Tables

TABLE 1

Sippo Creek Flood WSE HydroCAD vs. HEC-RAS Comparison Matrix											
		HEC-RAS					HydroCAD				
	Return Period	100-yr	500-year	Overtopping test	0.5% PMF	PMF	100-yr	500-year	Overtopping test	0.5% PMF	PMF
XS Location	Discharge	1,980 cfs	2,650 cfs	4,188 cfs	11,457 cfs	31,970 cfs	1,982 cfs	2,650 cfs	4,188 cfs	11,457 cfs	31,970 cfs
Sippo Creek Reservoir Dam	HEC-RAS River XS Station 6933.617	1006.71	1007.61	1010.26	1015.29	1020.48	1006.27	1006.86	1009.11	1012.56	1017.39
Lincoln Way (SR 172)	HEC-RAS River XS Station 5409.418	996.13	1006.52	1008.72	1013.89	1018.24	992.66	997.51	1008.54	1011.38	1014.62
	Elevation Difference (ft)	10.58	1.09	1.54	1.40	2.24	13.61	9.35	0.57	1.18	2.77

Notes:

1. FEMA 100-yr flood discharge = 1,980 cfs
2. FEMA 500-yr flood discharge = 2,650 cfs
3. PMF and 50% PMF discharges taken from URS existing conditions HydroCAD model
4. Top of Sippo Creek Reservoir Dam at elevation 1004.2 and spillway at elevation 1001.64 determined from survey (NAVD88)
5. Top of Lincoln Way roadway estimated at elevation 1008.0 (from Summit Co. Engineer topo - NAVD88)
6. Overtopping test discharge estimated to have minimum of 0.5 feet overtopping over Lincoln Way embankment
7. All discharges are those entering Sippo Creek Reservoir Dam

TABLE 2

Flood Discharge vs. Headwater/Tailwater Comparison Table

Return Period	Flood Discharge (cfs)	Duration (hr) / Rainfall Depth (in)	Distribution	Sippo Reservoir Dam		
				Headwater (ft)	Tailwater (ft)	Δ (ft)
Q100	1,980	24 / 5.22	Type II	1006.27	992.66	13.61
Q500	2,650	24 / 6.08	Type II	1006.86	997.51	9.35
0.2 PMF	2,672	6 / 5.24	TR-60	1006.87	997.40	9.47
0.21 PMF	2,906	6 / 5.5	TR-60	1007.05	999.48	7.57
0.22 PMF	3,143	6 / 5.76	TR-60	1007.21	1001.65	5.56
0.23 PMF	3,396	6 / 6.04	TR-60	1007.39	1003.81	3.58
0.24 PMF	3,640	6 / 6.29	TR-60	1007.72	1005.75	1.97
0.25 PMF	3,881	6 / 6.54	TR-60	1008.28	1007.35	0.93
0.4 PMF	8,226	6 / 10.48	TR-60	1011.43	1010.54	0.89
0.5 PMF	11,457	6 / 13.08	TR-60	1012.56	1011.38	1.18
PMF	23,172	24 / 32.00	TR-60	1015.62	1013.48	2.14
PMF	31,970	6 / 26.15	TR-60	1017.40	1014.63	2.77

Notes:

1. FEMA 100-yr flood discharge = 1,980 cfs
2. FEMA 500-yr flood discharge = 2,650 cfs
3. PMF and percentages of PMF discharges taken from URS existing conditions HydroCAD model
4. Top of Sippo Creek Reservoir Dam at elevation 1004.2 and spillway at elevation 1001.64 determined from survey (NAVD88)
5. Top of Lincoln Way roadway estimated at elevation 1008.0 (from Summit Co. Engineer topo - NAVD88)

TABLE 3

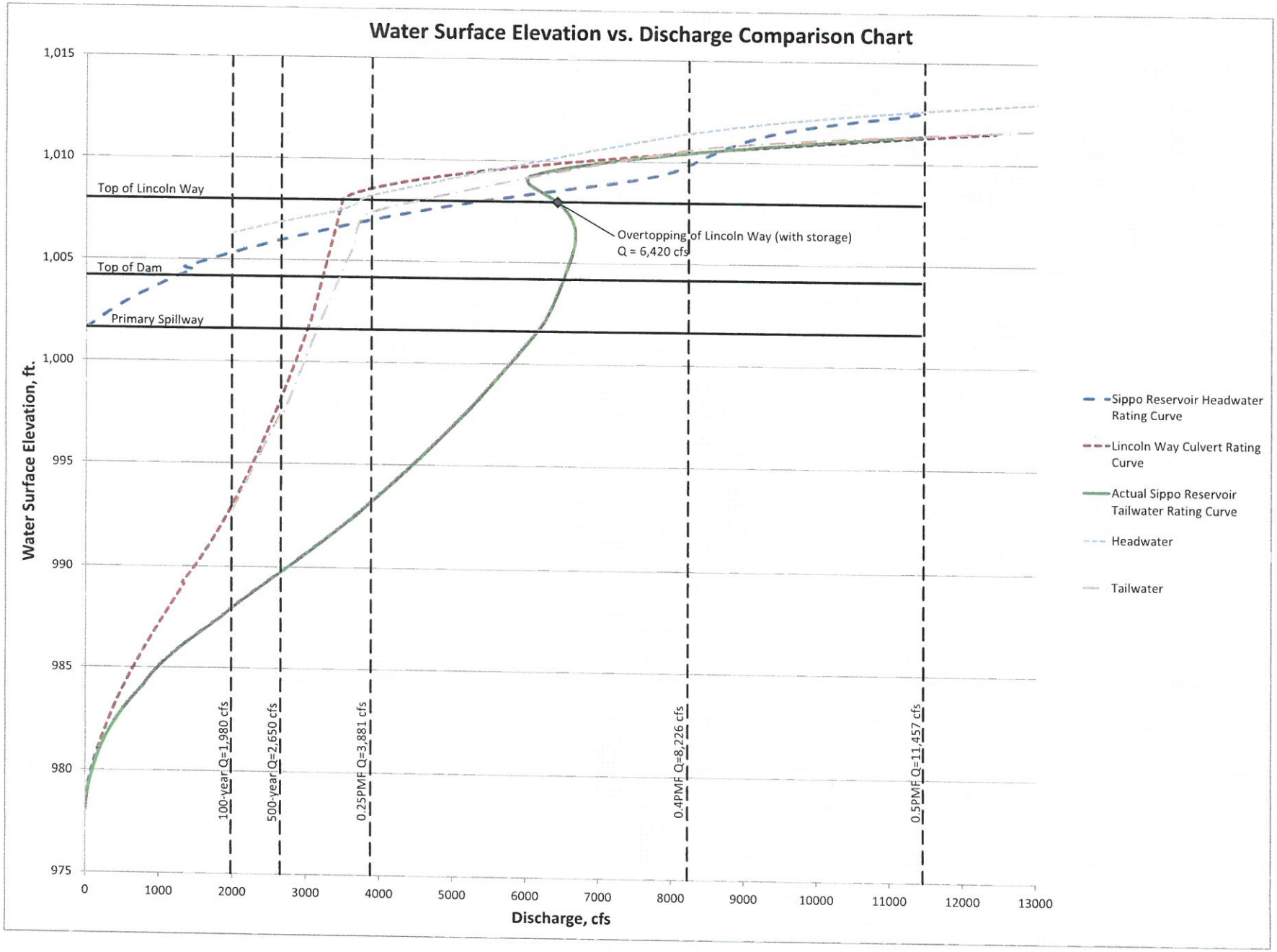
Dam Failure Flood Discharge Analysis Table

Return Period	Sippo Reservoir Dam				Lincoln Way Embankment					
	Flood Discharge Inflow (cfs)	Dam Failure Additional Discharge (cfs)	Total Flood Discharge Outflow From Dam Fialure (cfs)	Starting Reservoir WSE (ft)	Starting North Sippo Park WSE (ft)	Ending North Sippo Park WSE (ft)	Δ (ft) Water Surface Elevation Due to Dam Failure	Discharge Downstream of Embankment (cfs)	Δ (cfs) Dam Failure Attenuation Due to Culvert	Actual Increase in Flow Downstream at Critical Houses Due to Dam Failure
Sunny Day	0	3,500	3,500	1001.64	980	988.87	8.87	1,289	2,211	1,289
Q100	1,980	4,400	6,380	1006.27	992.66	999.04	6.38	2,643	3,737	663
Q500	2,650	2,820	5,470	1006.86	997.51	1002.48	4.97	2,924	2,546	274
0.22 PMF	3,143	1,820	4,963	1007.21	1001.65	1005.40	3.75	3,116	1,847	-27
0.24 PMF	3,640	412	4,052	1007.72	1005.75	1007.28	1.53	3,350	702	-290
0.25 PMF	3,881	115	3,996	1008.28	1007.35	1008.23	0.88	3,400	596	-481
0.5 PMF	11,457	303	11,760	1012.56	1011.38	1011.45	0.07	11,760	0	303
PMF	23,172	1,350	24,522	1015.62	1013.48	1013.65	0.17	24,522	0	1,350

Notes:
1. FEMA 100-yr flood discharge = 1,980 cfs
2. FEMA 500-yr flood discharge = 2,650 cfs
3. PMF and percentages of PMF discharges taken from URS existing conditions HydroCAD model
4. Top of Sippo Creek Reservoir Dam at elevation 1004.2 and spillway at elevation 1001.64 determined from survey (NAVD88)
5. Top of Lincoln Way roadway estimated at elevation 1008.0 (from Summit Co. Engineer topo - NAVD88)

Charts

CHART 1



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