

Enova Premier
2019 Expansion

EXISTING CONDITIONS

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General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	10 yr - 1 hr
Rainfall Depth:	2.000 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	End	0.000	0.000	Basin Watershed

#1
Pond

Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1	In	11.500	11.500	15.76	0.79
	Out			2.44	0.79

Structure Detail:

Structure #1 (Pond)

Basin Watershed

Pond Inputs:

Initial Pool Elev:	856.08 ft
Initial Pool:	0.00 ac-ft

Drop Inlet

Riser Diameter (in)	Riser Height (ft)	Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)
48.00	6.83	30.00	47.90	2.17	0.0130	861.50

Straight Pipe

Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)	Entrance Loss Coefficient	Tailwater Depth (ft)
7.00	47.90	2.17	0.0120	856.08	0.50	0.00

Pond Results:

Peak Elevation:	860.93 ft
Dewater Time:	0.15 days

Dewatering time is calculated from peak stage to lowest spillway

Elevation-Capacity-Discharge Table

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.07	0.000	0.000	0.000	
856.08	0.000	0.000	0.000	Spillway #2
856.10	0.000	0.000	0.011	
856.14	0.000	0.000	0.032	
856.21	0.001	0.000	0.069	0.05
856.28	0.001	0.000	0.113	
856.35	0.001	0.000	0.194	
856.42	0.002	0.000	0.274	
856.49	0.003	0.000	0.355	

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.56	0.003	0.001	0.436	
856.63	0.004	0.001	0.516	
856.70	0.005	0.001	0.597	
856.77	0.006	0.002	0.670	0.05
856.84	0.007	0.002	0.743	
856.91	0.008	0.003	0.815	
856.98	0.010	0.003	0.888	
857.00	0.010	0.004	0.909	
857.05	0.011	0.004	0.961	
857.12	0.014	0.005	1.033	0.05
857.19	0.016	0.006	1.104	
857.26	0.019	0.007	1.150	
857.33	0.022	0.009	1.195	
857.40	0.025	0.010	1.241	0.05
857.47	0.028	0.012	1.287	
857.54	0.032	0.014	1.333	
857.61	0.035	0.017	1.379	0.05
857.68	0.039	0.019	1.425	
857.75	0.043	0.022	1.470	0.05
857.82	0.047	0.025	1.516	
857.89	0.052	0.029	1.562	0.05
857.96	0.057	0.032	1.604	
858.00	0.059	0.035	1.617	0.05
858.03	0.061	0.037	1.627	
858.10	0.065	0.041	1.649	0.05
858.17	0.070	0.046	1.672	
858.24	0.074	0.051	1.695	0.05
858.31	0.079	0.056	1.717	0.05
858.38	0.084	0.062	1.740	0.05
858.45	0.089	0.068	1.763	
858.52	0.094	0.074	1.786	0.05
858.59	0.099	0.081	1.808	0.05
858.66	0.105	0.088	1.831	0.05
858.73	0.110	0.096	1.854	0.05
858.80	0.116	0.104	1.876	0.05
858.87	0.122	0.112	1.899	0.05
858.94	0.128	0.121	1.922	0.05
859.00	0.133	0.129	1.941	0.05
859.01	0.134	0.130	1.945	0.05
859.08	0.140	0.139	1.967	0.05
859.15	0.147	0.150	1.990	0.05

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
859.22	0.154	0.160	2.013	0.05
859.29	0.161	0.171	2.035	0.10
859.36	0.168	0.183	2.058	0.05
859.43	0.176	0.195	2.081	0.05
859.50	0.183	0.207	2.103	0.10
859.57	0.191	0.220	2.119	0.05
859.64	0.198	0.234	2.136	0.10
859.71	0.206	0.248	2.152	0.05
859.78	0.215	0.263	2.169	0.10
859.85	0.223	0.278	2.186	0.10
859.92	0.231	0.294	2.202	0.10
859.99	0.240	0.310	2.219	0.05
860.00	0.241	0.313	2.221	0.05
860.06	0.246	0.328	2.236	0.05
860.13	0.252	0.345	2.252	0.10
860.20	0.259	0.363	2.269	0.10
860.27	0.265	0.381	2.285	0.10
860.34	0.272	0.400	2.302	0.10
860.41	0.278	0.419	2.319	0.10
860.48	0.285	0.439	2.335	0.10
860.55	0.291	0.459	2.352	0.10
860.62	0.298	0.480	2.368	0.10
860.69	0.305	0.501	2.385	0.10
860.76	0.312	0.522	2.402	0.15
860.83	0.319	0.544	2.418	0.10
860.90	0.326	0.567	2.435	0.15
860.93	0.329	0.576	2.441	0.10 Peak Stage
860.97	0.333	0.590	2.452	
861.00	0.336	0.600	2.459	
861.04	0.339	0.614	2.468	
861.11	0.345	0.638	2.485	
861.18	0.351	0.662	2.501	
861.25	0.357	0.687	2.518	
861.32	0.363	0.712	2.535	
861.39	0.369	0.737	2.551	
861.46	0.375	0.763	2.568	
861.50	0.378	0.779	2.577	Spillway #1
861.53	0.381	0.790	2.787	
861.60	0.387	0.817	3.832	
861.67	0.393	0.844	5.345	
861.74	0.399	0.872	7.208	

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
861.81	0.406	0.900	9.366	
861.88	0.412	0.929	11.781	
861.95	0.418	0.958	14.429	
862.00	0.423	0.979	16.452	
862.02	0.425	0.987	17.291	
862.09	0.433	1.017	20.352	
862.16	0.440	1.048	23.597	
862.23	0.448	1.079	27.020	
862.30	0.456	1.111	30.612	
862.37	0.464	1.143	34.363	
862.44	0.472	1.176	38.268	
862.51	0.480	1.209	42.321	
862.58	0.488	1.243	46.517	
862.65	0.496	1.277	50.850	
862.72	0.504	1.312	55.312	
862.79	0.513	1.348	59.909	
862.86	0.521	1.384	64.631	
862.93	0.530	1.421	69.476	
863.00	0.538	1.458	73.175	
863.07	0.545	1.496	73.451	
863.14	0.552	1.534	73.726	
863.21	0.559	1.573	74.000	
863.28	0.566	1.613	74.273	
863.35	0.573	1.653	74.545	
863.42	0.581	1.693	74.816	
863.49	0.588	1.734	75.086	
863.56	0.595	1.775	75.355	
863.63	0.602	1.817	75.624	
863.70	0.610	1.860	75.891	
863.77	0.617	1.903	76.158	
863.84	0.625	1.946	76.424	
863.91	0.632	1.990	76.688	
863.98	0.640	2.035	76.952	
864.00	0.642	2.047	77.028	
864.05	0.647	2.080	77.215	
864.12	0.654	2.125	77.478	
864.19	0.661	2.171	77.738	
864.26	0.668	2.218	77.997	
864.33	0.675	2.265	78.255	
864.40	0.682	2.312	78.512	
864.47	0.689	2.360	78.768	

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
864.54	0.696	2.409	79.023	
864.61	0.703	2.458	79.278	
864.68	0.711	2.507	79.532	
864.75	0.718	2.557	79.785	
864.82	0.725	2.608	80.037	
864.89	0.732	2.659	80.289	
864.96	0.740	2.710	80.540	
865.00	0.744	2.740	80.683	

Detailed Discharge Table

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
856.07	0.000	0.000	0.000
856.08	0.000	0.000	0.000
856.10	0.000	0.011	0.011
856.14	0.000	(1)>0.032	0.032
856.21	0.000	(2)>0.069	0.069
856.28	0.000	(3)>0.113	0.113
856.35	0.000	(3)>0.194	0.194
856.42	0.000	(3)>0.274	0.274
856.49	0.000	(3)>0.355	0.355
856.56	0.000	(3)>0.436	0.436
856.63	0.000	(3)>0.516	0.516
856.70	0.000	(3)>0.597	0.597
856.77	0.000	(3)>0.670	0.670
856.84	0.000	(4)>0.743	0.743
856.91	0.000	(4)>0.815	0.815
856.98	0.000	(4)>0.888	0.888
857.00	0.000	(4)>0.909	0.909
857.05	0.000	(4)>0.961	0.961
857.12	0.000	(5)>1.033	1.033
857.19	0.000	(5)>1.104	1.104
857.26	0.000	(5)>1.150	1.150
857.33	0.000	(5)>1.195	1.195
857.40	0.000	(5)>1.241	1.241
857.47	0.000	(5)>1.287	1.287
857.54	0.000	(5)>1.333	1.333
857.61	0.000	(5)>1.379	1.379

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
857.68	0.000	(5)>1.425	1.425
857.75	0.000	(5)>1.470	1.470
857.82	0.000	(5)>1.516	1.516
857.89	0.000	(5)>1.562	1.562
857.96	0.000	(5)>1.604	1.604
858.00	0.000	(5)>1.617	1.617
858.03	0.000	(5)>1.627	1.627
858.10	0.000	(5)>1.649	1.649
858.17	0.000	(5)>1.672	1.672
858.24	0.000	(5)>1.695	1.695
858.31	0.000	(5)>1.717	1.717
858.38	0.000	(5)>1.740	1.740
858.45	0.000	(5)>1.763	1.763
858.52	0.000	(5)>1.786	1.786
858.59	0.000	(5)>1.808	1.808
858.66	0.000	(5)>1.831	1.831
858.73	0.000	(6)>1.854	1.854
858.80	0.000	(6)>1.876	1.876
858.87	0.000	(6)>1.899	1.899
858.94	0.000	(6)>1.922	1.922
859.00	0.000	(6)>1.941	1.941
859.01	0.000	(6)>1.945	1.945
859.08	0.000	(6)>1.967	1.967
859.15	0.000	(6)>1.990	1.990
859.22	0.000	(6)>2.013	2.013
859.29	0.000	(6)>2.035	2.035
859.36	0.000	(6)>2.058	2.058
859.43	0.000	(6)>2.081	2.081
859.50	0.000	(6)>2.103	2.103
859.57	0.000	(6)>2.119	2.119
859.64	0.000	(6)>2.136	2.136
859.71	0.000	(6)>2.152	2.152
859.78	0.000	(6)>2.169	2.169
859.85	0.000	(6)>2.186	2.186
859.92	0.000	(6)>2.202	2.202
859.99	0.000	(6)>2.219	2.219
860.00	0.000	(6)>2.221	2.221
860.06	0.000	(6)>2.236	2.236
860.13	0.000	(6)>2.252	2.252
860.20	0.000	(6)>2.269	2.269

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
860.27	0.000	(6)>2.285	2.285
860.34	0.000	(6)>2.302	2.302
860.41	0.000	(6)>2.319	2.319
860.48	0.000	(6)>2.335	2.335
860.55	0.000	(6)>2.352	2.352
860.62	0.000	(6)>2.368	2.368
860.69	0.000	(6)>2.385	2.385
860.76	0.000	(6)>2.402	2.402
860.83	0.000	(6)>2.418	2.418
860.90	0.000	(6)>2.435	2.435
860.97	0.000	(6)>2.452	2.452
861.00	0.000	(6)>2.459	2.459
861.04	0.000	(6)>2.468	2.468
861.11	0.000	(6)>2.485	2.485
861.18	0.000	(6)>2.501	2.501
861.25	0.000	(6)>2.518	2.518
861.32	0.000	(6)>2.535	2.535
861.39	0.000	(6)>2.551	2.551
861.46	0.000	(6)>2.568	2.568
861.50	0.000	(6)>2.577	2.577
861.53	0.203	(6)>2.585	2.787
861.60	1.231	(6)>2.601	3.832
861.67	2.730	(6)>2.615	5.345
861.74	4.580	(6)>2.628	7.208
861.81	6.724	(6)>2.642	9.366
861.88	9.125	(6)>2.656	11.781
861.95	11.760	(6)>2.669	14.429
862.00	13.773	(6)>2.679	16.452
862.02	14.608	(6)>2.683	17.291
862.09	17.655	(6)>2.697	20.352
862.16	20.886	(6)>2.711	23.597
862.23	24.296	(6)>2.724	27.020
862.30	27.874	(6)>2.738	30.612
862.37	31.612	(6)>2.752	34.363
862.44	35.503	(6)>2.765	38.268
862.51	39.542	(6)>2.779	42.321
862.58	43.724	(6)>2.793	46.517
862.65	48.043	(6)>2.806	50.850
862.72	52.492	(6)>2.820	55.312
862.79	57.075	(6)>2.834	59.909

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
862.86	61.784	(6)>2.848	64.631
862.93	66.615	(6)>2.861	69.476
863.00	70.300	(6)>2.875	73.175
863.07	70.563	(6)>2.889	73.451
863.14	70.824	(6)>2.902	73.726
863.21	71.084	(6)>2.916	74.000
863.28	71.343	(6)>2.930	74.273
863.35	71.601	(6)>2.943	74.545
863.42	71.859	(6)>2.957	74.816
863.49	72.115	(6)>2.971	75.086
863.56	72.371	(6)>2.985	75.355
863.63	72.626	(6)>2.998	75.624
863.70	72.879	(6)>3.012	75.891
863.77	73.132	(6)>3.026	76.158
863.84	73.384	(6)>3.039	76.424
863.91	73.635	(6)>3.053	76.688
863.98	73.886	(6)>3.067	76.952
864.00	73.957	(6)>3.071	77.028
864.05	74.135	(6)>3.081	77.215
864.12	74.384	(6)>3.094	77.478
864.19	74.631	(6)>3.107	77.738
864.26	74.878	(6)>3.118	77.997
864.33	75.125	(6)>3.130	78.255
864.40	75.370	(6)>3.142	78.512
864.47	75.614	(6)>3.153	78.768
864.54	75.858	(6)>3.165	79.023
864.61	76.101	(6)>3.177	79.278
864.68	76.343	(6)>3.188	79.532
864.75	76.585	(6)>3.200	79.785
864.82	76.826	(6)>3.212	80.037
864.89	77.065	(6)>3.223	80.289
864.96	77.305	(6)>3.235	80.540
865.00	77.441	(6)>3.242	80.683

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	4.470	0.140	0.000	0.000	61.000	M	0.46	0.022
	2	0.790	0.140	0.000	0.000	74.000	M	0.48	0.019
	3	6.240	0.140	0.000	0.000	98.000	M	15.21	0.750
	Σ	11.500						15.76	0.791

Enova Premier
2019 Expansion

EXISTING CONDITIONS

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General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	25 yr - 24 hr
Rainfall Depth:	5.230 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	End	0.000	0.000	Basin Watershed

#1 Pond

Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1	In	11.500	11.500	25.03	2.70
	Out			9.38	2.70

Structure Detail:

Structure #1 (Pond)

Basin Watershed

Pond Inputs:

Initial Pool Elev:	856.08 ft
Initial Pool:	0.00 ac-ft

Drop Inlet

Riser Diameter (in)	Riser Height (ft)	Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)
48.00	6.83	30.00	47.90	2.17	0.0130	861.50

Straight Pipe

Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)	Entrance Loss Coefficient	Tailwater Depth (ft)
7.00	47.90	2.17	0.0120	856.08	0.50	0.00

Pond Results:

Peak Elevation:	861.81 ft
Dewater Time:	0.52 days

Dewatering time is calculated from peak stage to lowest spillway

Elevation-Capacity-Discharge Table

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.07	0.000	0.000	0.000	
856.08	0.000	0.000	0.000	Spillway #2
856.10	0.000	0.000	0.011	0.05
856.14	0.000	0.000	0.032	0.15
856.21	0.001	0.000	0.069	0.15
856.28	0.001	0.000	0.113	0.10
856.35	0.001	0.000	0.194	0.05
856.42	0.002	0.000	0.274	0.05
856.49	0.003	0.000	0.355	0.05
856.56	0.003	0.001	0.436	
856.63	0.004	0.001	0.516	3.10

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.70	0.005	0.001	0.597	0.05
856.77	0.006	0.002	0.670	0.05
856.84	0.007	0.002	0.743	
856.91	0.008	0.003	0.815	0.05
856.98	0.010	0.003	0.888	
857.00	0.010	0.004	0.909	
857.05	0.011	0.004	0.961	
857.12	0.014	0.005	1.033	0.05
857.19	0.016	0.006	1.104	
857.26	0.019	0.007	1.150	0.05
857.33	0.022	0.009	1.195	
857.40	0.025	0.010	1.241	0.05
857.47	0.028	0.012	1.287	
857.54	0.032	0.014	1.333	0.05
857.61	0.035	0.017	1.379	0.05
857.68	0.039	0.019	1.425	
857.75	0.043	0.022	1.470	0.05
857.82	0.047	0.025	1.516	0.05
857.89	0.052	0.029	1.562	0.05
857.96	0.057	0.032	1.604	
858.00	0.059	0.035	1.617	0.05
858.03	0.061	0.037	1.627	
858.10	0.065	0.041	1.649	0.05
858.17	0.070	0.046	1.672	0.05
858.24	0.074	0.051	1.695	0.05
858.31	0.079	0.056	1.717	0.05
858.38	0.084	0.062	1.740	0.10
858.45	0.089	0.068	1.763	0.05
858.52	0.094	0.074	1.786	0.05
858.59	0.099	0.081	1.808	0.05
858.66	0.105	0.088	1.831	0.10
858.73	0.110	0.096	1.854	0.05
858.80	0.116	0.104	1.876	0.10
858.87	0.122	0.112	1.899	0.05
858.94	0.128	0.121	1.922	0.10
859.00	0.133	0.129	1.941	0.05
859.01	0.134	0.130	1.945	
859.08	0.140	0.139	1.967	0.10
859.15	0.147	0.150	1.990	0.10
859.22	0.154	0.160	2.013	0.10
859.29	0.161	0.171	2.035	0.10
859.36	0.168	0.183	2.058	0.10
859.43	0.176	0.195	2.081	0.10

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)	
859.50	0.183	0.207	2.103	0.10	
859.57	0.191	0.220	2.119	0.10	
859.64	0.198	0.234	2.136	0.10	
859.71	0.206	0.248	2.152	0.10	
859.78	0.215	0.263	2.169	0.15	
859.85	0.223	0.278	2.186	0.10	
859.92	0.231	0.294	2.202	0.15	
859.99	0.240	0.310	2.219	0.10	
860.00	0.241	0.313	2.221	0.05	
860.06	0.246	0.328	2.236	0.10	
860.13	0.252	0.345	2.252	0.15	
860.20	0.259	0.363	2.269	0.15	
860.27	0.265	0.381	2.285	0.15	
860.34	0.272	0.400	2.302	0.15	
860.41	0.278	0.419	2.319	0.15	
860.48	0.285	0.439	2.335	0.15	
860.55	0.291	0.459	2.352	0.20	
860.62	0.298	0.480	2.368	0.15	
860.69	0.305	0.501	2.385	0.20	
860.76	0.312	0.522	2.402	0.20	
860.83	0.319	0.544	2.418	0.15	
860.90	0.326	0.567	2.435	0.20	
860.97	0.333	0.590	2.452	0.20	
861.00	0.336	0.600	2.459	0.10	
861.04	0.339	0.614	2.468	0.10	
861.11	0.345	0.638	2.485	0.20	
861.18	0.351	0.662	2.501	0.25	
861.25	0.357	0.687	2.518	0.25	
861.32	0.363	0.712	2.535	0.25	
861.39	0.369	0.737	2.551	0.30	
861.46	0.375	0.763	2.568	0.35	
861.50	0.378	0.779	2.577	0.20	Spillway #1
861.53	0.381	0.790	2.787	0.25	
861.60	0.387	0.817	3.832	0.40	
861.67	0.393	0.844	5.345	0.25	
861.74	0.399	0.872	7.208	0.15	
861.81	0.406	0.900	9.366		
861.81	0.406	0.900	9.379	0.30	Peak Stage
861.88	0.412	0.929	11.781		
861.95	0.418	0.958	14.429		
862.00	0.423	0.979	16.452		
862.02	0.425	0.987	17.291		
862.09	0.433	1.017	20.352		

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
862.16	0.440	1.048	23.597	
862.23	0.448	1.079	27.020	
862.30	0.456	1.111	30.612	
862.37	0.464	1.143	34.363	
862.44	0.472	1.176	38.268	
862.51	0.480	1.209	42.321	
862.58	0.488	1.243	46.517	
862.65	0.496	1.277	50.850	
862.72	0.504	1.312	55.312	
862.79	0.513	1.348	59.909	
862.86	0.521	1.384	64.631	
862.93	0.530	1.421	69.476	
863.00	0.538	1.458	73.175	
863.07	0.545	1.496	73.451	
863.14	0.552	1.534	73.726	
863.21	0.559	1.573	74.000	
863.28	0.566	1.613	74.273	
863.35	0.573	1.653	74.545	
863.42	0.581	1.693	74.816	
863.49	0.588	1.734	75.086	
863.56	0.595	1.775	75.355	
863.63	0.602	1.817	75.624	
863.70	0.610	1.860	75.891	
863.77	0.617	1.903	76.158	
863.84	0.625	1.946	76.424	
863.91	0.632	1.990	76.688	
863.98	0.640	2.035	76.952	
864.00	0.642	2.047	77.028	
864.05	0.647	2.080	77.215	
864.12	0.654	2.125	77.478	
864.19	0.661	2.171	77.738	
864.26	0.668	2.218	77.997	
864.33	0.675	2.265	78.255	
864.40	0.682	2.312	78.512	
864.47	0.689	2.360	78.768	
864.54	0.696	2.409	79.023	
864.61	0.703	2.458	79.278	
864.68	0.711	2.507	79.532	
864.75	0.718	2.557	79.785	
864.82	0.725	2.608	80.037	
864.89	0.732	2.659	80.289	
864.96	0.740	2.710	80.540	
865.00	0.744	2.740	80.683	

Detailed Discharge Table

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
856.07	0.000	0.000	0.000
856.08	0.000	0.000	0.000
856.10	0.000	0.011	0.011
856.14	0.000	(1)>0.032	0.032
856.21	0.000	(2)>0.069	0.069
856.28	0.000	(3)>0.113	0.113
856.35	0.000	(3)>0.194	0.194
856.42	0.000	(3)>0.274	0.274
856.49	0.000	(3)>0.355	0.355
856.56	0.000	(3)>0.436	0.436
856.63	0.000	(3)>0.516	0.516
856.70	0.000	(3)>0.597	0.597
856.77	0.000	(3)>0.670	0.670
856.84	0.000	(4)>0.743	0.743
856.91	0.000	(4)>0.815	0.815
856.98	0.000	(4)>0.888	0.888
857.00	0.000	(4)>0.909	0.909
857.05	0.000	(4)>0.961	0.961
857.12	0.000	(5)>1.033	1.033
857.19	0.000	(5)>1.104	1.104
857.26	0.000	(5)>1.150	1.150
857.33	0.000	(5)>1.195	1.195
857.40	0.000	(5)>1.241	1.241
857.47	0.000	(5)>1.287	1.287
857.54	0.000	(5)>1.333	1.333
857.61	0.000	(5)>1.379	1.379
857.68	0.000	(5)>1.425	1.425
857.75	0.000	(5)>1.470	1.470
857.82	0.000	(5)>1.516	1.516
857.89	0.000	(5)>1.562	1.562
857.96	0.000	(5)>1.604	1.604
858.00	0.000	(5)>1.617	1.617
858.03	0.000	(5)>1.627	1.627
858.10	0.000	(5)>1.649	1.649
858.17	0.000	(5)>1.672	1.672
858.24	0.000	(5)>1.695	1.695
858.31	0.000	(5)>1.717	1.717
858.38	0.000	(5)>1.740	1.740
858.45	0.000	(5)>1.763	1.763
858.52	0.000	(5)>1.786	1.786

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
858.59	0.000	(5)>1.808	1.808
858.66	0.000	(5)>1.831	1.831
858.73	0.000	(6)>1.854	1.854
858.80	0.000	(6)>1.876	1.876
858.87	0.000	(6)>1.899	1.899
858.94	0.000	(6)>1.922	1.922
859.00	0.000	(6)>1.941	1.941
859.01	0.000	(6)>1.945	1.945
859.08	0.000	(6)>1.967	1.967
859.15	0.000	(6)>1.990	1.990
859.22	0.000	(6)>2.013	2.013
859.29	0.000	(6)>2.035	2.035
859.36	0.000	(6)>2.058	2.058
859.43	0.000	(6)>2.081	2.081
859.50	0.000	(6)>2.103	2.103
859.57	0.000	(6)>2.119	2.119
859.64	0.000	(6)>2.136	2.136
859.71	0.000	(6)>2.152	2.152
859.78	0.000	(6)>2.169	2.169
859.85	0.000	(6)>2.186	2.186
859.92	0.000	(6)>2.202	2.202
859.99	0.000	(6)>2.219	2.219
860.00	0.000	(6)>2.221	2.221
860.06	0.000	(6)>2.236	2.236
860.13	0.000	(6)>2.252	2.252
860.20	0.000	(6)>2.269	2.269
860.27	0.000	(6)>2.285	2.285
860.34	0.000	(6)>2.302	2.302
860.41	0.000	(6)>2.319	2.319
860.48	0.000	(6)>2.335	2.335
860.55	0.000	(6)>2.352	2.352
860.62	0.000	(6)>2.368	2.368
860.69	0.000	(6)>2.385	2.385
860.76	0.000	(6)>2.402	2.402
860.83	0.000	(6)>2.418	2.418
860.90	0.000	(6)>2.435	2.435
860.97	0.000	(6)>2.452	2.452
861.00	0.000	(6)>2.459	2.459
861.04	0.000	(6)>2.468	2.468
861.11	0.000	(6)>2.485	2.485
861.18	0.000	(6)>2.501	2.501

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
861.25	0.000	(6)>2.518	2.518
861.32	0.000	(6)>2.535	2.535
861.39	0.000	(6)>2.551	2.551
861.46	0.000	(6)>2.568	2.568
861.50	0.000	(6)>2.577	2.577
861.53	0.203	(6)>2.585	2.787
861.60	1.231	(6)>2.601	3.832
861.67	2.730	(6)>2.615	5.345
861.74	4.580	(6)>2.628	7.208
861.81	6.724	(6)>2.642	9.366
861.88	9.125	(6)>2.656	11.781
861.95	11.760	(6)>2.669	14.429
862.00	13.773	(6)>2.679	16.452
862.02	14.608	(6)>2.683	17.291
862.09	17.655	(6)>2.697	20.352
862.16	20.886	(6)>2.711	23.597
862.23	24.296	(6)>2.724	27.020
862.30	27.874	(6)>2.738	30.612
862.37	31.612	(6)>2.752	34.363
862.44	35.503	(6)>2.765	38.268
862.51	39.542	(6)>2.779	42.321
862.58	43.724	(6)>2.793	46.517
862.65	48.043	(6)>2.806	50.850
862.72	52.492	(6)>2.820	55.312
862.79	57.075	(6)>2.834	59.909
862.86	61.784	(6)>2.848	64.631
862.93	66.615	(6)>2.861	69.476
863.00	70.300	(6)>2.875	73.175
863.07	70.563	(6)>2.889	73.451
863.14	70.824	(6)>2.902	73.726
863.21	71.084	(6)>2.916	74.000
863.28	71.343	(6)>2.930	74.273
863.35	71.601	(6)>2.943	74.545
863.42	71.859	(6)>2.957	74.816
863.49	72.115	(6)>2.971	75.086
863.56	72.371	(6)>2.985	75.355
863.63	72.626	(6)>2.998	75.624
863.70	72.879	(6)>3.012	75.891
863.77	73.132	(6)>3.026	76.158
863.84	73.384	(6)>3.039	76.424
863.91	73.635	(6)>3.053	76.688

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
863.98	73.886	(6)>3.067	76.952
864.00	73.957	(6)>3.071	77.028
864.05	74.135	(6)>3.081	77.215
864.12	74.384	(6)>3.094	77.478
864.19	74.631	(6)>3.107	77.738
864.26	74.878	(6)>3.118	77.997
864.33	75.125	(6)>3.130	78.255
864.40	75.370	(6)>3.142	78.512
864.47	75.614	(6)>3.153	78.768
864.54	75.858	(6)>3.165	79.023
864.61	76.101	(6)>3.177	79.278
864.68	76.343	(6)>3.188	79.532
864.75	76.585	(6)>3.200	79.785
864.82	76.826	(6)>3.212	80.037
864.89	77.065	(6)>3.223	80.289
864.96	77.305	(6)>3.235	80.540
865.00	77.441	(6)>3.242	80.683

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	4.470	0.140	0.000	0.000	61.000	M	4.78	0.457
	2	0.790	0.140	0.000	0.000	74.000	M	1.45	0.136
	3	6.240	0.140	0.000	0.000	98.000	M	18.98	2.110
	Σ	11.500						25.03	2.703

Enova Premier **2019 Expansion**

EXISTING CONDITIONS

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General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	100 yr - 1 hr
Rainfall Depth:	2.900 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	End	0.000	0.000	Basin Watershed

#1 Pond

Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1	In	11.500	11.500	25.57	1.27
	Out			7.76	1.27

Structure Detail:

Structure #1 (Pond)

Basin Watershed

Pond Inputs:

Initial Pool Elev:	856.08 ft
Initial Pool:	0.00 ac-ft

Drop Inlet

Riser Diameter (in)	Riser Height (ft)	Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)
48.00	6.83	30.00	47.90	2.17	0.0130	861.50

Straight Pipe

Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)	Entrance Loss Coefficient	Tailwater Depth (ft)
7.00	47.90	2.17	0.0120	856.08	0.50	0.00

Pond Results:

Peak Elevation:	861.76 ft
Dewater Time:	0.20 days

Dewatering time is calculated from peak stage to lowest spillway

Elevation-Capacity-Discharge Table

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.07	0.000	0.000	0.000	
856.08	0.000	0.000	0.000	Spillway #2
856.10	0.000	0.000	0.011	
856.14	0.000	0.000	0.032	
856.21	0.001	0.000	0.069	
856.28	0.001	0.000	0.113	
856.35	0.001	0.000	0.194	
856.42	0.002	0.000	0.274	
856.49	0.003	0.000	0.355	
856.56	0.003	0.001	0.436	0.05
856.63	0.004	0.001	0.516	

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.70	0.005	0.001	0.597	
856.77	0.006	0.002	0.670	
856.84	0.007	0.002	0.743	
856.91	0.008	0.003	0.815	
856.98	0.010	0.003	0.888	
857.00	0.010	0.004	0.909	0.05
857.05	0.011	0.004	0.961	
857.12	0.014	0.005	1.033	
857.19	0.016	0.006	1.104	
857.26	0.019	0.007	1.150	
857.33	0.022	0.009	1.195	0.05
857.40	0.025	0.010	1.241	
857.47	0.028	0.012	1.287	
857.54	0.032	0.014	1.333	0.05
857.61	0.035	0.017	1.379	
857.68	0.039	0.019	1.425	0.05
857.75	0.043	0.022	1.470	
857.82	0.047	0.025	1.516	0.05
857.89	0.052	0.029	1.562	
857.96	0.057	0.032	1.604	0.05
858.00	0.059	0.035	1.617	
858.03	0.061	0.037	1.627	
858.10	0.065	0.041	1.649	0.05
858.17	0.070	0.046	1.672	0.05
858.24	0.074	0.051	1.695	
858.31	0.079	0.056	1.717	0.05
858.38	0.084	0.062	1.740	0.05
858.45	0.089	0.068	1.763	0.05
858.52	0.094	0.074	1.786	0.05
858.59	0.099	0.081	1.808	0.05
858.66	0.105	0.088	1.831	0.05
858.73	0.110	0.096	1.854	0.05
858.80	0.116	0.104	1.876	0.05
858.87	0.122	0.112	1.899	0.05
858.94	0.128	0.121	1.922	0.05
859.00	0.133	0.129	1.941	0.05
859.01	0.134	0.130	1.945	
859.08	0.140	0.139	1.967	0.05
859.15	0.147	0.150	1.990	0.05
859.22	0.154	0.160	2.013	0.10
859.29	0.161	0.171	2.035	0.05
859.36	0.168	0.183	2.058	0.05
859.43	0.176	0.195	2.081	0.10

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)	
859.50	0.183	0.207	2.103	0.05	
859.57	0.191	0.220	2.119	0.10	
859.64	0.198	0.234	2.136	0.05	
859.71	0.206	0.248	2.152	0.10	
859.78	0.215	0.263	2.169	0.05	
859.85	0.223	0.278	2.186	0.10	
859.92	0.231	0.294	2.202	0.10	
859.99	0.240	0.310	2.219	0.10	
860.00	0.241	0.313	2.221		
860.06	0.246	0.328	2.236	0.10	
860.13	0.252	0.345	2.252	0.05	
860.20	0.259	0.363	2.269	0.10	
860.27	0.265	0.381	2.285	0.10	
860.34	0.272	0.400	2.302	0.10	
860.41	0.278	0.419	2.319	0.10	
860.48	0.285	0.439	2.335	0.10	
860.55	0.291	0.459	2.352	0.10	
860.62	0.298	0.480	2.368	0.15	
860.69	0.305	0.501	2.385	0.10	
860.76	0.312	0.522	2.402	0.10	
860.83	0.319	0.544	2.418	0.10	
860.90	0.326	0.567	2.435	0.10	
860.97	0.333	0.590	2.452	0.15	
861.00	0.336	0.600	2.459	0.05	
861.04	0.339	0.614	2.468	0.05	
861.11	0.345	0.638	2.485	0.10	
861.18	0.351	0.662	2.501	0.15	
861.25	0.357	0.687	2.518	0.10	
861.32	0.363	0.712	2.535	0.10	
861.39	0.369	0.737	2.551	0.15	
861.46	0.375	0.763	2.568	0.15	
861.50	0.378	0.779	2.577	0.05	Spillway #1
861.53	0.381	0.790	2.787	0.05	
861.60	0.387	0.817	3.832	0.15	
861.67	0.393	0.844	5.345	0.10	
861.74	0.399	0.872	7.208	0.10	
861.76	0.401	0.879	7.760	0.10	Peak Stage
861.81	0.406	0.900	9.366		
861.88	0.412	0.929	11.781		
861.95	0.418	0.958	14.429		
862.00	0.423	0.979	16.452		
862.02	0.425	0.987	17.291		
862.09	0.433	1.017	20.352		

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
862.16	0.440	1.048	23.597	
862.23	0.448	1.079	27.020	
862.30	0.456	1.111	30.612	
862.37	0.464	1.143	34.363	
862.44	0.472	1.176	38.268	
862.51	0.480	1.209	42.321	
862.58	0.488	1.243	46.517	
862.65	0.496	1.277	50.850	
862.72	0.504	1.312	55.312	
862.79	0.513	1.348	59.909	
862.86	0.521	1.384	64.631	
862.93	0.530	1.421	69.476	
863.00	0.538	1.458	73.175	
863.07	0.545	1.496	73.451	
863.14	0.552	1.534	73.726	
863.21	0.559	1.573	74.000	
863.28	0.566	1.613	74.273	
863.35	0.573	1.653	74.545	
863.42	0.581	1.693	74.816	
863.49	0.588	1.734	75.086	
863.56	0.595	1.775	75.355	
863.63	0.602	1.817	75.624	
863.70	0.610	1.860	75.891	
863.77	0.617	1.903	76.158	
863.84	0.625	1.946	76.424	
863.91	0.632	1.990	76.688	
863.98	0.640	2.035	76.952	
864.00	0.642	2.047	77.028	
864.05	0.647	2.080	77.215	
864.12	0.654	2.125	77.478	
864.19	0.661	2.171	77.738	
864.26	0.668	2.218	77.997	
864.33	0.675	2.265	78.255	
864.40	0.682	2.312	78.512	
864.47	0.689	2.360	78.768	
864.54	0.696	2.409	79.023	
864.61	0.703	2.458	79.278	
864.68	0.711	2.507	79.532	
864.75	0.718	2.557	79.785	
864.82	0.725	2.608	80.037	
864.89	0.732	2.659	80.289	
864.96	0.740	2.710	80.540	
865.00	0.744	2.740	80.683	

Detailed Discharge Table

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
856.07	0.000	0.000	0.000
856.08	0.000	0.000	0.000
856.10	0.000	0.011	0.011
856.14	0.000	(1)>0.032	0.032
856.21	0.000	(2)>0.069	0.069
856.28	0.000	(3)>0.113	0.113
856.35	0.000	(3)>0.194	0.194
856.42	0.000	(3)>0.274	0.274
856.49	0.000	(3)>0.355	0.355
856.56	0.000	(3)>0.436	0.436
856.63	0.000	(3)>0.516	0.516
856.70	0.000	(3)>0.597	0.597
856.77	0.000	(3)>0.670	0.670
856.84	0.000	(4)>0.743	0.743
856.91	0.000	(4)>0.815	0.815
856.98	0.000	(4)>0.888	0.888
857.00	0.000	(4)>0.909	0.909
857.05	0.000	(4)>0.961	0.961
857.12	0.000	(5)>1.033	1.033
857.19	0.000	(5)>1.104	1.104
857.26	0.000	(5)>1.150	1.150
857.33	0.000	(5)>1.195	1.195
857.40	0.000	(5)>1.241	1.241
857.47	0.000	(5)>1.287	1.287
857.54	0.000	(5)>1.333	1.333
857.61	0.000	(5)>1.379	1.379
857.68	0.000	(5)>1.425	1.425
857.75	0.000	(5)>1.470	1.470
857.82	0.000	(5)>1.516	1.516
857.89	0.000	(5)>1.562	1.562
857.96	0.000	(5)>1.604	1.604
858.00	0.000	(5)>1.617	1.617
858.03	0.000	(5)>1.627	1.627
858.10	0.000	(5)>1.649	1.649
858.17	0.000	(5)>1.672	1.672
858.24	0.000	(5)>1.695	1.695
858.31	0.000	(5)>1.717	1.717
858.38	0.000	(5)>1.740	1.740
858.45	0.000	(5)>1.763	1.763
858.52	0.000	(5)>1.786	1.786

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
858.59	0.000	(5)>1.808	1.808
858.66	0.000	(5)>1.831	1.831
858.73	0.000	(6)>1.854	1.854
858.80	0.000	(6)>1.876	1.876
858.87	0.000	(6)>1.899	1.899
858.94	0.000	(6)>1.922	1.922
859.00	0.000	(6)>1.941	1.941
859.01	0.000	(6)>1.945	1.945
859.08	0.000	(6)>1.967	1.967
859.15	0.000	(6)>1.990	1.990
859.22	0.000	(6)>2.013	2.013
859.29	0.000	(6)>2.035	2.035
859.36	0.000	(6)>2.058	2.058
859.43	0.000	(6)>2.081	2.081
859.50	0.000	(6)>2.103	2.103
859.57	0.000	(6)>2.119	2.119
859.64	0.000	(6)>2.136	2.136
859.71	0.000	(6)>2.152	2.152
859.78	0.000	(6)>2.169	2.169
859.85	0.000	(6)>2.186	2.186
859.92	0.000	(6)>2.202	2.202
859.99	0.000	(6)>2.219	2.219
860.00	0.000	(6)>2.221	2.221
860.06	0.000	(6)>2.236	2.236
860.13	0.000	(6)>2.252	2.252
860.20	0.000	(6)>2.269	2.269
860.27	0.000	(6)>2.285	2.285
860.34	0.000	(6)>2.302	2.302
860.41	0.000	(6)>2.319	2.319
860.48	0.000	(6)>2.335	2.335
860.55	0.000	(6)>2.352	2.352
860.62	0.000	(6)>2.368	2.368
860.69	0.000	(6)>2.385	2.385
860.76	0.000	(6)>2.402	2.402
860.83	0.000	(6)>2.418	2.418
860.90	0.000	(6)>2.435	2.435
860.97	0.000	(6)>2.452	2.452
861.00	0.000	(6)>2.459	2.459
861.04	0.000	(6)>2.468	2.468
861.11	0.000	(6)>2.485	2.485
861.18	0.000	(6)>2.501	2.501

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
861.25	0.000	(6)>2.518	2.518
861.32	0.000	(6)>2.535	2.535
861.39	0.000	(6)>2.551	2.551
861.46	0.000	(6)>2.568	2.568
861.50	0.000	(6)>2.577	2.577
861.53	0.203	(6)>2.585	2.787
861.60	1.231	(6)>2.601	3.832
861.67	2.730	(6)>2.615	5.345
861.74	4.580	(6)>2.628	7.208
861.81	6.724	(6)>2.642	9.366
861.88	9.125	(6)>2.656	11.781
861.95	11.760	(6)>2.669	14.429
862.00	13.773	(6)>2.679	16.452
862.02	14.608	(6)>2.683	17.291
862.09	17.655	(6)>2.697	20.352
862.16	20.886	(6)>2.711	23.597
862.23	24.296	(6)>2.724	27.020
862.30	27.874	(6)>2.738	30.612
862.37	31.612	(6)>2.752	34.363
862.44	35.503	(6)>2.765	38.268
862.51	39.542	(6)>2.779	42.321
862.58	43.724	(6)>2.793	46.517
862.65	48.043	(6)>2.806	50.850
862.72	52.492	(6)>2.820	55.312
862.79	57.075	(6)>2.834	59.909
862.86	61.784	(6)>2.848	64.631
862.93	66.615	(6)>2.861	69.476
863.00	70.300	(6)>2.875	73.175
863.07	70.563	(6)>2.889	73.451
863.14	70.824	(6)>2.902	73.726
863.21	71.084	(6)>2.916	74.000
863.28	71.343	(6)>2.930	74.273
863.35	71.601	(6)>2.943	74.545
863.42	71.859	(6)>2.957	74.816
863.49	72.115	(6)>2.971	75.086
863.56	72.371	(6)>2.985	75.355
863.63	72.626	(6)>2.998	75.624
863.70	72.879	(6)>3.012	75.891
863.77	73.132	(6)>3.026	76.158
863.84	73.384	(6)>3.039	76.424
863.91	73.635	(6)>3.053	76.688

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
863.98	73.886	(6)>3.067	76.952
864.00	73.957	(6)>3.071	77.028
864.05	74.135	(6)>3.081	77.215
864.12	74.384	(6)>3.094	77.478
864.19	74.631	(6)>3.107	77.738
864.26	74.878	(6)>3.118	77.997
864.33	75.125	(6)>3.130	78.255
864.40	75.370	(6)>3.142	78.512
864.47	75.614	(6)>3.153	78.768
864.54	75.858	(6)>3.165	79.023
864.61	76.101	(6)>3.177	79.278
864.68	76.343	(6)>3.188	79.532
864.75	76.585	(6)>3.200	79.785
864.82	76.826	(6)>3.212	80.037
864.89	77.065	(6)>3.223	80.289
864.96	77.305	(6)>3.235	80.540
865.00	77.441	(6)>3.242	80.683

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	4.470	0.140	0.000	0.000	61.000	M	2.54	0.099
	2	0.790	0.140	0.000	0.000	74.000	M	1.14	0.045
	3	6.240	0.140	0.000	0.000	98.000	M	22.47	1.128
	Σ	11.500						25.57	1.272

Enova Premier **2019 Expansion**

EXISTING CONDITIONS

John W. Hunt, PE, PLS

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General Information

Storm Information:

Storm Type:	NRCS Type II
Design Storm:	100 yr - 24 hr
Rainfall Depth:	6.810 inches

Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	End	0.000	0.000	Basin Watershed

#1 Pond

Structure Summary:

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1	In	11.500	11.500	35.07	3.76
	Out			24.99	3.76

Structure Detail:

Structure #1 (Pond)

Basin Watershed

Pond Inputs:

Initial Pool Elev:	856.08 ft
Initial Pool:	0.00 ac-ft

Drop Inlet

Riser Diameter (in)	Riser Height (ft)	Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)
48.00	6.83	30.00	47.90	2.17	0.0130	861.50

Straight Pipe

Barrel Diameter (in)	Barrel Length (ft)	Barrel Slope (%)	Manning's n	Spillway Elev (ft)	Entrance Loss Coefficient	Tailwater Depth (ft)
7.00	47.90	2.17	0.0120	856.08	0.50	0.00

Pond Results:

Peak Elevation:	862.19 ft
Dewater Time:	0.52 days

Dewatering time is calculated from peak stage to lowest spillway

Elevation-Capacity-Discharge Table

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.07	0.000	0.000	0.000	
856.08	0.000	0.000	0.000	Spillway #2
856.10	0.000	0.000	0.011	
856.14	0.000	0.000	0.032	0.15
856.21	0.001	0.000	0.069	0.15
856.28	0.001	0.000	0.113	0.10
856.35	0.001	0.000	0.194	0.10
856.42	0.002	0.000	0.274	
856.49	0.003	0.000	0.355	0.05
856.56	0.003	0.001	0.436	
856.63	0.004	0.001	0.516	0.05

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
856.70	0.005	0.001	0.597	
856.77	0.006	0.002	0.670	0.10
856.84	0.007	0.002	0.743	1.50
856.91	0.008	0.003	0.815	0.05
856.98	0.010	0.003	0.888	0.05
857.00	0.010	0.004	0.909	
857.05	0.011	0.004	0.961	
857.12	0.014	0.005	1.033	0.05
857.19	0.016	0.006	1.104	0.05
857.26	0.019	0.007	1.150	
857.33	0.022	0.009	1.195	0.05
857.40	0.025	0.010	1.241	0.05
857.47	0.028	0.012	1.287	0.05
857.54	0.032	0.014	1.333	
857.61	0.035	0.017	1.379	0.05
857.68	0.039	0.019	1.425	0.05
857.75	0.043	0.022	1.470	0.05
857.82	0.047	0.025	1.516	0.05
857.89	0.052	0.029	1.562	0.05
857.96	0.057	0.032	1.604	0.05
858.00	0.059	0.035	1.617	0.05
858.03	0.061	0.037	1.627	
858.10	0.065	0.041	1.649	0.05
858.17	0.070	0.046	1.672	0.05
858.24	0.074	0.051	1.695	0.05
858.31	0.079	0.056	1.717	0.10
858.38	0.084	0.062	1.740	0.05
858.45	0.089	0.068	1.763	0.05
858.52	0.094	0.074	1.786	0.10
858.59	0.099	0.081	1.808	0.05
858.66	0.105	0.088	1.831	0.10
858.73	0.110	0.096	1.854	0.05
858.80	0.116	0.104	1.876	0.10
858.87	0.122	0.112	1.899	0.10
858.94	0.128	0.121	1.922	0.05
859.00	0.133	0.129	1.941	0.10
859.01	0.134	0.130	1.945	
859.08	0.140	0.139	1.967	0.10
859.15	0.147	0.150	1.990	0.10
859.22	0.154	0.160	2.013	0.10
859.29	0.161	0.171	2.035	0.10
859.36	0.168	0.183	2.058	0.10
859.43	0.176	0.195	2.081	0.10

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)	
859.50	0.183	0.207	2.103	0.10	
859.57	0.191	0.220	2.119	0.10	
859.64	0.198	0.234	2.136	0.15	
859.71	0.206	0.248	2.152	0.10	
859.78	0.215	0.263	2.169	0.15	
859.85	0.223	0.278	2.186	0.15	
859.92	0.231	0.294	2.202	0.10	
859.99	0.240	0.310	2.219	0.15	
860.00	0.241	0.313	2.221	0.05	
860.06	0.246	0.328	2.236	0.10	
860.13	0.252	0.345	2.252	0.15	
860.20	0.259	0.363	2.269	0.15	
860.27	0.265	0.381	2.285	0.20	
860.34	0.272	0.400	2.302	0.15	
860.41	0.278	0.419	2.319	0.15	
860.48	0.285	0.439	2.335	0.20	
860.55	0.291	0.459	2.352	0.15	
860.62	0.298	0.480	2.368	0.20	
860.69	0.305	0.501	2.385	0.20	
860.76	0.312	0.522	2.402	0.20	
860.83	0.319	0.544	2.418	0.20	
860.90	0.326	0.567	2.435	0.25	
860.97	0.333	0.590	2.452	0.20	
861.00	0.336	0.600	2.459	0.10	
861.04	0.339	0.614	2.468	0.15	
861.11	0.345	0.638	2.485	0.25	
861.18	0.351	0.662	2.501	0.25	
861.25	0.357	0.687	2.518	0.30	
861.32	0.363	0.712	2.535	0.30	
861.39	0.369	0.737	2.551	0.35	
861.46	0.375	0.763	2.568	0.45	
861.50	0.378	0.779	2.577	0.30	Spillway #1
861.53	0.381	0.790	2.787	0.30	
861.60	0.387	0.817	3.832	0.60	
861.67	0.393	0.844	5.345	0.35	
861.74	0.399	0.872	7.208	0.20	
861.81	0.406	0.900	9.366	0.10	
861.88	0.412	0.929	11.781	0.15	
861.95	0.418	0.958	14.429	0.15	
862.00	0.423	0.979	16.452	0.05	
862.02	0.425	0.987	17.291		
862.09	0.433	1.017	20.352	0.05	
862.16	0.440	1.048	23.597		

Elevation	Area (ac)	Capacity (ac-ft)	Discharge (cfs)	Dewater Time (hrs)
862.19	0.444	1.060	24.987	0.10 Peak Stage
862.23	0.448	1.079	27.020	
862.30	0.456	1.111	30.612	
862.37	0.464	1.143	34.363	
862.44	0.472	1.176	38.268	
862.51	0.480	1.209	42.321	
862.58	0.488	1.243	46.517	
862.65	0.496	1.277	50.850	
862.72	0.504	1.312	55.312	
862.79	0.513	1.348	59.909	
862.86	0.521	1.384	64.631	
862.93	0.530	1.421	69.476	
863.00	0.538	1.458	73.175	
863.07	0.545	1.496	73.451	
863.14	0.552	1.534	73.726	
863.21	0.559	1.573	74.000	
863.28	0.566	1.613	74.273	
863.35	0.573	1.653	74.545	
863.42	0.581	1.693	74.816	
863.49	0.588	1.734	75.086	
863.56	0.595	1.775	75.355	
863.63	0.602	1.817	75.624	
863.70	0.610	1.860	75.891	
863.77	0.617	1.903	76.158	
863.84	0.625	1.946	76.424	
863.91	0.632	1.990	76.688	
863.98	0.640	2.035	76.952	
864.00	0.642	2.047	77.028	
864.05	0.647	2.080	77.215	
864.12	0.654	2.125	77.478	
864.19	0.661	2.171	77.738	
864.26	0.668	2.218	77.997	
864.33	0.675	2.265	78.255	
864.40	0.682	2.312	78.512	
864.47	0.689	2.360	78.768	
864.54	0.696	2.409	79.023	
864.61	0.703	2.458	79.278	
864.68	0.711	2.507	79.532	
864.75	0.718	2.557	79.785	
864.82	0.725	2.608	80.037	
864.89	0.732	2.659	80.289	
864.96	0.740	2.710	80.540	
865.00	0.744	2.740	80.683	

Detailed Discharge Table

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
856.07	0.000	0.000	0.000
856.08	0.000	0.000	0.000
856.10	0.000	0.011	0.011
856.14	0.000	(1)>0.032	0.032
856.21	0.000	(2)>0.069	0.069
856.28	0.000	(3)>0.113	0.113
856.35	0.000	(3)>0.194	0.194
856.42	0.000	(3)>0.274	0.274
856.49	0.000	(3)>0.355	0.355
856.56	0.000	(3)>0.436	0.436
856.63	0.000	(3)>0.516	0.516
856.70	0.000	(3)>0.597	0.597
856.77	0.000	(3)>0.670	0.670
856.84	0.000	(4)>0.743	0.743
856.91	0.000	(4)>0.815	0.815
856.98	0.000	(4)>0.888	0.888
857.00	0.000	(4)>0.909	0.909
857.05	0.000	(4)>0.961	0.961
857.12	0.000	(5)>1.033	1.033
857.19	0.000	(5)>1.104	1.104
857.26	0.000	(5)>1.150	1.150
857.33	0.000	(5)>1.195	1.195
857.40	0.000	(5)>1.241	1.241
857.47	0.000	(5)>1.287	1.287
857.54	0.000	(5)>1.333	1.333
857.61	0.000	(5)>1.379	1.379
857.68	0.000	(5)>1.425	1.425
857.75	0.000	(5)>1.470	1.470
857.82	0.000	(5)>1.516	1.516
857.89	0.000	(5)>1.562	1.562
857.96	0.000	(5)>1.604	1.604
858.00	0.000	(5)>1.617	1.617
858.03	0.000	(5)>1.627	1.627
858.10	0.000	(5)>1.649	1.649
858.17	0.000	(5)>1.672	1.672
858.24	0.000	(5)>1.695	1.695
858.31	0.000	(5)>1.717	1.717
858.38	0.000	(5)>1.740	1.740
858.45	0.000	(5)>1.763	1.763
858.52	0.000	(5)>1.786	1.786

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
858.59	0.000	(5)>1.808	1.808
858.66	0.000	(5)>1.831	1.831
858.73	0.000	(6)>1.854	1.854
858.80	0.000	(6)>1.876	1.876
858.87	0.000	(6)>1.899	1.899
858.94	0.000	(6)>1.922	1.922
859.00	0.000	(6)>1.941	1.941
859.01	0.000	(6)>1.945	1.945
859.08	0.000	(6)>1.967	1.967
859.15	0.000	(6)>1.990	1.990
859.22	0.000	(6)>2.013	2.013
859.29	0.000	(6)>2.035	2.035
859.36	0.000	(6)>2.058	2.058
859.43	0.000	(6)>2.081	2.081
859.50	0.000	(6)>2.103	2.103
859.57	0.000	(6)>2.119	2.119
859.64	0.000	(6)>2.136	2.136
859.71	0.000	(6)>2.152	2.152
859.78	0.000	(6)>2.169	2.169
859.85	0.000	(6)>2.186	2.186
859.92	0.000	(6)>2.202	2.202
859.99	0.000	(6)>2.219	2.219
860.00	0.000	(6)>2.221	2.221
860.06	0.000	(6)>2.236	2.236
860.13	0.000	(6)>2.252	2.252
860.20	0.000	(6)>2.269	2.269
860.27	0.000	(6)>2.285	2.285
860.34	0.000	(6)>2.302	2.302
860.41	0.000	(6)>2.319	2.319
860.48	0.000	(6)>2.335	2.335
860.55	0.000	(6)>2.352	2.352
860.62	0.000	(6)>2.368	2.368
860.69	0.000	(6)>2.385	2.385
860.76	0.000	(6)>2.402	2.402
860.83	0.000	(6)>2.418	2.418
860.90	0.000	(6)>2.435	2.435
860.97	0.000	(6)>2.452	2.452
861.00	0.000	(6)>2.459	2.459
861.04	0.000	(6)>2.468	2.468
861.11	0.000	(6)>2.485	2.485
861.18	0.000	(6)>2.501	2.501

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
861.25	0.000	(6)>2.518	2.518
861.32	0.000	(6)>2.535	2.535
861.39	0.000	(6)>2.551	2.551
861.46	0.000	(6)>2.568	2.568
861.50	0.000	(6)>2.577	2.577
861.53	0.203	(6)>2.585	2.787
861.60	1.231	(6)>2.601	3.832
861.67	2.730	(6)>2.615	5.345
861.74	4.580	(6)>2.628	7.208
861.81	6.724	(6)>2.642	9.366
861.88	9.125	(6)>2.656	11.781
861.95	11.760	(6)>2.669	14.429
862.00	13.773	(6)>2.679	16.452
862.02	14.608	(6)>2.683	17.291
862.09	17.655	(6)>2.697	20.352
862.16	20.886	(6)>2.711	23.597
862.23	24.296	(6)>2.724	27.020
862.30	27.874	(6)>2.738	30.612
862.37	31.612	(6)>2.752	34.363
862.44	35.503	(6)>2.765	38.268
862.51	39.542	(6)>2.779	42.321
862.58	43.724	(6)>2.793	46.517
862.65	48.043	(6)>2.806	50.850
862.72	52.492	(6)>2.820	55.312
862.79	57.075	(6)>2.834	59.909
862.86	61.784	(6)>2.848	64.631
862.93	66.615	(6)>2.861	69.476
863.00	70.300	(6)>2.875	73.175
863.07	70.563	(6)>2.889	73.451
863.14	70.824	(6)>2.902	73.726
863.21	71.084	(6)>2.916	74.000
863.28	71.343	(6)>2.930	74.273
863.35	71.601	(6)>2.943	74.545
863.42	71.859	(6)>2.957	74.816
863.49	72.115	(6)>2.971	75.086
863.56	72.371	(6)>2.985	75.355
863.63	72.626	(6)>2.998	75.624
863.70	72.879	(6)>3.012	75.891
863.77	73.132	(6)>3.026	76.158
863.84	73.384	(6)>3.039	76.424
863.91	73.635	(6)>3.053	76.688

Elevation (ft)	Drop Inlet (cfs)	Straight Pipe (cfs)	Combined Total Discharge (cfs)
863.98	73.886	(6)>3.067	76.952
864.00	73.957	(6)>3.071	77.028
864.05	74.135	(6)>3.081	77.215
864.12	74.384	(6)>3.094	77.478
864.19	74.631	(6)>3.107	77.738
864.26	74.878	(6)>3.118	77.997
864.33	75.125	(6)>3.130	78.255
864.40	75.370	(6)>3.142	78.512
864.47	75.614	(6)>3.153	78.768
864.54	75.858	(6)>3.165	79.023
864.61	76.101	(6)>3.177	79.278
864.68	76.343	(6)>3.188	79.532
864.75	76.585	(6)>3.200	79.785
864.82	76.826	(6)>3.212	80.037
864.89	77.065	(6)>3.223	80.289
864.96	77.305	(6)>3.235	80.540
865.00	77.441	(6)>3.242	80.683

Subwatershed Hydrology Detail:

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	4.470	0.140	0.000	0.000	61.000	M	8.27	0.777
	2	0.790	0.140	0.000	0.000	74.000	M	2.18	0.207
	3	6.240	0.140	0.000	0.000	98.000	M	24.77	2.777
	Σ	11.500						35.07	3.760