7.2200E-06	1.191	2.8880E-06
1.020	7.2200E-06	1.200	2.8880E-06
1.027	7.2200E-06	1.208	2.8880E-06
1.034	7.2200E-06	1.217	2.8880E-06
1.042	7.2200E-06	1.226	2.8880E-06
1.049	7.2200E-06	1.234	2.8880E-06
1.056	7.2200E-06	1.243	2.8880E-06
1.064	7.2200E-06	1.251	2.8880E-06
1.071	6.4980E-06	1.260	2.8880E-06
1.078	6.4980E-06	1.269	2.8880E-06
1.086	6.4980E-06	1.277	2.8880E-06
1.093	5.7760E-06	1.286	2.8880E-06
1.101	5.0540E-06	1.295	2.8880E-06
1.108	5.0540E-06	1.303	2.8880E-06
1.115	5.0540E-06	1.312	2.8880E-06
1.123	5.0540E-06	1.320	2.8880E-06
1.130	4.3320E-06	1.329	2.1660E-06
1.137	4.3320E-06	1.338	2.1660E-06
1.145	4.3320E-06	1.346	2.1660E-06
1.152	3.6100E-06	1.355	2.1660E-06
1.159	3.6100E-06	1.364	2.1660E-06
1.167	3.6100E-06	1.372	2.1660E-06
1.177	2.8016E-06	1.381	2.1660E-06
1.181	2.8880E-06	1.389	2.1660E-06
1.189	2.8880E-06	1.398	2.1660E-06

1.196	2.1660E-06	1.407	2.1660E-06
1.203	2.1660E-06	1.415	2.1660E-06
1.211	2.1660E-06	1.424	2.1660E-06
1.218	2.1660E-06	1.433	2.1660E-06
1.225	2.1660E-06	1.441	2.1660E-06
1.233	2.1660E-06	1.450	2.1660E-06
1.240	2.1660E-06	1.459	2.1660E-06
1.247	2.1660E-06	1.467	2.1660E-06
1.255	2.1660E-06	1.476	2.1660E-06
1.262	2.1660E-06	1.484	2.1660E-06
1.269	2.1660E-06	1.493	2.1660E-06
1.277	2.1660E-06	1.502	2.1660E-06
1.284	2.1660E-06	1.510	1.4440E-06
1.291	7.2200E-07	1.519	1.4440E-06
1.299	7.2200E-07	1.528	1.4440E-06
1.306	7.2200E-07	1.536	1.4440E-06
1.313	7.2200E-07	1.545	1.4440E-06
1.321	7.2200E-07	1.553	1.4440E-06
1.328	7.2200E-07	1.562	1.4440E-06
1.335	7.2200E-07	1.571	1.4440E-06
1.343	7.2200E-07	1.579	1.4440E-06
1.350	7.2200E-07	1.588	1.4440E-06
1.357	7.2200E-07	1.597	1.4440E-06
1.365	7.2200E-07	1.605	1.4440E-06
1.372	7.2200E-07	1.614	7.2200E-07
1.379	7.2200E-07	1.622	7.2200E-07
1.387	7.2200E-07	1.631	7.2200E-07
1.394	7.2200E-07	1.640	7.2200E-07
1.401	7.2200E-07	1.648	7.2200E-07
1.409	7.2200E-07	1.657	7.2200E-07
1.416	7.2200E-07	1.666	7.2200E-07
1.423	7.2200E-07	1.674	7.2200E-07
1.431	7.2200E-07	1.683	7.2200E-07
1.438	7.2200E-07	1.692	7.2200E-07
1.445	7.2200E-07	1.700	7.2200E-07
1.453	7.2200E-07	1.709	7.2200E-07
1.460	7.2200E-07	1.717	7.2200E-07
1.467	7.2200E-07	1.726	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-27.8%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):	-21.5%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	3.1%	PASS	
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.9%	PASS	

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**\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS**

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**MGS FLOOD  
PROJECT REPORT**

Program Version: 3.12

Run Date: 11/10/2009 10:00 AM

**Input File Name:** pond3.fid  
**Project Name:** Burien NERA  
**Analysis Title:** Combined Stormwater Wetland and Detention Pond 3  
**Comments:** 95% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	Area(Acres)	-----Developed-----		
		Predeveloped	To Node	Bypass Node
<b>Till Forest</b>	54.809	0.000	0.000	0.000
Till Pasture	0.000	0.000	0.000	0.000
Till Grass	0.000	0.000	0.000	0.000
Outwash Forest	0.000	0.000	0.000	0.000
Outwash Pasture	0.000	0.000	0.000	0.000
Outwash Grass	0.000	3.022	0.000	0.000
Wetland	0.000	1.049	0.000	0.000
Impervious	0.000	50.738	0.000	0.000
<b>Subbasin Total</b>	<b>54.809</b>	<b>54.809</b>	<b>0.000</b>	<b>0.000</b>

-----Lateral Flow Connections-----

	Node	-----Predeveloped-----			-----Developed-----		
		Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node	Node
Till Pasture	Node	Node	Node	Node	Node	Node	Node
Till Grass	Node	Node	Node	Node	Node	Node	Node
Outwash Forest	Node	Node	Node	Node	Node	Node	Node
Outwash Pasture	Node	Node	Node	Node	Node	Node	Node
Outwash Grass	Node	Node	Node	Node	Node	Node	Node
Wetland	Node	Node	Node	Node	Node	Node	Node
Impervious	Node	Node	Node	Node	Node	Node	Node
Lateral 1							
Lateral 2							

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2
<b>Predeveloped Compliance Node:</b>		1
<b>Postdeveloped Compliance Node:</b>		2

\*\*\* Predeveloped Structure Summary \*\*\*

\*\*\* Postdeveloped Structure Summary \*\*\*

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation	:	100.00	ft
Riser Crest Elevation	:	104.00	ft
Max Pond Elevation	:	105.00	ft
Max Storage Depth	:	4.00	ft
Pond Bottom Length	:	498.7	ft
Pond Bottom Width	:	498.7	ft

Pond Side Slopes : L1= 3.00 L2= 3.00 W1= 3.00 W2= 3.00 ft/ft  
 Pond Bottom Area : 248678. sq-ft  
 Area at Riser Crest El : 273,190. sq-ft  
 : 6.272 acres  
 Volume at Riser Crest : 1,043,353. cu-ft  
 : 23.952 ac-ft  
 Area at Max Elevation : 279499. sq-ft  
 : 6.416 acres  
 Vol at Max Elevation : 1,319,691. cu-ft  
 : 30.296 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 42.00 in  
 Common Length : 0.413 ft  
 Riser Crest Elevation : 104.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1 ---  
 Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 3.69 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---  
 Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 102.35 ft  
 Length : 4.96 in  
 Height : 19.77 in  
 Orientation : Vertical  
 Elbow : No

**\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\***

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infiltr Discharge (cfs)
100.000		0.000	0.000	0.000
100.020		0.114	0.051	0.000
100.040		0.228	0.073	0.000
100.080		0.457	0.103	0.000
100.160		0.915	0.146	0.000
100.240		1.374	0.178	0.000
100.320		1.834	0.206	0.000
100.400		2.295	0.230	0.000
100.480		2.756	0.252	0.000
100.560		3.219	0.272	0.000
100.640		3.682	0.291	0.000
100.720		4.146	0.309	0.000
100.800		4.611	0.326	0.000
100.880		5.077	0.341	0.000
100.960		5.544	0.357	0.000
101.040		6.012	0.371	0.000
101.120		6.481	0.385	0.000
101.200		6.950	0.399	0.000
101.280		7.421	0.412	0.000
101.360		7.892	0.425	0.000
101.440		8.364	0.437	0.000
101.520		8.837	0.449	0.000
101.600		9.311	0.460	0.000
101.680		9.786	0.472	0.000
101.760		10.262	0.483	0.000
101.840		10.739	0.494	0.000
101.920		11.216	0.504	0.000
102.000		11.695	0.515	0.000
102.080		12.174	0.525	0.000
102.160		12.655	0.535	0.000
102.240		13.136	0.545	0.000
102.268		13.306	0.548	0.000
102.296		13.475	0.552	0.000
102.325		13.645	0.555	0.000
102.353		13.815	0.558	0.000
102.373		13.936	0.565	0.000
102.393		14.057	0.574	0.000
102.413		14.178	0.585	0.000
102.433		14.299	0.598	0.000
102.513		14.783	0.658	0.000
102.593		15.268	0.729	0.000
102.673		15.754	0.806	0.000
102.753		16.241	0.885	0.000
102.833		16.729	0.979	0.000
102.913		17.218	1.083	0.000
102.993		17.708	1.193	0.000
103.073		18.198	1.311	0.000
103.153		18.690	1.434	0.000
103.233		19.183	1.563	0.000
103.313		19.676	1.698	0.000

103.393	20.170	1.838	0.000
103.473	20.665	1.983	0.000
103.553	21.162	2.133	0.000
103.633	21.659	2.288	0.000
103.713	22.157	2.448	0.000
103.793	22.656	2.611	0.000
103.873	23.155	2.780	0.000
103.905	23.354	2.848	0.000
103.936	23.553	2.916	0.000
103.968	23.753	2.986	0.000
104.000	23.952	3.056	0.000
104.020	24.078	3.201	0.000
104.040	24.203	3.431	0.000
104.060	24.329	3.715	0.000
104.080	24.454	4.043	0.000
104.100	24.580	4.409	0.000
104.120	24.706	4.810	0.000
104.140	24.831	5.242	0.000
104.160	24.957	5.702	0.000
104.240	25.461	7.796	0.000
104.320	25.966	10.233	0.000
104.400	26.472	12.952	0.000
104.480	26.979	15.899	0.000
104.560	27.487	19.024	0.000
104.640	27.995	22.276	0.000
104.720	28.505	25.525	0.000
104.800	29.016	28.771	0.000
104.880	29.527	31.981	0.000
104.960	30.039	35.102	0.000
105.040	30.553	38.086	0.000
105.120	31.067	40.888	0.000
105.200	31.582	43.469	0.000
105.280	32.098	45.801	0.000
105.360	32.615	47.866	0.000
105.440	33.133	49.658	0.000
105.520	33.652	51.192	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date	WSEL (ft)
12/07/1939	102.339
01/18/1941	101.338
12/20/1941	101.902
11/23/1942	102.772
10/17/1943	101.228
02/07/1945	102.279
02/06/1946	101.608
12/05/1946	102.266
10/19/1947	102.427
02/22/1949	102.027
01/22/1950	102.587
02/09/1951	103.021
10/03/1951	101.651
01/18/1953	102.718
01/22/1954	101.901
11/19/1954	101.860
01/06/1956	103.136
02/26/1957	101.965
01/17/1958	102.043
01/13/1959	102.684
11/21/1959	102.282
11/24/1960	102.790
12/24/1961	101.652
11/30/1962	101.664
11/19/1963	101.849
12/01/1964	102.095
01/14/1966	102.306
12/13/1966	102.724
01/20/1968	102.060
12/11/1968	102.302
01/27/1970	102.579
12/07/1970	102.464
03/05/1972	103.639
12/26/1972	102.979
12/27/1973	102.355
12/27/1974	101.959
02/27/1976	102.379
08/26/1977	101.459
12/15/1977	102.750
03/05/1979	101.614
12/18/1979	103.619
12/30/1980	102.189
10/06/1981	103.318
03/09/1983	102.543
03/21/1984	101.760
11/11/1984	101.780
01/19/1986	102.427
11/24/1986	103.326
04/06/1988	102.184

04/05/1989	102.442
01/09/1990	103.284
11/24/1990	103.792
01/31/1992	102.544
04/11/1993	101.586
03/03/1994	101.727
12/27/1994	102.850
02/09/1996	103.834
01/02/1997	103.632
10/08/1997	101.775
11/26/1998	103.678
02/28/2000	102.422
05/05/2001	101.522
12/20/2001	101.474
11/26/2002	103.493
10/24/2003	102.090
02/08/2005	101.554
11/28/2005	102.662
11/27/2006	102.272
01/07/2008	102.409
02/18/2009	103.443
01/10/2010	102.533
11/17/2010	103.147
10/02/2011	102.217
01/20/2013	103.830
01/28/2014	102.292
04/22/2015	101.779
01/04/2016	103.462
11/01/2016	102.066
01/31/2018	102.134
01/12/2019	102.475
04/21/2020	101.847
11/24/2020	102.982
12/21/2021	101.970
03/30/2023	102.076
01/25/2024	102.567
12/22/2024	103.310
01/04/2026	102.970
01/29/2027	101.802
02/23/2028	102.113
01/13/2029	102.326
01/26/2030	103.192
03/04/2031	102.284
01/21/2032	102.594
12/24/2032	102.019
11/16/2033	103.585
02/19/2035	102.303
02/27/2036	102.364
03/09/2037	101.092
12/15/2037	102.710
12/11/2038	101.522
01/14/2040	102.234
12/25/2040	102.525
04/15/2042	102.537
02/26/2043	102.406
03/21/2044	102.042
11/28/2044	102.199
02/23/2046	102.046
02/02/2047	101.848
12/10/2047	102.915
03/17/2049	102.004
02/09/2050	101.754
04/09/2051	101.617
04/17/2052	101.360
12/10/2052	101.816
12/11/2053	101.904
11/01/2054	103.331
02/07/2056	103.807
01/02/2057	103.546
11/25/2057	101.999
12/02/2058	103.026
01/23/2060	101.655
01/15/2061	102.466
01/03/2062	102.122
01/02/2063	102.211
12/23/2063	103.072
12/02/2064	101.859
11/04/2065	101.313
12/15/2066	103.046
01/20/2068	102.846
09/23/2069	101.464
12/14/2069	101.409
12/19/2070	101.506
11/03/2071	101.893
12/25/2072	104.117
12/15/2073	102.669
11/24/2074	101.630
10/30/2075	103.115
08/26/2077	101.098
12/02/2077	101.933
03/05/2079	101.568
12/17/2079	103.689
11/21/2080	103.152
02/19/2082	102.913
02/20/2083	102.814



11/26/2083	103.364
12/14/2084	102.665
11/01/2085	102.242
11/23/2086	102.419
12/09/2087	102.123
11/05/2088	102.500
11/10/2089	102.458
12/09/2090	103.419
01/31/2092	103.095
11/07/2092	101.574
12/14/2093	101.776
12/27/2094	102.467
12/14/2095	102.740
10/28/2096	102.867

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

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1.00	101.092
1.01	101.098
1.02	101.228
1.02	101.313
1.03	101.338
1.04	101.360
1.04	101.409
1.05	101.459
1.06	101.464
1.06	101.474
1.07	101.506
1.08	101.522
1.09	101.522
1.09	101.554
1.10	101.568
1.11	101.574
1.12	101.586
1.12	101.608
1.13	101.614
1.14	101.617
1.15	101.630
1.16	101.651
1.17	101.652
1.18	101.655
1.18	101.664
1.19	101.727
1.20	101.754
1.21	101.760
1.22	101.775
1.23	101.776
1.24	101.779
1.25	101.780
1.26	101.802
1.27	101.816
1.28	101.847
1.29	101.848
1.30	101.849
1.31	101.859
1.32	101.860
1.33	101.893
1.35	101.901
1.36	101.902
1.37	101.904
1.38	101.933
1.39	101.959
1.40	101.965
1.42	101.970
1.43	101.999
1.44	102.004
1.46	102.019
1.47	102.027
1.48	102.042
1.50	102.043
1.51	102.046
1.53	102.060
1.54	102.066
1.56	102.076
1.57	102.090
1.59	102.095
1.60	102.113
1.62	102.122
1.64	102.123
1.65	102.134
1.67	102.184
1.69	102.189
1.71	102.199
1.73	102.211
1.75	102.217
1.77	102.234
1.79	102.242
1.81	102.266
1.83	102.272
1.85	102.279
1.87	102.282
1.89	102.284
1.92	102.292

1.94	102.302
1.96	102.303
1.99	102.306
2.01	102.326
2.04	102.339
2.07	102.355
2.09	102.364
2.12	102.379
2.15	102.406
2.18	102.409
2.21	102.419
2.24	102.422
2.27	102.427
2.31	102.427
2.34	102.442
2.38	102.458
2.41	102.464
2.45	102.466
2.49	102.467
2.53	102.475
2.57	102.500
2.61	102.525
2.65	102.533
2.70	102.537
2.75	102.543
2.80	102.544
2.85	102.567
2.90	102.579
2.95	102.587
3.01	102.594
3.07	102.662
3.13	102.665
3.19	102.669
3.26	102.684
3.32	102.710
3.40	102.718
3.47	102.724
3.55	102.740
3.63	102.750
3.72	102.772
3.80	102.790
3.90	102.814
4.00	102.846
4.10	102.850
4.21	102.867
4.32	102.913
4.45	102.915
4.58	102.970
4.71	102.979
4.86	102.982
5.01	103.021
5.17	103.026
5.35	103.046
5.54	103.072
5.74	103.095
5.95	103.115
6.19	103.136
6.44	103.147
6.71	103.152
7.01	103.192
7.33	103.284
7.69	103.310
8.08	103.318
8.52	103.326
9.00	103.331
9.55	103.364
10.16	103.419
10.86	103.443
11.66	103.462
12.59	103.493
13.68	103.546
14.97	103.585
16.54	103.619
18.47	103.632
20.92	103.639
24.10	103.678
28.44	103.689
34.68	103.792
44.42	103.807
61.77	103.830
101.36	103.834
282.36	104.117

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
 Tr (yrs) Link: 1

1.05-Year	101.465
1.11-Year	101.576
1.25-Year	101.781
2.00-Year	102.315
3.33-Year	102.712
5-Year	103.019
10-Year	103.407
25-Year	103.634
50-Year	103.810
100-Year	103.834

**Postdeveloped Infiltrated Water Statistics**  
 Volume Statistics Computed for Entire Simulation

Statistic	Link: 1
Total Inflow Volume (ac-ft)	22230.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data \*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 13.201 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 43836. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 65754. cu-ft  
 2-Year Discharge Rate : 0.554 cfs

\*\*\*\*\*Compliance Point Results \*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data \*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	1.482	12/07/1939	0.557
01/31/1941	0.569	01/18/1941	0.421
12/15/1941	1.489	12/20/1941	0.502
02/10/1943	0.593	11/23/1942	0.907
01/23/1944	0.445	10/17/1943	0.403
02/07/1945	1.847	02/07/1945	0.550
02/05/1946	1.133	02/06/1946	0.462
02/02/1947	1.155	12/05/1946	0.548
03/21/1948	1.996	10/19/1947	0.594
02/22/1949	1.002	02/22/1949	0.518
03/03/1950	4.126	01/22/1950	0.724
02/09/1951	1.652	02/09/1951	1.235
01/24/1952	0.434	10/03/1951	0.468
01/11/1953	0.617	01/18/1953	0.850
01/22/1954	1.002	01/22/1954	0.502
04/12/1955	0.468	11/19/1954	0.496
03/04/1956	1.074	01/06/1956	1.409
02/25/1957	0.890	02/26/1957	0.510
01/16/1958	1.080	01/17/1958	0.520
01/12/1959	1.160	01/13/1959	0.816
12/15/1959	1.241	11/21/1959	0.550
02/14/1961	1.062	11/24/1960	0.928
03/04/1962	0.569	12/24/1961	0.468
02/03/1963	0.631	11/30/1962	0.469
01/01/1964	1.009	11/19/1963	0.495
02/26/1965	1.250	12/01/1964	0.527
01/06/1966	0.771	01/14/1966	0.553
01/19/1967	1.951	12/13/1966	0.857
02/03/1968	1.009	01/20/1968	0.522
12/03/1968	1.083	12/11/1968	0.552
01/13/1970	0.839	01/27/1970	0.717
12/06/1970	0.955	12/07/1970	0.621
02/28/1972	2.574	03/05/1972	2.301
01/13/1973	0.929	12/26/1972	1.174
02/18/1974	1.389	12/27/1973	0.559
12/26/1974	1.681	12/27/1974	0.509
01/27/1976	1.164	02/27/1976	0.567
05/31/1977	0.164	08/26/1977	0.440
12/10/1977	0.985	12/15/1977	0.882
03/04/1979	0.969	03/05/1979	0.462
12/17/1979	1.561	12/18/1979	2.261
12/26/1980	0.619	12/30/1980	0.539
10/06/1981	1.978	10/06/1981	1.707

01/05/1983	1.110	03/09/1983	0.685
03/14/1984	1.060	03/21/1984	0.483
02/11/1985	0.708	11/11/1984	0.486
01/18/1986	2.333	01/19/1986	0.594
11/24/1986	2.057	11/24/1986	1.722
04/06/1988	1.028	04/06/1988	0.538
04/05/1989	1.133	04/05/1989	0.605
01/09/1990	3.740	01/09/1990	1.649
11/24/1990	3.187	11/24/1990	2.609
01/27/1992	0.973	01/31/1992	0.686
06/09/1993	0.821	04/11/1993	0.458
03/03/1994	0.625	03/03/1994	0.478
02/19/1995	1.309	12/27/1994	1.002
02/09/1996	3.032	02/09/1996	2.697
01/02/1997	1.896	01/02/1997	2.287
02/28/1998	0.698	10/08/1997	0.485
11/25/1998	1.866	11/26/1998	2.379
03/26/2000	1.045	02/28/2000	0.591
05/05/2001	0.801	05/05/2001	0.449
05/03/2002	2.858	12/20/2001	0.442
03/31/2003	2.188	11/26/2002	2.022
01/23/2004	0.534	10/24/2003	0.526
02/07/2005	0.921	02/08/2005	0.454
02/27/2006	1.183	11/28/2005	0.796
12/14/2006	0.875	11/27/2006	0.549
03/21/2008	1.454	01/07/2008	0.583
02/17/2009	2.257	02/18/2009	1.930
01/10/2010	1.516	01/10/2010	0.676
11/17/2010	1.968	11/17/2010	1.425
01/31/2012	1.252	10/02/2011	0.542
01/20/2013	2.860	01/20/2013	2.690
12/06/2013	1.204	01/28/2014	0.551
03/30/2015	0.730	04/22/2015	0.485
01/04/2016	2.080	01/04/2016	1.963
03/07/2017	0.602	11/01/2016	0.523
01/31/2018	1.122	01/31/2018	0.532
03/30/2019	1.110	01/12/2019	0.630
04/14/2020	0.730	04/21/2020	0.495
02/10/2021	1.801	11/24/2020	1.178
03/26/2022	0.532	12/21/2021	0.511
03/30/2023	1.284	03/30/2023	0.524
01/19/2024	1.008	01/25/2024	0.706
12/22/2024	2.107	12/22/2024	1.694
03/09/2026	1.338	01/04/2026	1.162
01/27/2027	1.166	01/29/2027	0.489
02/19/2028	1.445	02/23/2028	0.529
12/04/2028	1.119	01/13/2029	0.555
02/16/2030	1.494	01/26/2030	1.498
12/30/2030	1.398	03/04/2031	0.550
01/20/2032	2.245	01/21/2032	0.731
03/01/2033	0.633	12/24/2032	0.517
01/15/2034	2.537	11/16/2033	2.196
02/19/2035	1.239	02/19/2035	0.552
03/24/2036	1.169	02/27/2036	0.562
03/09/2037	0.048	03/09/2037	0.380
12/15/2037	0.855	12/15/2037	0.842
02/07/2039	0.618	12/11/2038	0.449
01/14/2040	2.318	01/14/2040	0.544
12/25/2040	1.313	12/25/2040	0.669
02/20/2042	1.378	04/15/2042	0.680
03/31/2043	2.065	02/26/2043	0.581
05/01/2044	0.815	03/21/2044	0.520
02/11/2045	0.942	11/28/2044	0.540
02/16/2046	1.186	02/23/2046	0.521
02/01/2047	0.745	02/02/2047	0.495
04/21/2048	0.662	12/10/2047	1.086
03/16/2049	0.744	03/17/2049	0.515
12/04/2049	1.257	02/09/2050	0.482
04/06/2051	0.976	04/09/2051	0.463
04/17/2052	0.586	04/17/2052	0.424
06/04/2053	2.250	12/10/2052	0.490
04/08/2054	0.418	12/11/2053	0.502
02/17/2055	1.914	11/01/2054	1.730
02/07/2056	3.481	02/07/2056	2.640
11/19/2056	3.810	01/02/2057	2.122
01/24/2058	1.321	11/25/2057	0.515
12/28/2058	1.519	12/02/2058	1.243
01/19/2060	0.569	01/23/2060	0.468
01/10/2061	1.234	01/15/2061	0.623
02/03/2062	4.694	01/03/2062	0.530
12/29/2062	0.993	01/02/2063	0.541
12/23/2063	1.791	12/23/2063	1.309
11/30/2064	0.856	12/02/2064	0.496
01/13/2066	0.470	11/04/2065	0.417
01/19/2067	1.194	12/15/2066	1.272
01/18/2068	2.459	01/20/2068	0.996
01/04/2069	0.661	09/23/2069	0.440
04/09/2070	0.558	12/14/2069	0.432
02/14/2071	0.612	12/19/2070	0.447
02/27/2072	0.655	11/03/2071	0.501
12/25/2072	2.740	12/25/2072	4.742
03/16/2074	1.473	12/15/2073	0.802
01/23/2075	0.318	11/24/2074	0.465
03/24/2076	1.637	10/30/2075	1.376
03/02/2077	0.184	08/26/2077	0.381

12/02/2077	0.616	12/02/2077	0.506
02/25/2079	0.826	03/05/2079	0.456
12/17/2079	3.059	12/17/2079	2.400
11/21/2080	1.350	11/21/2080	1.433
02/13/2082	1.686	02/19/2082	1.083
02/19/2083	1.034	02/20/2083	0.957
11/26/2083	1.253	11/26/2083	1.788
12/14/2084	0.867	12/14/2084	0.798
01/18/2086	1.221	11/01/2085	0.545
12/21/2086	1.146	11/23/2086	0.589
01/14/2088	0.754	12/09/2087	0.530
11/05/2088	1.340	11/05/2088	0.649
01/07/2090	0.630	11/10/2089	0.617
12/04/2090	1.164	12/09/2090	1.886
04/28/2092	1.997	01/31/2092	1.345
03/22/2093	0.561	11/07/2092	0.457
03/01/2094	0.470	12/14/2093	0.485
02/18/2095	0.743	12/27/2094	0.623
01/14/2096	0.936	12/14/2095	0.872
01/29/2097	2.059	10/28/2096	1.023

\*\*\*\*Point of Compliance Ranked Maxima Flow Data \*\*\*\*

Tr (yrs)	Predevelopment Q (cfs)	Tr (yrs)	Postdevelopment Q (cfs)
1.00	0.048	1.00	0.380
1.01	0.164	1.01	0.381
1.02	0.184	1.02	0.403
1.02	0.318	1.02	0.417
1.03	0.418	1.03	0.421
1.04	0.434	1.04	0.424
1.04	0.445	1.04	0.432
1.05	0.468	1.05	0.440
1.06	0.470	1.06	0.440
1.06	0.470	1.06	0.442
1.07	0.532	1.07	0.447
1.08	0.534	1.08	0.449
1.09	0.558	1.09	0.449
1.09	0.561	1.09	0.454
1.10	0.569	1.10	0.456
1.11	0.569	1.11	0.457
1.12	0.569	1.12	0.458
1.12	0.586	1.12	0.462
1.13	0.593	1.13	0.462
1.14	0.602	1.14	0.463
1.15	0.612	1.15	0.465
1.16	0.616	1.16	0.468
1.17	0.617	1.17	0.468
1.18	0.618	1.18	0.468
1.18	0.619	1.18	0.469
1.19	0.625	1.19	0.478
1.20	0.630	1.20	0.482
1.21	0.631	1.21	0.483
1.22	0.633	1.22	0.485
1.23	0.655	1.23	0.485
1.24	0.661	1.24	0.485
1.25	0.662	1.25	0.486
1.26	0.698	1.26	0.489
1.27	0.708	1.27	0.490
1.28	0.730	1.28	0.495
1.29	0.730	1.29	0.495
1.30	0.743	1.30	0.495
1.31	0.744	1.31	0.496
1.32	0.745	1.32	0.496
1.33	0.754	1.33	0.501
1.35	0.771	1.35	0.502
1.36	0.801	1.36	0.502
1.37	0.815	1.37	0.502
1.38	0.821	1.38	0.506
1.39	0.826	1.39	0.509
1.40	0.839	1.40	0.510
1.42	0.855	1.42	0.511
1.43	0.856	1.43	0.515
1.44	0.867	1.44	0.515
1.46	0.875	1.46	0.517
1.47	0.890	1.47	0.518
1.48	0.921	1.48	0.520
1.50	0.929	1.50	0.520
1.51	0.936	1.51	0.521
1.53	0.942	1.53	0.522
1.54	0.955	1.54	0.523
1.56	0.969	1.56	0.524
1.57	0.973	1.57	0.526
1.59	0.976	1.59	0.527
1.60	0.985	1.60	0.529
1.62	0.993	1.62	0.530
1.64	1.002	1.64	0.530
1.65	1.002	1.65	0.532
1.67	1.008	1.67	0.538
1.69	1.009	1.69	0.539
1.71	1.009	1.71	0.540
1.73	1.028	1.73	0.541

1.75	1.034	1.75	0.542
1.77	1.045	1.77	0.544
1.79	1.060	1.79	0.545
1.81	1.062	1.81	0.548
1.83	1.074	1.83	0.549
1.85	1.080	1.85	0.550
1.87	1.083	1.87	0.550
1.89	1.110	1.89	0.550
1.92	1.110	1.92	0.551
1.94	1.119	1.94	0.552
1.96	1.122	1.96	0.552
1.99	1.133	1.99	0.553
2.01	1.133	2.01	0.555
2.04	1.146	2.04	0.557
2.07	1.155	2.07	0.559
2.09	1.160	2.09	0.562
2.12	1.164	2.12	0.567
2.15	1.164	2.15	0.581
2.18	1.166	2.18	0.583
2.21	1.169	2.21	0.589
2.24	1.183	2.24	0.591
2.27	1.186	2.27	0.594
2.31	1.194	2.31	0.594
2.34	1.204	2.34	0.605
2.38	1.221	2.38	0.617
2.41	1.234	2.41	0.621
2.45	1.239	2.45	0.623
2.49	1.241	2.49	0.623
2.53	1.250	2.53	0.630
2.57	1.252	2.57	0.649
2.61	1.253	2.61	0.669
2.65	1.257	2.65	0.676
2.70	1.284	2.70	0.680
2.75	1.309	2.75	0.685
2.80	1.313	2.80	0.686
2.85	1.321	2.85	0.706
2.90	1.338	2.90	0.717
2.95	1.340	2.95	0.724
3.01	1.350	3.01	0.731
3.07	1.378	3.07	0.796
3.13	1.389	3.13	0.798
3.19	1.398	3.19	0.802
3.26	1.445	3.26	0.816
3.32	1.454	3.32	0.842
3.40	1.473	3.40	0.850
3.47	1.482	3.47	0.857
3.55	1.489	3.55	0.872
3.63	1.494	3.63	0.882
3.72	1.516	3.72	0.907
3.80	1.519	3.80	0.928
3.90	1.561	3.90	0.957
4.00	1.637	4.00	0.996
4.10	1.652	4.10	1.002
4.21	1.681	4.21	1.023
4.32	1.686	4.32	1.083
4.45	1.791	4.45	1.086
4.58	1.801	4.58	1.162
4.71	1.847	4.71	1.174
4.86	1.866	4.86	1.178
5.01	1.896	5.01	1.235
5.17	1.914	5.17	1.243
5.35	1.951	5.35	1.272
5.54	1.968	5.54	1.309
5.74	1.978	5.74	1.345
5.95	1.996	5.95	1.376
6.19	1.997	6.19	1.409
6.44	2.057	6.44	1.425
6.71	2.059	6.71	1.433
7.01	2.065	7.01	1.498
7.33	2.080	7.33	1.649
7.69	2.107	7.69	1.694
8.08	2.188	8.08	1.707
8.52	2.245	8.52	1.722
9.00	2.250	9.00	1.730
9.55	2.257	9.55	1.788
10.16	2.318	10.16	1.886
10.86	2.333	10.86	1.930
11.66	2.459	11.66	1.963
12.59	2.537	12.59	2.022
13.68	2.574	13.68	2.122
14.97	2.740	14.97	2.196
16.54	2.858	16.54	2.261
18.47	2.860	18.47	2.287
20.92	3.032	20.92	2.301
24.10	3.059	24.10	2.379
28.44	3.187	28.44	2.400
34.68	3.481	34.68	2.609
44.42	3.740	44.42	2.640
61.77	3.810	61.77	2.690
101.36	4.126	101.36	2.697
282.36	4.694	282.36	4.742

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	1.133	2-Year	0.554
5-Year	1.894	5-Year	1.231
10-Year	2.303	10-Year	1.861
25-Year	3.087	25-Year	2.383
50-Year	3.765	50-Year	2.658
100-Year	4.118	100-Year	2.697
200-Year	4.503	200-Year	4.054

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
0.023	2.3680E-01	0.024	7.4778E-01
0.047	1.8183E-01	0.047	7.2449E-01
0.070	1.4869E-01	0.071	6.9267E-01
0.094	1.2486E-01	0.095	6.5423E-01
0.117	1.0625E-01	0.119	6.1284E-01
0.141	9.1206E-02	0.142	5.7203E-01
0.164	7.8997E-02	0.166	5.2772E-01
0.188	6.8893E-02	0.190	4.8471E-01
0.211	6.0447E-02	0.213	4.4036E-01
0.235	5.3261E-02	0.237	3.9517E-01
0.258	4.7175E-02	0.261	3.4947E-01
0.282	4.1832E-02	0.285	3.0344E-01
0.305	3.7205E-02	0.308	2.5830E-01
0.329	3.3133E-02	0.332	2.1552E-01
0.352	2.9638E-02	0.356	1.7692E-01
0.376	2.6430E-02	0.379	1.4150E-01
0.399	2.3649E-02	0.403	1.1140E-01
0.422	2.1262E-02	0.427	8.5281E-02
0.446	1.9150E-02	0.451	6.3732E-02
0.469	1.7267E-02	0.474	4.6113E-02
0.493	1.5521E-02	0.498	3.2243E-02
0.516	1.4036E-02	0.522	2.1445E-02
0.540	1.2639E-02	0.545	1.3282E-02
0.567	1.1278E-02	0.567	9.2911E-03
0.587	1.0348E-02	0.593	7.9081E-03
0.610	9.4640E-03	0.616	7.1810E-03
0.634	8.5860E-03	0.640	6.5652E-03
0.657	7.8178E-03	0.664	5.9363E-03
0.681	7.1543E-03	0.688	5.4526E-03
0.704	6.5998E-03	0.711	5.0042E-03
0.728	6.0489E-03	0.735	4.6338E-03
0.751	5.5507E-03	0.759	4.3176E-03
0.774	5.1067E-03	0.782	4.0230E-03
0.798	4.7255E-03	0.806	3.7060E-03
0.821	4.3558E-03	0.830	3.4425E-03
0.845	4.0223E-03	0.854	3.1847E-03
0.868	3.7104E-03	0.877	2.9357E-03
0.892	3.4331E-03	0.901	2.7248E-03
0.915	3.1833E-03	0.925	2.5386E-03
0.939	2.9472E-03	0.948	2.3559E-03
0.962	2.7284E-03	0.972	2.1848E-03
0.986	2.5234E-03	0.996	2.0534E-03
1.009	2.3581E-03	1.020	1.9205E-03
1.033	2.1942E-03	1.043	1.7999E-03
1.056	2.0324E-03	1.067	1.6945E-03
1.080	1.9003E-03	1.091	1.5949E-03
1.103	1.7624E-03	1.114	1.5090E-03
1.133	1.6051E-03	1.133	1.4265E-03
1.150	1.5285E-03	1.162	1.3263E-03
1.173	1.4180E-03	1.186	1.2512E-03
1.197	1.3350E-03	1.209	1.1790E-03
1.220	1.2722E-03	1.233	1.1227E-03
1.244	1.2043E-03	1.257	1.0642E-03
1.267	1.1350E-03	1.280	1.0086E-03
1.291	1.0729E-03	1.304	9.5737E-04
1.314	1.0130E-03	1.328	9.0972E-04
1.338	9.6532E-04	1.352	8.6135E-04
1.361	9.1478E-04	1.375	8.1586E-04
1.385	8.6712E-04	1.399	7.7759E-04
1.408	8.1225E-04	1.423	7.3716E-04
1.432	7.6388E-04	1.446	6.9817E-04
1.455	7.2489E-04	1.470	6.6929E-04
1.479	6.8807E-04	1.494	6.3536E-04
1.502	6.5124E-04	1.518	6.0865E-04
1.525	6.2092E-04	1.541	5.7399E-04
1.549	5.8915E-04	1.565	5.4655E-04
1.572	5.6749E-04	1.589	5.2056E-04

1.596	5.4511E-04	1.612	4.9890E-04
1.619	5.2562E-04	1.636	4.7291E-04
1.643	5.0251E-04	1.660	4.4764E-04
1.666	4.7796E-04	1.683	4.2381E-04
1.690	4.5197E-04	1.707	4.0288E-04
1.713	4.3609E-04	1.731	3.8266E-04
1.737	4.1154E-04	1.755	3.6894E-04
1.760	3.9349E-04	1.778	3.5161E-04
1.784	3.6894E-04	1.802	3.2995E-04
1.807	3.5450E-04	1.826	3.1479E-04
1.831	3.3573E-04	1.849	3.0035E-04
1.854	3.1985E-04	1.873	2.8447E-04
1.878	3.0252E-04	1.894	2.7285E-04
1.894	2.9160E-04	1.921	2.5559E-04
1.924	2.7653E-04	1.944	2.3970E-04
1.948	2.6281E-04	1.968	2.2454E-04
1.971	2.5198E-04	1.992	2.0794E-04
1.995	2.3609E-04	2.015	1.9494E-04
2.018	2.2599E-04	2.039	1.7617E-04
2.042	2.1371E-04	2.063	1.6534E-04
2.065	2.0360E-04	2.087	1.5379E-04
2.089	1.9638E-04	2.110	1.3862E-04
2.112	1.8339E-04	2.134	1.2779E-04
2.136	1.7689E-04	2.158	1.1552E-04
2.159	1.6245E-04	2.181	1.1119E-04
2.183	1.5306E-04	2.205	9.9636E-05
2.206	1.4440E-04	2.229	9.2416E-05
2.230	1.3140E-04	2.253	8.0864E-05
2.253	1.2563E-04	2.276	7.2922E-05
2.276	1.1552E-04	2.300	6.6424E-05
2.300	1.0830E-04	2.324	6.1370E-05
2.323	1.0108E-04	2.347	5.7038E-05
2.347	9.3860E-05	2.371	5.1262E-05
2.370	8.9528E-05	2.395	4.6930E-05
2.394	8.1586E-05	2.419	4.4042E-05
2.417	7.4366E-05	2.442	4.2598E-05
2.441	7.1478E-05	2.466	3.9710E-05
2.464	6.5702E-05	2.490	3.8266E-05
2.488	6.2814E-05	2.513	3.1768E-05
2.511	5.9926E-05	2.537	3.0324E-05
2.535	5.7760E-05	2.561	2.6714E-05
2.558	5.0540E-05	2.584	2.0938E-05
2.582	4.7652E-05	2.608	1.8772E-05
2.605	4.2598E-05	2.632	1.6606E-05
2.629	3.8266E-05	2.656	1.2274E-05
2.652	3.4656E-05	2.679	1.2274E-05
2.675	3.2490E-05	2.703	9.3860E-06
2.699	3.0324E-05	2.727	8.6640E-06
2.722	2.8158E-05	2.750	8.6640E-06
2.746	2.4548E-05	2.774	8.6640E-06
2.769	2.3826E-05	2.798	7.9420E-06
2.793	2.1660E-05	2.822	7.9420E-06
2.816	1.9494E-05	2.845	7.9420E-06
2.840	1.8772E-05	2.869	7.2200E-06
2.863	1.5162E-05	2.893	6.4980E-06
2.887	1.4440E-05	2.916	6.4980E-06
2.910	1.3718E-05	2.940	6.4980E-06
2.934	1.2274E-05	2.964	5.7760E-06
2.957	1.1552E-05	2.988	5.7760E-06
2.981	1.0830E-05	3.011	5.7760E-06
3.004	1.0830E-05	3.035	5.0540E-06
3.028	1.0108E-05	3.059	5.0540E-06
3.051	8.6640E-06	3.082	5.0540E-06
3.074	7.9420E-06	3.106	4.3320E-06
3.098	7.9420E-06	3.130	4.3320E-06
3.121	7.9420E-06	3.154	4.3320E-06
3.145	7.9420E-06	3.177	4.3320E-06
3.168	7.9420E-06	3.201	4.3320E-06
3.192	7.2200E-06	3.225	4.3320E-06
3.215	7.2200E-06	3.248	3.6100E-06
3.239	7.2200E-06	3.272	3.6100E-06
3.262	7.2200E-06	3.296	3.6100E-06
3.286	7.2200E-06	3.320	3.6100E-06
3.309	7.2200E-06	3.343	3.6100E-06
3.333	7.2200E-06	3.367	3.6100E-06
3.356	7.2200E-06	3.391	3.6100E-06
3.380	7.2200E-06	3.414	3.6100E-06
3.403	7.2200E-06	3.438	3.6100E-06
3.426	6.4980E-06	3.462	3.6100E-06
3.450	6.4980E-06	3.486	3.6100E-06
3.473	6.4980E-06	3.509	3.6100E-06
3.497	5.7760E-06	3.533	3.6100E-06
3.520	5.0540E-06	3.557	3.6100E-06
3.544	5.0540E-06	3.580	3.6100E-06
3.567	5.0540E-06	3.604	3.6100E-06
3.591	5.0540E-06	3.628	3.6100E-06
3.614	4.3320E-06	3.651	3.6100E-06
3.638	4.3320E-06	3.675	3.6100E-06
3.661	4.3320E-06	3.699	3.6100E-06
3.685	3.6100E-06	3.723	2.8880E-06
3.708	3.6100E-06	3.746	2.8880E-06
3.732	3.6100E-06	3.765	2.8953E-06
3.765	2.8016E-06	3.794	2.8880E-06
3.779	2.8880E-06	3.817	2.8880E-06
3.802	2.8880E-06	3.841	2.8880E-06



3.825	2.1660E-06	3.865	2.8880E-06
3.849	2.1660E-06	3.889	2.8880E-06
3.872	2.1660E-06	3.912	2.8880E-06
3.896	2.1660E-06	3.936	2.1660E-06
3.919	2.1660E-06	3.960	2.1660E-06
3.943	2.1660E-06	3.983	2.1660E-06
3.966	2.1660E-06	4.007	2.1660E-06
3.990	2.1660E-06	4.031	2.1660E-06
4.013	2.1660E-06	4.055	2.1660E-06
4.037	2.1660E-06	4.078	2.1660E-06
4.060	2.1660E-06	4.102	2.1660E-06
4.084	2.1660E-06	4.126	2.1660E-06
4.107	2.1660E-06	4.149	2.1660E-06
4.131	7.2200E-07	4.173	2.1660E-06
4.154	7.2200E-07	4.197	2.1660E-06
4.177	7.2200E-07	4.221	2.1660E-06
4.201	7.2200E-07	4.244	2.1660E-06
4.224	7.2200E-07	4.268	2.1660E-06
4.248	7.2200E-07	4.292	2.1660E-06
4.271	7.2200E-07	4.315	2.1660E-06
4.295	7.2200E-07	4.339	1.4440E-06
4.318	7.2200E-07	4.363	1.4440E-06
4.342	7.2200E-07	4.387	1.4440E-06
4.365	7.2200E-07	4.410	1.4440E-06
4.389	7.2200E-07	4.434	1.4440E-06
4.412	7.2200E-07	4.458	1.4440E-06
4.436	7.2200E-07	4.481	1.4440E-06
4.459	7.2200E-07	4.505	1.4440E-06
4.483	7.2200E-07	4.529	1.4440E-06
4.506	7.2200E-07	4.553	1.4440E-06
4.530	7.2200E-07	4.576	1.4440E-06
4.553	7.2200E-07	4.600	1.4440E-06
4.576	7.2200E-07	4.624	1.4440E-06
4.600	7.2200E-07	4.647	1.4440E-06
4.623	7.2200E-07	4.671	7.2200E-07
4.647	7.2200E-07	4.695	7.2200E-07
4.670	7.2200E-07	4.718	7.2200E-07
4.694	7.2200E-07	4.742	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-19.5%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):		3.7%	PASS
Maximum Excursion from Q2 to Q50 (Must be less than 10%):		0.9%	PASS

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**\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS**

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**MGS FLOOD  
PROJECT REPORT**

Program Version: 3.12

Run Date: 11/10/2009 11:24 AM

**Input File Name:** pond4.fld  
**Project Name:** Burien NERA  
**Analysis Title:** Combined Stormwater Wetland and Detention Pond 4  
**Comments:** 95% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	Area(Acres)	-----Predeveloped-----		-----Developed-----	
		Predeveloped	To Node	Bypass Node	
<b>Till Forest</b>	14.274	0.000	0.000	0.000	
Till Pasture	0.000	0.000	0.000	0.000	
Till Grass	0.000	0.000	0.000	0.000	
Outwash Forest	0.000	0.000	0.000	0.000	
Outwash Pasture	0.000	0.000	0.000	0.000	
Outwash Grass	0.000	0.353	0.000	0.000	
Wetland	0.000	0.344	0.000	0.000	
Impervious	0.000	13.577	0.000	0.000	
<b>Subbasin Total</b>	<b>14.274</b>	<b>14.274</b>		<b>0.000</b>	

	Node	-----Predeveloped-----			-----Developed-----		
		Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node	
Till Pasture	Node	Node	Node	Node	Node	Node	
Till Grass	Node	Node	Node	Node	Node	Node	
Outwash Forest	Node	Node	Node	Node	Node	Node	
Outwash Pasture	Node	Node	Node	Node	Node	Node	
Outwash Grass	Node	Node	Node	Node	Node	Node	
Wetland	Node	Node	Node	Node	Node	Node	
Impervious	Node	Node	Node	Node	Node	Node	
Lateral 1							
Lateral 2							

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*\* Predeveloped Structure Summary \*\*\*

**\*\*\* Postdeveloped Structure Summary \*\*\***

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation : 100.00 ft  
 Riser Crest Elevation : 104.00 ft  
 Max Pond Elevation : 104.50 ft  
 Max Storage Depth : 4.00 ft  
 Pond Bottom Length : 252.9 ft  
 Pond Bottom Width : 252.9 ft  
 Pond Side Slopes : L1= 3.00 L2= 3.00 W1= 3.00 W2= 3.00 ft/ft  
 Pond Bottom Area : 63945. sq-ft  
 Area at Riser Crest El : 76,659. sq-ft  
 : 1.760 acres  
 Volume at Riser Crest : 280,822. cu-ft  
 : 6.447 ac-ft  
 Area at Max Elevation : 78329. sq-ft  
 : 1.798 acres  
 Vol at Max Elevation : 319,568. cu-ft  
 : 7.336 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 24.00 in  
 Common Length : 0.105 ft  
 Riser Crest Elevation : 104.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1---

Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 1.87 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 102.46 ft  
 Length : 1.26 in  
 Height : 18.45 in  
 Orientation : Vertical  
 Elbow : No

**\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\***

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infil Discharge (cfs)
100.000		0.000	0.000	0.000
100.018		0.026	0.012	0.000
100.035		0.051	0.017	0.000
100.070		0.103	0.025	0.000
100.140		0.206	0.035	0.000
100.210		0.310	0.043	0.000
100.280		0.414	0.049	0.000
100.350		0.518	0.055	0.000
100.420		0.623	0.060	0.000
100.490		0.728	0.065	0.000
100.560		0.833	0.070	0.000
100.630		0.939	0.074	0.000
100.700		1.045	0.078	0.000
100.770		1.151	0.082	0.000
100.840		1.258	0.085	0.000
100.910		1.365	0.089	0.000
100.980		1.472	0.092	0.000
101.050		1.580	0.095	0.000
101.120		1.688	0.099	0.000
101.190		1.797	0.102	0.000
101.260		1.905	0.104	0.000
101.330		2.015	0.107	0.000
101.400		2.124	0.110	0.000
101.470		2.234	0.113	0.000
101.540		2.344	0.116	0.000
101.610		2.455	0.118	0.000
101.680		2.566	0.121	0.000
101.750		2.677	0.123	0.000
101.820		2.789	0.126	0.000
101.890		2.901	0.128	0.000
101.960		3.013	0.130	0.000
102.030		3.126	0.133	0.000
102.100		3.239	0.135	0.000
102.170		3.352	0.137	0.000
102.240		3.466	0.139	0.000

102.310	3.580	0.141	0.000
102.380	3.695	0.144	0.000
102.401	3.728	0.144	0.000
102.421	3.762	0.145	0.000
102.442	3.796	0.145	0.000
102.462	3.830	0.146	0.000
102.480	3.858	0.147	0.000
102.497	3.887	0.149	0.000
102.515	3.916	0.151	0.000
102.532	3.945	0.154	0.000
102.602	4.060	0.165	0.000
102.672	4.177	0.179	0.000
102.742	4.293	0.196	0.000
102.812	4.410	0.214	0.000
102.882	4.527	0.234	0.000
102.952	4.644	0.256	0.000
103.022	4.762	0.280	0.000
103.092	4.880	0.304	0.000
103.162	4.999	0.330	0.000
103.232	5.118	0.357	0.000
103.302	5.237	0.385	0.000
103.372	5.357	0.415	0.000
103.442	5.477	0.445	0.000
103.512	5.597	0.477	0.000
103.582	5.718	0.509	0.000
103.652	5.839	0.542	0.000
103.722	5.961	0.577	0.000
103.792	6.083	0.612	0.000
103.862	6.205	0.648	0.000
103.897	6.265	0.666	0.000
103.931	6.326	0.685	0.000
103.966	6.386	0.703	0.000
104.000	6.447	0.722	0.000
104.018	6.478	0.780	0.000
104.035	6.508	0.878	0.000
104.053	6.539	1.002	0.000
104.070	6.570	1.147	0.000
104.088	6.601	1.310	0.000
104.105	6.632	1.489	0.000
104.123	6.663	1.683	0.000
104.140	6.694	1.890	0.000
104.210	6.818	2.834	0.000
104.280	6.943	3.925	0.000
104.350	7.067	5.115	0.000
104.420	7.193	6.360	0.000
104.490	7.318	7.610	0.000
104.560	7.444	8.819	0.000
104.630	7.571	9.938	0.000
104.700	7.697	10.916	0.000
104.770	7.825	11.744	0.000
104.840	7.952	12.412	0.000
104.910	8.080	12.935	0.000
104.980	8.208	13.354	0.000
105.050	8.337	13.919	0.000
105.050	8.048	14.101	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date WSEL (ft)

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12/07/1939	102.392
01/18/1941	101.390
12/20/1941	101.987
11/23/1942	102.867
10/17/1943	101.275
02/07/1945	102.327
02/06/1946	101.678
12/05/1946	102.378
10/19/1947	102.473
02/22/1949	102.100
03/05/1950	102.696
02/09/1951	103.126
10/03/1951	101.707
01/18/1953	102.842
01/22/1954	101.991
11/19/1954	101.929
01/06/1956	103.266
02/26/1957	102.014
01/17/1958	102.114
01/13/1959	102.774
11/21/1959	102.323
11/24/1960	102.872
12/24/1961	101.726
11/30/1962	101.734
11/23/1963	101.951
12/01/1964	102.163
01/14/1966	102.423
12/13/1966	102.823
01/20/1968	102.164

12/11/1968	102.412
01/27/1970	102.674
12/07/1970	102.556
03/05/1972	103.760
12/26/1972	103.092
12/27/1973	102.504
12/27/1974	102.034
02/27/1976	102.479
06/04/1977	101.509
12/15/1977	102.835
03/05/1979	101.696
12/18/1979	103.723
12/30/1980	102.272
10/06/1981	103.374
03/09/1983	102.677
03/21/1984	101.851
11/11/1984	101.846
01/19/1986	102.476
11/24/1986	103.388
04/06/1988	102.250
04/05/1989	102.554
01/09/1990	103.335
11/24/1990	103.891
02/01/1992	102.618
04/11/1993	101.669
03/03/1994	101.797
12/27/1994	102.954
02/09/1996	103.938
01/02/1997	103.747
10/08/1997	101.848
11/26/1998	103.770
02/28/2000	102.535
05/05/2001	101.564
12/20/2001	101.551
11/26/2002	103.607
10/24/2003	102.141
02/08/2005	101.611
11/28/2005	102.758
11/27/2006	102.360
01/07/2008	102.466
02/18/2009	103.533
01/10/2010	102.613
11/17/2010	103.244
10/02/2011	102.261
01/20/2013	103.921
01/28/2014	102.385
04/22/2015	101.880
01/04/2016	103.588
11/01/2016	102.135
01/31/2018	102.216
01/12/2019	102.547
04/21/2020	101.945
11/24/2020	103.047
12/21/2021	102.028
03/30/2023	102.124
01/25/2024	102.652
12/24/2024	103.394
01/05/2026	103.071
12/13/2026	101.884
02/23/2028	102.184
01/13/2029	102.463
01/26/2030	103.324
03/04/2031	102.394
01/21/2032	102.662
12/24/2032	102.081
11/16/2033	103.674
02/19/2035	102.392
02/27/2036	102.439
03/09/2037	101.150
12/15/2037	102.810
12/11/2038	101.600
01/14/2040	102.309
12/25/2040	102.601
04/15/2042	102.628
02/26/2043	102.511
03/21/2044	102.137
11/28/2044	102.309
12/08/2045	102.149
02/02/2047	101.916
12/10/2047	103.015
03/17/2049	102.094
02/09/2050	101.843
04/09/2051	101.681
04/17/2052	101.413
12/10/2052	101.888
12/11/2053	101.966
11/01/2054	103.390
02/08/2056	103.899
01/02/2057	103.673
11/25/2057	102.073
12/02/2058	103.152
01/23/2060	101.732
01/15/2061	102.564
01/03/2062	102.213
01/02/2063	102.303

12/23/2063	103.160
12/02/2064	101.920
11/04/2065	101.378
12/15/2066	103.157
01/20/2068	102.940
09/23/2069	101.513
12/14/2069	101.459
12/19/2070	101.579
11/03/2071	101.955
12/25/2072	104.120
12/15/2073	102.761
11/24/2074	101.705
10/30/2075	103.222
08/26/2077	101.135
12/02/2077	102.003
03/05/2079	101.652
12/17/2079	103.761
11/21/2080	103.236
02/19/2082	103.031
02/20/2083	102.911
11/26/2083	103.491
12/14/2084	102.780
11/01/2085	102.328
11/23/2086	102.479
12/09/2087	102.211
11/05/2088	102.560
11/10/2089	102.544
12/09/2090	103.549
01/31/2092	103.189
11/07/2092	101.646
12/14/2093	101.854
12/27/2094	102.578
12/14/2095	102.869
03/19/2097	102.983

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

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1.00	101.135
1.01	101.150
1.02	101.275
1.02	101.378
1.03	101.390
1.04	101.413
1.04	101.459
1.05	101.509
1.06	101.513
1.06	101.551
1.07	101.564
1.08	101.579
1.09	101.600
1.09	101.611
1.10	101.646
1.11	101.652
1.12	101.669
1.12	101.678
1.13	101.681
1.14	101.696
1.15	101.705
1.16	101.707
1.17	101.726
1.18	101.732
1.18	101.734
1.19	101.797
1.20	101.843
1.21	101.846
1.22	101.848
1.23	101.851
1.24	101.854
1.25	101.880
1.26	101.884
1.27	101.888
1.28	101.916
1.29	101.920
1.30	101.929
1.31	101.945
1.32	101.951
1.33	101.955
1.35	101.966
1.36	101.987
1.37	101.991
1.38	102.003
1.39	102.014
1.40	102.028
1.42	102.034
1.43	102.073
1.44	102.081
1.46	102.094
1.47	102.100
1.48	102.114
1.50	102.124
1.51	102.135
1.53	102.137

1.54	102.141
1.56	102.149
1.57	102.163
1.59	102.164
1.60	102.184
1.62	102.211
1.64	102.213
1.65	102.216
1.67	102.250
1.69	102.261
1.71	102.272
1.73	102.303
1.75	102.309
1.77	102.309
1.79	102.323
1.81	102.327
1.83	102.328
1.85	102.360
1.87	102.378
1.89	102.385
1.92	102.392
1.94	102.392
1.96	102.394
1.99	102.412
2.01	102.423
2.04	102.439
2.07	102.463
2.09	102.466
2.12	102.473
2.15	102.476
2.18	102.479
2.21	102.479
2.24	102.504
2.27	102.511
2.31	102.535
2.34	102.544
2.38	102.547
2.41	102.554
2.45	102.556
2.49	102.560
2.53	102.564
2.57	102.578
2.61	102.601
2.65	102.613
2.70	102.618
2.75	102.628
2.80	102.652
2.85	102.662
2.90	102.674
2.95	102.677
3.01	102.696
3.07	102.758
3.13	102.761
3.19	102.774
3.26	102.780
3.32	102.810
3.40	102.823
3.47	102.835
3.55	102.842
3.63	102.867
3.72	102.869
3.80	102.872
3.90	102.911
4.00	102.940
4.10	102.954
4.21	102.983
4.32	103.015
4.45	103.031
4.58	103.047
4.71	103.071
4.86	103.092
5.01	103.126
5.17	103.152
5.35	103.157
5.54	103.160
5.74	103.189
5.95	103.222
6.19	103.236
6.44	103.244
6.71	103.266
7.01	103.324
7.33	103.335
7.69	103.374
8.08	103.388
8.52	103.390
9.00	103.394
9.55	103.491
10.16	103.533
10.86	103.549
11.66	103.588
12.59	103.607
13.68	103.673
14.97	103.674
16.54	103.723
18.47	103.747

20.92	103.760
24.10	103.761
28.44	103.770
34.68	103.891
44.42	103.899
61.77	103.921
101.36	103.938
282.36	104.120

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
**Tr (yrs) Link: 1**

1.05-Year	101.512
1.11-Year	101.655
1.25-Year	101.881
2.00-Year	102.418
3.33-Year	102.813
5-Year	103.124
10-Year	103.529
25-Year	103.755
50-Year	103.899
100-Year	103.938

**Postdeveloped Infiltrated Water Statistics**

Volume Statistics Computed for Entire Simulation

**Statistic Link: 1**

Total Inflow Volume (ac-ft)	5952.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data \*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 3.533 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 11541. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 17311. cu-ft  
 2-Year Discharge Rate : 0.145 cfs

\*\*\*\*\*Compliance Point Results \*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data \*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	0.386	12/07/1939	0.144
01/31/1941	0.148	01/18/1941	0.110
12/15/1941	0.388	12/20/1941	0.131
02/10/1943	0.154	11/23/1942	0.230
01/23/1944	0.116	10/17/1943	0.105
02/07/1945	0.481	02/07/1945	0.142
02/05/1946	0.295	02/06/1946	0.121
02/02/1947	0.301	12/05/1946	0.144
03/21/1948	0.520	10/19/1947	0.147
02/22/1949	0.261	02/22/1949	0.135
03/03/1950	1.075	03/05/1950	0.185
02/09/1951	0.430	02/09/1951	0.317
01/24/1952	0.113	10/03/1951	0.122
01/11/1953	0.161	01/18/1953	0.223
01/22/1954	0.261	01/22/1954	0.131
04/12/1955	0.122	11/19/1954	0.129
03/04/1956	0.280	01/06/1956	0.371
02/25/1957	0.232	02/26/1957	0.132
01/16/1958	0.281	01/17/1958	0.135
01/12/1959	0.302	01/13/1959	0.204
12/15/1959	0.323	11/21/1959	0.142
02/14/1961	0.276	11/24/1960	0.232
03/04/1962	0.148	12/24/1961	0.122
02/03/1963	0.164	11/30/1962	0.123
01/01/1964	0.263	11/23/1963	0.130
02/26/1965	0.326	12/01/1964	0.137
01/06/1966	0.201	01/14/1966	0.145
01/19/1967	0.508	12/13/1966	0.217
02/03/1968	0.263	01/20/1968	0.137
12/03/1968	0.282	12/11/1968	0.145
01/13/1970	0.219	01/27/1970	0.180
12/06/1970	0.249	12/07/1970	0.158
02/28/1972	0.670	03/05/1972	0.596
01/13/1973	0.242	12/26/1972	0.304
02/18/1974	0.362	12/27/1973	0.150



12/26/1974	0.438	12/27/1974	0.133
01/27/1976	0.303	02/27/1976	0.147
05/31/1977	0.043	06/04/1977	0.114
12/10/1977	0.257	12/15/1977	0.221
03/04/1979	0.252	03/05/1979	0.121
12/17/1979	0.406	12/18/1979	0.577
12/26/1980	0.161	12/30/1980	0.140
10/06/1981	0.515	10/06/1981	0.415
01/05/1983	0.289	03/09/1983	0.180
03/14/1984	0.276	03/21/1984	0.127
02/11/1985	0.184	11/11/1984	0.126
01/18/1986	0.608	01/19/1986	0.147
11/24/1986	0.536	11/24/1986	0.422
04/06/1988	0.268	04/06/1988	0.140
04/05/1989	0.295	04/05/1989	0.157
01/09/1990	0.974	01/09/1990	0.399
11/24/1990	0.830	11/24/1990	0.663
01/27/1992	0.254	02/01/1992	0.168
06/09/1993	0.214	04/11/1993	0.120
03/03/1994	0.163	03/03/1994	0.125
02/19/1995	0.341	12/27/1994	0.257
02/09/1996	0.790	02/09/1996	0.688
01/02/1997	0.494	01/02/1997	0.589
02/28/1998	0.182	10/08/1997	0.127
11/25/1998	0.486	11/26/1998	0.601
03/26/2000	0.272	02/28/2000	0.154
05/05/2001	0.209	05/05/2001	0.116
05/03/2002	0.744	12/20/2001	0.116
03/31/2003	0.570	11/26/2002	0.521
01/23/2004	0.139	10/24/2003	0.136
02/07/2005	0.240	02/08/2005	0.118
02/27/2006	0.308	11/28/2005	0.200
12/14/2006	0.228	11/27/2006	0.143
03/21/2008	0.379	01/07/2008	0.146
02/17/2009	0.588	02/18/2009	0.486
01/10/2010	0.395	01/10/2010	0.167
11/17/2010	0.513	11/17/2010	0.362
01/31/2012	0.326	10/02/2011	0.140
01/20/2013	0.745	01/20/2013	0.679
12/06/2013	0.313	01/28/2014	0.144
03/30/2015	0.190	04/22/2015	0.128
01/04/2016	0.542	01/04/2016	0.512
03/07/2017	0.157	11/01/2016	0.136
01/31/2018	0.292	01/31/2018	0.139
03/30/2019	0.289	01/12/2019	0.156
04/14/2020	0.190	04/21/2020	0.130
02/10/2021	0.469	11/24/2020	0.288
03/26/2022	0.139	12/21/2021	0.133
03/30/2023	0.334	03/30/2023	0.136
01/19/2024	0.263	01/25/2024	0.175
12/22/2024	0.549	12/24/2024	0.424
03/09/2026	0.349	01/05/2026	0.297
01/27/2027	0.304	12/13/2026	0.128
02/19/2028	0.376	02/23/2028	0.138
12/04/2028	0.291	01/13/2029	0.146
02/16/2030	0.389	01/26/2030	0.394
12/30/2030	0.364	03/04/2031	0.144
01/20/2032	0.585	01/21/2032	0.177
03/01/2033	0.165	12/24/2032	0.134
01/15/2034	0.661	11/16/2033	0.553
02/19/2035	0.323	02/19/2035	0.144
03/24/2036	0.305	02/27/2036	0.145
03/09/2037	0.012	03/09/2037	0.100
12/15/2037	0.223	12/15/2037	0.214
02/07/2039	0.161	12/11/2038	0.118
01/14/2040	0.604	01/14/2040	0.141
12/25/2040	0.342	12/25/2040	0.165
02/20/2042	0.359	04/15/2042	0.170
03/31/2043	0.538	02/26/2043	0.151
05/01/2044	0.212	03/21/2044	0.136
02/11/2045	0.245	11/28/2044	0.141
02/16/2046	0.309	12/08/2045	0.136
02/01/2047	0.194	02/02/2047	0.129
04/21/2048	0.173	12/10/2047	0.277
03/16/2049	0.194	03/17/2049	0.135
12/04/2049	0.327	02/09/2050	0.126
04/06/2051	0.254	04/09/2051	0.121
04/17/2052	0.153	04/17/2052	0.111
06/04/2053	0.586	12/10/2052	0.128
04/08/2054	0.109	12/11/2053	0.131
02/17/2055	0.499	11/01/2054	0.423
02/07/2056	0.907	02/08/2056	0.668
11/19/2056	0.992	01/02/2057	0.553
01/24/2058	0.344	11/25/2057	0.134
12/28/2058	0.396	12/02/2058	0.326
01/19/2060	0.148	01/23/2060	0.123
01/10/2061	0.321	01/15/2061	0.159
02/03/2062	1.222	01/03/2062	0.138
12/29/2062	0.259	01/02/2063	0.141
12/23/2063	0.467	12/23/2063	0.329
11/30/2064	0.223	12/02/2064	0.129
01/13/2066	0.122	11/04/2065	0.109
01/19/2067	0.311	12/15/2066	0.328
01/18/2068	0.640	01/20/2068	0.252
01/04/2069	0.172	09/23/2069	0.115

04/09/2070	0.145	12/14/2069	0.112
02/14/2071	0.159	12/19/2070	0.117
02/27/2072	0.171	11/03/2071	0.130
12/25/2072	0.714	12/25/2072	1.654
03/16/2074	0.384	12/15/2073	0.201
01/23/2075	0.083	11/24/2074	0.122
03/24/2076	0.426	10/30/2075	0.353
03/02/2077	0.048	08/26/2077	0.099
12/02/2077	0.161	12/02/2077	0.132
02/25/2079	0.215	03/05/2079	0.120
12/17/2079	0.797	12/17/2079	0.596
11/21/2080	0.352	11/21/2080	0.359
02/13/2082	0.439	02/19/2082	0.283
02/19/2083	0.269	02/20/2083	0.243
11/26/2083	0.326	11/26/2083	0.467
12/14/2084	0.226	12/14/2084	0.206
01/18/2086	0.318	11/01/2085	0.142
12/21/2086	0.298	11/23/2086	0.147
01/14/2088	0.196	12/09/2087	0.138
11/05/2088	0.349	11/05/2088	0.158
01/07/2090	0.164	11/10/2089	0.156
12/04/2090	0.303	12/09/2090	0.494
04/28/2092	0.520	01/31/2092	0.341
03/22/2093	0.146	11/07/2092	0.119
03/01/2094	0.122	12/14/2093	0.127
02/18/2095	0.193	12/27/2094	0.161
01/14/2096	0.244	12/14/2095	0.231
01/29/2097	0.536	03/19/2097	0.267

\*\*\*\*Point of Compliance Ranked Maxima Flow Data \*\*\*\*

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.012	1.00	0.099
1.01	0.043	1.01	0.100
1.02	0.048	1.02	0.105
1.02	0.083	1.02	0.109
1.03	0.109	1.03	0.110
1.04	0.113	1.04	0.111
1.04	0.116	1.04	0.112
1.05	0.122	1.05	0.114
1.06	0.122	1.06	0.115
1.06	0.122	1.06	0.116
1.07	0.139	1.07	0.116
1.08	0.139	1.08	0.117
1.09	0.145	1.09	0.118
1.09	0.146	1.09	0.118
1.10	0.148	1.10	0.119
1.11	0.148	1.11	0.120
1.12	0.148	1.12	0.120
1.12	0.153	1.12	0.121
1.13	0.154	1.13	0.121
1.14	0.157	1.14	0.121
1.15	0.159	1.15	0.122
1.16	0.161	1.16	0.122
1.17	0.161	1.17	0.122
1.18	0.161	1.18	0.123
1.18	0.161	1.18	0.123
1.19	0.163	1.19	0.125
1.20	0.164	1.20	0.126
1.21	0.164	1.21	0.126
1.22	0.165	1.22	0.127
1.23	0.171	1.23	0.127
1.24	0.172	1.24	0.127
1.25	0.173	1.25	0.128
1.26	0.182	1.26	0.128
1.27	0.184	1.27	0.128
1.28	0.190	1.28	0.129
1.29	0.190	1.29	0.129
1.30	0.193	1.30	0.129
1.31	0.194	1.31	0.130
1.32	0.194	1.32	0.130
1.33	0.196	1.33	0.130
1.35	0.201	1.35	0.131
1.36	0.209	1.36	0.131
1.37	0.212	1.37	0.131
1.38	0.214	1.38	0.132
1.39	0.215	1.39	0.132
1.40	0.219	1.40	0.133
1.42	0.223	1.42	0.133
1.43	0.223	1.43	0.134
1.44	0.226	1.44	0.134
1.46	0.228	1.46	0.135
1.47	0.232	1.47	0.135
1.48	0.240	1.48	0.135
1.50	0.242	1.50	0.136
1.51	0.244	1.51	0.136
1.53	0.245	1.53	0.136
1.54	0.249	1.54	0.136
1.56	0.252	1.56	0.136
1.57	0.254	1.57	0.137
1.59	0.254	1.59	0.137

1.60	0.257	1.60	0.138
1.62	0.259	1.62	0.138
1.64	0.261	1.64	0.138
1.65	0.261	1.65	0.139
1.67	0.263	1.67	0.140
1.69	0.263	1.69	0.140
1.71	0.263	1.71	0.140
1.73	0.268	1.73	0.141
1.75	0.269	1.75	0.141
1.77	0.272	1.77	0.141
1.79	0.276	1.79	0.142
1.81	0.276	1.81	0.142
1.83	0.280	1.83	0.142
1.85	0.281	1.85	0.143
1.87	0.282	1.87	0.144
1.89	0.289	1.89	0.144
1.92	0.289	1.92	0.144
1.94	0.291	1.94	0.144
1.96	0.292	1.96	0.144
1.99	0.295	1.99	0.145
2.01	0.295	2.01	0.145
2.04	0.298	2.04	0.145
2.07	0.301	2.07	0.146
2.09	0.302	2.09	0.146
2.12	0.303	2.12	0.147
2.15	0.303	2.15	0.147
2.18	0.304	2.18	0.147
2.21	0.305	2.21	0.147
2.24	0.308	2.24	0.150
2.27	0.309	2.27	0.151
2.31	0.311	2.31	0.154
2.34	0.313	2.34	0.156
2.38	0.318	2.38	0.156
2.41	0.321	2.41	0.157
2.45	0.323	2.45	0.158
2.49	0.323	2.49	0.158
2.53	0.326	2.53	0.159
2.57	0.326	2.57	0.161
2.61	0.326	2.61	0.165
2.65	0.327	2.65	0.167
2.70	0.334	2.70	0.168
2.75	0.341	2.75	0.170
2.80	0.342	2.80	0.175
2.85	0.344	2.85	0.177
2.90	0.349	2.90	0.180
2.95	0.349	2.95	0.180
3.01	0.352	3.01	0.185
3.07	0.359	3.07	0.200
3.13	0.362	3.13	0.201
3.19	0.364	3.19	0.204
3.26	0.376	3.26	0.206
3.32	0.379	3.32	0.214
3.40	0.384	3.40	0.217
3.47	0.386	3.47	0.221
3.55	0.388	3.55	0.223
3.63	0.389	3.63	0.230
3.72	0.395	3.72	0.231
3.80	0.396	3.80	0.232
3.90	0.406	3.90	0.243
4.00	0.426	4.00	0.252
4.10	0.430	4.10	0.257
4.21	0.438	4.21	0.267
4.32	0.439	4.32	0.277
4.45	0.467	4.45	0.283
4.58	0.469	4.58	0.288
4.71	0.481	4.71	0.297
4.86	0.486	4.86	0.304
5.01	0.494	5.01	0.317
5.17	0.499	5.17	0.326
5.35	0.508	5.35	0.328
5.54	0.513	5.54	0.329
5.74	0.515	5.74	0.341
5.95	0.520	5.95	0.353
6.19	0.520	6.19	0.359
6.44	0.536	6.44	0.362
6.71	0.536	6.71	0.371
7.01	0.538	7.01	0.394
7.33	0.542	7.33	0.399
7.69	0.549	7.69	0.415
8.08	0.570	8.08	0.422
8.52	0.585	8.52	0.423
9.00	0.586	9.00	0.424
9.55	0.588	9.55	0.467
10.16	0.604	10.16	0.486
10.86	0.608	10.86	0.494
11.66	0.640	11.66	0.512
12.59	0.661	12.59	0.521
13.68	0.670	13.68	0.553
14.97	0.714	14.97	0.553
16.54	0.744	16.54	0.577
18.47	0.745	18.47	0.589
20.92	0.790	20.92	0.596
24.10	0.797	24.10	0.596
28.44	0.830	28.44	0.601
34.68	0.907	34.68	0.663

44.42	0.974	44.42	0.668
61.77	0.992	61.77	0.679
101.36	1.075	101.36	0.688
282.36	1.222	282.36	1.654

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	0.295	2-Year	0.145
5-Year	0.493	5-Year	0.316
10-Year	0.600	10-Year	0.481
25-Year	0.804	25-Year	0.597
50-Year	0.981	50-Year	0.672
100-Year	1.072	100-Year	0.688
200-Year	1.173	200-Year	1.329

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
6.112E-03	2.3680E-01	8.271E-03	7.4757E-01
0.012	1.8183E-01	0.017	7.1223E-01
0.018	1.4869E-01	0.025	6.6472E-01
0.024	1.2486E-01	0.033	6.1039E-01
0.031	1.0625E-01	0.041	5.5386E-01
0.037	9.1206E-02	0.050	4.9653E-01
0.043	7.8997E-02	0.058	4.3711E-01
0.049	6.8893E-02	0.066	3.7660E-01
0.055	6.0447E-02	0.074	3.1538E-01
0.061	5.3261E-02	0.083	2.5445E-01
0.067	4.7175E-02	0.091	1.9917E-01
0.073	4.1832E-02	0.099	1.4961E-01
0.079	3.7205E-02	0.108	1.0831E-01
0.086	3.3133E-02	0.116	7.5332E-02
0.092	2.9638E-02	0.124	4.9403E-02
0.098	2.6430E-02	0.132	3.0177E-02
0.104	2.3649E-02	0.141	1.6849E-02
0.110	2.1262E-02	0.148	1.0169E-02
0.116	1.9150E-02	0.157	7.9435E-03
0.122	1.7267E-02	0.165	6.8121E-03
0.128	1.5521E-02	0.174	5.9912E-03
0.134	1.4036E-02	0.182	5.3103E-03
0.141	1.2639E-02	0.190	4.7789E-03
0.148	1.1278E-02	0.199	4.3010E-03
0.153	1.0348E-02	0.207	3.9392E-03
0.159	9.4640E-03	0.215	3.5616E-03
0.165	8.5860E-03	0.223	3.2425E-03
0.171	7.8178E-03	0.232	2.9241E-03
0.177	7.1543E-03	0.240	2.6541E-03
0.183	6.5998E-03	0.248	2.4050E-03
0.189	6.0489E-03	0.256	2.1776E-03
0.196	5.5507E-03	0.265	2.0014E-03
0.202	5.1067E-03	0.273	1.8476E-03
0.208	4.7255E-03	0.281	1.7018E-03
0.214	4.3558E-03	0.290	1.5537E-03
0.220	4.0223E-03	0.295	1.4727E-03
0.226	3.7104E-03	0.306	1.3234E-03
0.232	3.4331E-03	0.314	1.2310E-03
0.238	3.1833E-03	0.323	1.1292E-03
0.244	2.9472E-03	0.331	1.0440E-03
0.251	2.7284E-03	0.339	9.7109E-04
0.257	2.5234E-03	0.347	9.0756E-04
0.263	2.3581E-03	0.356	8.4763E-04
0.269	2.1942E-03	0.364	7.8915E-04
0.275	2.0324E-03	0.372	7.3283E-04
0.281	1.9003E-03	0.380	6.8662E-04
0.287	1.7624E-03	0.389	6.3103E-04
0.295	1.6051E-03	0.397	5.8265E-04
0.299	1.5285E-03	0.405	5.4367E-04
0.306	1.4180E-03	0.414	5.0612E-04
0.312	1.3350E-03	0.422	4.7219E-04
0.318	1.2722E-03	0.430	4.4403E-04
0.324	1.2043E-03	0.438	4.2165E-04
0.330	1.1350E-03	0.447	3.9782E-04
0.336	1.0729E-03	0.455	3.7400E-04
0.342	1.0130E-03	0.463	3.5017E-04
0.348	9.6532E-04	0.471	3.2273E-04
0.355	9.1478E-04	0.480	3.0180E-04
0.361	8.6712E-04	0.488	2.7725E-04
0.367	8.1225E-04	0.493	2.6345E-04
0.373	7.6388E-04	0.505	2.3393E-04
0.379	7.2489E-04	0.513	2.1010E-04

0.385	6.8807E-04	0.521	1.9061E-04
0.391	6.5124E-04	0.529	1.7039E-04
0.397	6.2092E-04	0.538	1.4440E-04
0.403	5.8915E-04	0.546	1.2563E-04
0.410	5.6749E-04	0.554	1.1119E-04
0.416	5.4511E-04	0.562	9.7470E-05
0.422	5.2562E-04	0.571	8.5918E-05
0.428	5.0251E-04	0.579	7.5088E-05
0.434	4.7796E-04	0.587	6.6424E-05
0.440	4.5197E-04	0.596	5.6316E-05
0.446	4.3609E-04	0.604	4.8374E-05
0.452	4.1154E-04	0.612	4.5486E-05
0.458	3.9349E-04	0.620	4.3320E-05
0.465	3.6894E-04	0.629	3.9710E-05
0.471	3.5450E-04	0.637	3.4656E-05
0.477	3.3573E-04	0.645	3.1046E-05
0.483	3.1985E-04	0.653	2.5992E-05
0.489	3.0252E-04	0.662	1.9494E-05
0.493	2.9160E-04	0.670	1.2996E-05
0.501	2.7653E-04	0.678	1.0830E-05
0.507	2.6281E-04	0.687	8.6640E-06
0.513	2.5198E-04	0.695	7.2200E-06
0.520	2.3609E-04	0.703	5.7760E-06
0.526	2.2599E-04	0.711	5.7760E-06
0.532	2.1371E-04	0.720	5.0540E-06
0.538	2.0360E-04	0.728	5.0540E-06
0.544	1.9638E-04	0.736	5.0540E-06
0.550	1.8339E-04	0.744	5.0540E-06
0.556	1.7689E-04	0.753	5.0540E-06
0.562	1.6245E-04	0.761	5.0540E-06
0.568	1.5306E-04	0.769	5.0540E-06
0.575	1.4440E-04	0.778	4.3320E-06
0.581	1.3140E-04	0.786	4.3320E-06
0.587	1.2563E-04	0.794	4.3320E-06
0.593	1.1552E-04	0.802	4.3320E-06
0.599	1.0830E-04	0.811	4.3320E-06
0.605	1.0108E-04	0.819	4.3320E-06
0.611	9.3860E-05	0.827	4.3320E-06
0.617	8.9528E-05	0.835	4.3320E-06
0.623	8.1586E-05	0.844	4.3320E-06
0.630	7.4366E-05	0.852	4.3320E-06
0.636	7.1478E-05	0.860	4.3320E-06
0.642	6.5702E-05	0.869	4.3320E-06
0.648	6.2814E-05	0.877	4.3320E-06
0.654	5.9926E-05	0.885	4.3320E-06
0.660	5.7760E-05	0.893	4.3320E-06
0.666	5.0540E-05	0.902	4.3320E-06
0.672	4.7652E-05	0.910	4.3320E-06
0.678	4.2598E-05	0.918	4.3320E-06
0.685	3.8266E-05	0.926	4.3320E-06
0.691	3.4656E-05	0.935	4.3320E-06
0.697	3.2490E-05	0.943	4.3320E-06
0.703	3.0324E-05	0.951	4.3320E-06
0.709	2.8158E-05	0.959	3.6100E-06
0.715	2.4548E-05	0.968	3.6100E-06
0.721	2.3826E-05	0.976	2.8880E-06
0.727	2.1660E-05	0.981	2.8250E-06
0.733	1.9494E-05	0.993	2.8880E-06
0.740	1.8772E-05	1.001	2.8880E-06
0.746	1.5162E-05	1.009	2.8880E-06
0.752	1.4440E-05	1.017	2.8880E-06
0.758	1.3718E-05	1.026	2.8880E-06
0.764	1.2274E-05	1.034	2.8880E-06
0.770	1.1552E-05	1.042	2.8880E-06
0.776	1.0830E-05	1.050	2.8880E-06
0.782	1.0830E-05	1.059	2.8880E-06
0.788	1.0108E-05	1.067	2.8880E-06
0.795	8.6640E-06	1.075	2.8880E-06
0.801	7.9420E-06	1.084	2.8880E-06
0.807	7.9420E-06	1.092	2.8880E-06
0.813	7.9420E-06	1.100	2.8880E-06
0.819	7.9420E-06	1.108	2.8880E-06
0.825	7.9420E-06	1.117	2.8880E-06
0.831	7.2200E-06	1.125	2.8880E-06
0.837	7.2200E-06	1.133	2.8880E-06
0.843	7.2200E-06	1.141	2.8880E-06
0.850	7.2200E-06	1.150	2.8880E-06
0.856	7.2200E-06	1.158	2.8880E-06
0.862	7.2200E-06	1.166	2.8880E-06
0.868	7.2200E-06	1.175	2.8880E-06
0.874	7.2200E-06	1.183	2.8880E-06
0.880	7.2200E-06	1.191	2.8880E-06
0.886	7.2200E-06	1.199	2.8880E-06
0.892	6.4980E-06	1.208	2.8880E-06
0.898	6.4980E-06	1.216	2.8880E-06
0.905	6.4980E-06	1.224	2.8880E-06
0.911	5.7760E-06	1.232	2.8880E-06
0.917	5.0540E-06	1.241	2.8880E-06
0.923	5.0540E-06	1.249	2.1660E-06
0.929	5.0540E-06	1.257	2.1660E-06
0.935	5.0540E-06	1.266	2.1660E-06
0.941	4.3320E-06	1.274	2.1660E-06
0.947	4.3320E-06	1.282	2.1660E-06
0.953	4.3320E-06	1.290	2.1660E-06
0.960	3.6100E-06	1.299	2.1660E-06

0.966	3.6100E-06	1.307	2.1660E-06
0.972	3.6100E-06	1.315	2.1660E-06
0.981	2.8016E-06	1.323	2.1660E-06
0.984	2.8880E-06	1.332	2.1660E-06
0.990	2.8880E-06	1.340	2.1660E-06
0.996	2.1660E-06	1.348	2.1660E-06
1.002	2.1660E-06	1.357	2.1660E-06
1.008	2.1660E-06	1.365	2.1660E-06
1.015	2.1660E-06	1.373	2.1660E-06
1.021	2.1660E-06	1.381	2.1660E-06
1.027	2.1660E-06	1.390	2.1660E-06
1.033	2.1660E-06	1.398	2.1660E-06
1.039	2.1660E-06	1.406	2.1660E-06
1.045	2.1660E-06	1.414	2.1660E-06
1.051	2.1660E-06	1.423	2.1660E-06
1.057	2.1660E-06	1.431	2.1660E-06
1.064	2.1660E-06	1.439	2.1660E-06
1.070	2.1660E-06	1.448	2.1660E-06
1.076	7.2200E-07	1.456	2.1660E-06
1.082	7.2200E-07	1.464	1.4440E-06
1.088	7.2200E-07	1.472	1.4440E-06
1.094	7.2200E-07	1.481	1.4440E-06
1.100	7.2200E-07	1.489	1.4440E-06
1.106	7.2200E-07	1.497	1.4440E-06
1.112	7.2200E-07	1.505	1.4440E-06
1.119	7.2200E-07	1.514	1.4440E-06
1.125	7.2200E-07	1.522	1.4440E-06
1.131	7.2200E-07	1.530	1.4440E-06
1.137	7.2200E-07	1.538	7.2200E-07
1.143	7.2200E-07	1.547	7.2200E-07
1.149	7.2200E-07	1.555	7.2200E-07
1.155	7.2200E-07	1.563	7.2200E-07
1.161	7.2200E-07	1.572	7.2200E-07
1.167	7.2200E-07	1.580	7.2200E-07
1.174	7.2200E-07	1.588	7.2200E-07
1.180	7.2200E-07	1.596	7.2200E-07
1.186	7.2200E-07	1.605	7.2200E-07
1.192	7.2200E-07	1.613	7.2200E-07
1.198	7.2200E-07	1.621	7.2200E-07
1.204	7.2200E-07	1.629	7.2200E-07
1.210	7.2200E-07	1.638	7.2200E-07
1.216	7.2200E-07	1.646	7.2200E-07
1.222	7.2200E-07	1.654	7.2200E-07

\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\*

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-14.0%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):	-8.3%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	0.7%	PASS	
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.9%	PASS	

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\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS

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MGS FLOOD  
PROJECT REPORT

Program Version: 3.12

Run Date: 11/10/2009 11:41 AM

Input File Name: pondPR.fld  
 Project Name: Burien NERA  
 Analysis Title: Combined Stormwater Wetland and Detention Pond PR  
 Comments: 85% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	-----Area(Acres)-----		-----Developed-----	
	Predeveloped	To Node	Bypass Node	
<b>Till Forest</b>	28.541	0.000	0.000	
Till Pasture	0.000	0.000	0.000	
Till Grass	0.000	2.697	0.000	
Outwash Forest	0.000	0.000	0.000	
Outwash Pasture	0.000	0.000	0.000	
Outwash Grass	0.000	1.275	0.000	
Wetland	0.000	1.050	0.000	
Impervious	0.000	23.519	0.000	
<b>Subbasin Total</b>	<b>28.541</b>	<b>28.541</b>	<b>0.000</b>	

	-----Lateral Flow Connections-----					
	-----Predeveloped-----			-----Developed-----		
	Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node
Till Pasture	Node	Node	Node	Node	Node	Node
Till Grass	Node	Node	Node	Node	Node	Node
Outwash Forest	Node	Node	Node	Node	Node	Node
Outwash Pasture	Node	Node	Node	Node	Node	Node
Outwash Grass	Node	Node	Node	Node	Node	Node
Wetland	Node	Node	Node	Node	Node	Node
Impervious	Node		Node			Node
Lateral 1						
Lateral 2						

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*\* Predeveloped Structure Summary \*\*\*

**\*\*\* Postdeveloped Structure Summary \*\*\***

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation : 100.00 ft  
 Riser Crest Elevation : 106.00 ft  
 Max Pond Elevation : 107.00 ft  
 Max Storage Depth : 6.00 ft  
 Pond Bottom Length : 374.0 ft  
 Pond Bottom Width : 187.0 ft  
 Pond Side Slopes : L1= 3.00 L2= 3.00 W1= 3.00 W2= 3.00 ft/ft  
 Pond Bottom Area : 69952. sq-ft  
 Area at Riser Crest El : 91,446. sq-ft  
 : 2.099 acres  
 Volume at Riser Crest : 482,755. cu-ft  
 : 11.083 ac-ft  
 Area at Max Elevation : 95280. sq-ft  
 : 2.187 acres  
 Vol at Max Elevation : 576,033. cu-ft  
 : 13.224 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 30.00 in  
 Common Length : 0.108 ft  
 Riser Crest Elevation : 106.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1---

Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 2.41 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 103.56 ft  
 Length : 1.30 in  
 Height : 29.33 in  
 Orientation : Vertical  
 Elbow : No

**\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\***

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infil Discharge (cfs)
100.000		0.000	0.000	0.000
100.025		0.040	0.025	0.000
100.050		0.080	0.035	0.000
100.100		0.161	0.049	0.000
100.200		0.323	0.069	0.000
100.300		0.485	0.085	0.000
100.400		0.649	0.098	0.000
100.500		0.813	0.110	0.000
100.600		0.977	0.120	0.000
100.700		1.143	0.130	0.000
100.800		1.310	0.139	0.000
100.900		1.477	0.147	0.000
101.000		1.645	0.155	0.000
101.100		1.814	0.163	0.000
101.200		1.983	0.170	0.000
101.300		2.154	0.177	0.000
101.400		2.325	0.183	0.000
101.500		2.497	0.190	0.000
101.600		2.669	0.196	0.000
101.700		2.843	0.202	0.000
101.800		3.017	0.208	0.000
101.900		3.192	0.214	0.000
102.000		3.368	0.219	0.000
102.100		3.545	0.225	0.000
102.200		3.723	0.230	0.000
102.300		3.901	0.235	0.000
102.400		4.080	0.240	0.000
102.500		4.260	0.245	0.000
102.600		4.441	0.250	0.000
102.700		4.623	0.255	0.000
102.800		4.805	0.259	0.000
102.900		4.989	0.264	0.000
103.000		5.173	0.268	0.000
103.100		5.358	0.273	0.000
103.200		5.543	0.277	0.000



103.300	5.730	0.282	0.000
103.400	5.917	0.286	0.000
103.439	5.991	0.287	0.000
103.478	6.064	0.289	0.000
103.517	6.138	0.291	0.000
103.556	6.211	0.292	0.000
103.581	6.259	0.295	0.000
103.606	6.306	0.298	0.000
103.631	6.353	0.302	0.000
103.656	6.401	0.306	0.000
103.756	6.591	0.326	0.000
103.856	6.782	0.352	0.000
103.956	6.974	0.381	0.000
104.056	7.167	0.414	0.000
104.156	7.361	0.450	0.000
104.256	7.556	0.489	0.000
104.356	7.751	0.530	0.000
104.456	7.947	0.574	0.000
104.556	8.144	0.620	0.000
104.656	8.342	0.668	0.000
104.756	8.541	0.718	0.000
104.856	8.741	0.770	0.000
104.956	8.941	0.823	0.000
105.056	9.142	0.879	0.000
105.156	9.345	0.936	0.000
105.256	9.548	0.995	0.000
105.356	9.752	1.056	0.000
105.456	9.956	1.118	0.000
105.556	10.162	1.182	0.000
105.656	10.368	1.247	0.000
105.756	10.576	1.314	0.000
105.856	10.784	1.382	0.000
105.892	10.859	1.407	0.000
105.928	10.935	1.432	0.000
105.964	11.010	1.457	0.000
106.000	11.086	1.483	0.000
106.025	11.138	1.604	0.000
106.050	11.191	1.811	0.000
106.075	11.243	2.074	0.000
106.100	11.296	2.381	0.000
106.125	11.349	2.727	0.000
106.150	11.402	3.108	0.000
106.175	11.455	3.520	0.000
106.200	11.507	3.959	0.000
106.300	11.720	5.958	0.000
106.400	11.933	8.245	0.000
106.500	12.146	10.700	0.000
106.600	12.361	13.200	0.000
106.700	12.577	15.621	0.000
106.800	12.793	17.845	0.000
106.900	13.011	19.777	0.000
107.000	13.229	21.347	0.000
107.100	13.448	22.533	0.000
107.200	13.668	23.434	0.000
107.300	13.889	24.509	0.000
107.400	14.111	25.386	0.000
107.500	14.334	26.232	0.000
107.600	14.558	27.052	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date WSEL (ft)

---

12/07/1939	103.616
01/18/1941	102.101
12/20/1941	102.887
11/23/1942	104.111
10/17/1943	101.854
02/07/1945	103.576
02/06/1946	102.483
12/05/1946	103.290
10/19/1947	103.722
02/22/1949	103.178
01/22/1950	103.898
02/09/1951	104.560
10/03/1951	102.477
01/12/1953	104.095
01/22/1954	102.838
11/19/1954	102.787
01/06/1956	104.700
02/26/1957	103.137
01/17/1958	103.155
01/13/1959	104.022
11/21/1959	103.601
11/24/1960	104.235
12/24/1961	102.511
11/30/1962	102.525
11/19/1963	102.656
12/01/1964	103.224

01/07/1966	103.407
12/13/1966	104.035
01/20/1968	103.035
12/11/1968	103.454
01/27/1970	103.939
12/07/1970	103.656
03/05/1972	105.488
12/26/1972	104.530
03/02/1974	103.521
12/27/1974	102.940
02/27/1976	103.632
08/26/1977	102.260
12/15/1977	104.154
03/05/1979	102.422
12/18/1979	105.477
12/30/1980	103.352
10/06/1981	104.976
03/09/1983	103.759
03/21/1984	102.654
11/11/1984	102.686
01/19/1986	103.771
11/24/1986	104.996
04/06/1988	103.331
04/05/1989	103.616
01/09/1990	105.114
11/24/1990	105.622
01/31/1992	103.973
04/11/1993	102.381
03/03/1994	102.610
12/27/1994	104.202
02/09/1996	105.758
01/02/1997	105.480
10/08/1997	102.648
11/26/1998	105.458
02/28/2000	103.585
05/05/2001	102.434
11/15/2001	102.286
11/26/2002	105.220
10/24/2003	103.179
02/08/2005	102.420
11/28/2005	103.992
11/27/2006	103.388
01/07/2008	103.731
02/18/2009	105.280
01/10/2010	103.876
11/17/2010	104.718
10/02/2011	103.416
01/20/2013	105.727
01/28/2014	103.474
04/22/2015	102.608
01/04/2016	105.154
11/01/2016	103.074
01/31/2018	103.236
01/12/2019	103.816
04/21/2020	102.768
11/24/2020	104.497
12/21/2021	103.049
03/30/2023	103.300
01/25/2024	103.898
12/24/2024	104.973
01/04/2026	104.492
01/29/2027	102.842
02/23/2028	103.338
01/13/2029	103.396
01/26/2030	104.815
03/04/2031	103.455
01/21/2032	104.004
12/24/2032	103.139
11/16/2033	105.379
02/19/2035	103.462
02/27/2036	103.667
03/09/2037	101.602
12/15/2037	104.033
12/11/2038	102.257
01/14/2040	103.398
12/25/2040	103.821
04/15/2042	103.909
02/26/2043	103.676
03/21/2044	103.136
03/27/2045	103.358
02/23/2046	103.160
02/02/2047	102.862
12/10/2047	104.397
03/17/2049	103.019
12/04/2049	102.619
04/09/2051	102.576
04/17/2052	102.109
12/10/2052	102.696
12/11/2053	102.881
11/01/2054	105.063
02/08/2056	105.762
01/02/2057	105.318
11/25/2057	103.123
12/02/2058	104.541
01/23/2060	102.520

01/15/2061	103.761
01/03/2062	103.198
01/02/2063	103.393
12/23/2063	104.599
12/02/2064	102.947
01/13/2066	102.030
12/15/2066	104.530
01/20/2068	104.411
09/23/2069	102.209
12/14/2069	102.214
12/19/2070	102.235
11/03/2071	102.874
12/25/2072	106.154
12/15/2073	103.948
11/20/2074	102.429
10/30/2075	104.590
08/26/2077	101.724
12/02/2077	102.994
03/05/2079	102.357
12/17/2079	105.593
11/21/2080	104.739
02/19/2082	104.457
02/20/2083	104.345
11/26/2083	105.064
12/14/2084	103.934
11/01/2085	103.268
11/23/2086	103.733
12/09/2087	103.101
11/05/2088	103.814
11/10/2089	103.672
12/09/2090	105.137
01/31/2092	104.728
11/07/2092	102.295
12/14/2093	102.613
12/27/2094	103.648
12/14/2095	104.045
10/28/2096	104.296

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

---

1.00	101.602
1.01	101.724
1.02	101.854
1.02	102.030
1.03	102.101
1.04	102.109
1.04	102.209
1.05	102.214
1.06	102.235
1.06	102.257
1.07	102.260
1.08	102.286
1.09	102.295
1.09	102.357
1.10	102.381
1.11	102.420
1.12	102.422
1.12	102.429
1.13	102.434
1.14	102.477
1.15	102.483
1.16	102.511
1.17	102.520
1.18	102.525
1.18	102.576
1.19	102.608
1.20	102.610
1.21	102.613
1.22	102.619
1.23	102.648
1.24	102.654
1.25	102.656
1.26	102.686
1.27	102.696
1.28	102.768
1.29	102.787
1.30	102.838
1.31	102.842
1.32	102.862
1.33	102.874
1.35	102.881
1.36	102.887
1.37	102.940
1.38	102.947
1.39	102.994
1.40	103.019
1.42	103.035
1.43	103.049
1.44	103.074
1.46	103.101
1.47	103.123
1.48	103.136
1.50	103.137

1.51	103.139
1.53	103.155
1.54	103.160
1.56	103.178
1.57	103.179
1.59	103.198
1.60	103.224
1.62	103.236
1.64	103.268
1.65	103.290
1.67	103.300
1.69	103.331
1.71	103.338
1.73	103.352
1.75	103.358
1.77	103.388
1.79	103.393
1.81	103.396
1.83	103.398
1.85	103.407
1.87	103.416
1.89	103.454
1.92	103.455
1.94	103.462
1.96	103.474
1.99	103.521
2.01	103.576
2.04	103.585
2.07	103.601
2.09	103.616
2.12	103.616
2.15	103.632
2.18	103.648
2.21	103.656
2.24	103.667
2.27	103.672
2.31	103.676
2.34	103.722
2.38	103.731
2.41	103.733
2.45	103.759
2.49	103.761
2.53	103.771
2.57	103.814
2.61	103.816
2.65	103.821
2.70	103.876
2.75	103.898
2.80	103.898
2.85	103.909
2.90	103.934
2.95	103.939
3.01	103.948
3.07	103.973
3.13	103.992
3.19	104.004
3.26	104.022
3.32	104.033
3.40	104.035
3.47	104.045
3.55	104.095
3.63	104.111
3.72	104.154
3.80	104.202
3.90	104.235
4.00	104.296
4.10	104.345
4.21	104.397
4.32	104.411
4.45	104.457
4.58	104.492
4.71	104.497
4.86	104.530
5.01	104.530
5.17	104.541
5.35	104.560
5.54	104.590
5.74	104.599
5.95	104.700
6.19	104.718
6.44	104.728
6.71	104.739
7.01	104.815
7.33	104.973
7.69	104.976
8.08	104.996
8.52	105.063
9.00	105.064
9.55	105.114
10.16	105.137
10.86	105.154
11.66	105.220
12.59	105.280
13.68	105.318
14.97	105.379

16.54	105.458
18.47	105.477
20.92	105.480
24.10	105.488
28.44	105.593
34.68	105.622
44.42	105.727
61.77	105.758
101.36	105.762
282.36	106.154

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
**Tr (yrs) Link: 1**

1.05-Year	102.216
1.11-Year	102.424
1.25-Year	102.657
2.00-Year	103.552
3.33-Year	104.034
5-Year	104.530
10-Year	105.135
25-Year	105.480
50-Year	105.755
100-Year	105.761

**Postdeveloped Infiltrated Water Statistics**  
 Volume Statistics Computed for Entire Simulation  
**Statistic Link: 1**

Total Inflow Volume (ac-ft)	10884.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data\*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 6.320 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 22929. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 34394. cu-ft  
 2-Year Discharge Rate : 0.293 cfs

\*\*\*\*\*Compliance Point Results\*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data\*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	0.772	12/07/1939	0.300
01/31/1941	0.296	01/18/1941	0.225
12/15/1941	0.776	12/20/1941	0.263
02/10/1943	0.309	11/23/1942	0.434
01/23/1944	0.232	10/17/1943	0.211
02/07/1945	0.962	02/07/1945	0.294
02/05/1946	0.590	02/06/1946	0.244
02/02/1947	0.602	12/05/1946	0.281
03/21/1948	1.039	10/19/1947	0.319
02/22/1949	0.522	02/22/1949	0.276
03/03/1950	2.149	01/22/1950	0.364
02/09/1951	0.860	02/09/1951	0.622
01/24/1952	0.226	10/03/1951	0.244
01/11/1953	0.321	01/12/1953	0.428
01/22/1954	0.522	01/22/1954	0.261
04/12/1955	0.244	11/19/1954	0.259
03/04/1956	0.559	01/06/1956	0.690
02/25/1957	0.463	02/26/1957	0.275
01/16/1958	0.562	01/17/1958	0.275
01/12/1959	0.604	01/13/1959	0.403
12/15/1959	0.646	11/21/1959	0.297
02/14/1961	0.553	11/24/1960	0.481
03/04/1962	0.296	12/24/1961	0.246
02/03/1963	0.329	11/30/1962	0.246
01/01/1964	0.525	11/19/1963	0.253
02/26/1965	0.651	12/01/1964	0.278
01/06/1966	0.402	01/07/1966	0.286
01/19/1967	1.016	12/13/1966	0.407
02/03/1968	0.526	01/20/1968	0.270
12/03/1968	0.564	12/11/1968	0.288
01/13/1970	0.437	01/27/1970	0.376
12/06/1970	0.497	12/07/1970	0.306
02/28/1972	1.340	03/05/1972	1.139
01/13/1973	0.484	12/26/1972	0.608

02/18/1974	0.723	03/02/1974	0.291
12/26/1974	0.875	12/27/1974	0.266
01/27/1976	0.606	02/27/1976	0.302
05/31/1977	0.085	08/26/1977	0.233
12/10/1977	0.513	12/15/1977	0.449
03/04/1979	0.505	03/05/1979	0.241
12/17/1979	0.813	12/18/1979	1.132
12/26/1980	0.322	12/30/1980	0.284
10/06/1981	1.030	10/06/1981	0.834
01/05/1983	0.578	03/09/1983	0.327
03/14/1984	0.552	03/21/1984	0.253
02/11/1985	0.369	11/11/1984	0.254
01/18/1986	1.215	01/19/1986	0.330
11/24/1986	1.071	11/24/1986	0.846
04/06/1988	0.535	04/06/1988	0.283
04/05/1989	0.590	04/05/1989	0.300
01/09/1990	1.948	01/09/1990	0.912
11/24/1990	1.660	11/24/1990	1.225
01/27/1992	0.507	01/31/1992	0.387
06/09/1993	0.427	04/11/1993	0.239
03/03/1994	0.325	03/03/1994	0.250
02/19/1995	0.682	12/27/1994	0.468
02/09/1996	1.579	02/09/1996	1.316
01/02/1997	0.988	01/02/1997	1.133
02/28/1998	0.363	10/08/1997	0.252
11/25/1998	0.972	11/26/1998	1.120
03/26/2000	0.544	02/28/2000	0.295
05/05/2001	0.417	05/05/2001	0.242
05/03/2002	1.488	11/15/2001	0.234
03/31/2003	1.139	11/26/2002	0.974
01/23/2004	0.278	10/24/2003	0.276
02/07/2005	0.480	02/08/2005	0.241
02/27/2006	0.616	11/28/2005	0.393
12/14/2006	0.456	11/27/2006	0.285
03/21/2008	0.757	01/07/2008	0.321
02/17/2009	1.175	02/18/2009	1.010
01/10/2010	0.790	01/10/2010	0.358
11/17/2010	1.025	11/17/2010	0.698
01/31/2012	0.652	10/02/2011	0.286
01/20/2013	1.489	01/20/2013	1.295
12/06/2013	0.627	01/28/2014	0.289
03/30/2015	0.380	04/22/2015	0.250
01/04/2016	1.083	01/04/2016	0.935
03/07/2017	0.313	11/01/2016	0.272
01/31/2018	0.584	01/31/2018	0.279
03/30/2019	0.578	01/12/2019	0.342
04/14/2020	0.380	04/21/2020	0.258
02/10/2021	0.938	11/24/2020	0.593
03/26/2022	0.277	12/21/2021	0.271
03/30/2023	0.669	03/30/2023	0.282
01/19/2024	0.525	01/25/2024	0.364
12/22/2024	1.097	12/24/2024	0.833
03/09/2026	0.697	01/04/2026	0.590
01/27/2027	0.607	01/29/2027	0.261
02/19/2028	0.752	02/23/2028	0.283
12/04/2028	0.583	01/13/2029	0.286
02/16/2030	0.778	01/26/2030	0.748
12/30/2030	0.728	03/04/2031	0.288
01/20/2032	1.169	01/21/2032	0.397
03/01/2033	0.329	12/24/2032	0.275
01/15/2034	1.321	11/16/2033	1.070
02/19/2035	0.645	02/19/2035	0.288
03/24/2036	0.609	02/27/2036	0.308
03/09/2037	0.025	03/09/2037	0.196
12/15/2037	0.445	12/15/2037	0.407
02/07/2039	0.322	12/11/2038	0.233
01/14/2040	1.207	01/14/2040	0.286
12/25/2040	0.684	12/25/2040	0.343
02/20/2042	0.718	04/15/2042	0.368
03/31/2043	1.075	02/26/2043	0.310
05/01/2044	0.424	03/21/2044	0.275
02/11/2045	0.491	03/27/2045	0.284
02/16/2046	0.618	02/23/2046	0.276
02/01/2047	0.388	02/02/2047	0.262
04/21/2048	0.345	12/10/2047	0.548
03/16/2049	0.388	03/17/2049	0.269
12/04/2049	0.654	12/04/2049	0.251
04/06/2051	0.508	04/09/2051	0.249
04/17/2052	0.305	04/17/2052	0.225
06/04/2053	1.172	12/10/2052	0.255
04/08/2054	0.218	12/11/2053	0.263
02/17/2055	0.997	11/01/2054	0.883
02/07/2056	1.813	02/08/2056	1.318
11/19/2056	1.984	01/02/2057	1.033
01/24/2058	0.688	11/25/2057	0.274
12/28/2058	0.791	12/02/2058	0.613
01/19/2060	0.296	01/23/2060	0.246
01/10/2061	0.642	01/15/2061	0.328
02/03/2062	2.444	01/03/2062	0.277
12/29/2062	0.517	01/02/2063	0.286
12/23/2063	0.933	12/23/2063	0.640
11/30/2064	0.446	12/02/2064	0.266
01/13/2066	0.245	01/13/2066	0.221
01/19/2067	0.622	12/15/2066	0.608
01/18/2068	1.280	01/20/2068	0.554

01/04/2069	0.344	09/23/2069	0.230
04/09/2070	0.290	12/14/2069	0.231
02/14/2071	0.319	12/19/2070	0.232
02/27/2072	0.341	11/03/2071	0.263
12/25/2072	1.427	12/25/2072	3.169
03/16/2074	0.767	12/15/2073	0.379
01/23/2075	0.166	11/20/2074	0.242
03/24/2076	0.852	10/30/2075	0.636
03/02/2077	0.096	08/26/2077	0.204
12/02/2077	0.321	12/02/2077	0.268
02/25/2079	0.430	03/05/2079	0.238
12/17/2079	1.593	12/17/2079	1.206
11/21/2080	0.703	11/21/2080	0.709
02/13/2082	0.878	02/19/2082	0.574
02/19/2083	0.538	02/20/2083	0.525
11/26/2083	0.652	11/26/2083	0.884
12/14/2084	0.451	12/14/2084	0.375
01/18/2086	0.636	11/01/2085	0.280
12/21/2086	0.597	11/23/2086	0.322
01/14/2088	0.392	12/09/2087	0.273
11/05/2088	0.698	11/05/2088	0.341
01/07/2090	0.328	11/10/2089	0.309
12/04/2090	0.606	12/09/2090	0.925
04/28/2092	1.040	01/31/2092	0.704
03/22/2093	0.292	11/07/2092	0.235
03/01/2094	0.245	12/14/2093	0.251
02/18/2095	0.387	12/27/2094	0.304
01/14/2096	0.488	12/14/2095	0.411
01/29/2097	1.072	10/28/2096	0.505

\*\*\*Point of Compliance Ranked Maxima Flow Data\*\*\*

Tr (yrs)	Predevelopment Q (cfs)	Tr (yrs)	Postdevelopment Q (cfs)
1.00	0.025	1.00	0.196
1.01	0.085	1.01	0.204
1.02	0.096	1.02	0.211
1.02	0.166	1.02	0.221
1.03	0.218	1.03	0.225
1.04	0.226	1.04	0.225
1.04	0.232	1.04	0.230
1.05	0.244	1.05	0.231
1.06	0.245	1.06	0.232
1.06	0.245	1.06	0.233
1.07	0.277	1.07	0.233
1.08	0.278	1.08	0.234
1.09	0.290	1.09	0.235
1.09	0.292	1.09	0.238
1.10	0.296	1.10	0.239
1.11	0.296	1.11	0.241
1.12	0.296	1.12	0.241
1.12	0.305	1.12	0.242
1.13	0.309	1.13	0.242
1.14	0.313	1.14	0.244
1.15	0.319	1.15	0.244
1.16	0.321	1.16	0.246
1.17	0.321	1.17	0.246
1.18	0.322	1.18	0.246
1.18	0.322	1.18	0.249
1.19	0.325	1.19	0.250
1.20	0.328	1.20	0.250
1.21	0.329	1.21	0.251
1.22	0.329	1.22	0.251
1.23	0.341	1.23	0.252
1.24	0.344	1.24	0.253
1.25	0.345	1.25	0.253
1.26	0.363	1.26	0.254
1.27	0.369	1.27	0.255
1.28	0.380	1.28	0.258
1.29	0.380	1.29	0.259
1.30	0.387	1.30	0.261
1.31	0.388	1.31	0.261
1.32	0.388	1.32	0.262
1.33	0.392	1.33	0.263
1.35	0.402	1.35	0.263
1.36	0.417	1.36	0.263
1.37	0.424	1.37	0.266
1.38	0.427	1.38	0.266
1.39	0.430	1.39	0.268
1.40	0.437	1.40	0.269
1.42	0.445	1.42	0.270
1.43	0.446	1.43	0.271
1.44	0.451	1.44	0.272
1.46	0.456	1.46	0.273
1.47	0.463	1.47	0.274
1.48	0.480	1.48	0.275
1.50	0.484	1.50	0.275
1.51	0.488	1.51	0.275
1.53	0.491	1.53	0.275
1.54	0.497	1.54	0.276
1.56	0.505	1.56	0.276
1.57	0.507	1.57	0.276

1.59	0.508	1.59	0.277
1.60	0.513	1.60	0.278
1.62	0.517	1.62	0.279
1.64	0.522	1.64	0.280
1.65	0.522	1.65	0.281
1.67	0.525	1.67	0.282
1.69	0.525	1.69	0.283
1.71	0.526	1.71	0.283
1.73	0.535	1.73	0.284
1.75	0.538	1.75	0.284
1.77	0.544	1.77	0.285
1.79	0.552	1.79	0.286
1.81	0.553	1.81	0.286
1.83	0.559	1.83	0.286
1.85	0.562	1.85	0.286
1.87	0.564	1.87	0.286
1.89	0.578	1.89	0.288
1.92	0.578	1.92	0.288
1.94	0.583	1.94	0.288
1.96	0.584	1.96	0.289
1.99	0.590	1.99	0.291
2.01	0.590	2.01	0.294
2.04	0.597	2.04	0.295
2.07	0.602	2.07	0.297
2.09	0.604	2.09	0.300
2.12	0.606	2.12	0.300
2.15	0.606	2.15	0.302
2.18	0.607	2.18	0.304
2.21	0.609	2.21	0.306
2.24	0.616	2.24	0.308
2.27	0.618	2.27	0.309
2.31	0.622	2.31	0.310
2.34	0.627	2.34	0.319
2.38	0.636	2.38	0.321
2.41	0.642	2.41	0.322
2.45	0.645	2.45	0.327
2.49	0.646	2.49	0.328
2.53	0.651	2.53	0.330
2.57	0.652	2.57	0.341
2.61	0.652	2.61	0.342
2.65	0.654	2.65	0.343
2.70	0.669	2.70	0.358
2.75	0.682	2.75	0.364
2.80	0.684	2.80	0.364
2.85	0.688	2.85	0.368
2.90	0.697	2.90	0.375
2.95	0.698	2.95	0.376
3.01	0.703	3.01	0.379
3.07	0.718	3.07	0.387
3.13	0.723	3.13	0.393
3.19	0.728	3.19	0.397
3.26	0.752	3.26	0.403
3.32	0.757	3.32	0.407
3.40	0.767	3.40	0.407
3.47	0.772	3.47	0.411
3.55	0.776	3.55	0.428
3.63	0.778	3.63	0.434
3.72	0.790	3.72	0.449
3.80	0.791	3.80	0.468
3.90	0.813	3.90	0.481
4.00	0.852	4.00	0.505
4.10	0.860	4.10	0.525
4.21	0.875	4.21	0.548
4.32	0.878	4.32	0.554
4.45	0.933	4.45	0.574
4.58	0.938	4.58	0.590
4.71	0.962	4.71	0.593
4.86	0.972	4.86	0.608
5.01	0.988	5.01	0.608
5.17	0.997	5.17	0.613
5.35	1.016	5.35	0.622
5.54	1.025	5.54	0.636
5.74	1.030	5.74	0.640
5.95	1.039	5.95	0.690
6.19	1.040	6.19	0.698
6.44	1.071	6.44	0.704
6.71	1.072	6.71	0.709
7.01	1.075	7.01	0.748
7.33	1.083	7.33	0.833
7.69	1.097	7.69	0.834
8.08	1.139	8.08	0.846
8.52	1.169	8.52	0.883
9.00	1.172	9.00	0.884
9.55	1.175	9.55	0.912
10.16	1.207	10.16	0.925
10.86	1.215	10.86	0.935
11.66	1.280	11.66	0.974
12.59	1.321	12.59	1.010
13.68	1.340	13.68	1.033
14.97	1.427	14.97	1.070
16.54	1.488	16.54	1.120
18.47	1.489	18.47	1.132
20.92	1.579	20.92	1.133
24.10	1.593	24.10	1.139
28.44	1.660	28.44	1.206



34.68	1.813	34.68	1.225
44.42	1.948	44.42	1.295
61.77	1.984	61.77	1.316
101.36	2.149	101.36	1.318
282.36	2.444	282.36	3.169

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	0.590	2-Year	0.293
5-Year	0.987	5-Year	0.608
10-Year	1.199	10-Year	0.922
25-Year	1.608	25-Year	1.154
50-Year	1.961	50-Year	1.302
100-Year	2.144	100-Year	1.318
200-Year	2.345	200-Year	2.546

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
0.012	2.3680E-01	0.016	7.0323E-01
0.024	1.8183E-01	0.032	6.6901E-01
0.037	1.4869E-01	0.048	6.2265E-01
0.049	1.2486E-01	0.063	5.7047E-01
0.061	1.0625E-01	0.079	5.1885E-01
0.073	9.1206E-02	0.095	4.6647E-01
0.086	7.8997E-02	0.111	4.1196E-01
0.098	6.8893E-02	0.127	3.5703E-01
0.110	6.0447E-02	0.143	3.0143E-01
0.122	5.3261E-02	0.158	2.4697E-01
0.134	4.7175E-02	0.174	1.9611E-01
0.147	4.1832E-02	0.190	1.5121E-01
0.159	3.7205E-02	0.206	1.1308E-01
0.171	3.3133E-02	0.222	8.0811E-02
0.183	2.9638E-02	0.238	5.6141E-02
0.196	2.6430E-02	0.254	3.6560E-02
0.208	2.3649E-02	0.269	2.2801E-02
0.220	2.1262E-02	0.285	1.2880E-02
0.232	1.9150E-02	0.295	9.5674E-03
0.244	1.7267E-02	0.317	7.1420E-03
0.257	1.5521E-02	0.333	6.2287E-03
0.269	1.4036E-02	0.349	5.5183E-03
0.281	1.2639E-02	0.364	4.8973E-03
0.295	1.1278E-02	0.380	4.3883E-03
0.306	1.0348E-02	0.396	3.9977E-03
0.318	9.4640E-03	0.412	3.6281E-03
0.330	8.5860E-03	0.428	3.3299E-03
0.342	7.8178E-03	0.444	3.0353E-03
0.354	7.1543E-03	0.459	2.7746E-03
0.367	6.5998E-03	0.475	2.5111E-03
0.379	6.0489E-03	0.491	2.2996E-03
0.391	5.5507E-03	0.507	2.0996E-03
0.403	5.1067E-03	0.523	1.9184E-03
0.416	4.7255E-03	0.539	1.7747E-03
0.428	4.3558E-03	0.555	1.6382E-03
0.440	4.0223E-03	0.570	1.5003E-03
0.452	3.7104E-03	0.590	1.3397E-03
0.464	3.4331E-03	0.602	1.2592E-03
0.477	3.1833E-03	0.618	1.1689E-03
0.489	2.9472E-03	0.634	1.0888E-03
0.501	2.7284E-03	0.650	1.0252E-03
0.513	2.5234E-03	0.665	9.5232E-04
0.526	2.3581E-03	0.681	8.9312E-04
0.538	2.1942E-03	0.697	8.2813E-04
0.550	2.0324E-03	0.713	7.6460E-04
0.562	1.9003E-03	0.729	7.1334E-04
0.574	1.7624E-03	0.745	6.6641E-04
0.590	1.6051E-03	0.761	6.2958E-04
0.599	1.5285E-03	0.776	5.8193E-04
0.611	1.4180E-03	0.792	5.4439E-04
0.623	1.3350E-03	0.808	5.1190E-04
0.635	1.2722E-03	0.824	4.8085E-04
0.648	1.2043E-03	0.840	4.4042E-04
0.660	1.1350E-03	0.856	4.0937E-04
0.672	1.0729E-03	0.871	3.8194E-04
0.684	1.0130E-03	0.887	3.5378E-04
0.697	9.6532E-04	0.903	3.3068E-04
0.709	9.1478E-04	0.919	3.0757E-04
0.721	8.6712E-04	0.935	2.8375E-04
0.733	8.1225E-04	0.951	2.6642E-04
0.745	7.6388E-04	0.967	2.4837E-04

0.758	7.2489E-04	0.987	2.2155E-04
0.770	6.8807E-04	0.998	2.0505E-04
0.782	6.5124E-04	1.014	1.8483E-04
0.794	6.2092E-04	1.030	1.6823E-04
0.807	5.8915E-04	1.046	1.5018E-04
0.819	5.6749E-04	1.062	1.3501E-04
0.831	5.4511E-04	1.077	1.2057E-04
0.843	5.2562E-04	1.093	1.0541E-04
0.855	5.0251E-04	1.109	9.0972E-05
0.868	4.7796E-04	1.125	7.7976E-05
0.880	4.5197E-04	1.141	6.3536E-05
0.892	4.3609E-04	1.157	5.7760E-05
0.904	4.1154E-04	1.172	5.4150E-05
0.917	3.9349E-04	1.188	4.8374E-05
0.929	3.6894E-04	1.204	4.2598E-05
0.941	3.5450E-04	1.220	3.6822E-05
0.953	3.3573E-04	1.236	3.4656E-05
0.965	3.1985E-04	1.252	3.1046E-05
0.978	3.0252E-04	1.268	2.6714E-05
0.987	2.9160E-04	1.283	2.3104E-05
1.002	2.7653E-04	1.299	1.8050E-05
1.014	2.6281E-04	1.315	1.2274E-05
1.027	2.5198E-04	1.331	8.6640E-06
1.039	2.3609E-04	1.347	8.6640E-06
1.051	2.2599E-04	1.363	7.9420E-06
1.063	2.1371E-04	1.378	7.9420E-06
1.075	2.0360E-04	1.394	7.2200E-06
1.088	1.9638E-04	1.410	7.2200E-06
1.100	1.8339E-04	1.426	5.7760E-06
1.112	1.7689E-04	1.442	5.7760E-06
1.124	1.6245E-04	1.458	5.0540E-06
1.137	1.5306E-04	1.474	5.0540E-06
1.149	1.4440E-04	1.489	4.3320E-06
1.161	1.3140E-04	1.505	4.3320E-06
1.173	1.2563E-04	1.521	4.3320E-06
1.185	1.1552E-04	1.537	4.3320E-06
1.198	1.0830E-04	1.553	4.3320E-06
1.210	1.0108E-04	1.569	4.3320E-06
1.222	9.3860E-05	1.584	4.3320E-06
1.234	8.9528E-05	1.600	4.3320E-06
1.247	8.1586E-05	1.616	4.3320E-06
1.259	7.4366E-05	1.632	4.3320E-06
1.271	7.1478E-05	1.648	4.3320E-06
1.283	6.5702E-05	1.664	4.3320E-06
1.295	6.2814E-05	1.680	4.3320E-06
1.308	5.9926E-05	1.695	4.3320E-06
1.320	5.7760E-05	1.711	4.3320E-06
1.332	5.0540E-05	1.727	4.3320E-06
1.344	4.7652E-05	1.743	4.3320E-06
1.357	4.2598E-05	1.759	4.3320E-06
1.369	3.8266E-05	1.775	3.6100E-06
1.381	3.4656E-05	1.790	3.6100E-06
1.393	3.2490E-05	1.806	3.6100E-06
1.405	3.0324E-05	1.822	3.6100E-06
1.418	2.8158E-05	1.838	2.8880E-06
1.430	2.4548E-05	1.854	2.8880E-06
1.442	2.3826E-05	1.870	2.8880E-06
1.454	2.1660E-05	1.885	2.8880E-06
1.467	1.9494E-05	1.901	2.8880E-06
1.479	1.8772E-05	1.917	2.8880E-06
1.491	1.5162E-05	1.933	2.8880E-06
1.503	1.4440E-05	1.949	2.8880E-06
1.515	1.3718E-05	1.961	2.8880E-06
1.528	1.2274E-05	1.981	2.8880E-06
1.540	1.1552E-05	1.996	2.8880E-06
1.552	1.0830E-05	2.012	2.8880E-06
1.564	1.0830E-05	2.028	2.8880E-06
1.577	1.0108E-05	2.044	2.8880E-06
1.589	8.6640E-06	2.060	2.8880E-06
1.601	7.9420E-06	2.076	2.8880E-06
1.613	7.9420E-06	2.091	2.8880E-06
1.625	7.9420E-06	2.107	2.8880E-06
1.638	7.9420E-06	2.123	2.8880E-06
1.650	7.9420E-06	2.139	2.8880E-06
1.662	7.2200E-06	2.155	2.8880E-06
1.674	7.2200E-06	2.171	2.8880E-06
1.687	7.2200E-06	2.187	2.8880E-06
1.699	7.2200E-06	2.202	2.8880E-06
1.711	7.2200E-06	2.218	2.8880E-06
1.723	7.2200E-06	2.234	2.8880E-06
1.735	7.2200E-06	2.250	2.8880E-06
1.748	7.2200E-06	2.266	2.8880E-06
1.760	7.2200E-06	2.282	2.8880E-06
1.772	7.2200E-06	2.297	2.8880E-06
1.784	6.4980E-06	2.313	2.1660E-06
1.797	6.4980E-06	2.329	2.1660E-06
1.809	6.4980E-06	2.345	2.1660E-06
1.821	5.7760E-06	2.361	2.1660E-06
1.833	5.0540E-06	2.377	2.1660E-06
1.845	5.0540E-06	2.393	2.1660E-06
1.858	5.0540E-06	2.408	2.1660E-06
1.870	5.0540E-06	2.424	2.1660E-06
1.882	4.3320E-06	2.440	2.1660E-06
1.894	4.3320E-06	2.456	2.1660E-06
1.906	4.3320E-06	2.472	2.1660E-06

1.919	3.6100E-06	2.488	2.1660E-06
1.931	3.6100E-06	2.503	2.1660E-06
1.943	3.6100E-06	2.519	2.1660E-06
1.961	2.8016E-06	2.535	2.1660E-06
1.968	2.8880E-06	2.551	2.1660E-06
1.980	2.8880E-06	2.567	2.1660E-06
1.992	2.1660E-06	2.583	2.1660E-06
2.004	2.1660E-06	2.598	2.1660E-06
2.016	2.1660E-06	2.614	2.1660E-06
2.029	2.1660E-06	2.630	2.1660E-06
2.041	2.1660E-06	2.646	2.1660E-06
2.053	2.1660E-06	2.662	2.1660E-06
2.065	2.1660E-06	2.678	2.1660E-06
2.078	2.1660E-06	2.694	2.1660E-06
2.090	2.1660E-06	2.709	2.1660E-06
2.102	2.1660E-06	2.725	2.1660E-06
2.114	2.1660E-06	2.741	2.1660E-06
2.126	2.1660E-06	2.757	2.1660E-06
2.139	2.1660E-06	2.773	2.1660E-06
2.151	7.2200E-07	2.789	2.1660E-06
2.163	7.2200E-07	2.804	2.1660E-06
2.175	7.2200E-07	2.820	1.4440E-06
2.188	7.2200E-07	2.836	1.4440E-06
2.200	7.2200E-07	2.852	1.4440E-06
2.212	7.2200E-07	2.868	1.4440E-06
2.224	7.2200E-07	2.884	7.2200E-07
2.236	7.2200E-07	2.900	7.2200E-07
2.249	7.2200E-07	2.915	7.2200E-07
2.261	7.2200E-07	2.931	7.2200E-07
2.273	7.2200E-07	2.947	7.2200E-07
2.285	7.2200E-07	2.963	7.2200E-07
2.298	7.2200E-07	2.979	7.2200E-07
2.310	7.2200E-07	2.995	7.2200E-07
2.322	7.2200E-07	3.010	7.2200E-07
2.334	7.2200E-07	3.026	7.2200E-07
2.346	7.2200E-07	3.042	7.2200E-07
2.359	7.2200E-07	3.058	7.2200E-07
2.371	7.2200E-07	3.074	7.2200E-07
2.383	7.2200E-07	3.090	7.2200E-07
2.395	7.2200E-07	3.106	7.2200E-07
2.408	7.2200E-07	3.121	7.2200E-07
2.420	7.2200E-07	3.137	7.2200E-07
2.432	7.2200E-07	3.153	7.2200E-07
2.444	7.2200E-07	3.169	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-20.4%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):	-16.7%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	3.1%	PASS	
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.9%	PASS	

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**\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS**

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MGS FLOOD  
PROJECT REPORT

Program Version: 3.12

Run Date: 11/10/2009 12:18 PM

Input File Name: vault1.fid  
 Project Name: Burien NERA  
 Analysis Title: Detention Vault 1  
 Comments: 95% ImperviousWetvault vol.

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 3  
 Full Period of Record Available used for Routing  
 Precipitation Station : 950040 Puget West 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 951040 Puget West 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	-----Area(Acres)-----		-----Developed-----	
	Predeveloped	To Node	Bypass Node	
<b>Till Forest</b>	45.592	0.000	0.000	
Till Pasture	0.000	0.000	0.000	
Till Grass	0.000	0.019	0.000	
Outwash Forest	0.000	0.000	0.000	
Outwash Pasture	0.000	0.000	0.000	
Outwash Grass	0.000	5.015	0.000	
Wetland	0.000	2.108	0.000	
Impervious	0.000	38.450	0.000	
<b>Subbasin Total</b>	<b>45.592</b>	<b>45.592</b>	<b>0.000</b>	

	-----Lateral Flow Connections-----					
	-----Predeveloped-----			-----Developed-----		
	Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node
Till Pasture	Node	Node	Node	Node	Node	Node
Till Grass	Node	Node	Node	Node	Node	Node
Outwash Forest	Node	Node	Node	Node	Node	Node
Outwash Pasture	Node	Node	Node	Node	Node	Node
Outwash Grass	Node	Node	Node	Node	Node	Node
Wetland	Node	Node	Node	Node	Node	Node
Impervious	Node		Node			Node
Lateral 1						
Lateral 2						

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*\* Predeveloped Structure Summary \*\*\*

**\*\*\* Postdeveloped Structure Summary \*\*\***

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation : 100.00 ft  
 Riser Crest Elevation : 110.00 ft  
 Max Pond Elevation : 111.00 ft  
 Max Storage Depth : 10.00 ft  
 Pond Bottom Length : 500.0 ft  
 Pond Bottom Width : 166.7 ft  
 Pond Side Slopes : L1= 0.00 L2= 0.00 W1= 0.00 W2= 0.00 ft/ft  
 Pond Bottom Area : 83332. sq-ft  
 Area at Riser Crest El : 83,332. sq-ft  
 : 1.913 acres  
 Volume at Riser Crest : 833,322. cu-ft  
 : 19.130 ac-ft  
 Area at Max Elevation : 83332. sq-ft  
 : 1.913 acres  
 Vol at Max Elevation : 916,654. cu-ft  
 : 21.043 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 42.00 in  
 Common Length : 0.109 ft  
 Riser Crest Elevation : 110.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1---

Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 3.22 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 104.90 ft  
 Length : 1.30 in  
 Height : 61.16 in  
 Orientation : Vertical  
 Elbow : No

**\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\***

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infil Discharge (cfs)
100.000		0.000	0.000	0.000
100.035		0.067	0.052	0.000
100.070		0.134	0.073	0.000
100.140		0.268	0.103	0.000
100.280		0.536	0.146	0.000
100.420		0.803	0.179	0.000
100.560		1.071	0.207	0.000
100.700		1.339	0.231	0.000
100.840		1.607	0.253	0.000
100.980		1.875	0.274	0.000
101.120		2.143	0.292	0.000
101.260		2.410	0.310	0.000
101.400		2.678	0.327	0.000
101.540		2.946	0.343	0.000
101.680		3.214	0.358	0.000
101.820		3.482	0.373	0.000
101.960		3.750	0.387	0.000
102.100		4.017	0.400	0.000
102.240		4.285	0.414	0.000
102.380		4.553	0.426	0.000
102.520		4.821	0.439	0.000
102.660		5.089	0.451	0.000
102.800		5.357	0.462	0.000
102.940		5.624	0.474	0.000
103.080		5.892	0.485	0.000
103.220		6.160	0.496	0.000
103.360		6.428	0.506	0.000
103.500		6.696	0.517	0.000
103.640		6.963	0.527	0.000
103.780		7.231	0.537	0.000
103.920		7.499	0.547	0.000
104.060		7.767	0.557	0.000
104.200		8.035	0.566	0.000
104.340		8.303	0.576	0.000
104.480		8.570	0.585	0.000

104.620	8.838	0.594	0.000
104.760	9.106	0.603	0.000
104.804	9.189	0.606	0.000
104.847	9.273	0.608	0.000
104.891	9.356	0.611	0.000
104.934	9.440	0.614	0.000
104.969	9.507	0.618	0.000
105.004	9.574	0.624	0.000
105.039	9.640	0.630	0.000
105.074	9.707	0.638	0.000
105.214	9.975	0.674	0.000
105.354	10.243	0.718	0.000
105.494	10.511	0.769	0.000
105.634	10.779	0.825	0.000
105.774	11.047	0.887	0.000
105.914	11.314	0.953	0.000
106.054	11.582	1.023	0.000
106.194	11.850	1.097	0.000
106.334	12.118	1.175	0.000
106.474	12.386	1.256	0.000
106.614	12.654	1.341	0.000
106.754	12.921	1.428	0.000
106.894	13.189	1.519	0.000
107.034	13.457	1.613	0.000
107.174	13.725	1.710	0.000
107.314	13.993	1.809	0.000
107.454	14.260	1.912	0.000
107.594	14.528	2.016	0.000
107.734	14.796	2.124	0.000
107.874	15.064	2.234	0.000
108.014	15.332	2.346	0.000
108.154	15.600	2.460	0.000
108.294	15.867	2.577	0.000
108.434	16.135	2.697	0.000
108.574	16.403	2.818	0.000
108.714	16.671	2.942	0.000
108.854	16.939	3.067	0.000
108.994	17.207	3.195	0.000
109.134	17.474	3.325	0.000
109.274	17.742	3.457	0.000
109.414	18.010	3.591	0.000
109.554	18.278	3.727	0.000
109.694	18.546	3.864	0.000
109.834	18.814	4.004	0.000
109.876	18.893	4.046	0.000
109.917	18.972	4.088	0.000
109.959	19.051	4.130	0.000
110.000	19.130	4.172	0.000
110.035	19.197	4.449	0.000
110.070	19.264	4.925	0.000
110.105	19.331	5.530	0.000
110.140	19.398	6.241	0.000
110.175	19.465	7.041	0.000
110.210	19.532	7.921	0.000
110.245	19.599	8.873	0.000
110.280	19.666	9.892	0.000
110.420	19.934	14.519	0.000
110.560	20.202	19.817	0.000
110.700	20.470	25.506	0.000
110.840	20.737	31.299	0.000
110.980	21.005	36.905	0.000
111.120	21.273	42.052	0.000
111.260	21.541	46.518	0.000
111.400	21.809	50.165	0.000
111.540	22.077	52.986	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date WSEL (ft)

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12/07/1939	105.862
01/18/1941	103.652
12/20/1941	104.784
11/23/1942	106.067
10/17/1943	103.134
02/07/1945	105.935
02/05/1946	103.912
11/22/1946	105.023
10/19/1947	106.163
02/22/1949	105.383
01/22/1950	105.914
02/09/1951	107.116
10/03/1951	102.572
01/11/1953	106.261
01/06/1954	104.747
11/19/1954	104.267
01/06/1956	106.966
02/26/1957	105.481
01/17/1958	105.141
01/13/1959	106.171
11/21/1959	106.016

11/24/1960	106.579
12/20/1961	103.672
11/30/1962	103.766
11/14/1963	104.329
12/01/1964	105.225
01/07/1966	105.249
12/13/1966	106.208
01/20/1968	104.932
12/11/1968	104.944
01/27/1970	105.948
12/07/1970	105.619
03/05/1972	107.980
12/26/1972	106.861
01/18/1974	105.136
12/27/1974	104.634
12/04/1975	105.076
08/26/1977	103.865
12/15/1977	106.262
02/12/1979	102.919
12/17/1979	108.128
12/30/1980	105.539
10/06/1981	107.561
01/08/1983	105.079
11/24/1983	103.304
11/04/1984	104.159
01/18/1986	106.402
11/24/1986	108.091
12/09/1987	104.472
11/05/1988	104.082
01/09/1990	108.675
11/24/1990	108.451
01/31/1992	106.141
01/26/1993	103.286
02/17/1994	102.799
12/27/1994	106.538
02/09/1996	109.004
01/02/1997	108.188
10/30/1997	103.452
11/26/1998	108.163
02/28/2000	105.278
01/18/2001	102.990
11/15/2001	104.071
11/26/2002	107.635
10/24/2003	105.495
02/08/2005	104.007
11/27/2005	106.005
11/27/2006	105.126
01/07/2008	106.142
02/18/2009	108.056
01/10/2010	105.930
11/17/2010	107.238
10/02/2011	105.549
01/20/2013	108.823
01/28/2014	105.278
04/13/2015	102.732
01/04/2016	107.377
03/09/2017	104.506
01/31/2018	105.166
01/12/2019	106.084
02/09/2020	103.158
11/24/2020	107.097
12/20/2021	105.031
03/30/2023	105.700
01/25/2024	105.996
12/22/2024	107.962
01/03/2026	106.694
01/29/2027	104.564
02/21/2028	105.221
12/11/2028	105.059
01/26/2030	106.850
12/30/2030	105.010
01/21/2032	106.591
12/23/2032	105.252
11/16/2033	108.161
11/23/2034	103.788
02/27/2036	105.020
03/09/2037	104.116
12/15/2037	106.155
02/10/2039	102.640
01/14/2040	105.353
12/25/2040	106.052
11/17/2041	105.478
02/26/2043	105.213
11/17/2043	104.601
11/28/2044	104.781
02/17/2046	105.218
11/28/2046	104.768
12/10/2047	106.327
11/25/2048	104.242
12/04/2049	104.430
05/18/2051	103.164
02/22/2052	103.660
12/10/2052	104.336
12/11/2053	104.611
11/01/2054	107.582

02/07/2056	109.143
11/19/2056	108.251
01/24/2058	103.793
11/26/2058	106.888
01/23/2060	103.743
01/15/2061	105.641
01/03/2062	104.927
12/30/2062	105.574
12/23/2063	107.168
12/01/2064	104.710
01/13/2066	103.407
12/15/2066	106.194
01/19/2068	106.916
09/23/2069	103.776
12/14/2069	103.600
12/17/2070	103.614
11/03/2071	104.436
12/25/2072	109.897
12/15/2073	106.079
11/20/2074	103.897
10/30/2075	106.432
08/26/2077	103.017
12/02/2077	104.664
02/25/2079	103.634
12/17/2079	108.657
11/21/2080	107.138
02/15/2082	106.371
02/20/2083	106.648
11/26/2083	107.229
12/14/2084	105.860
11/01/2085	104.950
11/23/2086	105.795
12/09/2087	104.626
11/05/2088	106.257
11/10/2089	105.028
12/09/2090	107.644
01/31/2092	107.473
03/22/2093	103.382
10/23/2093	103.568
12/27/2094	105.373
12/14/2095	105.784
10/28/2096	106.451

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

1.00	102.572
1.01	102.640
1.02	102.732
1.02	102.799
1.03	102.919
1.04	102.990
1.04	103.017
1.05	103.134
1.06	103.158
1.06	103.164
1.07	103.286
1.08	103.304
1.09	103.382
1.09	103.407
1.10	103.452
1.11	103.568
1.12	103.600
1.12	103.614
1.13	103.634
1.14	103.652
1.15	103.660
1.16	103.672
1.17	103.743
1.18	103.766
1.18	103.776
1.19	103.788
1.20	103.793
1.21	103.865
1.22	103.897
1.23	103.912
1.24	104.007
1.25	104.071
1.26	104.082
1.27	104.116
1.28	104.159
1.29	104.242
1.30	104.267
1.31	104.329
1.32	104.336
1.33	104.430
1.35	104.436
1.36	104.472
1.37	104.506
1.38	104.564
1.39	104.601
1.40	104.611
1.42	104.626
1.43	104.634



1.44	104.664
1.46	104.710
1.47	104.747
1.48	104.768
1.50	104.781
1.51	104.784
1.53	104.927
1.54	104.932
1.56	104.944
1.57	104.950
1.59	105.010
1.60	105.020
1.62	105.023
1.64	105.028
1.65	105.031
1.67	105.059
1.69	105.076
1.71	105.079
1.73	105.126
1.75	105.136
1.77	105.141
1.79	105.166
1.81	105.213
1.83	105.218
1.85	105.221
1.87	105.225
1.89	105.249
1.92	105.252
1.94	105.278
1.96	105.278
1.99	105.353
2.01	105.373
2.04	105.383
2.07	105.478
2.09	105.481
2.12	105.495
2.15	105.539
2.18	105.549
2.21	105.574
2.24	105.619
2.27	105.641
2.31	105.700
2.34	105.784
2.38	105.795
2.41	105.860
2.45	105.862
2.49	105.914
2.53	105.930
2.57	105.935
2.61	105.948
2.65	105.996
2.70	106.005
2.75	106.016
2.80	106.052
2.85	106.067
2.90	106.079
2.95	106.084
3.01	106.141
3.07	106.142
3.13	106.155
3.19	106.163
3.26	106.171
3.32	106.194
3.40	106.208
3.47	106.257
3.55	106.261
3.63	106.262
3.72	106.327
3.80	106.371
3.90	106.402
4.00	106.432
4.10	106.451
4.21	106.538
4.32	106.579
4.45	106.591
4.58	106.648
4.71	106.694
4.86	106.850
5.01	106.861
5.17	106.888
5.35	106.916
5.54	106.966
5.74	107.097
5.95	107.116
6.19	107.138
6.44	107.168
6.71	107.229
7.01	107.238
7.33	107.377
7.69	107.473
8.08	107.561
8.52	107.582
9.00	107.635
9.55	107.644
10.16	107.962

10.86	107.980
11.66	108.056
12.59	108.091
13.68	108.128
14.97	108.161
16.54	108.163
18.47	108.188
20.92	108.251
24.10	108.451
28.44	108.657
34.68	108.675
44.42	108.823
61.77	109.004
101.36	109.143
282.36	109.897

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
**Tr (yrs) Link: 1**

1.05-Year	103.156
1.11-Year	103.585
1.25-Year	104.073
2.00-Year	105.373
3.33-Year	106.195
5-Year	106.862
10-Year	107.889
25-Year	108.218
50-Year	108.901
100-Year	109.140

**Postdeveloped Infiltrated Water Statistics**  
 Volume Statistics Computed for Entire Simulation  
**Statistic Link: 1**

Total Inflow Volume (ac-ft)	17233.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data\*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 11.192 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 49260. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 73890. cu-ft  
 2-Year Discharge Rate : 0.721 cfs

\*\*\*\*\*Compliance Point Results\*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data\*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	0.812	12/07/1939	0.928
01/17/1941	0.803	01/18/1941	0.528
12/15/1941	1.631	12/20/1941	0.604
03/28/1943	0.757	11/23/1942	1.030
01/23/1944	0.316	10/17/1943	0.489
02/07/1945	1.964	02/07/1945	0.963
02/05/1946	1.340	02/05/1946	0.546
02/02/1947	1.325	11/22/1946	0.627
03/21/1948	2.062	10/19/1947	1.080
02/22/1949	1.382	02/22/1949	0.728
03/03/1950	4.156	01/22/1950	0.952
02/09/1951	1.847	02/09/1951	1.669
01/30/1952	0.535	10/03/1951	0.443
01/11/1953	0.790	01/11/1953	1.134
01/22/1954	1.226	01/06/1954	0.602
02/07/1955	0.498	11/19/1954	0.571
01/06/1956	1.336	01/06/1956	1.567
02/25/1957	1.113	02/26/1957	0.764
01/16/1958	1.269	01/17/1958	0.655
01/24/1959	1.385	01/13/1959	1.084
12/15/1959	1.433	11/21/1959	1.003
02/14/1961	1.168	11/24/1960	1.319
12/17/1961	0.630	12/20/1961	0.529
02/03/1963	0.763	11/30/1962	0.536
01/01/1964	1.208	11/14/1963	0.575
04/19/1965	0.800	12/01/1964	0.677
01/05/1966	0.988	01/07/1966	0.685
01/19/1967	2.098	12/13/1966	1.104

02/03/1968	1.235	01/20/1968	0.614
12/03/1968	1.205	12/11/1968	0.615
01/13/1970	1.078	01/27/1970	0.970
12/06/1970	0.989	12/07/1970	0.819
02/28/1972	2.787	03/05/1972	2.318
01/13/1973	1.206	12/26/1972	1.497
01/15/1974	1.043	01/18/1974	0.654
12/26/1974	2.024	12/27/1974	0.595
12/03/1975	1.157	12/04/1975	0.638
03/09/1977	0.161	08/26/1977	0.543
12/10/1977	1.171	12/15/1977	1.134
03/04/1979	0.598	02/12/1979	0.472
12/15/1979	1.731	12/17/1979	2.438
12/26/1980	0.902	12/30/1980	0.787
10/06/1981	2.057	10/06/1981	1.992
01/05/1983	1.424	01/08/1983	0.639
01/03/1984	0.875	11/24/1983	0.502
02/11/1985	0.517	11/04/1984	0.563
01/18/1986	2.678	01/18/1986	1.214
11/24/1986	2.413	11/24/1986	2.409
01/14/1988	0.737	12/09/1987	0.584
04/05/1989	0.610	11/05/1988	0.558
01/09/1990	4.280	01/09/1990	2.907
11/24/1990	3.359	11/24/1990	2.711
01/27/1992	1.253	01/31/1992	1.069
03/23/1993	0.960	01/26/1993	0.501
03/03/1994	0.402	02/17/1994	0.462
02/19/1995	1.647	12/27/1994	1.294
02/08/1996	3.463	02/09/1996	3.204
01/02/1997	2.044	01/02/1997	2.489
01/23/1998	0.488	10/30/1997	0.513
11/25/1998	1.924	11/26/1998	2.468
03/26/2000	1.267	02/28/2000	0.694
12/20/2000	0.611	01/18/2001	0.478
12/02/2001	0.632	11/15/2001	0.557
03/31/2003	2.373	11/26/2002	2.048
01/23/2004	0.795	10/24/2003	0.769
02/05/2005	1.179	02/08/2005	0.553
11/27/2005	1.180	11/27/2005	0.998
12/14/2006	1.065	11/27/2006	0.651
03/21/2008	1.694	01/07/2008	1.069
02/17/2009	2.501	02/18/2009	2.380
01/10/2010	1.670	01/10/2010	0.961
11/17/2010	2.244	11/17/2010	1.755
01/31/2012	1.498	10/02/2011	0.791
01/20/2013	3.231	01/20/2013	3.039
02/13/2014	1.363	01/28/2014	0.694
04/12/2015	0.886	04/13/2015	0.457
01/04/2016	2.277	01/04/2016	1.855
03/07/2017	0.671	03/09/2017	0.586
01/31/2018	1.321	01/31/2018	0.661
02/14/2019	1.268	01/12/2019	1.038
02/08/2020	0.513	02/09/2020	0.491
02/10/2021	1.965	11/24/2020	1.656
12/20/2021	1.158	12/20/2021	0.629
03/30/2023	1.636	03/30/2023	0.854
01/19/2024	1.339	01/25/2024	0.993
12/22/2024	2.519	12/22/2024	2.304
03/09/2026	1.542	01/03/2026	1.390
01/27/2027	1.346	01/29/2027	0.590
02/19/2028	1.584	02/21/2028	0.676
12/04/2028	1.279	12/11/2028	0.634
02/16/2030	1.558	01/26/2030	1.490
12/30/2030	1.605	12/30/2030	0.625
01/20/2032	2.466	01/21/2032	1.326
01/13/2033	0.560	12/23/2032	0.686
01/15/2034	2.642	11/16/2033	2.466
02/19/2035	0.783	11/23/2034	0.538
12/04/2035	1.499	02/27/2036	0.627
03/08/2037	0.377	03/09/2037	0.560
12/15/2037	1.028	12/15/2037	1.076
02/07/2039	0.631	02/10/2039	0.449
01/14/2040	2.728	01/14/2040	0.718
12/25/2040	1.576	12/25/2040	1.022
02/20/2042	1.477	11/17/2041	0.763
03/31/2043	2.177	02/26/2043	0.673
02/13/2044	0.865	11/17/2043	0.593
11/27/2044	0.738	11/28/2044	0.604
02/16/2046	1.310	02/17/2046	0.675
02/01/2047	0.935	11/28/2046	0.603
01/11/2048	0.853	12/10/2047	1.170
03/05/2049	0.604	11/25/2048	0.569
12/04/2049	1.437	12/04/2049	0.581
05/17/2051	0.717	05/18/2051	0.491
02/20/2052	0.625	02/22/2052	0.529
06/04/2053	1.892	12/10/2052	0.575
02/24/2054	0.571	12/11/2053	0.593
02/17/2055	2.092	11/01/2054	2.007
02/07/2056	3.819	02/07/2056	3.333
11/19/2056	3.580	11/19/2056	2.541
01/24/2058	1.427	01/24/2058	0.538
01/17/2059	1.686	11/26/2058	1.515
01/19/2060	0.699	01/23/2060	0.535
01/10/2061	1.349	01/15/2061	0.828
02/03/2062	4.916	01/03/2062	0.613

12/29/2062	1.370	12/30/2062	0.801
12/23/2063	2.070	12/23/2063	1.705
02/05/2065	0.862	12/01/2064	0.600
01/13/2066	0.710	01/13/2066	0.510
01/19/2067	1.294	12/15/2066	1.097
01/18/2068	2.564	01/19/2068	1.534
01/04/2069	0.819	09/23/2069	0.537
12/14/2069	0.505	12/14/2069	0.524
02/14/2071	0.791	12/17/2070	0.525
02/27/2072	0.745	11/03/2071	0.582
12/25/2072	3.015	12/25/2072	4.067
03/16/2074	1.615	12/15/2073	1.036
12/20/2074	0.413	11/20/2074	0.545
03/24/2076	1.728	10/30/2075	1.231
02/12/2077	0.307	08/26/2077	0.480
11/25/2077	0.883	12/02/2077	0.597
02/25/2079	0.980	02/25/2079	0.527
12/17/2079	3.168	12/17/2079	2.891
11/21/2080	1.438	11/21/2080	1.685
02/14/2082	1.829	02/15/2082	1.196
02/19/2083	1.216	02/20/2083	1.362
11/26/2083	1.387	11/26/2083	1.748
12/14/2084	1.082	12/14/2084	0.927
01/18/2086	1.436	11/01/2085	0.616
12/21/2086	1.378	11/23/2086	0.896
01/14/2088	0.984	12/09/2087	0.594
11/05/2088	1.929	11/05/2088	1.132
01/06/2090	0.805	11/10/2089	0.628
12/04/2090	1.418	12/09/2090	2.055
01/31/2092	1.765	01/31/2092	1.926
03/22/2093	0.907	03/22/2093	0.508
03/01/2094	0.691	10/23/2093	0.522
12/27/2094	0.956	12/27/2094	0.725
01/14/2096	1.244	12/14/2095	0.891
01/29/2097	2.166	10/28/2096	1.242

\*\*\*\*Point of Compliance Ranked Maxima Flow Data \*\*\*\*

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.161	1.00	0.443
1.01	0.307	1.01	0.449
1.02	0.316	1.02	0.457
1.02	0.377	1.02	0.462
1.03	0.402	1.03	0.472
1.04	0.413	1.04	0.478
1.04	0.488	1.04	0.480
1.05	0.498	1.05	0.489
1.06	0.505	1.06	0.491
1.06	0.513	1.06	0.491
1.07	0.517	1.07	0.501
1.08	0.535	1.08	0.502
1.09	0.560	1.09	0.508
1.09	0.571	1.09	0.510
1.10	0.598	1.10	0.513
1.11	0.604	1.11	0.522
1.12	0.610	1.12	0.524
1.12	0.611	1.12	0.525
1.13	0.625	1.13	0.527
1.14	0.630	1.14	0.528
1.15	0.631	1.15	0.529
1.16	0.632	1.16	0.529
1.17	0.671	1.17	0.535
1.18	0.691	1.18	0.536
1.18	0.699	1.18	0.537
1.19	0.710	1.19	0.538
1.20	0.717	1.20	0.538
1.21	0.737	1.21	0.543
1.22	0.738	1.22	0.545
1.23	0.745	1.23	0.546
1.24	0.757	1.24	0.553
1.25	0.763	1.25	0.557
1.26	0.783	1.26	0.558
1.27	0.790	1.27	0.560
1.28	0.791	1.28	0.563
1.29	0.795	1.29	0.569
1.30	0.800	1.30	0.571
1.31	0.803	1.31	0.575
1.32	0.805	1.32	0.575
1.33	0.812	1.33	0.581
1.35	0.819	1.35	0.582
1.36	0.853	1.36	0.584
1.37	0.862	1.37	0.586
1.38	0.865	1.38	0.590
1.39	0.875	1.39	0.593
1.40	0.883	1.40	0.593
1.42	0.886	1.42	0.594
1.43	0.902	1.43	0.595
1.44	0.907	1.44	0.597
1.46	0.935	1.46	0.600
1.47	0.956	1.47	0.602
1.48	0.960	1.48	0.603

1.50	0.980	1.50	0.604
1.51	0.984	1.51	0.604
1.53	0.988	1.53	0.613
1.54	0.989	1.54	0.614
1.56	1.028	1.56	0.615
1.57	1.043	1.57	0.616
1.59	1.065	1.59	0.625
1.60	1.078	1.60	0.627
1.62	1.082	1.62	0.627
1.64	1.113	1.64	0.628
1.65	1.157	1.65	0.629
1.67	1.158	1.67	0.634
1.69	1.168	1.69	0.638
1.71	1.171	1.71	0.639
1.73	1.179	1.73	0.651
1.75	1.180	1.75	0.654
1.77	1.205	1.77	0.655
1.79	1.206	1.79	0.661
1.81	1.208	1.81	0.673
1.83	1.216	1.83	0.675
1.85	1.226	1.85	0.676
1.87	1.235	1.87	0.677
1.89	1.244	1.89	0.685
1.92	1.253	1.92	0.686
1.94	1.267	1.94	0.694
1.96	1.268	1.96	0.694
1.99	1.269	1.99	0.718
2.01	1.279	2.01	0.725
2.04	1.294	2.04	0.728
2.07	1.310	2.07	0.763
2.09	1.321	2.09	0.764
2.12	1.325	2.12	0.769
2.15	1.336	2.15	0.787
2.18	1.339	2.18	0.791
2.21	1.340	2.21	0.801
2.24	1.346	2.24	0.819
2.27	1.349	2.27	0.828
2.31	1.363	2.31	0.854
2.34	1.370	2.34	0.891
2.38	1.378	2.38	0.896
2.41	1.382	2.41	0.927
2.45	1.385	2.45	0.928
2.49	1.387	2.49	0.952
2.53	1.418	2.53	0.961
2.57	1.424	2.57	0.963
2.61	1.427	2.61	0.970
2.65	1.433	2.65	0.993
2.70	1.436	2.70	0.998
2.75	1.437	2.75	1.003
2.80	1.438	2.80	1.022
2.85	1.477	2.85	1.030
2.90	1.498	2.90	1.036
2.95	1.499	2.95	1.038
3.01	1.542	3.01	1.069
3.07	1.558	3.07	1.069
3.13	1.576	3.13	1.076
3.19	1.584	3.19	1.080
3.26	1.605	3.26	1.084
3.32	1.615	3.32	1.097
3.40	1.631	3.40	1.104
3.47	1.636	3.47	1.132
3.55	1.647	3.55	1.134
3.63	1.670	3.63	1.134
3.72	1.686	3.72	1.170
3.80	1.694	3.80	1.196
3.90	1.728	3.90	1.214
4.00	1.731	4.00	1.231
4.10	1.765	4.10	1.242
4.21	1.829	4.21	1.294
4.32	1.847	4.32	1.319
4.45	1.892	4.45	1.326
4.58	1.924	4.58	1.362
4.71	1.929	4.71	1.390
4.86	1.964	4.86	1.490
5.01	1.965	5.01	1.497
5.17	2.024	5.17	1.515
5.35	2.044	5.35	1.534
5.54	2.057	5.54	1.567
5.74	2.062	5.74	1.656
5.95	2.070	5.95	1.669
6.19	2.092	6.19	1.685
6.44	2.098	6.44	1.705
6.71	2.166	6.71	1.748
7.01	2.177	7.01	1.755
7.33	2.244	7.33	1.855
7.69	2.277	7.69	1.926
8.08	2.373	8.08	1.992
8.52	2.413	8.52	2.007
9.00	2.466	9.00	2.048
9.55	2.501	9.55	2.055
10.16	2.519	10.16	2.304
10.86	2.564	10.86	2.318
11.66	2.642	11.66	2.380
12.59	2.678	12.59	2.409
13.68	2.728	13.68	2.438

14.97	2.787	14.97	2.466
16.54	3.015	16.54	2.468
18.47	3.168	18.47	2.489
20.92	3.231	20.92	2.541
24.10	3.359	24.10	2.711
28.44	3.463	28.44	2.891
34.68	3.580	34.68	2.907
44.42	3.819	44.42	3.039
61.77	4.156	61.77	3.204
101.36	4.280	101.36	3.333
282.36	4.916	282.36	4.067

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	1.274	2-Year	0.721
5-Year	1.965	5-Year	1.497
10-Year	2.514	10-Year	2.240
25-Year	3.382	25-Year	2.751
50-Year	3.940	50-Year	3.098
100-Year	4.277	100-Year	3.330
200-Year	4.702	200-Year	3.820

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
0.025	2.1389E-01	0.020	5.9662E-01
0.049	1.6399E-01	0.041	5.7148E-01
0.074	1.3424E-01	0.061	5.4694E-01
0.098	1.1283E-01	0.081	5.1517E-01
0.123	9.6399E-02	0.102	4.8477E-01
0.147	8.3131E-02	0.122	4.4974E-01
0.172	7.2248E-02	0.142	4.1939E-01
0.197	6.3278E-02	0.163	3.8731E-01
0.221	5.5593E-02	0.183	3.5725E-01
0.246	4.9051E-02	0.203	3.2772E-01
0.270	4.3531E-02	0.224	2.9912E-01
0.295	3.8682E-02	0.244	2.7193E-01
0.320	3.4493E-02	0.264	2.4561E-01
0.344	3.0982E-02	0.285	2.2070E-01
0.369	2.7924E-02	0.305	1.9641E-01
0.393	2.5245E-02	0.325	1.7322E-01
0.418	2.2799E-02	0.346	1.5137E-01
0.442	2.0656E-02	0.366	1.3079E-01
0.467	1.8751E-02	0.386	1.1217E-01
0.492	1.7048E-02	0.407	9.5215E-02
0.516	1.5550E-02	0.427	8.1118E-02
0.541	1.4210E-02	0.447	6.8220E-02
0.565	1.3018E-02	0.468	5.6583E-02
0.590	1.1956E-02	0.488	4.6389E-02
0.614	1.0951E-02	0.508	3.7685E-02
0.637	1.0158E-02	0.529	3.0306E-02
0.664	9.3037E-03	0.549	2.3997E-02
0.688	8.5954E-03	0.569	1.8261E-02
0.713	7.9666E-03	0.590	1.3764E-02
0.737	7.3760E-03	0.610	9.9087E-03
0.762	6.8164E-03	0.637	7.8687E-03
0.787	6.3377E-03	0.651	7.3947E-03
0.811	5.8742E-03	0.671	6.7312E-03
0.836	5.4540E-03	0.691	6.2258E-03
0.860	5.0619E-03	0.712	5.7724E-03
0.885	4.7082E-03	0.732	5.3652E-03
0.909	4.3941E-03	0.752	4.9854E-03
0.934	4.0959E-03	0.773	4.6194E-03
0.959	3.8468E-03	0.793	4.3313E-03
0.983	3.6013E-03	0.813	4.0584E-03
1.008	3.3717E-03	0.834	3.8158E-03
1.032	3.1674E-03	0.854	3.6006E-03
1.057	2.9580E-03	0.874	3.3912E-03
1.082	2.7703E-03	0.895	3.1884E-03
1.106	2.5862E-03	0.915	2.9811E-03
1.131	2.4180E-03	0.935	2.8266E-03
1.155	2.2642E-03	0.956	2.6757E-03
1.180	2.1119E-03	0.976	2.5306E-03
1.204	1.9610E-03	0.996	2.3869E-03
1.229	1.8288E-03	1.017	2.2505E-03
1.254	1.7097E-03	1.037	2.1241E-03
1.274	1.6199E-03	1.057	2.0101E-03
1.303	1.4989E-03	1.078	1.8960E-03
1.327	1.3992E-03	1.098	1.7963E-03
1.352	1.3032E-03	1.118	1.7018E-03

1.376	1.2310E-03	1.139	1.6043E-03
1.401	1.1631E-03	1.159	1.5213E-03
1.426	1.1039E-03	1.179	1.4592E-03
1.450	1.0418E-03	1.200	1.3942E-03
1.475	9.8986E-04	1.220	1.3292E-03
1.499	9.3355E-04	1.240	1.2722E-03
1.524	8.8156E-04	1.261	1.2223E-03
1.549	8.3680E-04	1.274	1.1907E-03
1.573	7.9131E-04	1.301	1.1256E-03
1.598	7.4799E-04	1.322	1.0837E-03
1.622	7.0539E-04	1.342	1.0433E-03
1.647	6.6568E-04	1.362	9.9708E-04
1.671	6.3319E-04	1.383	9.6243E-04
1.696	5.9637E-04	1.403	9.2055E-04
1.721	5.7399E-04	1.423	8.8445E-04
1.745	5.4439E-04	1.444	8.5124E-04
1.770	5.1551E-04	1.464	8.2091E-04
1.794	4.8735E-04	1.484	7.8770E-04
1.819	4.6930E-04	1.505	7.6099E-04
1.843	4.4547E-04	1.525	7.3066E-04
1.868	4.2815E-04	1.545	7.0612E-04
1.893	3.9999E-04	1.566	6.8373E-04
1.917	3.8410E-04	1.586	6.5413E-04
1.942	3.6100E-04	1.606	6.2886E-04
1.965	3.4360E-04	1.627	6.0865E-04
1.991	3.2923E-04	1.647	5.8554E-04
2.016	3.1190E-04	1.667	5.5594E-04
2.040	2.9530E-04	1.688	5.3428E-04
2.065	2.7653E-04	1.708	5.0829E-04
2.089	2.6064E-04	1.728	4.9096E-04
2.114	2.4765E-04	1.749	4.6930E-04
2.138	2.3321E-04	1.769	4.5342E-04
2.163	2.2526E-04	1.789	4.3753E-04
2.188	2.1371E-04	1.810	4.2309E-04
2.212	2.0577E-04	1.830	4.1226E-04
2.237	1.9422E-04	1.850	3.9854E-04
2.261	1.8483E-04	1.871	3.8122E-04
2.286	1.7400E-04	1.891	3.6750E-04
2.311	1.6389E-04	1.911	3.5378E-04
2.335	1.5162E-04	1.932	3.3862E-04
2.360	1.4296E-04	1.952	3.2923E-04
2.384	1.3285E-04	1.965	3.2067E-04
2.409	1.2852E-04	1.993	3.0252E-04
2.433	1.2130E-04	2.013	2.9241E-04
2.458	1.1624E-04	2.033	2.7941E-04
2.483	1.0830E-04	2.054	2.6642E-04
2.507	9.9636E-05	2.074	2.5848E-04
2.532	9.2416E-05	2.094	2.4837E-04
2.556	8.9528E-05	2.115	2.3898E-04
2.581	8.3030E-05	2.135	2.3176E-04
2.605	7.5810E-05	2.155	2.2671E-04
2.630	7.2922E-05	2.176	2.1732E-04
2.655	6.5702E-05	2.196	2.1010E-04
2.679	6.0648E-05	2.216	2.0072E-04
2.704	5.6316E-05	2.237	1.9350E-04
2.728	5.1984E-05	2.257	1.8555E-04
2.753	5.0540E-05	2.277	1.7111E-04
2.778	4.7652E-05	2.298	1.6245E-04
2.802	4.2598E-05	2.318	1.4801E-04
2.827	4.0432E-05	2.338	1.4223E-04
2.851	3.6100E-05	2.359	1.3357E-04
2.876	3.3934E-05	2.379	1.2346E-04
2.900	3.3212E-05	2.399	1.1552E-04
2.925	2.9602E-05	2.420	1.1047E-04
2.950	2.8880E-05	2.440	9.8914E-05
2.974	2.6714E-05	2.460	9.1694E-05
2.999	2.5270E-05	2.481	8.5196E-05
3.023	2.2382E-05	2.501	8.3030E-05
3.048	2.0938E-05	2.521	8.0864E-05
3.072	1.9494E-05	2.542	7.5810E-05
3.097	1.8050E-05	2.562	7.2200E-05
3.122	1.7328E-05	2.582	7.0756E-05
3.146	1.6606E-05	2.603	6.9312E-05
3.171	1.5162E-05	2.623	6.4980E-05
3.195	1.4440E-05	2.643	6.4258E-05
3.220	1.3718E-05	2.664	6.1370E-05
3.245	1.2996E-05	2.684	5.9926E-05
3.269	1.0830E-05	2.704	5.7760E-05
3.294	1.0830E-05	2.725	5.1984E-05
3.318	1.0108E-05	2.745	5.0540E-05
3.343	9.3860E-06	2.765	4.3320E-05
3.367	8.6640E-06	2.786	4.1876E-05
3.392	8.6640E-06	2.806	3.9710E-05
3.417	8.6640E-06	2.826	3.6822E-05
3.441	8.6640E-06	2.847	3.3212E-05
3.466	7.2200E-06	2.867	2.8880E-05
3.490	7.2200E-06	2.887	2.8158E-05
3.515	7.2200E-06	2.908	2.4548E-05
3.540	7.2200E-06	2.928	2.4548E-05
3.564	7.2200E-06	2.948	2.2382E-05
3.589	6.4980E-06	2.969	2.0938E-05
3.613	6.4980E-06	2.989	2.0938E-05
3.638	6.4980E-06	3.009	1.8772E-05
3.662	6.4980E-06	3.030	1.8050E-05
3.687	5.7760E-06	3.050	1.7328E-05

3.712	5.7760E-06	3.070	1.6606E-05
3.736	5.7760E-06	3.091	1.5884E-05
3.761	5.7760E-06	3.111	1.5162E-05
3.785	5.7760E-06	3.131	1.5162E-05
3.810	5.7760E-06	3.152	1.5162E-05
3.834	5.0540E-06	3.172	1.2996E-05
3.859	4.3320E-06	3.192	1.2996E-05
3.884	4.3320E-06	3.213	1.1552E-05
3.908	4.3320E-06	3.233	1.0830E-05
3.940	4.3308E-06	3.253	1.0830E-05
3.957	4.3320E-06	3.274	9.3860E-06
3.982	4.3320E-06	3.294	9.3860E-06
4.007	4.3320E-06	3.314	9.3860E-06
4.031	4.3320E-06	3.335	7.2200E-06
4.056	2.8880E-06	3.355	7.2200E-06
4.080	2.8880E-06	3.375	7.2200E-06
4.105	2.8880E-06	3.396	7.2200E-06
4.129	2.8880E-06	3.416	7.2200E-06
4.154	2.8880E-06	3.436	7.2200E-06
4.179	2.1660E-06	3.457	7.2200E-06
4.203	2.1660E-06	3.477	6.4980E-06
4.228	2.1660E-06	3.497	6.4980E-06
4.252	1.4440E-06	3.518	6.4980E-06
4.277	1.4440E-06	3.538	6.4980E-06
4.301	7.2200E-07	3.558	6.4980E-06
4.326	7.2200E-07	3.579	6.4980E-06
4.351	7.2200E-07	3.599	5.0540E-06
4.375	7.2200E-07	3.619	5.0540E-06
4.400	7.2200E-07	3.640	5.0540E-06
4.424	7.2200E-07	3.660	5.0540E-06
4.449	7.2200E-07	3.680	5.0540E-06
4.474	7.2200E-07	3.701	5.0540E-06
4.498	7.2200E-07	3.721	5.0540E-06
4.523	7.2200E-07	3.741	4.3320E-06
4.547	7.2200E-07	3.762	4.3320E-06
4.572	7.2200E-07	3.782	4.3320E-06
4.596	7.2200E-07	3.802	4.3320E-06
4.621	7.2200E-07	3.823	4.3320E-06
4.646	7.2200E-07	3.843	3.6100E-06
4.670	7.2200E-07	3.863	3.6100E-06
4.695	7.2200E-07	3.884	2.8880E-06
4.719	7.2200E-07	3.904	2.8880E-06
4.744	7.2200E-07	3.924	2.8880E-06
4.769	7.2200E-07	3.940	2.8989E-06
4.793	7.2200E-07	3.965	2.8880E-06
4.818	7.2200E-07	3.985	2.8880E-06
4.842	7.2200E-07	4.006	1.4440E-06
4.867	7.2200E-07	4.026	1.4440E-06
4.891	7.2200E-07	4.046	1.4440E-06
4.916	7.2200E-07	4.067	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/4Q2 (Must be Less Than 0%):		-22.5%	PASS
Maximum Excursion from 1/4Q2 to Q2 (Must be Less Than 0%):	-22.5%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	2.6%	PASS	
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.9%	PASS	

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**\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS**

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**MGS FLOOD  
PROJECT REPORT**

Program Version: 3.12

Run Date: 11/10/2009 12:29 PM

**Input File Name:** vault2.fid  
**Project Name:** Burien NERA  
**Analysis Title:** Detention Vault and Wetvault 2  
**Comments:** 95% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	-----Area(Acres)-----		-----Developed-----	
	Predeveloped	To Node	Developed	Bypass Node
<b>Till Forest</b>	17.134	0.000	0.000	0.000
Till Pasture	0.000	0.000	0.000	0.000
Till Grass	0.000	0.000	0.000	0.000
Outwash Forest	0.000	0.000	0.000	0.000
Outwash Pasture	0.000	0.000	0.000	0.000
Outwash Grass	0.000	1.948	0.000	0.000
Wetland	0.000	1.086	0.000	0.000
Impervious	0.000	14.100	0.000	0.000
<b>Subbasin Total</b>	<b>17.134</b>	<b>17.134</b>	<b>0.000</b>	<b>0.000</b>

	-----Lateral Flow Connections-----					
	-----Predeveloped-----			-----Developed-----		
	Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node
Till Pasture	Node	Node	Node	Node	Node	Node
Till Grass	Node	Node	Node	Node	Node	Node
Outwash Forest	Node	Node	Node	Node	Node	Node
Outwash Pasture	Node	Node	Node	Node	Node	Node
Outwash Grass	Node	Node	Node	Node	Node	Node
Wetland	Node	Node	Node	Node	Node	Node
Impervious	Node	Node	Node	Node	Node	Node
Lateral 1						
Lateral 2						

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

**Upstream Node No.**      **Link Type**      **Downstream Node**  
 Node 1                      Pond                      Node 2

**Predeveloped Compliance Node:** 1  
**Postdeveloped Compliance Node:** 2

\*\*\* Predeveloped Structure Summary \*\*\*

\*\*\* Postdeveloped Structure Summary \*\*\*

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation : 100.00 ft  
 Riser Crest Elevation : 110.00 ft  
 Max Pond Elevation : 110.50 ft  
 Max Storage Depth : 10.00 ft  
 Pond Bottom Length : 273.9 ft  
 Pond Bottom Width : 91.3 ft  
 Pond Side Slopes : L1= 0.00 L2= 0.00 W1= 0.00 W2= 0.00 ft/ft

Pond Bottom Area : 25010. sq-ft  
 Area at Riser Crest El : 25,010. sq-ft  
 : 0.574 acres  
 Volume at Riser Crest : 250,100. cu-ft  
 : 5.742 ac-ft  
 Area at Max Elevation : 25010. sq-ft  
 : 0.574 acres  
 Vol at Max Elevation : 262,605. cu-ft  
 : 6.029 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 24.00 in  
 Common Length : 0.028 ft  
 Riser Crest Elevation : 110.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1 ---  
 Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 1.69 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---  
 Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 105.22 ft  
 Length : 0.33 in  
 Height : 57.38 in  
 Orientation : Vertical  
 Elbow : No

\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\*

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infiltr Discharge (cfs)
100.000		0.000	0.000	0.000
100.033		0.019	0.014	0.000
100.065		0.037	0.020	0.000
100.130		0.075	0.028	0.000
100.260		0.149	0.039	0.000
100.390		0.224	0.048	0.000
100.520		0.299	0.055	0.000
100.650		0.373	0.062	0.000
100.780		0.448	0.068	0.000
100.910		0.522	0.073	0.000
101.040		0.597	0.078	0.000
101.170		0.672	0.083	0.000
101.300		0.746	0.087	0.000
101.430		0.821	0.092	0.000
101.560		0.896	0.096	0.000
101.690		0.970	0.100	0.000
101.820		1.045	0.103	0.000
101.950		1.120	0.107	0.000
102.080		1.194	0.110	0.000
102.210		1.269	0.114	0.000
102.340		1.343	0.117	0.000
102.470		1.418	0.120	0.000
102.600		1.493	0.123	0.000
102.730		1.567	0.127	0.000
102.860		1.642	0.129	0.000
102.990		1.717	0.132	0.000
103.120		1.791	0.135	0.000
103.250		1.866	0.138	0.000
103.380		1.941	0.141	0.000
103.510		2.015	0.143	0.000
103.640		2.090	0.146	0.000
103.770		2.165	0.149	0.000
103.900		2.239	0.151	0.000
104.030		2.314	0.154	0.000
104.160		2.388	0.156	0.000
104.290		2.463	0.159	0.000
104.420		2.538	0.161	0.000
104.550		2.612	0.163	0.000
104.680		2.687	0.166	0.000
104.810		2.762	0.168	0.000
104.940		2.836	0.170	0.000
105.070		2.911	0.172	0.000
105.107		2.932	0.173	0.000
105.144		2.954	0.174	0.000
105.181		2.975	0.174	0.000
105.218		2.996	0.175	0.000
105.251		3.015	0.176	0.000
105.283		3.033	0.177	0.000
105.316		3.052	0.179	0.000
105.348		3.071	0.181	0.000
105.478		3.145	0.189	0.000
105.608		3.220	0.199	0.000

105.738	3.295	0.211	0.000
105.868	3.369	0.224	0.000
105.998	3.444	0.239	0.000
106.128	3.519	0.254	0.000
106.258	3.593	0.270	0.000
106.388	3.668	0.288	0.000
106.518	3.743	0.306	0.000
106.648	3.817	0.325	0.000
106.778	3.892	0.344	0.000
106.908	3.966	0.365	0.000
107.038	4.041	0.386	0.000
107.168	4.116	0.407	0.000
107.298	4.190	0.430	0.000
107.428	4.265	0.453	0.000
107.558	4.340	0.477	0.000
107.688	4.414	0.501	0.000
107.818	4.489	0.526	0.000
107.948	4.564	0.551	0.000
108.078	4.638	0.577	0.000
108.208	4.713	0.604	0.000
108.338	4.787	0.631	0.000
108.468	4.862	0.658	0.000
108.598	4.937	0.687	0.000
108.728	5.011	0.715	0.000
108.858	5.086	0.744	0.000
108.988	5.161	0.774	0.000
109.118	5.235	0.804	0.000
109.248	5.310	0.834	0.000
109.378	5.385	0.865	0.000
109.508	5.459	0.897	0.000
109.638	5.534	0.929	0.000
109.768	5.609	0.961	0.000
109.826	5.642	0.975	0.000
109.884	5.675	0.990	0.000
109.942	5.708	1.005	0.000
110.000	5.741	1.020	0.000
110.033	5.760	1.152	0.000
110.065	5.779	1.386	0.000
110.098	5.797	1.687	0.000
110.130	5.816	2.041	0.000
110.163	5.835	2.441	0.000
110.195	5.853	2.879	0.000
110.228	5.872	3.351	0.000
110.260	5.891	3.853	0.000
110.390	5.965	6.059	0.000
110.520	6.040	8.354	0.000
110.650	6.115	10.438	0.000
110.780	6.189	12.068	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date WSEL (ft)

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12/07/1939	105.982
01/18/1941	103.438
12/20/1941	104.546
11/23/1942	106.496
10/17/1943	103.076
02/07/1945	106.073
02/05/1946	103.974
12/05/1946	104.992
10/19/1947	106.436
02/22/1949	105.151
01/22/1950	106.097
02/09/1951	107.434
10/03/1951	104.138
01/11/1953	106.492
01/22/1954	104.520
11/19/1954	104.474
01/06/1956	107.245
02/26/1957	105.315
01/17/1958	105.143
01/13/1959	106.494
11/21/1959	106.161
11/24/1960	106.769
12/24/1961	103.867
11/30/1962	103.941
11/14/1963	104.130
12/01/1964	105.267
01/07/1966	105.283
12/13/1966	106.422
10/27/1967	104.803
12/11/1968	105.308
01/27/1970	106.177
12/07/1970	105.814
03/05/1972	108.805
12/23/1972	107.100
03/01/1974	105.390
12/27/1974	104.843
02/27/1976	105.747
08/26/1977	103.895

12/15/1977	106.681
03/05/1979	103.750
12/18/1979	108.731
12/30/1980	105.385
10/06/1981	108.502
03/09/1983	105.699
03/21/1984	104.178
11/11/1984	104.301
01/18/1986	106.470
11/24/1986	108.534
04/06/1988	105.431
04/05/1989	105.657
01/09/1990	108.881
11/24/1990	109.269
01/31/1992	106.340
04/11/1993	103.597
03/03/1994	104.131
12/27/1994	106.651
02/09/1996	109.598
01/02/1997	108.806
10/08/1997	104.196
11/26/1998	108.942
02/28/2000	105.477
05/05/2001	104.085
11/15/2001	103.821
11/26/2002	108.244
10/24/2003	105.459
02/08/2005	103.959
11/28/2005	106.307
11/27/2006	105.380
01/07/2008	106.184
02/18/2009	108.544
01/10/2010	106.307
11/17/2010	107.675
10/02/2011	105.960
01/20/2013	109.378
01/28/2014	105.602
03/30/2015	104.099
01/04/2016	108.172
11/01/2016	105.032
01/31/2018	105.251
01/12/2019	106.208
04/21/2020	104.197
11/24/2020	107.513
12/21/2021	105.076
03/30/2023	105.610
01/25/2024	106.163
12/22/2024	108.300
01/03/2026	107.100
01/29/2027	104.603
02/23/2028	105.375
12/11/2028	105.357
01/26/2030	107.401
03/04/2031	105.277
01/21/2032	106.869
12/23/2032	105.145
01/16/2034	108.738
02/19/2035	105.504
02/27/2036	105.881
08/25/2037	102.556
12/15/2037	106.357
12/04/2038	103.491
01/14/2040	105.539
12/25/2040	106.346
04/15/2042	106.194
02/26/2043	105.633
03/21/2044	104.918
03/27/2045	105.569
02/17/2046	105.156
02/02/2047	104.599
12/10/2047	106.805
03/17/2049	104.602
12/04/2049	104.469
04/09/2051	104.133
04/17/2052	103.344
12/10/2052	104.355
12/11/2053	104.737
11/01/2054	108.350
02/07/2056	109.633
11/19/2056	108.800
05/21/2058	105.098
11/26/2058	107.429
01/23/2060	103.930
10/27/2060	106.076
01/03/2062	105.070
12/30/2062	105.506
12/23/2063	107.632
12/01/2064	104.842
01/13/2066	103.309
12/15/2066	107.071
01/19/2068	107.263
09/23/2069	103.736
12/14/2069	103.553
12/19/2070	103.419
11/03/2071	104.733

12/25/2072	110.180
12/15/2073	106.361
11/20/2074	103.930
10/30/2075	107.243
08/26/2077	102.904
12/02/2077	104.801
02/25/2079	103.673
12/17/2079	109.341
11/21/2080	107.781
02/19/2082	106.888
02/20/2083	106.912
11/26/2083	107.901
12/14/2084	106.178
11/01/2085	105.223
11/23/2086	106.197
12/09/2087	104.908
11/05/2088	106.473
11/10/2089	105.820
12/09/2090	107.997
01/31/2092	107.675
11/07/2092	103.631
12/14/2093	104.089
12/27/2094	105.698
12/14/2095	106.132
10/28/2096	106.908

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

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1.00	102.556
1.01	102.904
1.02	103.076
1.02	103.309
1.03	103.344
1.04	103.419
1.04	103.438
1.05	103.491
1.06	103.553
1.06	103.597
1.07	103.631
1.08	103.673
1.09	103.736
1.09	103.750
1.10	103.821
1.11	103.867
1.12	103.895
1.12	103.930
1.13	103.930
1.14	103.941
1.15	103.959
1.16	103.974
1.17	104.085
1.18	104.089
1.18	104.099
1.19	104.130
1.20	104.131
1.21	104.133
1.22	104.138
1.23	104.178
1.24	104.196
1.25	104.197
1.26	104.301
1.27	104.355
1.28	104.469
1.29	104.474
1.30	104.520
1.31	104.546
1.32	104.599
1.33	104.602
1.35	104.603
1.36	104.733
1.37	104.737
1.38	104.801
1.39	104.803
1.40	104.842
1.42	104.843
1.43	104.908
1.44	104.918
1.46	104.992
1.47	105.032
1.48	105.070
1.50	105.076
1.51	105.098
1.53	105.143
1.54	105.145
1.56	105.151
1.57	105.156
1.59	105.223
1.60	105.251
1.62	105.267
1.64	105.277
1.65	105.283
1.67	105.308
1.69	105.315
1.71	105.357

1.73	105.375
1.75	105.380
1.77	105.385
1.79	105.390
1.81	105.431
1.83	105.459
1.85	105.477
1.87	105.504
1.89	105.506
1.92	105.539
1.94	105.569
1.96	105.602
1.99	105.610
2.01	105.633
2.04	105.657
2.07	105.698
2.09	105.699
2.12	105.747
2.15	105.814
2.18	105.820
2.21	105.881
2.24	105.960
2.27	105.982
2.31	106.073
2.34	106.076
2.38	106.097
2.41	106.132
2.45	106.161
2.49	106.163
2.53	106.177
2.57	106.178
2.61	106.184
2.65	106.194
2.70	106.197
2.75	106.208
2.80	106.307
2.85	106.307
2.90	106.340
2.95	106.346
3.01	106.357
3.07	106.361
3.13	106.422
3.19	106.436
3.26	106.470
3.32	106.473
3.40	106.492
3.47	106.494
3.55	106.496
3.63	106.651
3.72	106.681
3.80	106.769
3.90	106.805
4.00	106.869
4.10	106.888
4.21	106.908
4.32	106.912
4.45	107.071
4.58	107.100
4.71	107.100
4.86	107.243
5.01	107.245
5.17	107.263
5.35	107.401
5.54	107.429
5.74	107.434
5.95	107.513
6.19	107.632
6.44	107.675
6.71	107.675
7.01	107.781
7.33	107.901
7.69	107.997
8.08	108.172
8.52	108.244
9.00	108.300
9.55	108.350
10.16	108.502
10.86	108.534
11.66	108.544
12.59	108.731
13.68	108.738
14.97	108.800
16.54	108.805
18.47	108.806
20.92	108.881
24.10	108.942
28.44	109.269
34.68	109.341
44.42	109.378
61.77	109.598
101.36	109.633
282.36	110.180

Postdeveloped Water Surface Elevation Data (ft)

Recurrence Interval Computed Using Gringorten Plotting Position

Tr (yrs)	Link: 1	
1.05-Year	103.514	
1.11-Year	103.874	
1.25-Year	104.202	
2.00-Year	105.620	
3.33-Year	106.474	
5-Year	107.247	
10-Year	108.466	
25-Year	108.856	
50-Year	109.451	
100-Year		109.636

**Postdeveloped Infiltrated Water Statistics**

Volume Statistics Computed for Entire Simulation

Statistic	Link: 1
Total Inflow Volume (ac-ft)	6234.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data \*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 3.680 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 13841. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 20761. cu-ft  
 2-Year Discharge Rate : 0.201 cfs

\*\*\*\*\*Compliance Point Results \*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data \*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	0.463	12/07/1939	0.237
01/31/1941	0.178	01/18/1941	0.142
12/15/1941	0.466	12/20/1941	0.163
02/10/1943	0.185	11/23/1942	0.303
01/23/1944	0.139	10/17/1943	0.134
02/07/1945	0.577	02/07/1945	0.248
02/05/1946	0.354	02/05/1946	0.153
02/02/1947	0.361	12/05/1946	0.171
03/21/1948	0.624	10/19/1947	0.294
02/22/1949	0.313	02/22/1949	0.174
03/03/1950	1.290	01/22/1950	0.250
02/09/1951	0.516	02/09/1951	0.454
01/24/1952	0.136	10/03/1951	0.156
01/11/1953	0.193	01/11/1953	0.302
01/22/1954	0.313	01/22/1954	0.163
04/12/1955	0.146	11/19/1954	0.162
03/04/1956	0.336	01/06/1956	0.421
02/25/1957	0.278	02/26/1957	0.179
01/16/1958	0.337	01/17/1958	0.174
01/12/1959	0.363	01/13/1959	0.302
12/15/1959	0.388	11/21/1959	0.258
02/14/1961	0.332	11/24/1960	0.343
03/04/1962	0.178	12/24/1961	0.151
02/03/1963	0.197	11/30/1962	0.152
01/01/1964	0.315	11/14/1963	0.156
02/26/1965	0.391	12/01/1964	0.177
01/06/1966	0.241	01/07/1966	0.177
01/19/1967	0.610	12/13/1966	0.292
02/03/1968	0.315	10/27/1967	0.168
12/03/1968	0.339	12/11/1968	0.178
01/13/1970	0.262	01/27/1970	0.260
12/06/1970	0.298	12/07/1970	0.219
02/28/1972	0.805	03/05/1972	0.732
01/13/1973	0.290	12/23/1972	0.396
02/18/1974	0.434	03/01/1974	0.183
12/26/1974	0.525	12/27/1974	0.169
01/27/1976	0.364	02/27/1976	0.212
05/31/1977	0.051	08/26/1977	0.151
12/10/1977	0.308	12/15/1977	0.329
03/04/1979	0.303	03/05/1979	0.148
12/17/1979	0.488	12/18/1979	0.716
12/26/1980	0.193	12/30/1980	0.183
10/06/1981	0.618	10/06/1981	0.666
01/05/1983	0.347	03/09/1983	0.208
03/14/1984	0.331	03/21/1984	0.156
02/11/1985	0.221	11/11/1984	0.159

01/18/1986	0.729	01/18/1986	0.299
11/24/1986	0.643	11/24/1986	0.673
04/06/1988	0.321	04/06/1988	0.186
04/05/1989	0.354	04/05/1989	0.204
01/09/1990	1.169	01/09/1990	0.749
11/24/1990	0.996	11/24/1990	0.839
01/27/1992	0.304	01/31/1992	0.281
06/09/1993	0.257	04/11/1993	0.145
03/03/1994	0.195	03/03/1994	0.156
02/19/1995	0.409	12/27/1994	0.325
02/09/1996	0.948	02/09/1996	0.919
01/02/1997	0.593	01/02/1997	0.733
02/28/1998	0.218	10/08/1997	0.157
11/25/1998	0.583	11/26/1998	0.763
03/26/2000	0.327	02/28/2000	0.189
05/05/2001	0.250	05/05/2001	0.155
05/03/2002	0.893	11/15/2001	0.150
03/31/2003	0.684	11/26/2002	0.611
01/23/2004	0.167	10/24/2003	0.188
02/07/2005	0.288	02/08/2005	0.152
02/27/2006	0.370	11/28/2005	0.277
12/14/2006	0.274	11/27/2006	0.183
03/21/2008	0.455	01/07/2008	0.261
02/17/2009	0.706	02/18/2009	0.675
01/10/2010	0.474	01/10/2010	0.277
11/17/2010	0.615	11/17/2010	0.498
01/31/2012	0.391	10/02/2011	0.235
01/20/2013	0.894	01/20/2013	0.865
12/06/2013	0.376	01/28/2014	0.199
03/30/2015	0.228	03/30/2015	0.155
01/04/2016	0.650	01/04/2016	0.596
03/07/2017	0.188	11/01/2016	0.172
01/31/2018	0.351	01/31/2018	0.176
03/30/2019	0.347	01/12/2019	0.264
04/14/2020	0.228	04/21/2020	0.157
02/10/2021	0.563	11/24/2020	0.468
03/26/2022	0.166	12/21/2021	0.173
03/30/2023	0.401	03/30/2023	0.200
01/19/2024	0.315	01/25/2024	0.258
12/22/2024	0.659	12/22/2024	0.623
03/09/2026	0.418	01/03/2026	0.396
01/27/2027	0.364	01/29/2027	0.164
02/19/2028	0.452	02/23/2028	0.182
12/04/2028	0.350	12/11/2028	0.181
02/16/2030	0.467	01/26/2030	0.448
12/30/2030	0.437	03/04/2031	0.177
01/20/2032	0.702	01/21/2032	0.358
03/01/2033	0.198	12/23/2032	0.174
01/15/2034	0.793	01/16/2034	0.717
02/19/2035	0.387	02/19/2035	0.191
03/24/2036	0.366	02/27/2036	0.226
03/09/2037	0.015	08/25/2037	0.122
12/15/2037	0.267	12/15/2037	0.284
02/07/2039	0.193	12/04/2038	0.143
01/14/2040	0.725	01/14/2040	0.194
12/25/2040	0.411	12/25/2040	0.282
02/20/2042	0.431	04/15/2042	0.262
03/31/2043	0.646	02/26/2043	0.202
05/01/2044	0.255	03/21/2044	0.170
02/11/2045	0.295	03/27/2045	0.196
02/16/2046	0.371	02/17/2046	0.174
02/01/2047	0.233	02/02/2047	0.164
04/21/2048	0.207	12/10/2047	0.348
03/16/2049	0.233	03/17/2049	0.164
12/04/2049	0.393	12/04/2049	0.162
04/06/2051	0.305	04/09/2051	0.156
04/17/2052	0.183	04/17/2052	0.140
06/04/2053	0.703	12/10/2052	0.160
04/08/2054	0.131	12/11/2053	0.167
02/17/2055	0.598	11/01/2054	0.633
02/07/2056	1.088	02/07/2056	0.927
11/19/2056	1.191	11/19/2056	0.731
01/24/2058	0.413	05/21/2058	0.173
12/28/2058	0.475	11/26/2058	0.453
01/19/2060	0.178	01/23/2060	0.152
01/10/2061	0.386	10/27/2060	0.248
02/03/2062	1.467	01/03/2062	0.172
12/29/2062	0.310	12/30/2062	0.191
12/23/2063	0.560	12/23/2063	0.490
11/30/2064	0.268	12/01/2064	0.168
01/13/2066	0.147	01/13/2066	0.139
01/19/2067	0.373	12/15/2066	0.391
01/18/2068	0.769	01/19/2068	0.424
01/04/2069	0.207	09/23/2069	0.148
04/09/2070	0.174	12/14/2069	0.144
02/14/2071	0.191	12/19/2070	0.142
02/27/2072	0.205	11/03/2071	0.167
12/25/2072	0.857	12/25/2072	2.678
03/16/2074	0.461	12/15/2073	0.284
01/23/2075	0.100	11/20/2074	0.152
03/24/2076	0.512	10/30/2075	0.420
03/02/2077	0.057	08/26/2077	0.130
12/02/2077	0.193	12/02/2077	0.168
02/25/2079	0.258	02/25/2079	0.147
12/17/2079	0.956	12/17/2079	0.857



11/21/2080	0.422	11/21/2080	0.519
02/13/2082	0.527	02/19/2082	0.361
02/19/2083	0.323	02/20/2083	0.365
11/26/2083	0.392	11/26/2083	0.542
12/14/2084	0.271	12/14/2084	0.260
01/18/2086	0.382	11/01/2085	0.175
12/21/2086	0.358	11/23/2086	0.263
01/14/2088	0.236	12/09/2087	0.170
11/05/2088	0.419	11/05/2088	0.299
01/07/2090	0.197	11/10/2089	0.220
12/04/2090	0.364	12/09/2090	0.561
04/28/2092	0.624	01/31/2092	0.499
03/22/2093	0.175	11/07/2092	0.146
03/01/2094	0.147	12/14/2093	0.155
02/18/2095	0.232	12/27/2094	0.208
01/14/2096	0.293	12/14/2095	0.255
01/29/2097	0.644	10/28/2096	0.365

\*\*\*Point of Compliance Ranked Maxima Flow Data\*\*\*

Tr (yrs)	Predevelopment Q (cfs)	Tr (yrs)	Postdevelopment Q (cfs)
1.00	0.015	1.00	0.122
1.01	0.051	1.01	0.130
1.02	0.057	1.02	0.134
1.02	0.100	1.02	0.139
1.03	0.131	1.03	0.140
1.04	0.136	1.04	0.142
1.04	0.139	1.04	0.142
1.05	0.146	1.05	0.143
1.06	0.147	1.06	0.144
1.06	0.147	1.06	0.145
1.07	0.166	1.07	0.146
1.08	0.167	1.08	0.147
1.09	0.174	1.09	0.148
1.09	0.175	1.09	0.148
1.10	0.178	1.10	0.150
1.11	0.178	1.11	0.151
1.12	0.178	1.12	0.151
1.12	0.183	1.12	0.152
1.13	0.185	1.13	0.152
1.14	0.188	1.14	0.152
1.15	0.191	1.15	0.152
1.16	0.193	1.16	0.153
1.17	0.193	1.17	0.155
1.18	0.193	1.18	0.155
1.18	0.193	1.18	0.155
1.19	0.195	1.19	0.156
1.20	0.197	1.20	0.156
1.21	0.197	1.21	0.156
1.22	0.198	1.22	0.156
1.23	0.205	1.23	0.156
1.24	0.207	1.24	0.157
1.25	0.207	1.25	0.157
1.26	0.218	1.26	0.159
1.27	0.221	1.27	0.160
1.28	0.228	1.28	0.162
1.29	0.228	1.29	0.162
1.30	0.232	1.30	0.163
1.31	0.233	1.31	0.163
1.32	0.233	1.32	0.164
1.33	0.236	1.33	0.164
1.35	0.241	1.35	0.164
1.36	0.250	1.36	0.167
1.37	0.255	1.37	0.167
1.38	0.257	1.38	0.168
1.39	0.258	1.39	0.168
1.40	0.262	1.40	0.168
1.42	0.267	1.42	0.169
1.43	0.268	1.43	0.170
1.44	0.271	1.44	0.170
1.46	0.274	1.46	0.171
1.47	0.278	1.47	0.172
1.48	0.288	1.48	0.172
1.50	0.290	1.50	0.173
1.51	0.293	1.51	0.173
1.53	0.295	1.53	0.174
1.54	0.298	1.54	0.174
1.56	0.303	1.56	0.174
1.57	0.304	1.57	0.174
1.59	0.305	1.59	0.175
1.60	0.308	1.60	0.176
1.62	0.310	1.62	0.177
1.64	0.313	1.64	0.177
1.65	0.313	1.65	0.177
1.67	0.315	1.67	0.178
1.69	0.315	1.69	0.179
1.71	0.315	1.71	0.181
1.73	0.321	1.73	0.182
1.75	0.323	1.75	0.183
1.77	0.327	1.77	0.183
1.79	0.331	1.79	0.183

1.81	0.332	1.81	0.186
1.83	0.336	1.83	0.188
1.85	0.337	1.85	0.189
1.87	0.339	1.87	0.191
1.89	0.347	1.89	0.191
1.92	0.347	1.92	0.194
1.94	0.350	1.94	0.196
1.96	0.351	1.96	0.199
1.99	0.354	1.99	0.200
2.01	0.354	2.01	0.202
2.04	0.358	2.04	0.204
2.07	0.361	2.07	0.208
2.09	0.363	2.09	0.208
2.12	0.364	2.12	0.212
2.15	0.364	2.15	0.219
2.18	0.364	2.18	0.220
2.21	0.366	2.21	0.226
2.24	0.370	2.24	0.235
2.27	0.371	2.27	0.237
2.31	0.373	2.31	0.248
2.34	0.376	2.34	0.248
2.38	0.382	2.38	0.250
2.41	0.386	2.41	0.255
2.45	0.387	2.45	0.258
2.49	0.388	2.49	0.258
2.53	0.391	2.53	0.260
2.57	0.391	2.57	0.260
2.61	0.392	2.61	0.261
2.65	0.393	2.65	0.262
2.70	0.401	2.70	0.263
2.75	0.409	2.75	0.264
2.80	0.411	2.80	0.277
2.85	0.413	2.85	0.277
2.90	0.418	2.90	0.281
2.95	0.419	2.95	0.282
3.01	0.422	3.01	0.284
3.07	0.431	3.07	0.284
3.13	0.434	3.13	0.292
3.19	0.437	3.19	0.294
3.26	0.452	3.26	0.299
3.32	0.455	3.32	0.299
3.40	0.461	3.40	0.302
3.47	0.463	3.47	0.302
3.55	0.466	3.55	0.303
3.63	0.467	3.63	0.325
3.72	0.474	3.72	0.329
3.80	0.475	3.80	0.343
3.90	0.488	3.90	0.348
4.00	0.512	4.00	0.358
4.10	0.516	4.10	0.361
4.21	0.525	4.21	0.365
4.32	0.527	4.32	0.365
4.45	0.560	4.45	0.391
4.58	0.563	4.58	0.396
4.71	0.577	4.71	0.396
4.86	0.583	4.86	0.420
5.01	0.593	5.01	0.421
5.17	0.598	5.17	0.424
5.35	0.610	5.35	0.448
5.54	0.615	5.54	0.453
5.74	0.618	5.74	0.454
5.95	0.624	5.95	0.468
6.19	0.624	6.19	0.490
6.44	0.643	6.44	0.498
6.71	0.644	6.71	0.499
7.01	0.646	7.01	0.519
7.33	0.650	7.33	0.542
7.69	0.659	7.69	0.561
8.08	0.684	8.08	0.596
8.52	0.702	8.52	0.611
9.00	0.703	9.00	0.623
9.55	0.706	9.55	0.633
10.16	0.725	10.16	0.666
10.86	0.729	10.86	0.673
11.66	0.769	11.66	0.675
12.59	0.793	12.59	0.716
13.68	0.805	13.68	0.717
14.97	0.857	14.97	0.731
16.54	0.893	16.54	0.732
18.47	0.894	18.47	0.733
20.92	0.948	20.92	0.749
24.10	0.956	24.10	0.763
28.44	0.996	28.44	0.839
34.68	1.088	34.68	0.857
44.42	1.169	44.42	0.865
61.77	1.191	61.77	0.919
101.36	1.290	101.36	0.927
282.36	1.467	282.36	2.678

\*\*\* Point of Compliance Flow Frequency Data \*\*\*  
 Recurrence Interval Computed Using Gringorten Plotting Position

Predevelopment Runoff

Postdevelopment Runoff

Tr (Years)	Discharge (cfs)	Tr (Years)	Discharge (cfs)
2-Year	0.354	2-Year	0.201
5-Year	0.592	5-Year	0.421
10-Year	0.720	10-Year	0.657
25-Year	0.965	25-Year	0.780
50-Year	1.177	50-Year	0.884
100-Year	1.287	100-Year	0.927
200-Year	1.408	200-Year	2.089

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

\*\*\* Point of Compliance Flow Duration Data \*\*\*

Predevelopment Runoff Exceedance Probability		Postdevelopment Runoff Exceedance Probability	
Discharge (cfs)	Probability	Discharge (cfs)	Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
7.337E-03	2.3680E-01	1.339E-02	6.6980E-01
0.015	1.8183E-01	0.027	6.0656E-01
0.022	1.4869E-01	0.040	5.3623E-01
0.029	1.2486E-01	0.054	4.6177E-01
0.037	1.0625E-01	0.067	3.8691E-01
0.044	9.1206E-02	0.080	3.1160E-01
0.051	7.8997E-02	0.094	2.3764E-01
0.059	6.8893E-02	0.107	1.7107E-01
0.066	6.0447E-02	0.120	1.1542E-01
0.073	5.3261E-02	0.134	7.2640E-02
0.081	4.7175E-02	0.147	4.3019E-02
0.088	4.1832E-02	0.161	2.3246E-02
0.095	3.7205E-02	0.177	9.8224E-03
0.103	3.3133E-02	0.187	8.0337E-03
0.110	2.9638E-02	0.201	6.5781E-03
0.117	2.6430E-02	0.214	5.5818E-03
0.125	2.3649E-02	0.228	4.8287E-03
0.132	2.1262E-02	0.241	4.1833E-03
0.139	1.9150E-02	0.254	3.6504E-03
0.147	1.7267E-02	0.268	3.1573E-03
0.154	1.5521E-02	0.281	2.7458E-03
0.161	1.4036E-02	0.295	2.4216E-03
0.169	1.2639E-02	0.308	2.1465E-03
0.177	1.1278E-02	0.321	1.9090E-03
0.183	1.0348E-02	0.335	1.6996E-03
0.191	9.4640E-03	0.354	1.4465E-03
0.198	8.5860E-03	0.361	1.3754E-03
0.205	7.8178E-03	0.375	1.2498E-03
0.213	7.1543E-03	0.388	1.1465E-03
0.220	6.5998E-03	0.402	1.0505E-03
0.227	6.0489E-03	0.415	9.5376E-04
0.235	5.5507E-03	0.428	8.7579E-04
0.242	5.1067E-03	0.442	8.0431E-04
0.249	4.7255E-03	0.455	7.3788E-04
0.257	4.3558E-03	0.469	6.7796E-04
0.264	4.0223E-03	0.482	6.2020E-04
0.271	3.7104E-03	0.495	5.6388E-04
0.279	3.4331E-03	0.509	5.1695E-04
0.286	3.1833E-03	0.522	4.7219E-04
0.293	2.9472E-03	0.536	4.3176E-04
0.301	2.7284E-03	0.549	3.9566E-04
0.308	2.5234E-03	0.562	3.6678E-04
0.315	2.3581E-03	0.576	3.4078E-04
0.323	2.1942E-03	0.592	3.1212E-04
0.330	2.0324E-03	0.602	2.8880E-04
0.337	1.9003E-03	0.616	2.5631E-04
0.345	1.7624E-03	0.629	2.2454E-04
0.354	1.6051E-03	0.643	2.0216E-04
0.359	1.5285E-03	0.656	1.8267E-04
0.367	1.4180E-03	0.669	1.6750E-04
0.374	1.3350E-03	0.683	1.4223E-04
0.382	1.2722E-03	0.696	1.2852E-04
0.389	1.2043E-03	0.710	1.1119E-04
0.396	1.1350E-03	0.723	9.0972E-05
0.404	1.0729E-03	0.736	7.8698E-05
0.411	1.0130E-03	0.750	6.7146E-05
0.418	9.6532E-04	0.763	6.1370E-05
0.426	9.1478E-04	0.777	5.6316E-05
0.433	8.6712E-04	0.790	5.1262E-05
0.440	8.1225E-04	0.803	4.6930E-05
0.448	7.6388E-04	0.817	3.8266E-05
0.455	7.2489E-04	0.830	2.6714E-05
0.462	6.8807E-04	0.843	2.3104E-05
0.470	6.5124E-04	0.857	1.8050E-05
0.477	6.2092E-04	0.870	1.5162E-05
0.484	5.8915E-04	0.884	1.4440E-05
0.492	5.6749E-04	0.897	1.2274E-05
0.499	5.4511E-04	0.910	1.1552E-05
0.506	5.2562E-04	0.924	8.6640E-06
0.514	5.0251E-04	0.937	6.4980E-06
0.521	4.7796E-04	0.951	5.7760E-06
0.528	4.5197E-04	0.964	5.7760E-06
0.536	4.3609E-04	0.977	5.0540E-06
0.543	4.1154E-04	0.991	5.0540E-06
0.550	3.9349E-04	1.004	4.3320E-06
0.558	3.6894E-04	1.018	4.3320E-06
0.565	3.5450E-04	1.031	4.3320E-06

0.572	3.3573E-04	1.044	4.3320E-06
0.580	3.1985E-04	1.058	4.3320E-06
0.587	3.0252E-04	1.071	4.3320E-06
0.592	2.9160E-04	1.084	3.6100E-06
0.602	2.7653E-04	1.098	3.6100E-06
0.609	2.6281E-04	1.111	3.6100E-06
0.616	2.5198E-04	1.125	2.8880E-06
0.624	2.3609E-04	1.138	2.8880E-06
0.631	2.2599E-04	1.151	2.8880E-06
0.638	2.1371E-04	1.165	2.8880E-06
0.646	2.0360E-04	1.177	2.8882E-06
0.653	1.9638E-04	1.192	2.8880E-06
0.660	1.8339E-04	1.205	2.8880E-06
0.668	1.7689E-04	1.218	2.8880E-06
0.675	1.6245E-04	1.232	2.8880E-06
0.682	1.5306E-04	1.245	2.8880E-06
0.690	1.4440E-04	1.259	2.8880E-06
0.697	1.3140E-04	1.272	2.8880E-06
0.704	1.2563E-04	1.285	2.8880E-06
0.712	1.1552E-04	1.299	2.8880E-06
0.719	1.0830E-04	1.312	2.8880E-06
0.726	1.0108E-04	1.325	2.8880E-06
0.734	9.3860E-05	1.339	2.8880E-06
0.741	8.9528E-05	1.352	2.8880E-06
0.748	8.1586E-05	1.366	2.8880E-06
0.756	7.4366E-05	1.379	2.8880E-06
0.763	7.1478E-05	1.392	2.8880E-06
0.770	6.5702E-05	1.406	2.8880E-06
0.778	6.2814E-05	1.419	2.8880E-06
0.785	5.9926E-05	1.433	2.8880E-06
0.792	5.7760E-05	1.446	2.8880E-06
0.800	5.0540E-05	1.459	2.8880E-06
0.807	4.7652E-05	1.473	2.8880E-06
0.814	4.2598E-05	1.486	2.8880E-06
0.822	3.8266E-05	1.500	2.8880E-06
0.829	3.4656E-05	1.513	2.8880E-06
0.836	3.2490E-05	1.526	2.8880E-06
0.844	3.0324E-05	1.540	2.1660E-06
0.851	2.8158E-05	1.553	2.1660E-06
0.858	2.4548E-05	1.566	2.1660E-06
0.866	2.3826E-05	1.580	2.1660E-06
0.873	2.1660E-05	1.593	2.1660E-06
0.880	1.9494E-05	1.607	2.1660E-06
0.888	1.8772E-05	1.620	2.1660E-06
0.895	1.5162E-05	1.633	2.1660E-06
0.902	1.4440E-05	1.647	2.1660E-06
0.910	1.3718E-05	1.660	2.1660E-06
0.917	1.2274E-05	1.674	2.1660E-06
0.924	1.1552E-05	1.687	2.1660E-06
0.932	1.0830E-05	1.700	2.1660E-06
0.939	1.0830E-05	1.714	2.1660E-06
0.946	1.0108E-05	1.727	2.1660E-06
0.954	8.6640E-06	1.741	2.1660E-06
0.961	7.9420E-06	1.754	2.1660E-06
0.968	7.9420E-06	1.767	2.1660E-06
0.976	7.9420E-06	1.781	2.1660E-06
0.983	7.9420E-06	1.794	2.1660E-06
0.990	7.9420E-06	1.807	2.1660E-06
0.998	7.2200E-06	1.821	2.1660E-06
1.005	7.2200E-06	1.834	2.1660E-06
1.012	7.2200E-06	1.848	2.1660E-06
1.020	7.2200E-06	1.861	2.1660E-06
1.027	7.2200E-06	1.874	2.1660E-06
1.034	7.2200E-06	1.888	2.1660E-06
1.042	7.2200E-06	1.901	2.1660E-06
1.049	7.2200E-06	1.915	2.1660E-06
1.056	7.2200E-06	1.928	2.1660E-06
1.064	7.2200E-06	1.941	2.1660E-06
1.071	6.4980E-06	1.955	2.1660E-06
1.078	6.4980E-06	1.968	2.1660E-06
1.086	6.4980E-06	1.982	2.1660E-06
1.093	5.7760E-06	1.995	2.1660E-06
1.101	5.0540E-06	2.008	2.1660E-06
1.108	5.0540E-06	2.022	2.1660E-06
1.115	5.0540E-06	2.035	2.1660E-06
1.123	5.0540E-06	2.048	2.1660E-06
1.130	4.3320E-06	2.062	2.1660E-06
1.137	4.3320E-06	2.075	2.1660E-06
1.145	4.3320E-06	2.089	2.1660E-06
1.152	3.6100E-06	2.102	1.4440E-06
1.159	3.6100E-06	2.115	1.4440E-06
1.167	3.6100E-06	2.129	1.4440E-06
1.177	2.8016E-06	2.142	1.4440E-06
1.181	2.8880E-06	2.156	1.4440E-06
1.189	2.8880E-06	2.169	1.4440E-06
1.196	2.1660E-06	2.182	1.4440E-06
1.203	2.1660E-06	2.196	1.4440E-06
1.211	2.1660E-06	2.209	1.4440E-06
1.218	2.1660E-06	2.223	1.4440E-06
1.225	2.1660E-06	2.236	1.4440E-06
1.233	2.1660E-06	2.249	1.4440E-06
1.240	2.1660E-06	2.263	1.4440E-06
1.247	2.1660E-06	2.276	1.4440E-06
1.255	2.1660E-06	2.289	1.4440E-06
1.262	2.1660E-06	2.303	1.4440E-06

1.269	2.1660E-06	2.316	1.4440E-06
1.277	2.1660E-06	2.330	1.4440E-06
1.284	2.1660E-06	2.343	1.4440E-06
1.291	7.2200E-07	2.356	1.4440E-06
1.299	7.2200E-07	2.370	1.4440E-06
1.306	7.2200E-07	2.383	1.4440E-06
1.313	7.2200E-07	2.397	1.4440E-06
1.321	7.2200E-07	2.410	1.4440E-06
1.328	7.2200E-07	2.423	1.4440E-06
1.335	7.2200E-07	2.437	1.4440E-06
1.343	7.2200E-07	2.450	1.4440E-06
1.350	7.2200E-07	2.464	1.4440E-06
1.357	7.2200E-07	2.477	1.4440E-06
1.365	7.2200E-07	2.490	1.4440E-06
1.372	7.2200E-07	2.504	1.4440E-06
1.379	7.2200E-07	2.517	1.4440E-06
1.387	7.2200E-07	2.530	7.2200E-07
1.394	7.2200E-07	2.544	7.2200E-07
1.401	7.2200E-07	2.557	7.2200E-07
1.409	7.2200E-07	2.571	7.2200E-07
1.416	7.2200E-07	2.584	7.2200E-07
1.423	7.2200E-07	2.597	7.2200E-07
1.431	7.2200E-07	2.611	7.2200E-07
1.438	7.2200E-07	2.624	7.2200E-07
1.445	7.2200E-07	2.638	7.2200E-07
1.453	7.2200E-07	2.651	7.2200E-07
1.460	7.2200E-07	2.664	7.2200E-07
1.467	7.2200E-07	2.678	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-14.5%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):	-9.7%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):		5.7%	PASS
Percent Excursion from Q2 to Q50 (Must be less than 50%):		19.5%	PASS

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**\* POND MEETS ALL DURATION DESIGN CRITERIA:                      PASS**

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**MGS FLOOD  
PROJECT REPORT**

Program Version: 3.12

Run Date: 11/10/2009 12:40 PM

**Input File Name:** vault3.fid  
 Project Name: Burien NERA  
 Analysis Title: Detention and Wet Vault 3  
 Comments: 95% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	Area(Acres)	-----Developed-----	
		Predeveloped	To Node
<b>Till Forest</b>	54.809	0.000	0.000
Till Pasture	0.000	0.000	0.000
Till Grass	0.000	0.000	0.000
Outwash Forest	0.000	0.000	0.000
Outwash Pasture	0.000	0.000	0.000
Outwash Grass	0.000	3.022	0.000
Wetland	0.000	1.049	0.000
Impervious	0.000	50.738	0.000
<b>Subbasin Total</b>	<b>54.809</b>	<b>54.809</b>	<b>0.000</b>

-----Lateral Flow Connections-----

	Node	-----Predeveloped-----			-----Developed-----		
		Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node	
Till Pasture	Node	Node	Node	Node	Node	Node	
Till Grass	Node	Node	Node	Node	Node	Node	
Outwash Forest	Node	Node	Node	Node	Node	Node	
Outwash Pasture	Node	Node	Node	Node	Node	Node	
Outwash Grass	Node	Node	Node	Node	Node	Node	
Wetland	Node	Node	Node	Node	Node	Node	
Impervious	Node	Node	Node	Node	Node	Node	
Lateral 1							
Lateral 2							

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2
<b>Predeveloped Compliance Node:</b>		1
<b>Postdeveloped Compliance Node:</b>		2

\*\*\* Predeveloped Structure Summary \*\*\*

\*\*\* Postdeveloped Structure Summary \*\*\*

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation	: 100.00 ft	
Riser Crest Elevation	: 110.00 ft	
Max Pond Elevation	: 111.00 ft	
Max Storage Depth	:	10.00 ft
Pond Bottom Length	: 557.8 ft	

Pond Bottom Width : 185.9 ft  
 Pond Side Slopes : L1= 0.00 L2= 0.00 W1= 0.00 W2= 0.00 ft/ft  
 Pond Bottom Area : 103701. sq-ft  
 Area at Riser Crest El : 103,701. sq-ft  
 : 2.381 acres  
 Volume at Riser Crest : 1,037,014. cu-ft  
 : 23.807 ac-ft  
 Area at Max Elevation : 103701. sq-ft  
 : 2.381 acres  
 Vol at Max Elevation : 1,140,716. cu-ft  
 : 26.187 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 42.00 in  
 Common Length : 0.099 ft  
 Riser Crest Elevation : 110.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1---

Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 2.97 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 105.61 ft  
 Length : 1.18 in  
 Height : 52.69 in  
 Orientation : Vertical  
 Elbow : No

\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\*

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infil Discharge (cfs)
100.000		0.000	0.000	0.000
100.035		0.083	0.044	0.000
100.070		0.167	0.062	0.000
100.140		0.333	0.088	0.000
100.280		0.667	0.124	0.000
100.420		1.000	0.152	0.000
100.560		1.333	0.176	0.000
100.700		1.666	0.196	0.000
100.840		2.000	0.215	0.000
100.980		2.333	0.232	0.000
101.120		2.666	0.248	0.000
101.260		3.000	0.263	0.000
101.400		3.333	0.278	0.000
101.540		3.666	0.291	0.000
101.680		4.000	0.304	0.000
101.820		4.333	0.316	0.000
101.960		4.666	0.328	0.000
102.100		4.999	0.340	0.000
102.240		5.333	0.351	0.000
102.380		5.666	0.362	0.000
102.520		5.999	0.372	0.000
102.660		6.333	0.383	0.000
102.800		6.666	0.393	0.000
102.940		6.999	0.402	0.000
103.080		7.332	0.412	0.000
103.220		7.666	0.421	0.000
103.360		7.999	0.430	0.000
103.500		8.332	0.439	0.000
103.640		8.666	0.448	0.000
103.780		8.999	0.456	0.000
103.920		9.332	0.464	0.000
104.060		9.665	0.473	0.000
104.200		9.999	0.481	0.000
104.340		10.332	0.489	0.000
104.480		10.665	0.497	0.000
104.620		10.999	0.504	0.000
104.760		11.332	0.512	0.000
104.900		11.665	0.519	0.000
105.040		11.998	0.527	0.000
105.180		12.332	0.534	0.000
105.320		12.665	0.541	0.000
105.460		12.998	0.548	0.000
105.497		13.087	0.550	0.000
105.535		13.176	0.552	0.000
105.572		13.265	0.554	0.000
105.609		13.354	0.556	0.000
105.644		13.437	0.559	0.000
105.679		13.520	0.564	0.000
105.714		13.604	0.570	0.000

105.749	13.687	0.576	0.000
105.889	14.020	0.608	0.000
106.029	14.353	0.648	0.000
106.169	14.687	0.693	0.000
106.309	15.020	0.743	0.000
106.449	15.353	0.798	0.000
106.589	15.687	0.857	0.000
106.729	16.020	0.920	0.000
106.869	16.353	0.986	0.000
107.009	16.686	1.056	0.000
107.149	17.020	1.129	0.000
107.289	17.353	1.205	0.000
107.429	17.686	1.284	0.000
107.569	18.020	1.366	0.000
107.709	18.353	1.451	0.000
107.849	18.686	1.538	0.000
107.989	19.019	1.627	0.000
108.129	19.353	1.719	0.000
108.269	19.686	1.814	0.000
108.409	20.019	1.911	0.000
108.549	20.353	2.010	0.000
108.689	20.686	2.111	0.000
108.829	21.019	2.214	0.000
108.969	21.353	2.320	0.000
109.109	21.686	2.428	0.000
109.249	22.019	2.537	0.000
109.389	22.352	2.649	0.000
109.529	22.686	2.762	0.000
109.669	23.019	2.878	0.000
109.809	23.352	2.995	0.000
109.857	23.466	3.036	0.000
109.905	23.579	3.076	0.000
109.952	23.693	3.117	0.000
110.000	23.807	3.158	0.000
110.035	23.890	3.429	0.000
110.070	23.973	3.900	0.000
110.105	24.057	4.501	0.000
110.140	24.140	5.206	0.000
110.175	24.223	6.002	0.000
110.210	24.307	6.877	0.000
110.245	24.390	7.825	0.000
110.280	24.473	8.838	0.000
110.420	24.807	13.448	0.000
110.560	25.140	18.728	0.000
110.700	25.473	24.400	0.000
110.840	25.806	30.176	0.000
110.980	26.140	35.764	0.000
111.120	26.473	40.894	0.000
111.260	26.806	45.341	0.000
111.400	27.140	48.969	0.000
111.540	27.473	51.769	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics  
Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date	WSEL (ft)
12/07/1939	105.753
01/18/1941	103.257
12/20/1941	104.650
11/23/1942	106.802
10/17/1943	102.984
02/07/1945	105.611
02/06/1946	103.924
12/05/1946	105.541
10/19/1947	105.981
02/22/1949	104.969
01/22/1950	106.346
02/09/1951	107.447
10/03/1951	104.031
01/12/1953	106.637
01/22/1954	104.644
11/19/1954	104.547
01/06/1956	107.663
02/26/1957	104.820
01/17/1958	105.010
01/13/1959	106.610
11/21/1959	105.617
11/24/1960	106.863
12/24/1961	104.025
11/30/1962	104.058
11/19/1963	104.508
12/01/1964	105.138
01/14/1966	105.635
12/13/1966	106.698
01/20/1968	105.035
12/11/1968	105.640
01/27/1970	106.331
12/07/1970	106.047
03/05/1972	108.963
12/26/1972	107.274



12/27/1973	105.737
12/27/1974	104.800
02/27/1976	105.835
08/26/1977	103.559
12/15/1977	106.775
03/05/1979	103.932
12/18/1979	108.933
12/30/1980	105.367
10/06/1981	108.239
03/09/1983	106.216
03/21/1984	104.295
11/11/1984	104.344
01/19/1986	105.985
11/24/1986	108.259
04/06/1988	105.363
04/05/1989	105.990
01/09/1990	108.155
11/24/1990	109.400
01/31/1992	106.244
04/11/1993	103.863
03/03/1994	104.218
12/27/1994	107.010
02/09/1996	109.523
01/02/1997	108.957
10/08/1997	104.335
11/26/1998	109.125
02/28/2000	105.926
05/05/2001	103.712
12/20/2001	103.587
11/26/2002	108.588
10/24/2003	105.132
02/08/2005	103.792
11/28/2005	106.532
11/27/2006	105.572
01/07/2008	105.926
02/18/2009	108.503
01/10/2010	106.232
11/17/2010	107.760
10/02/2011	105.453
01/20/2013	109.491
01/28/2014	105.628
04/22/2015	104.333
01/04/2016	108.508
11/01/2016	105.064
01/31/2018	105.236
01/12/2019	106.090
04/21/2020	104.504
11/24/2020	107.368
12/21/2021	104.828
03/30/2023	105.097
01/25/2024	106.308
12/22/2024	108.207
01/03/2026	107.297
01/29/2027	104.410
02/23/2028	105.181
01/13/2029	105.677
01/26/2030	107.797
03/04/2031	105.595
01/21/2032	106.400
12/24/2032	104.949
11/16/2033	108.865
02/19/2035	105.652
02/27/2036	105.809
03/09/2037	102.648
12/15/2037	106.660
12/11/2038	103.701
01/14/2040	105.489
12/25/2040	106.217
04/15/2042	106.227
02/26/2043	105.892
03/21/2044	104.996
11/28/2044	105.378
02/23/2046	105.004
02/02/2047	104.521
12/10/2047	107.126
03/17/2049	104.900
02/09/2050	104.273
04/09/2051	103.943
04/17/2052	103.309
12/10/2052	104.440
12/11/2053	104.662
11/01/2054	108.239
02/07/2056	109.456
01/02/2057	108.719
11/25/2057	104.892
11/26/2058	107.407
01/23/2060	104.036
01/15/2061	106.054
01/03/2062	105.199
01/02/2063	105.420
12/23/2063	107.596
12/02/2064	104.548
11/04/2065	103.191
12/15/2066	107.474
01/20/2068	106.982

09/23/2069	103.568
12/14/2069	103.431
12/19/2070	103.664
11/03/2071	104.637
12/25/2072	110.192
12/15/2073	106.570
11/24/2074	103.969
10/30/2075	107.652
08/26/2077	102.667
12/02/2077	104.731
03/05/2079	103.815
12/17/2079	109.175
11/21/2080	107.792
02/19/2082	107.118
02/20/2083	106.920
11/26/2083	108.234
12/14/2084	106.545
11/01/2085	105.498
11/23/2086	105.956
12/09/2087	105.200
11/05/2088	106.162
11/10/2089	106.034
12/09/2090	108.388
01/31/2092	107.631
11/07/2092	103.835
12/14/2093	104.333
12/27/2094	106.047
12/14/2095	106.688
10/28/2096	107.070

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

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1.00	102.648
1.01	102.667
1.02	102.984
1.02	103.191
1.03	103.257
1.04	103.309
1.04	103.431
1.05	103.559
1.06	103.568
1.06	103.587
1.07	103.664
1.08	103.701
1.09	103.712
1.09	103.792
1.10	103.815
1.11	103.835
1.12	103.863
1.12	103.924
1.13	103.932
1.14	103.943
1.15	103.969
1.16	104.025
1.17	104.031
1.18	104.036
1.18	104.058
1.19	104.218
1.20	104.273
1.21	104.295
1.22	104.333
1.23	104.333
1.24	104.335
1.25	104.344
1.26	104.410
1.27	104.440
1.28	104.504
1.29	104.508
1.30	104.521
1.31	104.547
1.32	104.548
1.33	104.637
1.35	104.644
1.36	104.650
1.37	104.662
1.38	104.731
1.39	104.800
1.40	104.820
1.42	104.828
1.43	104.892
1.44	104.900
1.46	104.949
1.47	104.969
1.48	104.996
1.50	105.004
1.51	105.010
1.53	105.035
1.54	105.064
1.56	105.097
1.57	105.132
1.59	105.138
1.60	105.181
1.62	105.199
1.64	105.200
1.65	105.236

1.67	105.363
1.69	105.367
1.71	105.378
1.73	105.420
1.75	105.453
1.77	105.489
1.79	105.498
1.81	105.541
1.83	105.572
1.85	105.595
1.87	105.611
1.89	105.617
1.92	105.628
1.94	105.635
1.96	105.640
1.99	105.652
2.01	105.677
2.04	105.737
2.07	105.753
2.09	105.809
2.12	105.835
2.15	105.892
2.18	105.926
2.21	105.926
2.24	105.956
2.27	105.981
2.31	105.985
2.34	105.990
2.38	106.034
2.41	106.047
2.45	106.047
2.49	106.054
2.53	106.090
2.57	106.162
2.61	106.216
2.65	106.217
2.70	106.227
2.75	106.232
2.80	106.244
2.85	106.308
2.90	106.331
2.95	106.346
3.01	106.400
3.07	106.532
3.13	106.545
3.19	106.570
3.26	106.610
3.32	106.637
3.40	106.660
3.47	106.688
3.55	106.698
3.63	106.775
3.72	106.802
3.80	106.863
3.90	106.920
4.00	106.982
4.10	107.010
4.21	107.070
4.32	107.118
4.45	107.126
4.58	107.274
4.71	107.297
4.86	107.368
5.01	107.407
5.17	107.447
5.35	107.474
5.54	107.596
5.74	107.631
5.95	107.652
6.19	107.663
6.44	107.760
6.71	107.792
7.01	107.797
7.33	108.155
7.69	108.207
8.08	108.234
8.52	108.239
9.00	108.239
9.55	108.259
10.16	108.388
10.86	108.503
11.66	108.508
12.59	108.588
13.68	108.719
14.97	108.865
16.54	108.933
18.47	108.957
20.92	108.963
24.10	109.125
28.44	109.175
34.68	109.400
44.42	109.456
61.77	109.491
101.36	109.523
282.36	110.192

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
 Tr (yrs) Link: 1

1.05-Year	103.573
1.11-Year	103.839
1.25-Year	104.348
2.00-Year	105.660
3.33-Year	106.640
5-Year	107.405
10-Year	108.349
25-Year	108.949
50-Year	109.461
100-Year	109.522

**Postdeveloped Infiltrated Water Statistics**  
 Volume Statistics Computed for Entire Simulation  
 Statistic Link: 1

Total Inflow Volume (ac-ft)	22230.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data\*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 13.201 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 44017. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 66025. cu-ft  
 2-Year Discharge Rate : 0.562 cfs

\*\*\*\*\*Compliance Point Results\*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data\*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	1.482	12/07/1939	0.577
01/31/1941	0.569	01/18/1941	0.423
12/15/1941	1.489	12/20/1941	0.506
02/10/1943	0.593	11/23/1942	0.955
01/23/1944	0.445	10/17/1943	0.405
02/07/1945	1.847	02/07/1945	0.556
02/05/1946	1.133	02/06/1946	0.465
02/02/1947	1.155	12/05/1946	0.552
03/21/1948	1.996	10/19/1947	0.634
02/22/1949	1.002	02/22/1949	0.523
03/03/1950	4.126	01/22/1950	0.758
02/09/1951	1.652	02/09/1951	1.294
01/24/1952	0.434	10/03/1951	0.471
01/11/1953	0.617	01/12/1953	0.878
01/22/1954	1.002	01/22/1954	0.506
04/12/1955	0.468	11/19/1954	0.500
03/04/1956	1.074	01/06/1956	1.423
02/25/1957	0.890	02/26/1957	0.515
01/16/1958	1.080	01/17/1958	0.525
01/12/1959	1.160	01/13/1959	0.866
12/15/1959	1.241	11/21/1959	0.556
02/14/1961	1.062	11/24/1960	0.983
03/04/1962	0.569	12/24/1961	0.471
02/03/1963	0.631	11/30/1962	0.473
01/01/1964	1.009	11/19/1963	0.498
02/26/1965	1.250	12/01/1964	0.532
01/06/1966	0.771	01/14/1966	0.558
01/19/1967	1.951	12/13/1966	0.906
02/03/1968	1.009	01/20/1968	0.526
12/03/1968	1.083	12/11/1968	0.559
01/13/1970	0.839	01/27/1970	0.752
12/06/1970	0.955	12/07/1970	0.653
02/28/1972	2.574	03/05/1972	2.315
01/13/1973	0.929	12/26/1972	1.197
02/18/1974	1.389	12/27/1973	0.574
12/26/1974	1.681	12/27/1974	0.514
01/27/1976	1.164	02/27/1976	0.596
05/31/1977	0.164	08/26/1977	0.443
12/10/1977	0.985	12/15/1977	0.942
03/04/1979	0.969	03/05/1979	0.465
12/17/1979	1.561	12/18/1979	2.293
12/26/1980	0.619	12/30/1980	0.543
10/06/1981	1.978	10/06/1981	1.794
01/05/1983	1.110	03/09/1983	0.710
03/14/1984	1.060	03/21/1984	0.486
02/11/1985	0.708	11/11/1984	0.489

01/18/1986	2.333	01/19/1986	0.635
11/24/1986	2.057	11/24/1986	1.807
04/06/1988	1.028	04/06/1988	0.543
04/05/1989	1.133	04/05/1989	0.637
01/09/1990	3.740	01/09/1990	1.737
11/24/1990	3.187	11/24/1990	2.658
01/27/1992	0.973	01/31/1992	0.720
06/09/1993	0.821	04/11/1993	0.461
03/03/1994	0.625	03/03/1994	0.482
02/19/1995	1.309	12/27/1994	1.057
02/09/1996	3.032	02/09/1996	2.757
01/02/1997	1.896	01/02/1997	2.311
02/28/1998	0.698	10/08/1997	0.488
11/25/1998	1.866	11/26/1998	2.440
03/26/2000	1.045	02/28/2000	0.618
05/05/2001	0.801	05/05/2001	0.452
05/03/2002	2.858	12/20/2001	0.444
03/31/2003	2.188	11/26/2002	2.038
01/23/2004	0.534	10/24/2003	0.531
02/07/2005	0.921	02/08/2005	0.457
02/27/2006	1.183	11/28/2005	0.833
12/14/2006	0.875	11/27/2006	0.554
03/21/2008	1.454	01/07/2008	0.619
02/17/2009	2.257	02/18/2009	1.977
01/10/2010	1.516	01/10/2010	0.715
11/17/2010	1.968	11/17/2010	1.482
01/31/2012	1.252	10/02/2011	0.548
01/20/2013	2.860	01/20/2013	2.732
12/06/2013	1.204	01/28/2014	0.558
03/30/2015	0.730	04/22/2015	0.488
01/04/2016	2.080	01/04/2016	1.981
03/07/2017	0.602	11/01/2016	0.528
01/31/2018	1.122	01/31/2018	0.537
03/30/2019	1.110	01/12/2019	0.667
04/14/2020	0.730	04/21/2020	0.498
02/10/2021	1.801	11/24/2020	1.250
03/26/2022	0.532	12/21/2021	0.515
03/30/2023	1.284	03/30/2023	0.530
01/19/2024	1.008	01/25/2024	0.743
12/22/2024	2.107	12/22/2024	1.772
03/09/2026	1.338	01/03/2026	1.210
01/27/2027	1.166	01/29/2027	0.493
02/19/2028	1.445	02/23/2028	0.534
12/04/2028	1.119	01/13/2029	0.564
02/16/2030	1.494	01/26/2030	1.505
12/30/2030	1.398	03/04/2031	0.555
01/20/2032	2.245	01/21/2032	0.779
03/01/2033	0.633	12/24/2032	0.522
01/15/2034	2.537	11/16/2033	2.242
02/19/2035	1.239	02/19/2035	0.560
03/24/2036	1.169	02/27/2036	0.590
03/09/2037	0.048	03/09/2037	0.382
12/15/2037	0.855	12/15/2037	0.889
02/07/2039	0.618	12/11/2038	0.451
01/14/2040	2.318	01/14/2040	0.550
12/25/2040	1.313	12/25/2040	0.710
02/20/2042	1.378	04/15/2042	0.713
03/31/2043	2.065	02/26/2043	0.609
05/01/2044	0.815	03/21/2044	0.524
02/11/2045	0.942	11/28/2044	0.544
02/16/2046	1.186	02/23/2046	0.525
02/01/2047	0.745	02/02/2047	0.499
04/21/2048	0.662	12/10/2047	1.117
03/16/2049	0.744	03/17/2049	0.519
12/04/2049	1.257	02/09/2050	0.485
04/06/2051	0.976	04/09/2051	0.466
04/17/2052	0.586	04/17/2052	0.427
06/04/2053	2.250	12/10/2052	0.494
04/08/2054	0.418	12/11/2053	0.507
02/17/2055	1.914	11/01/2054	1.793
02/07/2056	3.481	02/07/2056	2.703
11/19/2056	3.810	01/02/2057	2.133
01/24/2058	1.321	11/25/2057	0.519
12/28/2058	1.519	11/26/2058	1.272
01/19/2060	0.569	01/23/2060	0.471
01/10/2061	1.234	01/15/2061	0.656
02/03/2062	4.694	01/03/2062	0.535
12/29/2062	0.993	01/02/2063	0.546
12/23/2063	1.791	12/23/2063	1.382
11/30/2064	0.856	12/02/2064	0.500
01/13/2066	0.470	11/04/2065	0.419
01/19/2067	1.194	12/15/2066	1.310
01/18/2068	2.459	01/20/2068	1.043
01/04/2069	0.661	09/23/2069	0.443
04/09/2070	0.558	12/14/2069	0.435
02/14/2071	0.612	12/19/2070	0.449
02/27/2072	0.655	11/03/2071	0.505
12/25/2072	2.740	12/25/2072	6.414
03/16/2074	1.473	12/15/2073	0.849
01/23/2075	0.318	11/24/2074	0.467
03/24/2076	1.637	10/30/2075	1.416
03/02/2077	0.184	08/26/2077	0.383
12/02/2077	0.616	12/02/2077	0.510
02/25/2079	0.826	03/05/2079	0.458
12/17/2079	3.059	12/17/2079	2.479

11/21/2080	1.350	11/21/2080	1.502
02/13/2082	1.686	02/19/2082	1.113
02/19/2083	1.034	02/20/2083	1.012
11/26/2083	1.253	11/26/2083	1.790
12/14/2084	0.867	12/14/2084	0.838
01/18/2086	1.221	11/01/2085	0.550
12/21/2086	1.146	11/23/2086	0.627
01/14/2088	0.754	12/09/2087	0.535
11/05/2088	1.340	11/05/2088	0.691
01/07/2090	0.630	11/10/2089	0.649
12/04/2090	1.164	12/09/2090	1.896
04/28/2092	1.997	01/31/2092	1.403
03/22/2093	0.561	11/07/2092	0.459
03/01/2094	0.470	12/14/2093	0.488
02/18/2095	0.743	12/27/2094	0.653
01/14/2096	0.936	12/14/2095	0.901
01/29/2097	2.059	10/28/2096	1.088

\*\*\*Point of Compliance Ranked Maxima Flow Data\*\*\*

Tr (yrs)	Predevelopment Q (cfs)	Tr (yrs)	Postdevelopment Q (cfs)
1.00	0.048	1.00	0.382
1.01	0.164	1.01	0.383
1.02	0.184	1.02	0.405
1.02	0.318	1.02	0.419
1.03	0.418	1.03	0.423
1.04	0.434	1.04	0.427
1.04	0.445	1.04	0.435
1.05	0.468	1.05	0.443
1.06	0.470	1.06	0.443
1.06	0.470	1.06	0.444
1.07	0.532	1.07	0.449
1.08	0.534	1.08	0.451
1.09	0.558	1.09	0.452
1.09	0.561	1.09	0.457
1.10	0.569	1.10	0.458
1.11	0.569	1.11	0.459
1.12	0.569	1.12	0.461
1.12	0.586	1.12	0.465
1.13	0.593	1.13	0.465
1.14	0.602	1.14	0.466
1.15	0.612	1.15	0.467
1.16	0.616	1.16	0.471
1.17	0.617	1.17	0.471
1.18	0.618	1.18	0.471
1.18	0.619	1.18	0.473
1.19	0.625	1.19	0.482
1.20	0.630	1.20	0.485
1.21	0.631	1.21	0.486
1.22	0.633	1.22	0.488
1.23	0.655	1.23	0.488
1.24	0.661	1.24	0.488
1.25	0.662	1.25	0.489
1.26	0.698	1.26	0.493
1.27	0.708	1.27	0.494
1.28	0.730	1.28	0.498
1.29	0.730	1.29	0.498
1.30	0.743	1.30	0.499
1.31	0.744	1.31	0.500
1.32	0.745	1.32	0.500
1.33	0.754	1.33	0.505
1.35	0.771	1.35	0.506
1.36	0.801	1.36	0.506
1.37	0.815	1.37	0.507
1.38	0.821	1.38	0.510
1.39	0.826	1.39	0.514
1.40	0.839	1.40	0.515
1.42	0.855	1.42	0.515
1.43	0.856	1.43	0.519
1.44	0.867	1.44	0.519
1.46	0.875	1.46	0.522
1.47	0.890	1.47	0.523
1.48	0.921	1.48	0.524
1.50	0.929	1.50	0.525
1.51	0.936	1.51	0.525
1.53	0.942	1.53	0.526
1.54	0.955	1.54	0.528
1.56	0.969	1.56	0.530
1.57	0.973	1.57	0.531
1.59	0.976	1.59	0.532
1.60	0.985	1.60	0.534
1.62	0.993	1.62	0.535
1.64	1.002	1.64	0.535
1.65	1.002	1.65	0.537
1.67	1.008	1.67	0.543
1.69	1.009	1.69	0.543
1.71	1.009	1.71	0.544
1.73	1.028	1.73	0.546
1.75	1.034	1.75	0.548
1.77	1.045	1.77	0.550
1.79	1.060	1.79	0.550

1.81	1.062	1.81	0.552
1.83	1.074	1.83	0.554
1.85	1.080	1.85	0.555
1.87	1.083	1.87	0.556
1.89	1.110	1.89	0.556
1.92	1.110	1.92	0.558
1.94	1.119	1.94	0.558
1.96	1.122	1.96	0.559
1.99	1.133	1.99	0.560
2.01	1.133	2.01	0.564
2.04	1.146	2.04	0.574
2.07	1.155	2.07	0.577
2.09	1.160	2.09	0.590
2.12	1.164	2.12	0.596
2.15	1.164	2.15	0.609
2.18	1.166	2.18	0.618
2.21	1.169	2.21	0.619
2.24	1.183	2.24	0.627
2.27	1.186	2.27	0.634
2.31	1.194	2.31	0.635
2.34	1.204	2.34	0.637
2.38	1.221	2.38	0.649
2.41	1.234	2.41	0.653
2.45	1.239	2.45	0.653
2.49	1.241	2.49	0.656
2.53	1.250	2.53	0.667
2.57	1.252	2.57	0.691
2.61	1.253	2.61	0.710
2.65	1.257	2.65	0.710
2.70	1.284	2.70	0.713
2.75	1.309	2.75	0.715
2.80	1.313	2.80	0.720
2.85	1.321	2.85	0.743
2.90	1.338	2.90	0.752
2.95	1.340	2.95	0.758
3.01	1.350	3.01	0.779
3.07	1.378	3.07	0.833
3.13	1.389	3.13	0.838
3.19	1.398	3.19	0.849
3.26	1.445	3.26	0.866
3.32	1.454	3.32	0.878
3.40	1.473	3.40	0.889
3.47	1.482	3.47	0.901
3.55	1.489	3.55	0.906
3.63	1.494	3.63	0.942
3.72	1.516	3.72	0.955
3.80	1.519	3.80	0.983
3.90	1.561	3.90	1.012
4.00	1.637	4.00	1.043
4.10	1.652	4.10	1.057
4.21	1.681	4.21	1.088
4.32	1.686	4.32	1.113
4.45	1.791	4.45	1.117
4.58	1.801	4.58	1.197
4.71	1.847	4.71	1.210
4.86	1.866	4.86	1.250
5.01	1.896	5.01	1.272
5.17	1.914	5.17	1.294
5.35	1.951	5.35	1.310
5.54	1.968	5.54	1.382
5.74	1.978	5.74	1.403
5.95	1.996	5.95	1.416
6.19	1.997	6.19	1.423
6.44	2.057	6.44	1.482
6.71	2.059	6.71	1.502
7.01	2.065	7.01	1.505
7.33	2.080	7.33	1.737
7.69	2.107	7.69	1.772
8.08	2.188	8.08	1.790
8.52	2.245	8.52	1.793
9.00	2.250	9.00	1.794
9.55	2.257	9.55	1.807
10.16	2.318	10.16	1.896
10.86	2.333	10.86	1.977
11.66	2.459	11.66	1.981
12.59	2.537	12.59	2.038
13.68	2.574	13.68	2.133
14.97	2.740	14.97	2.242
16.54	2.858	16.54	2.293
18.47	2.860	18.47	2.311
20.92	3.032	20.92	2.315
24.10	3.059	24.10	2.440
28.44	3.187	28.44	2.479
34.68	3.481	34.68	2.658
44.42	3.740	44.42	2.703
61.77	3.810	61.77	2.732
101.36	4.126	101.36	2.757
282.36	4.694	282.36	6.414

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	1.133	2-Year	0.562
5-Year	1.894	5-Year	1.270
10-Year	2.303	10-Year	1.873
25-Year	3.087	25-Year	2.448
50-Year	3.765	50-Year	2.713
100-Year	4.118	100-Year	2.757
200-Year	4.503	200-Year	5.183

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
0.023	2.3680E-01	0.032	7.4046E-01
0.047	1.8183E-01	0.064	7.0202E-01
0.070	1.4869E-01	0.096	6.5057E-01
0.094	1.2486E-01	0.128	5.9655E-01
0.117	1.0625E-01	0.160	5.3749E-01
0.141	9.1206E-02	0.192	4.7880E-01
0.164	7.8997E-02	0.224	4.1797E-01
0.188	6.8893E-02	0.257	3.5639E-01
0.211	6.0447E-02	0.289	2.9452E-01
0.235	5.3261E-02	0.321	2.3453E-01
0.258	4.7175E-02	0.353	1.8113E-01
0.282	4.1832E-02	0.385	1.3405E-01
0.305	3.7205E-02	0.417	9.5851E-02
0.329	3.3133E-02	0.449	6.5507E-02
0.352	2.9638E-02	0.481	4.2444E-02
0.376	2.6430E-02	0.513	2.5577E-02
0.399	2.3649E-02	0.545	1.3987E-02
0.422	2.1262E-02	0.567	1.0308E-02
0.446	1.9150E-02	0.609	7.8113E-03
0.469	1.7267E-02	0.641	6.8511E-03
0.493	1.5521E-02	0.673	6.0078E-03
0.516	1.4036E-02	0.706	5.3110E-03
0.540	1.2639E-02	0.738	4.7486E-03
0.567	1.1278E-02	0.770	4.3140E-03
0.587	1.0348E-02	0.802	3.9320E-03
0.610	9.4640E-03	0.834	3.5638E-03
0.634	8.5860E-03	0.866	3.2331E-03
0.657	7.8178E-03	0.898	2.9487E-03
0.681	7.1543E-03	0.930	2.6822E-03
0.704	6.5998E-03	0.962	2.4310E-03
0.728	6.0489E-03	0.994	2.2165E-03
0.751	5.5507E-03	1.026	2.0281E-03
0.774	5.1067E-03	1.058	1.8490E-03
0.798	4.7255E-03	1.090	1.6953E-03
0.821	4.3558E-03	1.133	1.5164E-03
0.845	4.0223E-03	1.155	1.4317E-03
0.868	3.7104E-03	1.187	1.3292E-03
0.892	3.4331E-03	1.219	1.2288E-03
0.915	3.1833E-03	1.251	1.1379E-03
0.939	2.9472E-03	1.283	1.0635E-03
0.962	2.7284E-03	1.315	9.9203E-04
0.986	2.5234E-03	1.347	9.2705E-04
1.009	2.3581E-03	1.379	8.6568E-04
1.033	2.1942E-03	1.411	8.0286E-04
1.056	2.0324E-03	1.443	7.4438E-04
1.080	1.9003E-03	1.475	6.9890E-04
1.103	1.7624E-03	1.507	6.4836E-04
1.133	1.6051E-03	1.539	6.1009E-04
1.150	1.5285E-03	1.571	5.7327E-04
1.173	1.4180E-03	1.604	5.3284E-04
1.197	1.3350E-03	1.636	5.0179E-04
1.220	1.2722E-03	1.668	4.7435E-04
1.244	1.2043E-03	1.700	4.4114E-04
1.267	1.1350E-03	1.732	4.1298E-04
1.291	1.0729E-03	1.764	3.8844E-04
1.314	1.0130E-03	1.796	3.5522E-04
1.338	9.6532E-04	1.828	3.3140E-04
1.361	9.1478E-04	1.860	3.1118E-04
1.385	8.6712E-04	1.894	2.8574E-04
1.408	8.1225E-04	1.924	2.6714E-04
1.432	7.6388E-04	1.956	2.4909E-04
1.455	7.2489E-04	1.988	2.2671E-04
1.479	6.8807E-04	2.020	2.0649E-04
1.502	6.5124E-04	2.053	1.8628E-04
1.525	6.2092E-04	2.085	1.6895E-04
1.549	5.8915E-04	2.117	1.5090E-04
1.572	5.6749E-04	2.149	1.3935E-04
1.596	5.4511E-04	2.181	1.2563E-04



1.619	5.2562E-04	2.213	1.1191E-04
1.643	5.0251E-04	2.245	1.0108E-04
1.666	4.7796E-04	2.277	8.8806E-05
1.690	4.5197E-04	2.309	7.4366E-05
1.713	4.3609E-04	2.341	6.4258E-05
1.737	4.1154E-04	2.373	6.0648E-05
1.760	3.9349E-04	2.405	5.2706E-05
1.784	3.6894E-04	2.437	4.8374E-05
1.807	3.5450E-04	2.469	4.3320E-05
1.831	3.3573E-04	2.502	3.9710E-05
1.854	3.1985E-04	2.534	3.6100E-05
1.878	3.0252E-04	2.566	3.1046E-05
1.894	2.9160E-04	2.598	2.5270E-05
1.924	2.7653E-04	2.630	2.1660E-05
1.948	2.6281E-04	2.662	1.7328E-05
1.971	2.5198E-04	2.694	1.4440E-05
1.995	2.3609E-04	2.726	1.1552E-05
2.018	2.2599E-04	2.758	8.6640E-06
2.042	2.1371E-04	2.790	7.9420E-06
2.065	2.0360E-04	2.822	7.9420E-06
2.089	1.9638E-04	2.854	7.9420E-06
2.112	1.8339E-04	2.886	7.2200E-06
2.136	1.7689E-04	2.918	7.2200E-06
2.159	1.6245E-04	2.951	5.7760E-06
2.183	1.5306E-04	2.983	5.7760E-06
2.206	1.4440E-04	3.015	5.0540E-06
2.230	1.3140E-04	3.047	5.0540E-06
2.253	1.2563E-04	3.079	5.0540E-06
2.276	1.1552E-04	3.111	4.3320E-06
2.300	1.0830E-04	3.143	4.3320E-06
2.323	1.0108E-04	3.175	3.6100E-06
2.347	9.3860E-05	3.207	3.6100E-06
2.370	8.9528E-05	3.239	2.8880E-06
2.394	8.1586E-05	3.271	2.8880E-06
2.417	7.4366E-05	3.303	2.8880E-06
2.441	7.1478E-05	3.335	2.8880E-06
2.464	6.5702E-05	3.367	2.8880E-06
2.488	6.2814E-05	3.400	2.8880E-06
2.511	5.9926E-05	3.432	2.8880E-06
2.535	5.7760E-05	3.464	2.8880E-06
2.558	5.0540E-05	3.496	2.8880E-06
2.582	4.7652E-05	3.528	2.8880E-06
2.605	4.2598E-05	3.560	2.8880E-06
2.629	3.8266E-05	3.592	2.8880E-06
2.652	3.4656E-05	3.624	2.8880E-06
2.675	3.2490E-05	3.656	2.8880E-06
2.699	3.0324E-05	3.688	2.8880E-06
2.722	2.8158E-05	3.720	2.8880E-06
2.746	2.4548E-05	3.765	2.8880E-06
2.769	2.3826E-05	3.784	2.8880E-06
2.793	2.1660E-05	3.816	2.8880E-06
2.816	1.9494E-05	3.849	2.8880E-06
2.840	1.8772E-05	3.881	2.8880E-06
2.863	1.5162E-05	3.913	2.8880E-06
2.887	1.4440E-05	3.945	2.8880E-06
2.910	1.3718E-05	3.977	2.8880E-06
2.934	1.2274E-05	4.009	2.8880E-06
2.957	1.1552E-05	4.041	2.8880E-06
2.981	1.0830E-05	4.073	2.8880E-06
3.004	1.0830E-05	4.105	2.8880E-06
3.028	1.0108E-05	4.137	2.8880E-06
3.051	8.6640E-06	4.169	2.8880E-06
3.074	7.9420E-06	4.201	2.8880E-06
3.098	7.9420E-06	4.233	2.1660E-06
3.121	7.9420E-06	4.265	2.1660E-06
3.145	7.9420E-06	4.298	2.1660E-06
3.168	7.9420E-06	4.330	2.1660E-06
3.192	7.2200E-06	4.362	2.1660E-06
3.215	7.2200E-06	4.394	2.1660E-06
3.239	7.2200E-06	4.426	2.1660E-06
3.262	7.2200E-06	4.458	2.1660E-06
3.286	7.2200E-06	4.490	2.1660E-06
3.309	7.2200E-06	4.522	2.1660E-06
3.333	7.2200E-06	4.554	2.1660E-06
3.356	7.2200E-06	4.586	2.1660E-06
3.380	7.2200E-06	4.618	2.1660E-06
3.403	7.2200E-06	4.650	2.1660E-06
3.426	6.4980E-06	4.682	2.1660E-06
3.450	6.4980E-06	4.714	2.1660E-06
3.473	6.4980E-06	4.747	2.1660E-06
3.497	5.7760E-06	4.779	2.1660E-06
3.520	5.0540E-06	4.811	2.1660E-06
3.544	5.0540E-06	4.843	2.1660E-06
3.567	5.0540E-06	4.875	2.1660E-06
3.591	5.0540E-06	4.907	2.1660E-06
3.614	4.3320E-06	4.939	2.1660E-06
3.638	4.3320E-06	4.971	2.1660E-06
3.661	4.3320E-06	5.003	2.1660E-06
3.685	3.6100E-06	5.035	2.1660E-06
3.708	3.6100E-06	5.067	2.1660E-06
3.732	3.6100E-06	5.099	2.1660E-06
3.765	2.8016E-06	5.131	2.1660E-06
3.779	2.8880E-06	5.163	2.1660E-06
3.802	2.8880E-06	5.196	2.1660E-06
3.825	2.1660E-06	5.228	2.1660E-06

3.849	2.1660E-06	5.260	2.1660E-06
3.872	2.1660E-06	5.292	2.1660E-06
3.896	2.1660E-06	5.324	1.4440E-06
3.919	2.1660E-06	5.356	1.4440E-06
3.943	2.1660E-06	5.388	1.4440E-06
3.966	2.1660E-06	5.420	1.4440E-06
3.990	2.1660E-06	5.452	1.4440E-06
4.013	2.1660E-06	5.484	1.4440E-06
4.037	2.1660E-06	5.516	1.4440E-06
4.060	2.1660E-06	5.548	1.4440E-06
4.084	2.1660E-06	5.580	1.4440E-06
4.107	2.1660E-06	5.612	1.4440E-06
4.131	7.2200E-07	5.645	7.2200E-07
4.154	7.2200E-07	5.677	7.2200E-07
4.177	7.2200E-07	5.709	7.2200E-07
4.201	7.2200E-07	5.741	7.2200E-07
4.224	7.2200E-07	5.773	7.2200E-07
4.248	7.2200E-07	5.805	7.2200E-07
4.271	7.2200E-07	5.837	7.2200E-07
4.295	7.2200E-07	5.869	7.2200E-07
4.318	7.2200E-07	5.901	7.2200E-07
4.342	7.2200E-07	5.933	7.2200E-07
4.365	7.2200E-07	5.965	7.2200E-07
4.389	7.2200E-07	5.997	7.2200E-07
4.412	7.2200E-07	6.029	7.2200E-07
4.436	7.2200E-07	6.061	7.2200E-07
4.459	7.2200E-07	6.094	7.2200E-07
4.483	7.2200E-07	6.126	7.2200E-07
4.506	7.2200E-07	6.158	7.2200E-07
4.530	7.2200E-07	6.190	7.2200E-07
4.553	7.2200E-07	6.222	7.2200E-07
4.576	7.2200E-07	6.254	7.2200E-07
4.600	7.2200E-07	6.286	7.2200E-07
4.623	7.2200E-07	6.318	7.2200E-07
4.647	7.2200E-07	6.350	7.2200E-07
4.670	7.2200E-07	6.382	7.2200E-07
4.694	7.2200E-07	6.414	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-12.6%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):	-5.4%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	3.1%	PASS	
Percent Excursion from Q2 to Q50 (Must be less than 50%):	8.0%	PASS	

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**\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS**

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**MGS FLOOD  
PROJECT REPORT**

Program Version: 3.12

Run Date: 11/10/2009 12:49 PM

**Input File Name:** vault4.fid  
**Project Name:** Burien NERA  
**Analysis Title:** Detention and Wet Vault 4  
**Comments:** 95% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	-----Area(Acres)-----		-----Developed-----	
	Predeveloped	To Node	Bypass Node	
<b>Till Forest</b>	14.274	0.000	0.000	
Till Pasture	0.000	0.000	0.000	
Till Grass	0.000	0.000	0.000	
Outwash Forest	0.000	0.000	0.000	
Outwash Pasture	0.000	0.000	0.000	
Outwash Grass	0.000	0.353	0.000	
Wetland	0.000	0.344	0.000	
Impervious	0.000	13.577	0.000	
<b>Subbasin Total</b>	<b>14.274</b>	<b>14.274</b>	<b>0.000</b>	

	-----Lateral Flow Connections-----					
	-----Predeveloped-----			-----Developed-----		
	Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node	Node	Node	Node	Node
Till Pasture	Node	Node	Node	Node	Node	Node
Till Grass	Node	Node	Node	Node	Node	Node
Outwash Forest	Node	Node	Node	Node	Node	Node
Outwash Pasture	Node	Node	Node	Node	Node	Node
Outwash Grass	Node	Node	Node	Node	Node	Node
Wetland	Node	Node	Node	Node	Node	Node
Impervious	Node		Node			Node
Lateral 1						
Lateral 2						

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2

**Predeveloped Compliance Node: 1**  
**Postdeveloped Compliance Node: 2**

\*\*\* Predeveloped Structure Summary \*\*\*

\*\*\* Postdeveloped Structure Summary \*\*\*

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation : 100.00 ft  
 Riser Crest Elevation : 110.00 ft  
 Max Pond Elevation : 110.50 ft  
 Max Storage Depth : 10.00 ft  
 Pond Bottom Length : 289.4 ft  
 Pond Bottom Width : 96.5 ft  
 Pond Side Slopes : L1= 0.00 L2= 0.00 W1= 0.00 W2= 0.00 ft/ft  
 Pond Bottom Area : 27910. sq-ft

Area at Riser Crest El : 27,910. sq-ft  
 : 0.641 acres  
 Volume at Riser Crest : 279,105.cu-ft  
 : 6.407 ac-ft  
 Area at Max Elevation : 27910. sq-ft  
 : 0.641 acres  
 Vol at Max Elevation : 293,060. cu-ft  
 : 6.728 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 24.00 in  
 Common Length : 0.025 ft  
 Riser Crest Elevation : 110.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1---

Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 1.50 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 105.89 ft  
 Length : 0.30 in  
 Height : 49.36 in  
 Orientation : Vertical  
 Elbow : No

\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\*

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infiltr Discharge (cfs)
100.000		0.000	0.000	0.000
100.033		0.021	0.011	0.000
100.065		0.042	0.015	0.000
100.130		0.083	0.022	0.000
100.260		0.167	0.031	0.000
100.390		0.250	0.037	0.000
100.520		0.333	0.043	0.000
100.650		0.416	0.048	0.000
100.780		0.500	0.053	0.000
100.910		0.583	0.057	0.000
101.040		0.666	0.061	0.000
101.170		0.750	0.065	0.000
101.300		0.833	0.068	0.000
101.430		0.916	0.072	0.000
101.560		1.000	0.075	0.000
101.690		1.083	0.078	0.000
101.820		1.166	0.081	0.000
101.950		1.249	0.084	0.000
102.080		1.333	0.086	0.000
102.210		1.416	0.089	0.000
102.340		1.499	0.092	0.000
102.470		1.583	0.094	0.000
102.600		1.666	0.097	0.000
102.730		1.749	0.099	0.000
102.860		1.832	0.101	0.000
102.990		1.916	0.104	0.000
103.120		1.999	0.106	0.000
103.250		2.082	0.108	0.000
103.380		2.166	0.110	0.000
103.510		2.249	0.112	0.000
103.640		2.332	0.114	0.000
103.770		2.416	0.116	0.000
103.900		2.499	0.118	0.000
104.030		2.582	0.120	0.000
104.160		2.665	0.122	0.000
104.290		2.749	0.124	0.000
104.420		2.832	0.126	0.000
104.550		2.915	0.128	0.000
104.680		2.999	0.130	0.000
104.810		3.082	0.131	0.000
104.940		3.165	0.133	0.000
105.070		3.248	0.135	0.000
105.200		3.332	0.137	0.000
105.330		3.415	0.138	0.000
105.460		3.498	0.140	0.000
105.590		3.582	0.142	0.000
105.720		3.665	0.143	0.000
105.762		3.692	0.144	0.000
105.803		3.718	0.144	0.000
105.845		3.745	0.145	0.000
105.887		3.772	0.145	0.000
105.919		3.793	0.146	0.000

105.952	3.813	0.147	0.000
105.984	3.834	0.149	0.000
106.017	3.855	0.150	0.000
106.147	3.938	0.158	0.000
106.277	4.022	0.167	0.000
106.407	4.105	0.177	0.000
106.537	4.188	0.189	0.000
106.667	4.272	0.201	0.000
106.797	4.355	0.215	0.000
106.927	4.438	0.229	0.000
107.057	4.521	0.245	0.000
107.187	4.605	0.261	0.000
107.317	4.688	0.278	0.000
107.447	4.771	0.295	0.000
107.577	4.855	0.314	0.000
107.707	4.938	0.332	0.000
107.837	5.021	0.352	0.000
107.967	5.105	0.372	0.000
108.097	5.188	0.393	0.000
108.227	5.271	0.414	0.000
108.357	5.354	0.436	0.000
108.487	5.438	0.458	0.000
108.617	5.521	0.481	0.000
108.747	5.604	0.504	0.000
108.877	5.688	0.528	0.000
109.007	5.771	0.553	0.000
109.137	5.854	0.577	0.000
109.267	5.937	0.603	0.000
109.397	6.021	0.629	0.000
109.527	6.104	0.655	0.000
109.657	6.187	0.681	0.000
109.787	6.271	0.708	0.000
109.840	6.305	0.720	0.000
109.893	6.339	0.731	0.000
109.947	6.373	0.742	0.000
110.000	6.407	0.754	0.000
110.033	6.428	0.885	0.000
110.065	6.449	1.118	0.000
110.098	6.470	1.418	0.000
110.130	6.491	1.771	0.000
110.163	6.511	2.169	0.000
110.195	6.532	2.606	0.000
110.228	6.553	3.077	0.000
110.260	6.574	3.578	0.000
110.390	6.657	5.779	0.000
110.520	6.741	8.070	0.000
110.650	6.824	10.150	0.000
110.780	6.907	11.775	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date WSEL (ft)

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12/07/1939	105.817
10/24/1940	103.324
12/20/1941	104.823
11/23/1942	107.031
10/17/1943	103.031
02/07/1945	105.659
02/06/1946	104.047
12/05/1946	105.800
10/19/1947	106.024
02/22/1949	105.091
03/05/1950	106.609
02/09/1951	107.727
10/03/1951	104.094
01/18/1953	106.911
01/22/1954	104.837
11/19/1954	104.662
01/06/1956	108.007
02/26/1957	104.852
01/17/1958	105.132
01/13/1959	106.830
11/21/1959	105.632
11/24/1960	107.057
12/24/1961	104.160
11/30/1962	104.181
11/23/1963	104.731
12/01/1964	105.247
01/14/1966	105.907
12/13/1966	106.938
01/20/1968	105.277
12/11/1968	105.901
01/27/1970	106.543
12/07/1970	106.262
03/05/1972	109.310
12/26/1972	107.555
12/27/1973	106.111
12/27/1974	104.946
02/27/1976	106.067
06/04/1977	103.612

12/15/1977	106.978
03/05/1979	104.096
12/18/1979	109.225
12/30/1980	105.535
10/06/1981	108.381
03/09/1983	106.553
03/21/1984	104.486
11/11/1984	104.443
01/19/1986	106.043
11/24/1986	108.424
04/06/1988	105.472
04/05/1989	106.264
01/09/1990	108.270
11/24/1990	109.723
02/01/1992	106.388
04/11/1993	104.031
03/03/1994	104.338
12/27/1994	107.281
02/09/1996	109.857
01/02/1997	109.293
10/08/1997	104.464
11/26/1998	109.404
02/28/2000	106.192
05/05/2001	103.726
12/20/2001	103.738
11/26/2002	108.909
10/24/2003	105.183
02/08/2005	103.870
11/28/2005	106.753
11/27/2006	105.759
01/07/2008	106.017
02/18/2009	108.744
01/10/2010	106.406
11/17/2010	108.021
10/02/2011	105.476
01/20/2013	109.791
01/28/2014	105.839
04/22/2015	104.558
01/04/2016	108.862
11/01/2016	105.184
01/31/2018	105.406
01/12/2019	106.231
04/21/2020	104.717
11/24/2020	107.509
12/21/2021	104.906
03/30/2023	105.135
01/25/2024	106.496
12/22/2024	108.412
01/04/2026	107.529
12/13/2026	104.557
02/23/2028	105.297
01/13/2029	106.018
01/26/2030	108.137
03/04/2031	105.855
01/21/2032	106.532
12/24/2032	105.034
11/16/2033	109.127
02/19/2035	105.848
02/27/2036	105.949
03/09/2037	102.747
12/15/2037	106.907
12/11/2038	103.851
01/14/2040	105.639
12/25/2040	106.377
04/15/2042	106.434
02/26/2043	106.132
03/21/2044	105.196
11/28/2044	105.629
12/08/2045	105.232
02/02/2047	104.635
12/10/2047	107.366
03/17/2049	105.090
02/09/2050	104.458
04/09/2051	104.039
04/17/2052	103.378
12/10/2052	104.569
12/11/2053	104.753
11/01/2054	108.383
02/07/2056	109.750
01/02/2057	109.072
11/25/2057	105.020
12/02/2058	107.694
01/23/2060	104.182
01/15/2061	106.282
01/03/2062	105.395
01/02/2063	105.620
12/23/2063	107.831
12/02/2064	104.627
11/04/2065	103.306
12/15/2066	107.765
01/20/2068	107.203
09/23/2069	103.616
12/14/2069	103.481
12/19/2070	103.802
11/03/2071	104.731

12/25/2072	110.171
12/15/2073	106.792
11/24/2074	104.104
10/30/2075	107.934
08/26/2077	102.680
12/02/2077	104.852
03/05/2079	103.984
12/17/2079	109.391
11/21/2080	108.010
02/19/2082	107.412
02/20/2083	107.154
11/26/2083	108.577
12/14/2084	106.836
11/01/2085	105.672
11/23/2086	106.049
12/09/2087	105.386
11/05/2088	106.264
11/10/2089	106.220
12/09/2090	108.737
01/31/2092	107.875
11/07/2092	103.964
12/14/2093	104.477
12/27/2094	106.319
12/14/2095	107.008
03/19/2097	107.336

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

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1.00	102.680
1.01	102.747
1.02	103.031
1.02	103.306
1.03	103.324
1.04	103.378
1.04	103.481
1.05	103.612
1.06	103.616
1.06	103.726
1.07	103.738
1.08	103.802
1.09	103.851
1.09	103.870
1.10	103.964
1.11	103.984
1.12	104.031
1.12	104.039
1.13	104.047
1.14	104.094
1.15	104.096
1.16	104.104
1.17	104.160
1.18	104.181
1.18	104.182
1.19	104.338
1.20	104.443
1.21	104.458
1.22	104.464
1.23	104.477
1.24	104.486
1.25	104.557
1.26	104.558
1.27	104.569
1.28	104.627
1.29	104.635
1.30	104.662
1.31	104.717
1.32	104.731
1.33	104.731
1.35	104.753
1.36	104.823
1.37	104.837
1.38	104.852
1.39	104.852
1.40	104.906
1.42	104.946
1.43	105.020
1.44	105.034
1.46	105.090
1.47	105.091
1.48	105.132
1.50	105.135
1.51	105.183
1.53	105.184
1.54	105.196
1.56	105.232
1.57	105.247
1.59	105.277
1.60	105.297
1.62	105.386
1.64	105.395
1.65	105.406
1.67	105.472
1.69	105.476

1.71	105.535
1.73	105.620
1.75	105.629
1.77	105.632
1.79	105.639
1.81	105.659
1.83	105.672
1.85	105.759
1.87	105.800
1.89	105.817
1.92	105.839
1.94	105.848
1.96	105.855
1.99	105.901
2.01	105.907
2.04	105.949
2.07	106.017
2.09	106.018
2.12	106.024
2.15	106.043
2.18	106.049
2.21	106.067
2.24	106.111
2.27	106.132
2.31	106.192
2.34	106.220
2.38	106.231
2.41	106.262
2.45	106.264
2.49	106.264
2.53	106.282
2.57	106.319
2.61	106.377
2.65	106.388
2.70	106.406
2.75	106.434
2.80	106.496
2.85	106.532
2.90	106.543
2.95	106.553
3.01	106.609
3.07	106.753
3.13	106.792
3.19	106.830
3.26	106.836
3.32	106.907
3.40	106.911
3.47	106.938
3.55	106.978
3.63	107.008
3.72	107.031
3.80	107.057
3.90	107.154
4.00	107.203
4.10	107.281
4.21	107.336
4.32	107.366
4.45	107.412
4.58	107.509
4.71	107.529
4.86	107.555
5.01	107.694
5.17	107.727
5.35	107.765
5.54	107.831
5.74	107.875
5.95	107.934
6.19	108.007
6.44	108.010
6.71	108.021
7.01	108.137
7.33	108.270
7.69	108.381
8.08	108.383
8.52	108.412
9.00	108.424
9.55	108.577
10.16	108.737
10.86	108.744
11.66	108.862
12.59	108.909
13.68	109.072
14.97	109.127
16.54	109.225
18.47	109.293
20.92	109.310
24.10	109.391
28.44	109.404
34.68	109.723
44.42	109.750
61.77	109.791
101.36	109.857
282.36	110.171



**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
 Tr (yrs) Link: 1

1.05-Year	103.617
1.11-Year	103.994
1.25-Year	104.559
2.00-Year	105.906
3.33-Year	106.912
5-Year	107.687
10-Year	108.712
25-Year	109.300
50-Year	109.744
100-Year	109.856

**Postdeveloped Infiltrated Water Statistics**  
 Volume Statistics Computed for Entire Simulation  
 Statistic Link: 1

Total Inflow Volume (ac-ft)	5952.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data \*\*\*\*\*

**Node No: 1**  
 2-Year Discharge Rate : 3.533 cfs

**Node No: 2**  
 Basic Wet Pond Volume (91% Exceedance): 11542. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 17313. cu-ft  
 2-Year Discharge Rate : 0.146 cfs

\*\*\*\*\*Compliance Point Results \*\*\*\*\*

**Predeveloped Compliance Node: 1**  
**Postdeveloped Compliance Node: 2**

\*\*Point of Compliance Annual Maxima Flow Data \*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	0.386	12/07/1939	0.145
01/31/1941	0.148	10/24/1940	0.109
12/15/1941	0.388	12/20/1941	0.132
02/10/1943	0.154	11/23/1942	0.242
01/23/1944	0.116	10/17/1943	0.104
02/07/1945	0.481	02/07/1945	0.143
02/05/1946	0.295	02/06/1946	0.121
02/02/1947	0.301	12/05/1946	0.144
03/21/1948	0.520	10/19/1947	0.151
02/22/1949	0.261	02/22/1949	0.135
03/03/1950	1.075	03/05/1950	0.196
02/09/1951	0.430	02/09/1951	0.335
01/24/1952	0.113	10/03/1951	0.121
01/11/1953	0.161	01/18/1953	0.228
01/22/1954	0.261	01/22/1954	0.132
04/12/1955	0.122	11/19/1954	0.129
03/04/1956	0.280	01/06/1956	0.378
02/25/1957	0.232	02/26/1957	0.132
01/16/1958	0.281	01/17/1958	0.136
01/12/1959	0.302	01/13/1959	0.219
12/15/1959	0.323	11/21/1959	0.142
02/14/1961	0.276	11/24/1960	0.245
03/04/1962	0.148	12/24/1961	0.122
02/03/1963	0.164	11/30/1962	0.123
01/01/1964	0.263	11/23/1963	0.130
02/26/1965	0.326	12/01/1964	0.137
01/06/1966	0.201	01/14/1966	0.146
01/19/1967	0.508	12/13/1966	0.231
02/03/1968	0.263	01/20/1968	0.138
12/03/1968	0.282	12/11/1968	0.146
01/13/1970	0.219	01/27/1970	0.189
12/06/1970	0.249	12/07/1970	0.166
02/28/1972	0.670	03/05/1972	0.611
01/13/1973	0.242	12/26/1972	0.311
02/18/1974	0.362	12/27/1973	0.156
12/26/1974	0.438	12/27/1974	0.133
01/27/1976	0.303	02/27/1976	0.153
05/31/1977	0.043	06/04/1977	0.114
12/10/1977	0.257	12/15/1977	0.236
03/04/1979	0.252	03/05/1979	0.121
12/17/1979	0.406	12/18/1979	0.595
12/26/1980	0.161	12/30/1980	0.141
10/06/1981	0.515	10/06/1981	0.440
01/05/1983	0.289	03/09/1983	0.190
03/14/1984	0.276	03/21/1984	0.127
02/11/1985	0.184	11/11/1984	0.126

01/18/1986	0.608	01/19/1986	0.152
11/24/1986	0.536	11/24/1986	0.447
04/06/1988	0.268	04/06/1988	0.140
04/05/1989	0.295	04/05/1989	0.166
01/09/1990	0.974	01/09/1990	0.421
11/24/1990	0.830	11/24/1990	0.695
01/27/1992	0.254	02/01/1992	0.176
06/09/1993	0.214	04/11/1993	0.120
03/03/1994	0.163	03/03/1994	0.125
02/19/1995	0.341	12/27/1994	0.273
02/09/1996	0.790	02/09/1996	0.723
01/02/1997	0.494	01/02/1997	0.608
02/28/1998	0.182	10/08/1997	0.127
11/25/1998	0.486	11/26/1998	0.630
03/26/2000	0.272	02/28/2000	0.161
05/05/2001	0.209	05/05/2001	0.116
05/03/2002	0.744	12/20/2001	0.116
03/31/2003	0.570	11/26/2002	0.534
01/23/2004	0.139	10/24/2003	0.136
02/07/2005	0.240	02/08/2005	0.118
02/27/2006	0.308	11/28/2005	0.210
12/14/2006	0.228	11/27/2006	0.144
03/21/2008	0.379	01/07/2008	0.150
02/17/2009	0.588	02/18/2009	0.504
01/10/2010	0.395	01/10/2010	0.177
11/17/2010	0.513	11/17/2010	0.381
01/31/2012	0.326	10/02/2011	0.140
01/20/2013	0.745	01/20/2013	0.709
12/06/2013	0.313	01/28/2014	0.145
03/30/2015	0.190	04/22/2015	0.128
01/04/2016	0.542	01/04/2016	0.526
03/07/2017	0.157	11/01/2016	0.136
01/31/2018	0.292	01/31/2018	0.139
03/30/2019	0.289	01/12/2019	0.163
04/14/2020	0.190	04/21/2020	0.130
02/10/2021	0.469	11/24/2020	0.304
03/26/2022	0.139	12/21/2021	0.133
03/30/2023	0.334	03/30/2023	0.136
01/19/2024	0.263	01/25/2024	0.185
12/22/2024	0.549	12/22/2024	0.445
03/09/2026	0.349	01/04/2026	0.307
01/27/2027	0.304	12/13/2026	0.128
02/19/2028	0.376	02/23/2028	0.138
12/04/2028	0.291	01/13/2029	0.150
02/16/2030	0.389	01/26/2030	0.399
12/30/2030	0.364	03/04/2031	0.145
01/20/2032	0.585	01/21/2032	0.188
03/01/2033	0.165	12/24/2032	0.134
01/15/2034	0.661	11/16/2033	0.576
02/19/2035	0.323	02/19/2035	0.145
03/24/2036	0.305	02/27/2036	0.147
03/09/2037	0.012	03/09/2037	0.099
12/15/2037	0.223	12/15/2037	0.227
02/07/2039	0.161	12/11/2038	0.118
01/14/2040	0.604	01/14/2040	0.142
12/25/2040	0.342	12/25/2040	0.175
02/20/2042	0.359	04/15/2042	0.180
03/31/2043	0.538	02/26/2043	0.157
05/01/2044	0.212	03/21/2044	0.137
02/11/2045	0.245	11/28/2044	0.142
02/16/2046	0.309	12/08/2045	0.137
02/01/2047	0.194	02/02/2047	0.129
04/21/2048	0.173	12/10/2047	0.284
03/16/2049	0.194	03/17/2049	0.135
12/04/2049	0.327	02/09/2050	0.127
04/06/2051	0.254	04/09/2051	0.120
04/17/2052	0.153	04/17/2052	0.110
06/04/2053	0.586	12/10/2052	0.128
04/08/2054	0.109	12/11/2053	0.131
02/17/2055	0.499	11/01/2054	0.440
02/07/2056	0.907	02/07/2056	0.701
11/19/2056	0.992	01/02/2057	0.565
01/24/2058	0.344	11/25/2057	0.134
12/28/2058	0.396	12/02/2058	0.331
01/19/2060	0.148	01/23/2060	0.123
01/10/2061	0.321	01/15/2061	0.167
02/03/2062	1.222	01/03/2062	0.139
12/29/2062	0.259	01/02/2063	0.142
12/23/2063	0.467	12/23/2063	0.351
11/30/2064	0.223	12/02/2064	0.129
01/13/2066	0.122	11/04/2065	0.109
01/19/2067	0.311	12/15/2066	0.341
01/18/2068	0.640	01/20/2068	0.263
01/04/2069	0.172	09/23/2069	0.114
04/09/2070	0.145	12/14/2069	0.112
02/14/2071	0.159	12/19/2070	0.117
02/27/2072	0.171	11/03/2071	0.130
12/25/2072	0.714	12/25/2072	2.276
03/16/2074	0.384	12/15/2073	0.214
01/23/2075	0.083	11/24/2074	0.121
03/24/2076	0.426	10/30/2075	0.367
03/02/2077	0.048	08/26/2077	0.098
12/02/2077	0.161	12/02/2077	0.132
02/25/2079	0.215	03/05/2079	0.120
12/17/2079	0.797	12/17/2079	0.627

11/21/2080	0.352	11/21/2080	0.379
02/13/2082	0.439	02/19/2082	0.291
02/19/2083	0.269	02/20/2083	0.257
11/26/2083	0.326	11/26/2083	0.474
12/14/2084	0.226	12/14/2084	0.219
01/18/2086	0.318	11/01/2085	0.143
12/21/2086	0.298	11/23/2086	0.152
01/14/2088	0.196	12/09/2087	0.139
11/05/2088	0.349	11/05/2088	0.166
01/07/2090	0.164	11/10/2089	0.163
12/04/2090	0.303	12/09/2090	0.503
04/28/2092	0.520	01/31/2092	0.358
03/22/2093	0.146	11/07/2092	0.119
03/01/2094	0.122	12/14/2093	0.127
02/18/2095	0.193	12/27/2094	0.170
01/14/2096	0.244	12/14/2095	0.239
01/29/2097	0.536	03/19/2097	0.280

\*\*\*Point of Compliance Ranked Maxima Flow Data\*\*\*

Predevelopment		Postdevelopment	
Tr (yrs)	Q (cfs)	Tr (yrs)	Q (cfs)
1.00	0.012	1.00	0.098
1.01	0.043	1.01	0.099
1.02	0.048	1.02	0.104
1.02	0.083	1.02	0.109
1.03	0.109	1.03	0.109
1.04	0.113	1.04	0.110
1.04	0.116	1.04	0.112
1.05	0.122	1.05	0.114
1.06	0.122	1.06	0.114
1.06	0.122	1.06	0.116
1.07	0.139	1.07	0.116
1.08	0.139	1.08	0.117
1.09	0.145	1.09	0.118
1.09	0.146	1.09	0.118
1.10	0.148	1.10	0.119
1.11	0.148	1.11	0.120
1.12	0.148	1.12	0.120
1.12	0.153	1.12	0.120
1.13	0.154	1.13	0.121
1.14	0.157	1.14	0.121
1.15	0.159	1.15	0.121
1.16	0.161	1.16	0.121
1.17	0.161	1.17	0.122
1.18	0.161	1.18	0.123
1.18	0.161	1.18	0.123
1.19	0.163	1.19	0.125
1.20	0.164	1.20	0.126
1.21	0.164	1.21	0.127
1.22	0.165	1.22	0.127
1.23	0.171	1.23	0.127
1.24	0.172	1.24	0.127
1.25	0.173	1.25	0.128
1.26	0.182	1.26	0.128
1.27	0.184	1.27	0.128
1.28	0.190	1.28	0.129
1.29	0.190	1.29	0.129
1.30	0.193	1.30	0.129
1.31	0.194	1.31	0.130
1.32	0.194	1.32	0.130
1.33	0.196	1.33	0.130
1.35	0.201	1.35	0.131
1.36	0.209	1.36	0.132
1.37	0.212	1.37	0.132
1.38	0.214	1.38	0.132
1.39	0.215	1.39	0.132
1.40	0.219	1.40	0.133
1.42	0.223	1.42	0.133
1.43	0.223	1.43	0.134
1.44	0.226	1.44	0.134
1.46	0.228	1.46	0.135
1.47	0.232	1.47	0.135
1.48	0.240	1.48	0.136
1.50	0.242	1.50	0.136
1.51	0.244	1.51	0.136
1.53	0.245	1.53	0.136
1.54	0.249	1.54	0.137
1.56	0.252	1.56	0.137
1.57	0.254	1.57	0.137
1.59	0.254	1.59	0.138
1.60	0.257	1.60	0.138
1.62	0.259	1.62	0.139
1.64	0.261	1.64	0.139
1.65	0.261	1.65	0.139
1.67	0.263	1.67	0.140
1.69	0.263	1.69	0.140
1.71	0.263	1.71	0.141
1.73	0.268	1.73	0.142
1.75	0.269	1.75	0.142
1.77	0.272	1.77	0.142
1.79	0.276	1.79	0.142
1.81	0.276	1.81	0.143

1.83	0.280	1.83	0.143
1.85	0.281	1.85	0.144
1.87	0.282	1.87	0.144
1.89	0.289	1.89	0.145
1.92	0.289	1.92	0.145
1.94	0.291	1.94	0.145
1.96	0.292	1.96	0.145
1.99	0.295	1.99	0.146
2.01	0.295	2.01	0.146
2.04	0.298	2.04	0.147
2.07	0.301	2.07	0.150
2.09	0.302	2.09	0.150
2.12	0.303	2.12	0.151
2.15	0.303	2.15	0.152
2.18	0.304	2.18	0.152
2.21	0.305	2.21	0.153
2.24	0.308	2.24	0.156
2.27	0.309	2.27	0.157
2.31	0.311	2.31	0.161
2.34	0.313	2.34	0.163
2.38	0.318	2.38	0.163
2.41	0.321	2.41	0.166
2.45	0.323	2.45	0.166
2.49	0.323	2.49	0.166
2.53	0.326	2.53	0.167
2.57	0.326	2.57	0.170
2.61	0.326	2.61	0.175
2.65	0.327	2.65	0.176
2.70	0.334	2.70	0.177
2.75	0.341	2.75	0.180
2.80	0.342	2.80	0.185
2.85	0.344	2.85	0.188
2.90	0.349	2.90	0.189
2.95	0.349	2.95	0.190
3.01	0.352	3.01	0.196
3.07	0.359	3.07	0.210
3.13	0.362	3.13	0.214
3.19	0.364	3.19	0.219
3.26	0.376	3.26	0.219
3.32	0.379	3.32	0.227
3.40	0.384	3.40	0.228
3.47	0.386	3.47	0.231
3.55	0.388	3.55	0.236
3.63	0.389	3.63	0.239
3.72	0.395	3.72	0.242
3.80	0.396	3.80	0.245
3.90	0.406	3.90	0.257
4.00	0.426	4.00	0.263
4.10	0.430	4.10	0.273
4.21	0.438	4.21	0.280
4.32	0.439	4.32	0.284
4.45	0.467	4.45	0.291
4.58	0.469	4.58	0.304
4.71	0.481	4.71	0.307
4.86	0.486	4.86	0.311
5.01	0.494	5.01	0.331
5.17	0.499	5.17	0.335
5.35	0.508	5.35	0.341
5.54	0.513	5.54	0.351
5.74	0.515	5.74	0.358
5.95	0.520	5.95	0.367
6.19	0.520	6.19	0.378
6.44	0.536	6.44	0.379
6.71	0.536	6.71	0.381
7.01	0.538	7.01	0.399
7.33	0.542	7.33	0.421
7.69	0.549	7.69	0.440
8.08	0.570	8.08	0.440
8.52	0.585	8.52	0.445
9.00	0.586	9.00	0.447
9.55	0.588	9.55	0.474
10.16	0.604	10.16	0.503
10.86	0.608	10.86	0.504
11.66	0.640	11.66	0.526
12.59	0.661	12.59	0.534
13.68	0.670	13.68	0.565
14.97	0.714	14.97	0.576
16.54	0.744	16.54	0.595
18.47	0.745	18.47	0.608
20.92	0.790	20.92	0.611
24.10	0.797	24.10	0.627
28.44	0.830	28.44	0.630
34.68	0.907	34.68	0.695
44.42	0.974	44.42	0.701
61.77	0.992	61.77	0.709
101.36	1.075	101.36	0.723
282.36	1.222	282.36	2.276

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	0.295	2-Year	0.146
5-Year	0.493	5-Year	0.329
10-Year	0.600	10-Year	0.495
25-Year	0.804	25-Year	0.628
50-Year	0.981	50-Year	0.704
100-Year	1.072	100-Year	0.723
200-Year	1.173	200-Year	1.753

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
6.112E-03	2.3680E-01	1.138E-02	7.4387E-01
0.012	1.8183E-01	0.023	6.7924E-01
0.018	1.4869E-01	0.034	6.0502E-01
0.024	1.2486E-01	0.046	5.2493E-01
0.031	1.0625E-01	0.057	4.4307E-01
0.037	9.1206E-02	0.068	3.5820E-01
0.043	7.8997E-02	0.080	2.7323E-01
0.049	6.8893E-02	0.091	1.9563E-01
0.055	6.0447E-02	0.102	1.3058E-01
0.061	5.3261E-02	0.114	8.1063E-02
0.067	4.7175E-02	0.125	4.5883E-02
0.073	4.1832E-02	0.137	2.2597E-02
0.079	3.7205E-02	0.148	1.0361E-02
0.086	3.3133E-02	0.159	7.9658E-03
0.092	2.9638E-02	0.171	6.6374E-03
0.098	2.6430E-02	0.182	5.5890E-03
0.104	2.3649E-02	0.193	4.8042E-03
0.110	2.1262E-02	0.205	4.2071E-03
0.116	1.9150E-02	0.216	3.6974E-03
0.122	1.7267E-02	0.228	3.2425E-03
0.128	1.5521E-02	0.239	2.8447E-03
0.134	1.4036E-02	0.250	2.4967E-03
0.141	1.2639E-02	0.262	2.1913E-03
0.148	1.1278E-02	0.273	1.9393E-03
0.153	1.0348E-02	0.284	1.7220E-03
0.159	9.4640E-03	0.295	1.5607E-03
0.165	8.5860E-03	0.307	1.3718E-03
0.171	7.8178E-03	0.319	1.2447E-03
0.177	7.1543E-03	0.330	1.1249E-03
0.183	6.5998E-03	0.341	1.0180E-03
0.189	6.0489E-03	0.353	9.2344E-04
0.196	5.5507E-03	0.364	8.4185E-04
0.202	5.1067E-03	0.376	7.6460E-04
0.208	4.7255E-03	0.387	6.9240E-04
0.214	4.3558E-03	0.398	6.2958E-04
0.220	4.0223E-03	0.410	5.6821E-04
0.226	3.7104E-03	0.421	5.1767E-04
0.232	3.4331E-03	0.432	4.7580E-04
0.238	3.1833E-03	0.444	4.3392E-04
0.244	2.9472E-03	0.455	3.9566E-04
0.251	2.7284E-03	0.467	3.6750E-04
0.257	2.5234E-03	0.478	3.3284E-04
0.263	2.3581E-03	0.493	2.9203E-04
0.269	2.1942E-03	0.501	2.7436E-04
0.275	2.0324E-03	0.512	2.4404E-04
0.281	1.9003E-03	0.523	2.1516E-04
0.287	1.7624E-03	0.535	1.8989E-04
0.295	1.6051E-03	0.546	1.6534E-04
0.299	1.5285E-03	0.558	1.3790E-04
0.306	1.4180E-03	0.569	1.1769E-04
0.312	1.3350E-03	0.580	9.8914E-05
0.318	1.2722E-03	0.592	8.3030E-05
0.324	1.2043E-03	0.603	6.8590E-05
0.330	1.1350E-03	0.614	5.9926E-05
0.336	1.0729E-03	0.626	5.0540E-05
0.342	1.0130E-03	0.637	4.2598E-05
0.348	9.6532E-04	0.649	4.1154E-05
0.355	9.1478E-04	0.660	3.6100E-05
0.361	8.6712E-04	0.671	2.8880E-05
0.367	8.1225E-04	0.683	2.1660E-05
0.373	7.6388E-04	0.694	1.5884E-05
0.379	7.2489E-04	0.706	1.0830E-05
0.385	6.8807E-04	0.717	7.9420E-06
0.391	6.5124E-04	0.728	5.7760E-06
0.397	6.2092E-04	0.740	4.3320E-06
0.403	5.8915E-04	0.751	3.6100E-06
0.410	5.6749E-04	0.762	3.6100E-06
0.416	5.4511E-04	0.774	3.6100E-06
0.422	5.2562E-04	0.785	3.6100E-06
0.428	5.0251E-04	0.797	3.6100E-06

0.434	4.7796E-04	0.808	3.6100E-06
0.440	4.5197E-04	0.819	3.6100E-06
0.446	4.3609E-04	0.831	3.6100E-06
0.452	4.1154E-04	0.842	3.6100E-06
0.458	3.9349E-04	0.853	3.6100E-06
0.465	3.6894E-04	0.865	3.6100E-06
0.471	3.5450E-04	0.876	3.6100E-06
0.477	3.3573E-04	0.888	3.6100E-06
0.483	3.1985E-04	0.899	3.6100E-06
0.489	3.0252E-04	0.910	3.6100E-06
0.493	2.9160E-04	0.922	3.6100E-06
0.501	2.7653E-04	0.933	3.6100E-06
0.507	2.6281E-04	0.945	3.6100E-06
0.513	2.5198E-04	0.956	3.6100E-06
0.520	2.3609E-04	0.967	3.6100E-06
0.526	2.2599E-04	0.981	2.8375E-06
0.532	2.1371E-04	0.990	2.8880E-06
0.538	2.0360E-04	1.001	2.8880E-06
0.544	1.9638E-04	1.013	2.8880E-06
0.550	1.8339E-04	1.024	2.8880E-06
0.556	1.7689E-04	1.036	2.8880E-06
0.562	1.6245E-04	1.047	2.8880E-06
0.568	1.5306E-04	1.058	2.8880E-06
0.575	1.4440E-04	1.070	2.8880E-06
0.581	1.3140E-04	1.081	2.8880E-06
0.587	1.2563E-04	1.092	2.8880E-06
0.593	1.1552E-04	1.104	2.8880E-06
0.599	1.0830E-04	1.115	2.8880E-06
0.605	1.0108E-04	1.127	2.8880E-06
0.611	9.3860E-05	1.138	2.8880E-06
0.617	8.9528E-05	1.149	2.8880E-06
0.623	8.1586E-05	1.161	2.8880E-06
0.630	7.4366E-05	1.172	2.8880E-06
0.636	7.1478E-05	1.183	2.8880E-06
0.642	6.5702E-05	1.195	2.8880E-06
0.648	6.2814E-05	1.206	2.8880E-06
0.654	5.9926E-05	1.218	2.8880E-06
0.660	5.7760E-05	1.229	2.8880E-06
0.666	5.0540E-05	1.240	2.8880E-06
0.672	4.7652E-05	1.252	2.8880E-06
0.678	4.2598E-05	1.263	2.8880E-06
0.685	3.8266E-05	1.275	2.8880E-06
0.691	3.4656E-05	1.286	2.8880E-06
0.697	3.2490E-05	1.297	2.8880E-06
0.703	3.0324E-05	1.309	2.8880E-06
0.709	2.8158E-05	1.320	2.8880E-06
0.715	2.4548E-05	1.331	2.8880E-06
0.721	2.3826E-05	1.343	2.8880E-06
0.727	2.1660E-05	1.354	2.8880E-06
0.733	1.9494E-05	1.366	2.8880E-06
0.740	1.8772E-05	1.377	2.8880E-06
0.746	1.5162E-05	1.388	2.8880E-06
0.752	1.4440E-05	1.400	2.8880E-06
0.758	1.3718E-05	1.411	2.8880E-06
0.764	1.2274E-05	1.422	2.8880E-06
0.770	1.1552E-05	1.434	2.8880E-06
0.776	1.0830E-05	1.445	2.8880E-06
0.782	1.0830E-05	1.457	2.1660E-06
0.788	1.0108E-05	1.468	2.1660E-06
0.795	8.6640E-06	1.479	2.1660E-06
0.801	7.9420E-06	1.491	2.1660E-06
0.807	7.9420E-06	1.502	2.1660E-06
0.813	7.9420E-06	1.513	2.1660E-06
0.819	7.9420E-06	1.525	2.1660E-06
0.825	7.9420E-06	1.536	2.1660E-06
0.831	7.2200E-06	1.548	2.1660E-06
0.837	7.2200E-06	1.559	2.1660E-06
0.843	7.2200E-06	1.570	2.1660E-06
0.850	7.2200E-06	1.582	2.1660E-06
0.856	7.2200E-06	1.593	2.1660E-06
0.862	7.2200E-06	1.605	2.1660E-06
0.868	7.2200E-06	1.616	2.1660E-06
0.874	7.2200E-06	1.627	2.1660E-06
0.880	7.2200E-06	1.639	2.1660E-06
0.886	7.2200E-06	1.650	2.1660E-06
0.892	6.4980E-06	1.661	1.4440E-06
0.898	6.4980E-06	1.673	1.4440E-06
0.905	6.4980E-06	1.684	1.4440E-06
0.911	5.7760E-06	1.696	1.4440E-06
0.917	5.0540E-06	1.707	1.4440E-06
0.923	5.0540E-06	1.718	1.4440E-06
0.929	5.0540E-06	1.730	1.4440E-06
0.935	5.0540E-06	1.741	1.4440E-06
0.941	4.3320E-06	1.752	1.4440E-06
0.947	4.3320E-06	1.764	1.4440E-06
0.953	4.3320E-06	1.775	1.4440E-06
0.960	3.6100E-06	1.787	1.4440E-06
0.966	3.6100E-06	1.798	1.4440E-06
0.972	3.6100E-06	1.809	1.4440E-06
0.981	2.8016E-06	1.821	1.4440E-06
0.984	2.8880E-06	1.832	1.4440E-06
0.990	2.8880E-06	1.843	1.4440E-06
0.996	2.1660E-06	1.855	1.4440E-06
1.002	2.1660E-06	1.866	1.4440E-06
1.008	2.1660E-06	1.878	1.4440E-06

1.015	2.1660E-06	1.889	1.4440E-06
1.021	2.1660E-06	1.900	1.4440E-06
1.027	2.1660E-06	1.912	1.4440E-06
1.033	2.1660E-06	1.923	1.4440E-06
1.039	2.1660E-06	1.935	1.4440E-06
1.045	2.1660E-06	1.946	1.4440E-06
1.051	2.1660E-06	1.957	1.4440E-06
1.057	2.1660E-06	1.969	1.4440E-06
1.064	2.1660E-06	1.980	7.2200E-07
1.070	2.1660E-06	1.991	7.2200E-07
1.076	7.2200E-07	2.003	7.2200E-07
1.082	7.2200E-07	2.014	7.2200E-07
1.088	7.2200E-07	2.026	7.2200E-07
1.094	7.2200E-07	2.037	7.2200E-07
1.100	7.2200E-07	2.048	7.2200E-07
1.106	7.2200E-07	2.060	7.2200E-07
1.112	7.2200E-07	2.071	7.2200E-07
1.119	7.2200E-07	2.082	7.2200E-07
1.125	7.2200E-07	2.094	7.2200E-07
1.131	7.2200E-07	2.105	7.2200E-07
1.137	7.2200E-07	2.117	7.2200E-07
1.143	7.2200E-07	2.128	7.2200E-07
1.149	7.2200E-07	2.139	7.2200E-07
1.155	7.2200E-07	2.151	7.2200E-07
1.161	7.2200E-07	2.162	7.2200E-07
1.167	7.2200E-07	2.173	7.2200E-07
1.174	7.2200E-07	2.185	7.2200E-07
1.180	7.2200E-07	2.196	7.2200E-07
1.186	7.2200E-07	2.208	7.2200E-07
1.192	7.2200E-07	2.219	7.2200E-07
1.198	7.2200E-07	2.230	7.2200E-07
1.204	7.2200E-07	2.242	7.2200E-07
1.210	7.2200E-07	2.253	7.2200E-07
1.216	7.2200E-07	2.265	7.2200E-07
1.222	7.2200E-07	2.276	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-10.0%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):	-2.8%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	3.1%	PASS	
Percent Excursion from Q2 to Q50 (Must be less than 50%):	13.3%	PASS	

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**\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS**

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MGS FLOOD  
PROJECT REPORT

Program Version: 3.12

Run Date: 11/10/2009 1:14 PM

Input File Name: vaultPR.fld  
 Project Name: Burien NERA  
 Analysis Title: Detention and Wet Vault PR  
 Comments: 85% Impervious

\*\*\*\*\* Precipitation Input\*\*\*\*\*

Extended Precipitation Timeseries Selected  
 Climatic Region Number: 13  
 Full Period of Record Available used for Routing  
 Precipitation Station : 960040 Puget East 40 in MAP 10/01/1939-10/01/2097  
 Evaporation Station : 961040 Puget East 40 in MAP  
 Evaporation Scale Factor : 0.750

HSPF Parameter Region Number: 1  
 HSPF Parameter Region Name : USGS Default

\*\*\*\*\* Default HSPF Parameters Used (Not Modified by User) \*\*\*\*\*

\*\*\*\*\* Watershed Definition \*\*\*\*\*

Number of Subbasins: 1

\*\*\*\*\* Subbasin Number: 1 \*\*\*\*\*

\*\*\*Tributary to Node: 1  
 \*\*\*Bypass to Node : None

	Area(Acres)	-----Area(Acres)-----			
		Predeveloped	To Node	Developed	Bypass Node
<b>Till Forest</b>	28.541	0.000		0.000	
Till Pasture	0.000	0.000		0.000	
Till Grass	0.000	2.697		0.000	
Outwash Forest	0.000	0.000		0.000	
Outwash Pasture	0.000	0.000		0.000	
Outwash Grass	0.000	1.275		0.000	
Wetland	0.000	1.050		0.000	
Impervious	0.000	23.519		0.000	
<b>Subbasin Total</b>	<b>28.541</b>	<b>28.541</b>		<b>0.000</b>	

-----Lateral Flow Connections-----

	Node	-----Predeveloped-----			-----Developed-----		
		Surface	Interflow	Grnd Water	Surface	Interflow	Grnd Water
<b>Till Forest</b>	Node	Node		Node	Node		
Till Pasture	Node	Node		Node	Node		
Till Grass	Node	Node		Node	Node		
Outwash Forest	Node	Node		Node	Node		
Outwash Pasture	Node	Node		Node	Node		
Outwash Grass	Node	Node		Node	Node		
Wetland	Node	Node		Node	Node		
Impervious	Node			Node			
Lateral 1							
Lateral 2							

\*\*\* Subbasin Connection Summary \*\*\*

Subbasin 1 -----> Node 1

\*\*\* By-Pass Area Connection Summary \*\*\*  
 No By-Passed Areas in Watershed

\*\*\* Postdeveloped Node Connection Summary \*\*\*

Upstream Node No.	Link Type	Downstream Node
Node 1	Pond	Node 2

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*\* Predeveloped Structure Summary \*\*\*



**\*\*\* Postdeveloped Structure Summary \*\*\***

**Link No. 1, Pond: New**

Upstream Node : 1, Downstream Node: 2

**Prismatic Pond Option Used**

Pond Floor Elevation : 100.00 ft  
 Riser Crest Elevation : 110.00 ft  
 Max Pond Elevation : 111.00 ft  
 Max Storage Depth : 10.00 ft  
 Pond Bottom Length : 381.4 ft  
 Pond Bottom Width : 127.1 ft  
 Pond Side Slopes : L1= 0.00 L2= 0.00 W1= 0.00 W2= 0.00 ft/ft  
 Pond Bottom Area : 48484. sq-ft  
 Area at Riser Crest El : 48,484. sq-ft  
 : 1.113 acres  
 Volume at Riser Crest : 484,840. cu-ft  
 : 11.130 ac-ft  
 Area at Max Elevation : 48484. sq-ft  
 : 1.113 acres  
 Vol at Max Elevation : 533,323. cu-ft  
 : 12.243 ac-ft  
 Hydraulic Conductivity : 0.00 in/hr  
 Depth to Water Table : 100.00 ft

**Riser Geometry**

Riser Structure Type : Circular  
 Riser Diameter : 30.00 in  
 Common Length : 0.050 ft  
 Riser Crest Elevation : 110.00 ft

**Hydraulic Structure Geometry**

Number of Devices: 2

---Device Number 1---

Device Type : Circular Orifice  
 Invert Elevation : 100.00 ft  
 Diameter : 2.15 in  
 Orientation : Horizontal  
 Elbow : No

--- Device Number 2 ---

Device Type : Vertical Rectangular Orifice  
 Invert Elevation : 105.59 ft  
 Length : 0.60 in  
 Height : 52.96 in  
 Orientation : Vertical  
 Elbow : No

**\*\*\*\*\*Postdeveloped Hydraulic Rating Table\*\*\*\*\***

Postdeveloped Link: Elev (ft)	1	Storage (ac-ft)	Discharge (cfs)	Infil Discharge (cfs)
100.000		0.000	0.000	0.000
100.035		0.039	0.023	0.000
100.070		0.078	0.033	0.000
100.140		0.156	0.046	0.000
100.280		0.312	0.065	0.000
100.420		0.467	0.080	0.000
100.560		0.623	0.092	0.000
100.700		0.779	0.103	0.000
100.840		0.935	0.113	0.000
100.980		1.091	0.122	0.000
101.120		1.247	0.130	0.000
101.260		1.402	0.138	0.000
101.400		1.558	0.146	0.000
101.540		1.714	0.153	0.000
101.680		1.870	0.160	0.000
101.820		2.026	0.166	0.000
101.960		2.182	0.172	0.000
102.100		2.337	0.178	0.000
102.240		2.493	0.184	0.000
102.380		2.649	0.190	0.000
102.520		2.805	0.195	0.000
102.660		2.961	0.201	0.000
102.800		3.117	0.206	0.000
102.940		3.272	0.211	0.000
103.080		3.428	0.216	0.000
103.220		3.584	0.221	0.000
103.360		3.740	0.226	0.000
103.500		3.896	0.230	0.000
103.640		4.051	0.235	0.000
103.780		4.207	0.239	0.000
103.920		4.363	0.244	0.000
104.060		4.519	0.248	0.000
104.200		4.675	0.252	0.000
104.340		4.831	0.256	0.000
104.480		4.986	0.261	0.000

104.620	5.142	0.265	0.000
104.760	5.298	0.269	0.000
104.900	5.454	0.273	0.000
105.040	5.610	0.276	0.000
105.180	5.766	0.280	0.000
105.320	5.921	0.284	0.000
105.387	5.996	0.286	0.000
105.453	6.070	0.288	0.000
105.520	6.144	0.289	0.000
105.587	6.218	0.291	0.000
105.622	6.257	0.293	0.000
105.657	6.296	0.295	0.000
105.692	6.335	0.298	0.000
105.727	6.374	0.302	0.000
105.867	6.530	0.318	0.000
106.007	6.686	0.338	0.000
106.147	6.841	0.361	0.000
106.287	6.997	0.387	0.000
106.427	7.153	0.415	0.000
106.567	7.309	0.445	0.000
106.707	7.465	0.477	0.000
106.847	7.620	0.511	0.000
106.987	7.776	0.546	0.000
107.127	7.932	0.583	0.000
107.267	8.088	0.622	0.000
107.407	8.244	0.662	0.000
107.547	8.400	0.704	0.000
107.687	8.555	0.747	0.000
107.827	8.711	0.791	0.000
107.967	8.867	0.837	0.000
108.107	9.023	0.884	0.000
108.247	9.179	0.932	0.000
108.387	9.335	0.981	0.000
108.527	9.490	1.031	0.000
108.667	9.646	1.083	0.000
108.807	9.802	1.135	0.000
108.947	9.958	1.189	0.000
109.087	10.114	1.244	0.000
109.227	10.269	1.299	0.000
109.367	10.425	1.356	0.000
109.507	10.581	1.414	0.000
109.647	10.737	1.473	0.000
109.787	10.893	1.532	0.000
109.840	10.952	1.555	0.000
109.893	11.012	1.578	0.000
109.947	11.071	1.602	0.000
110.000	11.130	1.625	0.000
110.035	11.169	1.813	0.000
110.070	11.208	2.144	0.000
110.105	11.247	2.568	0.000
110.140	11.286	3.066	0.000
110.175	11.325	3.628	0.000
110.210	11.364	4.245	0.000
110.245	11.403	4.913	0.000
110.280	11.442	5.624	0.000
110.420	11.598	8.800	0.000
110.560	11.754	12.259	0.000
110.700	11.910	15.657	0.000
110.840	12.065	18.668	0.000
110.980	12.221	21.051	0.000
111.120	12.377	22.734	0.000
111.260	12.533	24.170	0.000
111.400	12.689	25.427	0.000
111.540	12.844	26.628	0.000
111.540	12.038	26.747	0.000

\*\*\* Post-Developed Link Statistics \*\*\*

Postdeveloped Pond Water Surface Elevation Statistics

Annual Maxima Water Surface Elevation (ft)

Link: 1

Max Date WSEL (ft)

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12/07/1939	105.734
01/18/1941	103.232
12/20/1941	104.557
11/23/1942	106.608
10/17/1943	102.843
02/07/1945	105.653
02/06/1946	103.879
12/05/1946	105.237
10/19/1947	105.902
02/22/1949	105.028
01/22/1950	106.272
02/09/1951	107.411
10/03/1951	103.845
01/12/1953	106.559
01/22/1954	104.482
11/19/1954	104.381
01/06/1956	107.582
02/26/1957	104.907
01/17/1958	104.985
01/13/1959	106.483
11/21/1959	105.683

11/24/1960	106.813
12/24/1961	103.925
11/30/1962	103.953
11/19/1963	104.199
12/01/1964	105.082
01/07/1966	105.421
12/13/1966	106.498
01/20/1968	104.827
12/11/1968	105.525
01/27/1970	106.300
12/07/1970	105.858
03/05/1972	108.963
12/26/1972	107.260
03/02/1974	105.635
12/27/1974	104.643
02/27/1976	105.806
08/26/1977	103.464
12/15/1977	106.699
03/05/1979	103.809
12/18/1979	108.925
12/30/1980	105.311
10/06/1981	108.133
03/09/1983	106.041
03/21/1984	104.186
11/11/1984	104.196
01/19/1986	106.001
11/24/1986	108.167
04/06/1988	105.284
04/05/1989	105.813
01/09/1990	108.342
11/24/1990	109.275
01/31/1992	106.333
04/11/1993	103.745
03/03/1994	104.097
12/27/1994	106.792
02/09/1996	109.521
01/02/1997	108.960
10/08/1997	104.158
11/26/1998	108.964
02/28/2000	105.734
05/05/2001	103.745
11/15/2001	103.522
11/26/2002	108.484
10/24/2003	104.995
02/08/2005	103.753
11/28/2005	106.407
11/27/2006	105.385
01/07/2008	105.940
02/18/2009	108.596
01/10/2010	106.209
11/17/2010	107.657
10/02/2011	105.373
01/20/2013	109.445
01/28/2014	105.555
04/22/2015	104.124
01/04/2016	108.378
11/01/2016	104.858
01/31/2018	105.142
01/12/2019	106.099
04/21/2020	104.374
11/24/2020	107.271
12/21/2021	104.781
03/30/2023	105.186
01/25/2024	106.243
12/22/2024	108.090
01/04/2026	107.229
01/29/2027	104.441
02/23/2028	105.261
01/13/2029	105.434
01/26/2030	107.737
03/04/2031	105.522
01/21/2032	106.415
12/24/2032	104.932
11/16/2033	108.795
02/19/2035	105.526
02/27/2036	105.848
03/09/2037	102.482
12/15/2037	106.501
12/11/2038	103.535
01/14/2040	105.411
12/25/2040	106.115
04/15/2042	106.259
02/26/2043	105.866
03/21/2044	104.971
03/27/2045	105.289
02/23/2046	104.986
02/02/2047	104.492
12/10/2047	107.034
03/17/2049	104.790
02/09/2050	104.081
04/09/2051	104.005
04/17/2052	103.264
12/10/2052	104.241
12/11/2053	104.523
11/01/2054	108.221

02/07/2056	109.513
01/02/2057	108.659
11/25/2057	104.920
11/26/2058	107.276
01/23/2060	103.946
01/15/2061	106.019
01/03/2062	105.086
01/02/2063	105.398
12/23/2063	107.486
12/02/2064	104.614
01/13/2066	103.121
12/15/2066	107.317
01/20/2068	107.086
09/23/2069	103.407
12/14/2069	103.413
12/19/2070	103.493
11/03/2071	104.517
12/25/2072	110.170
12/15/2073	106.363
11/24/2074	103.791
10/30/2075	107.421
08/26/2077	102.613
12/02/2077	104.713
03/05/2079	103.700
12/17/2079	109.201
11/21/2080	107.711
02/19/2082	107.152
02/20/2083	106.987
11/26/2083	108.184
12/14/2084	106.341
11/01/2085	105.194
11/23/2086	105.941
12/09/2087	104.928
11/05/2088	106.086
11/10/2089	105.866
12/09/2090	108.313
01/31/2092	107.674
11/07/2092	103.592
12/14/2093	104.104
12/27/2094	105.851
12/14/2095	106.493
03/19/2097	106.948

**Postdeveloped Ranked Annual Maxima Water Level (ft)**  
**Tr (yrs) Link: 1**

1.00	102.482
1.01	102.613
1.02	102.843
1.02	103.121
1.03	103.232
1.04	103.264
1.04	103.407
1.05	103.413
1.06	103.464
1.06	103.493
1.07	103.522
1.08	103.535
1.09	103.592
1.09	103.700
1.10	103.745
1.11	103.745
1.12	103.753
1.12	103.791
1.13	103.809
1.14	103.845
1.15	103.879
1.16	103.925
1.17	103.946
1.18	103.953
1.18	104.005
1.19	104.081
1.20	104.097
1.21	104.104
1.22	104.124
1.23	104.158
1.24	104.186
1.25	104.196
1.26	104.199
1.27	104.241
1.28	104.374
1.29	104.381
1.30	104.441
1.31	104.482
1.32	104.492
1.33	104.517
1.35	104.523
1.36	104.557
1.37	104.614
1.38	104.643
1.39	104.713
1.40	104.781
1.42	104.790
1.43	104.827

1.44	104.858
1.46	104.907
1.47	104.920
1.48	104.928
1.50	104.932
1.51	104.971
1.53	104.985
1.54	104.986
1.56	104.995
1.57	105.028
1.59	105.082
1.60	105.086
1.62	105.142
1.64	105.186
1.65	105.194
1.67	105.237
1.69	105.261
1.71	105.284
1.73	105.289
1.75	105.311
1.77	105.373
1.79	105.385
1.81	105.398
1.83	105.411
1.85	105.421
1.87	105.434
1.89	105.522
1.92	105.525
1.94	105.526
1.96	105.555
1.99	105.635
2.01	105.653
2.04	105.683
2.07	105.734
2.09	105.734
2.12	105.806
2.15	105.813
2.18	105.848
2.21	105.851
2.24	105.858
2.27	105.866
2.31	105.866
2.34	105.902
2.38	105.940
2.41	105.941
2.45	106.001
2.49	106.019
2.53	106.041
2.57	106.086
2.61	106.099
2.65	106.115
2.70	106.209
2.75	106.243
2.80	106.259
2.85	106.272
2.90	106.300
2.95	106.333
3.01	106.341
3.07	106.363
3.13	106.407
3.19	106.415
3.26	106.483
3.32	106.493
3.40	106.498
3.47	106.501
3.55	106.559
3.63	106.608
3.72	106.699
3.80	106.792
3.90	106.813
4.00	106.948
4.10	106.987
4.21	107.034
4.32	107.086
4.45	107.152
4.58	107.229
4.71	107.260
4.86	107.271
5.01	107.276
5.17	107.317
5.35	107.411
5.54	107.421
5.74	107.486
5.95	107.582
6.19	107.657
6.44	107.674
6.71	107.711
7.01	107.737
7.33	108.090
7.69	108.133
8.08	108.167
8.52	108.184
9.00	108.221
9.55	108.313
10.16	108.342

10.86	108.378
11.66	108.484
12.59	108.596
13.68	108.659
14.97	108.795
16.54	108.925
18.47	108.960
20.92	108.963
24.10	108.964
28.44	109.201
34.68	109.275
44.42	109.445
61.77	109.513
101.36	109.521
282.36	110.170

**Postdeveloped Water Surface Elevation Data (ft)**  
 Recurrence Interval Computed Using Gringorten Plotting Position  
**Tr (yrs) Link: 1**

1.05-Year	103.424
1.11-Year	103.744
1.25-Year	104.197
2.00-Year	105.650
3.33-Year	106.493
5-Year	107.276
10-Year	108.339
25-Year	108.967
50-Year	109.496
100-Year	109.519

**Postdeveloped Infiltrated Water Statistics**  
 Volume Statistics Computed for Entire Simulation  
**Statistic Link: 1**

Total Inflow Volume (ac-ft)	10884.
Total Volume Infiltrated (ac-ft)	0.
Percent Infiltrated	0.00 %

\*\*\*\*\*Water Quality Facility Data\*\*\*\*\*

**Node No: 1**

2-Year Discharge Rate : 6.320 cfs

**Node No: 2**

Basic Wet Pond Volume (91% Exceedance): 22851. cu-ft  
 Computed Large Wet Pond Volume, 1.5\*Basic Volume: 34277. cu-ft  
 2-Year Discharge Rate : 0.294 cfs

\*\*\*\*\*Compliance Point Results\*\*\*\*\*

Predeveloped Compliance Node: 1  
 Postdeveloped Compliance Node: 2

\*\*Point of Compliance Annual Maxima Flow Data\*\*

Predevelopment Runoff Date	Annual Max Q (cfs)	Date	Postdevelopment Runoff Annual Max Q (cfs)
04/30/1940	0.772	12/07/1939	0.302
01/31/1941	0.296	01/18/1941	0.221
12/15/1941	0.776	12/20/1941	0.263
02/10/1943	0.309	11/23/1942	0.454
01/23/1944	0.232	10/17/1943	0.208
02/07/1945	0.962	02/07/1945	0.295
02/05/1946	0.590	02/06/1946	0.242
02/02/1947	0.602	12/05/1946	0.282
03/21/1948	1.039	10/19/1947	0.323
02/22/1949	0.522	02/22/1949	0.276
03/03/1950	2.149	01/22/1950	0.384
02/09/1951	0.860	02/09/1951	0.663
01/24/1952	0.226	10/03/1951	0.241
01/11/1953	0.321	01/12/1953	0.443
01/22/1954	0.522	01/22/1954	0.261
04/12/1955	0.244	11/19/1954	0.258
03/04/1956	0.559	01/06/1956	0.715
02/25/1957	0.463	02/26/1957	0.273
01/16/1958	0.562	01/17/1958	0.275
01/12/1959	0.604	01/13/1959	0.427
12/15/1959	0.646	11/21/1959	0.298
02/14/1961	0.553	11/24/1960	0.503
03/04/1962	0.296	12/24/1961	0.244
02/03/1963	0.329	11/30/1962	0.245
01/01/1964	0.525	11/19/1963	0.252
02/26/1965	0.651	12/01/1964	0.278
01/06/1966	0.402	01/07/1966	0.287
01/19/1967	1.016	12/13/1966	0.430
02/03/1968	0.526	01/20/1968	0.270

12/03/1968	0.564	12/11/1968	0.289
01/13/1970	0.437	01/27/1970	0.389
12/06/1970	0.497	12/07/1970	0.317
02/28/1972	1.340	03/05/1972	1.196
01/13/1973	0.484	12/26/1972	0.620
02/18/1974	0.723	03/02/1974	0.294
12/26/1974	0.875	12/27/1974	0.265
01/27/1976	0.606	02/27/1976	0.311
05/31/1977	0.085	08/26/1977	0.229
12/10/1977	0.513	12/15/1977	0.475
03/04/1979	0.505	03/05/1979	0.240
12/17/1979	0.813	12/18/1979	1.181
12/26/1980	0.322	12/30/1980	0.284
10/06/1981	1.030	10/06/1981	0.893
01/05/1983	0.578	03/09/1983	0.344
03/14/1984	0.552	03/21/1984	0.252
02/11/1985	0.369	11/11/1984	0.252
01/18/1986	1.215	01/19/1986	0.337
11/24/1986	1.071	11/24/1986	0.904
04/06/1988	0.535	04/06/1988	0.283
04/05/1989	0.590	04/05/1989	0.312
01/09/1990	1.948	01/09/1990	0.965
11/24/1990	1.660	11/24/1990	1.319
01/27/1992	0.507	01/31/1992	0.396
06/09/1993	0.427	04/11/1993	0.238
03/03/1994	0.325	03/03/1994	0.249
02/19/1995	0.682	12/27/1994	0.497
02/09/1996	1.579	02/09/1996	1.420
01/02/1997	0.988	01/02/1997	1.194
02/28/1998	0.363	10/08/1997	0.251
11/25/1998	0.972	11/26/1998	1.196
03/26/2000	0.544	02/28/2000	0.302
05/05/2001	0.417	05/05/2001	0.238
05/03/2002	1.488	11/15/2001	0.231
03/31/2003	1.139	11/26/2002	1.016
01/23/2004	0.278	10/24/2003	0.275
02/07/2005	0.480	02/08/2005	0.239
02/27/2006	0.616	11/28/2005	0.411
12/14/2006	0.456	11/27/2006	0.286
03/21/2008	0.757	01/07/2008	0.328
02/17/2009	1.175	02/18/2009	1.057
01/10/2010	0.790	01/10/2010	0.372
11/17/2010	1.025	11/17/2010	0.738
01/31/2012	0.652	10/02/2011	0.285
01/20/2013	1.489	01/20/2013	1.388
12/06/2013	0.627	01/28/2014	0.290
03/30/2015	0.380	04/22/2015	0.250
01/04/2016	1.083	01/04/2016	0.978
03/07/2017	0.313	11/01/2016	0.271
01/31/2018	0.584	01/31/2018	0.279
03/30/2019	0.578	01/12/2019	0.353
04/14/2020	0.380	04/21/2020	0.258
02/10/2021	0.938	11/24/2020	0.623
03/26/2022	0.277	12/21/2021	0.269
03/30/2023	0.669	03/30/2023	0.280
01/19/2024	0.525	01/25/2024	0.379
12/22/2024	1.097	12/22/2024	0.878
03/09/2026	0.697	01/04/2026	0.612
01/27/2027	0.607	01/29/2027	0.259
02/19/2028	0.752	02/23/2028	0.282
12/04/2028	0.583	01/13/2029	0.287
02/16/2030	0.778	01/26/2030	0.763
12/30/2030	0.728	03/04/2031	0.289
01/20/2032	1.169	01/21/2032	0.412
03/01/2033	0.329	12/24/2032	0.273
01/15/2034	1.321	11/16/2033	1.131
02/19/2035	0.645	02/19/2035	0.289
03/24/2036	0.609	02/27/2036	0.316
03/09/2037	0.025	03/09/2037	0.194
12/15/2037	0.445	12/15/2037	0.431
02/07/2039	0.322	12/11/2038	0.231
01/14/2040	1.207	01/14/2040	0.286
12/25/2040	0.684	12/25/2040	0.356
02/20/2042	0.718	04/15/2042	0.382
03/31/2043	1.075	02/26/2043	0.318
05/01/2044	0.424	03/21/2044	0.275
02/11/2045	0.491	03/27/2045	0.283
02/16/2046	0.618	02/23/2046	0.275
02/01/2047	0.388	02/02/2047	0.261
04/21/2048	0.345	12/10/2047	0.559
03/16/2049	0.388	03/17/2049	0.269
12/04/2049	0.654	02/09/2050	0.249
04/06/2051	0.508	04/09/2051	0.246
04/17/2052	0.305	04/17/2052	0.222
06/04/2053	1.172	12/10/2052	0.254
04/08/2054	0.218	12/11/2053	0.262
02/17/2055	0.997	11/01/2054	0.923
02/07/2056	1.813	02/07/2056	1.417
11/19/2056	1.984	01/02/2057	1.080
01/24/2058	0.688	11/25/2057	0.273
12/28/2058	0.791	11/26/2058	0.625
01/19/2060	0.296	01/23/2060	0.245
01/10/2061	0.642	01/15/2061	0.340
02/03/2062	2.444	01/03/2062	0.278
12/29/2062	0.517	01/02/2063	0.286

12/23/2063	0.933	12/23/2063	0.686
11/30/2064	0.446	12/02/2064	0.264
01/13/2066	0.245	01/13/2066	0.217
01/19/2067	0.622	12/15/2066	0.636
01/18/2068	1.280	01/20/2068	0.572
01/04/2069	0.344	09/23/2069	0.227
04/09/2070	0.290	12/14/2069	0.227
02/14/2071	0.319	12/19/2070	0.230
02/27/2072	0.341	11/03/2071	0.262
12/25/2072	1.427	12/25/2072	3.551
03/16/2074	0.767	12/15/2073	0.402
01/23/2075	0.166	11/24/2074	0.240
03/24/2076	0.852	10/30/2075	0.667
03/02/2077	0.096	08/26/2077	0.199
12/02/2077	0.321	12/02/2077	0.267
02/25/2079	0.430	03/05/2079	0.237
12/17/2079	1.593	12/17/2079	1.289
11/21/2080	0.703	11/21/2080	0.755
02/13/2082	0.878	02/19/2082	0.590
02/19/2083	0.538	02/20/2083	0.546
11/26/2083	0.652	11/26/2083	0.910
12/14/2084	0.451	12/14/2084	0.398
01/18/2086	0.636	11/01/2085	0.281
12/21/2086	0.597	11/23/2086	0.329
01/14/2088	0.392	12/09/2087	0.273
11/05/2088	0.698	11/05/2088	0.351
01/07/2090	0.328	11/10/2089	0.318
12/04/2090	0.606	12/09/2090	0.955
04/28/2092	1.040	01/31/2092	0.743
03/22/2093	0.292	11/07/2092	0.233
03/01/2094	0.245	12/14/2093	0.249
02/18/2095	0.387	12/27/2094	0.316
01/14/2096	0.488	12/14/2095	0.429
01/29/2097	1.072	03/19/2097	0.536

\*\*\*Point of Compliance Ranked Maxima Flow Data\*\*\*

Tr (yrs)	Predevelopment Q (cfs)	Postdevelopment Tr (yrs)	Q (cfs)
1.00	0.025	1.00	0.194
1.01	0.085	1.01	0.199
1.02	0.096	1.02	0.208
1.02	0.166	1.02	0.217
1.03	0.218	1.03	0.221
1.04	0.226	1.04	0.222
1.04	0.232	1.04	0.227
1.05	0.244	1.05	0.227
1.06	0.245	1.06	0.229
1.06	0.245	1.06	0.230
1.07	0.277	1.07	0.231
1.08	0.278	1.08	0.231
1.09	0.290	1.09	0.233
1.09	0.292	1.09	0.237
1.10	0.296	1.10	0.238
1.11	0.296	1.11	0.238
1.12	0.296	1.12	0.239
1.12	0.305	1.12	0.240
1.13	0.309	1.13	0.240
1.14	0.313	1.14	0.241
1.15	0.319	1.15	0.242
1.16	0.321	1.16	0.244
1.17	0.321	1.17	0.245
1.18	0.322	1.18	0.245
1.18	0.322	1.18	0.246
1.19	0.325	1.19	0.249
1.20	0.328	1.20	0.249
1.21	0.329	1.21	0.249
1.22	0.329	1.22	0.250
1.23	0.341	1.23	0.251
1.24	0.344	1.24	0.252
1.25	0.345	1.25	0.252
1.26	0.363	1.26	0.252
1.27	0.369	1.27	0.254
1.28	0.380	1.28	0.258
1.29	0.380	1.29	0.258
1.30	0.387	1.30	0.259
1.31	0.388	1.31	0.261
1.32	0.388	1.32	0.261
1.33	0.392	1.33	0.262
1.35	0.402	1.35	0.262
1.36	0.417	1.36	0.263
1.37	0.424	1.37	0.264
1.38	0.427	1.38	0.265
1.39	0.430	1.39	0.267
1.40	0.437	1.40	0.269
1.42	0.445	1.42	0.269
1.43	0.446	1.43	0.270
1.44	0.451	1.44	0.271
1.46	0.456	1.46	0.273
1.47	0.463	1.47	0.273
1.48	0.480	1.48	0.273
1.50	0.484	1.50	0.273
1.51	0.488	1.51	0.275



1.53	0.491	1.53	0.275
1.54	0.497	1.54	0.275
1.56	0.505	1.56	0.275
1.57	0.507	1.57	0.276
1.59	0.508	1.59	0.278
1.60	0.513	1.60	0.278
1.62	0.517	1.62	0.279
1.64	0.522	1.64	0.280
1.65	0.522	1.65	0.281
1.67	0.525	1.67	0.282
1.69	0.525	1.69	0.282
1.71	0.526	1.71	0.283
1.73	0.535	1.73	0.283
1.75	0.538	1.75	0.284
1.77	0.544	1.77	0.285
1.79	0.552	1.79	0.286
1.81	0.553	1.81	0.286
1.83	0.559	1.83	0.286
1.85	0.562	1.85	0.287
1.87	0.564	1.87	0.287
1.89	0.578	1.89	0.289
1.92	0.578	1.92	0.289
1.94	0.583	1.94	0.289
1.96	0.584	1.96	0.290
1.99	0.590	1.99	0.294
2.01	0.590	2.01	0.295
2.04	0.597	2.04	0.298
2.07	0.602	2.07	0.302
2.09	0.604	2.09	0.302
2.12	0.606	2.12	0.311
2.15	0.606	2.15	0.312
2.18	0.607	2.18	0.316
2.21	0.609	2.21	0.316
2.24	0.616	2.24	0.317
2.27	0.618	2.27	0.318
2.31	0.622	2.31	0.318
2.34	0.627	2.34	0.323
2.38	0.636	2.38	0.328
2.41	0.642	2.41	0.329
2.45	0.645	2.45	0.337
2.49	0.646	2.49	0.340
2.53	0.651	2.53	0.344
2.57	0.652	2.57	0.351
2.61	0.652	2.61	0.353
2.65	0.654	2.65	0.356
2.70	0.669	2.70	0.372
2.75	0.682	2.75	0.379
2.80	0.684	2.80	0.382
2.85	0.688	2.85	0.384
2.90	0.697	2.90	0.389
2.95	0.698	2.95	0.396
3.01	0.703	3.01	0.398
3.07	0.718	3.07	0.402
3.13	0.723	3.13	0.411
3.19	0.728	3.19	0.412
3.26	0.752	3.26	0.427
3.32	0.757	3.32	0.429
3.40	0.767	3.40	0.430
3.47	0.772	3.47	0.431
3.55	0.776	3.55	0.443
3.63	0.778	3.63	0.454
3.72	0.790	3.72	0.475
3.80	0.791	3.80	0.497
3.90	0.813	3.90	0.503
4.00	0.852	4.00	0.536
4.10	0.860	4.10	0.546
4.21	0.875	4.21	0.559
4.32	0.878	4.32	0.572
4.45	0.933	4.45	0.590
4.58	0.938	4.58	0.612
4.71	0.962	4.71	0.620
4.86	0.972	4.86	0.623
5.01	0.988	5.01	0.625
5.17	0.997	5.17	0.636
5.35	1.016	5.35	0.663
5.54	1.025	5.54	0.667
5.74	1.030	5.74	0.686
5.95	1.039	5.95	0.715
6.19	1.040	6.19	0.738
6.44	1.071	6.44	0.743
6.71	1.072	6.71	0.755
7.01	1.075	7.01	0.763
7.33	1.083	7.33	0.878
7.69	1.097	7.69	0.893
8.08	1.139	8.08	0.904
8.52	1.169	8.52	0.910
9.00	1.172	9.00	0.923
9.55	1.175	9.55	0.955
10.16	1.207	10.16	0.965
10.86	1.215	10.86	0.978
11.66	1.280	11.66	1.016
12.59	1.321	12.59	1.057
13.68	1.340	13.68	1.080
14.97	1.427	14.97	1.131
16.54	1.488	16.54	1.181

18.47	1.489	18.47	1.194
20.92	1.579	20.92	1.196
24.10	1.593	24.10	1.196
28.44	1.660	28.44	1.289
34.68	1.813	34.68	1.319
44.42	1.948	44.42	1.388
61.77	1.984	61.77	1.417
101.36	2.149	101.36	1.420
282.36	2.444	282.36	3.551

**\*\*\* Point of Compliance Flow Frequency Data \*\*\***  
 Recurrence Interval Computed Using Gringorten Plotting Position

Tr (Years)	Predevelopment Runoff Discharge (cfs)	Tr (Years)	Postdevelopment Runoff Discharge (cfs)
2-Year	0.590	2-Year	0.294
5-Year	0.987	5-Year	0.625
10-Year	1.199	10-Year	0.963
25-Year	1.608	25-Year	1.216
50-Year	1.961	50-Year	1.399
100-Year	2.144	100-Year	1.420
200-Year	2.345	200-Year	2.834

\*\* Record too Short to Compute Peak Discharge for These Recurrence Intervals

**\*\*\* Point of Compliance Flow Duration Data \*\*\***

Discharge (cfs)	Predevelopment Runoff Exceedance Probability	Discharge (cfs)	Postdevelopment Runoff Exceedance Probability
0.000E+00	1.0000E+00	0.000E+00	1.0000E+00
0.012	2.3680E-01	0.018	7.1047E-01
0.024	1.8183E-01	0.036	6.6558E-01
0.037	1.4869E-01	0.053	6.0820E-01
0.049	1.2486E-01	0.071	5.4912E-01
0.061	1.0625E-01	0.089	4.8816E-01
0.073	9.1206E-02	0.107	4.2562E-01
0.086	7.8997E-02	0.124	3.6209E-01
0.098	6.8893E-02	0.142	2.9812E-01
0.110	6.0447E-02	0.160	2.3652E-01
0.122	5.3261E-02	0.178	1.8053E-01
0.134	4.7175E-02	0.195	1.3287E-01
0.147	4.1832E-02	0.213	9.3536E-02
0.159	3.7205E-02	0.231	6.3268E-02
0.171	3.3133E-02	0.249	4.0315E-02
0.183	2.9638E-02	0.266	2.4256E-02
0.196	2.6430E-02	0.284	1.3135E-02
0.208	2.3649E-02	0.295	9.6663E-03
0.220	2.1262E-02	0.320	7.1550E-03
0.232	1.9150E-02	0.337	6.1760E-03
0.244	1.7267E-02	0.355	5.3991E-03
0.257	1.5521E-02	0.373	4.7746E-03
0.269	1.4036E-02	0.391	4.2786E-03
0.281	1.2639E-02	0.408	3.8345E-03
0.295	1.1278E-02	0.426	3.4591E-03
0.306	1.0348E-02	0.444	3.1313E-03
0.318	9.4640E-03	0.462	2.8360E-03
0.330	8.5860E-03	0.479	2.5537E-03
0.342	7.8178E-03	0.497	2.3198E-03
0.354	7.1543E-03	0.515	2.0960E-03
0.367	6.5998E-03	0.533	1.9068E-03
0.379	6.0489E-03	0.550	1.7400E-03
0.391	5.5507E-03	0.568	1.5985E-03
0.403	5.1067E-03	0.590	1.4183E-03
0.416	4.7255E-03	0.604	1.3241E-03
0.428	4.3558E-03	0.621	1.2166E-03
0.440	4.0223E-03	0.639	1.1242E-03
0.452	3.7104E-03	0.657	1.0469E-03
0.464	3.4331E-03	0.675	9.7687E-04
0.477	3.1833E-03	0.692	9.0683E-04
0.489	2.9472E-03	0.710	8.5268E-04
0.501	2.7284E-03	0.728	7.8337E-04
0.513	2.5234E-03	0.746	7.1911E-04
0.526	2.3581E-03	0.764	6.6641E-04
0.538	2.1942E-03	0.781	6.2092E-04
0.550	2.0324E-03	0.799	5.8121E-04
0.562	1.9003E-03	0.817	5.4006E-04
0.574	1.7624E-03	0.835	5.0323E-04
0.590	1.6051E-03	0.852	4.7074E-04
0.599	1.5285E-03	0.870	4.3898E-04
0.611	1.4180E-03	0.888	4.0360E-04
0.623	1.3350E-03	0.906	3.7472E-04
0.635	1.2722E-03	0.923	3.4078E-04
0.648	1.2043E-03	0.941	3.1840E-04
0.660	1.1350E-03	0.959	2.9241E-04
0.672	1.0729E-03	0.977	2.7147E-04
0.684	1.0130E-03	0.987	2.6179E-04
0.697	9.6532E-04	1.012	2.3826E-04
0.709	9.1478E-04	1.030	2.1371E-04
0.721	8.6712E-04	1.048	1.8989E-04
0.733	8.1225E-04	1.065	1.7184E-04
0.745	7.6388E-04	1.083	1.5812E-04

0.758	7.2489E-04	1.101	1.4368E-04
0.770	6.8807E-04	1.119	1.2924E-04
0.782	6.5124E-04	1.136	1.1191E-04
0.794	6.2092E-04	1.154	9.9636E-05
0.807	5.8915E-04	1.172	8.5918E-05
0.819	5.6749E-04	1.190	7.2200E-05
0.831	5.4511E-04	1.207	6.1370E-05
0.843	5.2562E-04	1.225	5.4150E-05
0.855	5.0251E-04	1.243	5.1262E-05
0.868	4.7796E-04	1.261	4.6930E-05
0.880	4.5197E-04	1.278	4.3320E-05
0.892	4.3609E-04	1.296	3.7544E-05
0.904	4.1154E-04	1.314	3.3934E-05
0.917	3.9349E-04	1.332	2.9602E-05
0.929	3.6894E-04	1.349	2.5270E-05
0.941	3.5450E-04	1.367	2.0938E-05
0.953	3.3573E-04	1.385	1.6606E-05
0.965	3.1985E-04	1.403	1.1552E-05
0.978	3.0252E-04	1.420	8.6640E-06
0.987	2.9160E-04	1.438	7.9420E-06
1.002	2.7653E-04	1.456	7.9420E-06
1.014	2.6281E-04	1.474	7.2200E-06
1.027	2.5198E-04	1.492	7.2200E-06
1.039	2.3609E-04	1.509	6.4980E-06
1.051	2.2599E-04	1.527	6.4980E-06
1.063	2.1371E-04	1.545	5.0540E-06
1.075	2.0360E-04	1.563	5.0540E-06
1.088	1.9638E-04	1.580	5.0540E-06
1.100	1.8339E-04	1.598	4.3320E-06
1.112	1.7689E-04	1.616	4.3320E-06
1.124	1.6245E-04	1.634	3.6100E-06
1.137	1.5306E-04	1.651	3.6100E-06
1.149	1.4440E-04	1.669	3.6100E-06
1.161	1.3140E-04	1.687	3.6100E-06
1.173	1.2563E-04	1.705	3.6100E-06
1.185	1.1552E-04	1.722	3.6100E-06
1.198	1.0830E-04	1.740	3.6100E-06
1.210	1.0108E-04	1.758	3.6100E-06
1.222	9.3860E-05	1.776	3.6100E-06
1.234	8.9528E-05	1.793	3.6100E-06
1.247	8.1586E-05	1.811	3.6100E-06
1.259	7.4366E-05	1.829	3.6100E-06
1.271	7.1478E-05	1.847	3.6100E-06
1.283	6.5702E-05	1.864	3.6100E-06
1.295	6.2814E-05	1.882	2.8880E-06
1.308	5.9926E-05	1.900	2.8880E-06
1.320	5.7760E-05	1.918	2.8880E-06
1.332	5.0540E-05	1.935	2.8880E-06
1.344	4.7652E-05	1.961	2.8930E-06
1.357	4.2598E-05	1.971	2.8880E-06
1.369	3.8266E-05	1.989	2.8880E-06
1.381	3.4656E-05	2.006	2.8880E-06
1.393	3.2490E-05	2.024	2.1660E-06
1.405	3.0324E-05	2.042	2.1660E-06
1.418	2.8158E-05	2.060	2.1660E-06
1.430	2.4548E-05	2.077	2.1660E-06
1.442	2.3826E-05	2.095	2.1660E-06
1.454	2.1660E-05	2.113	2.1660E-06
1.467	1.9494E-05	2.131	2.1660E-06
1.479	1.8772E-05	2.148	2.1660E-06
1.491	1.5162E-05	2.166	2.1660E-06
1.503	1.4440E-05	2.184	2.1660E-06
1.515	1.3718E-05	2.202	2.1660E-06
1.528	1.2274E-05	2.220	2.1660E-06
1.540	1.1552E-05	2.237	2.1660E-06
1.552	1.0830E-05	2.255	2.1660E-06
1.564	1.0830E-05	2.273	2.1660E-06
1.577	1.0108E-05	2.291	2.1660E-06
1.589	8.6640E-06	2.308	2.1660E-06
1.601	7.9420E-06	2.326	2.1660E-06
1.613	7.9420E-06	2.344	2.1660E-06
1.625	7.9420E-06	2.362	2.1660E-06
1.638	7.9420E-06	2.379	2.1660E-06
1.650	7.9420E-06	2.397	2.1660E-06
1.662	7.2200E-06	2.415	2.1660E-06
1.674	7.2200E-06	2.433	2.1660E-06
1.687	7.2200E-06	2.450	2.1660E-06
1.699	7.2200E-06	2.468	2.1660E-06
1.711	7.2200E-06	2.486	2.1660E-06
1.723	7.2200E-06	2.504	2.1660E-06
1.735	7.2200E-06	2.521	2.1660E-06
1.748	7.2200E-06	2.539	2.1660E-06
1.760	7.2200E-06	2.557	2.1660E-06
1.772	7.2200E-06	2.575	2.1660E-06
1.784	6.4980E-06	2.592	2.1660E-06
1.797	6.4980E-06	2.610	2.1660E-06
1.809	6.4980E-06	2.628	2.1660E-06
1.821	5.7760E-06	2.646	2.1660E-06
1.833	5.0540E-06	2.663	2.1660E-06
1.845	5.0540E-06	2.681	2.1660E-06
1.858	5.0540E-06	2.699	2.1660E-06
1.870	5.0540E-06	2.717	2.1660E-06
1.882	4.3320E-06	2.734	2.1660E-06
1.894	4.3320E-06	2.752	2.1660E-06
1.906	4.3320E-06	2.770	2.1660E-06

1.919	3.6100E-06	2.788	2.1660E-06
1.931	3.6100E-06	2.805	2.1660E-06
1.943	3.6100E-06	2.823	1.4440E-06
1.961	2.8016E-06	2.841	1.4440E-06
1.968	2.8880E-06	2.859	1.4440E-06
1.980	2.8880E-06	2.876	1.4440E-06
1.992	2.1660E-06	2.894	1.4440E-06
2.004	2.1660E-06	2.912	1.4440E-06
2.016	2.1660E-06	2.930	1.4440E-06
2.029	2.1660E-06	2.948	1.4440E-06
2.041	2.1660E-06	2.965	1.4440E-06
2.053	2.1660E-06	2.983	1.4440E-06
2.065	2.1660E-06	3.001	1.4440E-06
2.078	2.1660E-06	3.019	1.4440E-06
2.090	2.1660E-06	3.036	1.4440E-06
2.102	2.1660E-06	3.054	1.4440E-06
2.114	2.1660E-06	3.072	1.4440E-06
2.126	2.1660E-06	3.090	1.4440E-06
2.139	2.1660E-06	3.107	1.4440E-06
2.151	7.2200E-07	3.125	1.4440E-06
2.163	7.2200E-07	3.143	1.4440E-06
2.175	7.2200E-07	3.161	1.4440E-06
2.188	7.2200E-07	3.178	1.4440E-06
2.200	7.2200E-07	3.196	1.4440E-06
2.212	7.2200E-07	3.214	1.4440E-06
2.224	7.2200E-07	3.232	1.4440E-06
2.236	7.2200E-07	3.249	1.4440E-06
2.249	7.2200E-07	3.267	1.4440E-06
2.261	7.2200E-07	3.285	1.4440E-06
2.273	7.2200E-07	3.303	1.4440E-06
2.285	7.2200E-07	3.320	1.4440E-06
2.298	7.2200E-07	3.338	1.4440E-06
2.310	7.2200E-07	3.356	1.4440E-06
2.322	7.2200E-07	3.374	1.4440E-06
2.334	7.2200E-07	3.391	1.4440E-06
2.346	7.2200E-07	3.409	1.4440E-06
2.359	7.2200E-07	3.427	1.4440E-06
2.371	7.2200E-07	3.445	1.4440E-06
2.383	7.2200E-07	3.462	1.4440E-06
2.395	7.2200E-07	3.480	7.2200E-07
2.408	7.2200E-07	3.498	7.2200E-07
2.420	7.2200E-07	3.516	7.2200E-07
2.432	7.2200E-07	3.533	7.2200E-07
2.444	7.2200E-07	3.551	7.2200E-07

**\*\*\*\* Flow Duration Performance According to Dept. of Ecology Criteria \*\*\*\***

Excursion at Predeveloped 1/2Q2 (Must be Less Than 0%):		-19.2%	PASS
Maximum Excursion from 1/2Q2 to Q2 (Must be Less Than 0%):	-11.8%	PASS	
Maximum Excursion from Q2 to Q50 (Must be less than 10%):	3.1%	PASS	
Percent Excursion from Q2 to Q50 (Must be less than 50%):	0.9%	PASS	

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**\* POND MEETS ALL DURATION DESIGN CRITERIA: PASS**

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