

TABLE A 1.1
SUMMARY OF EXISTING CONDITIONS STREET PONDING AND MAN-HOLE FLOODING

Note- negative numbers imply that the HGL did not reach the manhole rim

Represents flooding depth over 1 ft

Represents flooding depth between 0.5ft - 0.99 ft

Represents flooding depth between 0 - 0.5 ft

Represents nodes that may go under pressure

INPUT DATA								
MH Name	Manhole Invert Elev.	Max. Depth of Manhole	Manhole Rim Elev.	Maximum HGL	Node Flood Depth Above Manhole Rim	Flood Volume	Flood Volume	Hours Flooded
	(ft)	(ft)	(ft)	(ft)	(ft)	(10 ⁶ gal)	(acre-ft)	
	(a)	(a)	(b)	(c)	(d)	(e)	(f)	
COA6045	4957.51	7.82	4965.33	4965.42	0.09	0.419	1.286	5.12
COA15184	4954.19	10.04	4964.23	4964.79	0.56	1.108	3.400	6.05
COA6218	4953.66	9.34	4963	4963.47	0.47	0.806	2.474	6.32
COA6195	4962.97	6.74	4969.71	4970.07	0.36	0.219	0.672	1.27
COA7635	4957.34	7.29	4964.63	4966.13	1.5	0.334	1.025	1.86
COA7650	4954.93	8.35	4963.28	4963.4	0.12	0.027	0.083	0.69
COA29132	4960.03	14.23	4974.26	4974.65	0.39	0.059	0.181	0.66
COA19719	4952.3	9.98	4962.28	4963.08	0.8	1.154	3.541	6.39
COA7654	4951.67	8.59	4960.26	4960.93	0.67	1.045	3.207	6.5
COA7714	4950.14	7.86	4958	4958.93	0.93	1.474	4.524	6.5
COA25349	4945.26	11.07	4956.33	4956.45	0.12	0.08	0.246	0.19
COA25656	4948.86	10.32	4959.18	4959.33	0.15	0.226	0.694	1.81
COA25622	4948.24	9.58	4957.82	4957.84	0.02	0.061	0.187	0.84
COA7444	4952.87	7.72	4960.59	4961.04	0.45	1.055	3.238	14.65
COA7476	4950.32	7.85	4958.17	4959.01	0.84	1.15	3.529	16.12
COA7518	4947.94	8.89	4956.83	4957.5	0.67	0.917	2.814	15.2
COA24834	4944.52	7.06	4951.58	4951.67	0.09	0.415	1.274	3.57
COA25105	4946.31	10.2	4956.51	4956.52	0.01	0.028	0.086	0.31
COA7815	4943.48	13.4	4956.88	4956.89	0.01	0.14	0.430	0.25
COA7740	4949.69	8.25	4957.94	4958.16	0.22	0.154	0.473	1.57
COA7830	4944.87	12	4956.87	4956.9	0.03	0.043	0.132	0.12
COA7865	4946.34	10.46	4956.8	4956.83	0.03	0.032	0.098	0.13
COA7908	4946.15	10	4956.15	4956.2	0.05	0.012	0.037	0.02
COA7912	4945.61	10.68	4956.29	4956.3	0.01	0.002	0.006	0.01
COA7955	4943.49	12	4955.49	4955.57	0.08	0.042	0.129	0.16
COA22517	4943.59	11	4954.59	4954.65	0.06	0.093	0.285	0.41
COA7766JB	4943.95	12.33	4956.28	4956.66	0.38		0.000	
COA7769JB	4944.52	11.81	4956.33	4956.53	0.2		0.000	
COA32878	4946.6	9.16	4955.76	4959.63	3.87	0	0.000	0.01
COA7848	4947.67	8.71	4956.38	4957.34	0.96	0.002	0.006	0.02
COA7816	4944.19	13.17	4957.36	4957.37	0.01	0.162	0.497	0.54
COA9348	4939.63	11.79	4951.42	4951.43	0.01	0.027	0.083	0.11
COA13866	4935.36	12.08	4947.44	4947.45	0.01	0.013	0.040	0.03
COA24916	4938.25	10.36	4948.61	4948.62	0.01	0.009	0.028	0.04
COA9248	4947.65	10.07	4957.72	4957.74	0.02	0.004	0.012	0.04
COA7963.11A	4951.67	9.48	4961.15	4961.35	0.2	0.002	0.006	0.01
COA7963.T	4932.21	9.25	4941.46	4941.47	0.01		0.000	
COA32878.A	4947.19	8.39	4955.58	4957.37	1.79		0.000	
COA32878.B	4946.27	9.58	4955.85	4956.68	0.83		0.000	
COA22169	4939.35	6.75	4946.1	4946.83	0.73	0.638	1.958	3.96
COA22127	4937.86	7.66	4945.52	4945.59	0.07	0.114	0.350	1.88
COA9229	4913.15	27	4940.15	4940.45	0.3	0.025	0.077	0.52

Notes:

(a) Manhole Invert elevation from SWMM Input under Node Summary Table

(a) Depth of manhole from SWMM Input under Node Summary Table

(b) Rim elevation = MH invert elevation + Max depth of manhole

(c) Max HGL from SWMM output table under Node Depth Summary

(d) Node Flood Depth above Manhole Rim = HGL Elev-Rim Elev

(e) Flood volume from SWMM output table under Node Flooding Summary

(f) 1 gallon = 3.06888 E-6 acre-ft

TABLE A 1.2
ADDENDUM 1 EX DETENTION POND ROUTING SUMMARY TABLE

Detention Pond Name	Existing or Proposed Pond (detention or retention)	Model Analysis Point Name	Storm Return Period (100- yr. 24-hr. duration)	Peak Inflow	Peak Outflow	Peak Storage Volume	Peak Storage Volume	Peak Water Surface Elevation	Principal Spillway Elevation	Emergency Spillway Elevation	Pond Invert Elevation	Water Depth	Top of Pond Embankme nt Elevation	Freeboard to Emergency Spillway Elevation	Freeboard to top of Pond Embankmen t
a	a	a		(cfs) b	(cfs) c	(ft ³) g	(ac-ft) c	(ft) d	(ft) e	(ft) e	(ft) e	(ft)	(ft) e	(ft) f	(ft) f
Air Quality Pond	Existing	Air Quality Pond	100	192	56	455073	10.447	4961.4	4952.26	4962.66	4952.26	9.2	4962.66	1.2	1.2
Broadway- Lomas Pond	Existing	Broadway / Lomas Pond	100	297	83	711244	16.328	4956.7	4946.66	4956.66	4946.66	10.1	4956.66	-0.1	-0.1
Tingley Surge Pond	Existing	Tingley Park Surge Pond	100	159	27	132528	3.042	4941.3	4932.21	4946.66	4941.66	-0.3	4946.66	5.3	5.3

a - See Drainage Basin Maps and Figure 4-1

b - See SWMM output for results "Node Inflow Summary" Table

c - Value calculated after unit conversion from SWMM output

d - See SWMM output for results "Node Depth Summary" Table

e - See Volume 3 Appendix 2.6 for Pond Routing Elev-Area-Capacity Discharge Data (Existing Conditions)

f - Negative number indicates the flow depth exceeds referenced elevation - no freeboard available

Routing summary data based on SWMM model E100

g - Value from SWMM output under Storage Volume Summary

TABLE A1.3

FEASIBILITY SUMMARY TO REMOVE FEMA FLOODPLAINS
Existing Conditions 100-year 24-hour storm

Floodplain covers Multiple Sub-catchments	Sub-catchments with FEMA Floodplains	Street Names	Floodplain Confined to Street (Y or N)	Number of Residences Adjacent to or Within the Floodplain	FEMA Floodzone Designation	MH Names (1, 2, 3, 4, 5) with Street Ponding. May not be in FEMA Floodplain	Mid-Valley Drainage Management Plan					Average of Ponding Depths per Sub-catchment	AVERAGE Ponding Depth in ALL Streets	Comment Regarding Potential Floodplain Removal
							MH 1	MH 2	MH 3	MH 4	MH 5			
Y or N							ft b	ft b	ft b	ft b	ft b	ft	ft	SEE FIGURE 4-1 (map pocket)
	a				a c	a								
	A1	Iron	Y	34	AO	COA24916, COA24902	0.01	0	-	-	-	0.01	-	
	A1	Stover	Y	10	AO	-	-	-	-	-	-	-	-	
	A1	13th	Y	19	AO	-	-	-	-	-	-	-	-	
	A1	12th	Y	14	AO	-	-	-	-	-	-	-	-	
	A1	11th	Y	17	AO	-	-	-	-	-	-	-	-	
YES.	A5	Lead	Y	31	AO	COA25034, COA9045	0	0	-	-	-	0.00	-	
See Figure 4-1 map pocket	B8	11th	Y	4	AO	COA9129, COA22410	0	0	-	-	-	0.00	-	
	B8	Stover	Y	5	AO	-	-	-	-	-	-	-	-	
	B21	Lead	Y	4	AO	COA24930	0	-	-	-	-	0.00	-	
	B21	Iron	Y	7	AO	-	-	-	-	-	-	-	-	
	B21	10th	Y	10	AO	-	-	-	-	-	-	-	-	
	B21	Coal	Y	4	AO	-	-	-	-	-	-	-	0	Floodplain Removal is Feasible with LOMR * Approval
			Total # of Lots	159										
	A3	Alcalde	Y	4	AO	COA24902A, COA9069, COA24997	0	0	0	-	-	0.00	-	
	A3	Raynolds	Y	6	AO	-	-	-	-	-	-	-	-	
	A3	San Carlos	Y	8	AO	-	-	-	-	-	-	-	-	
	A3	San Patricio	Y	13	AO	-	-	-	-	-	-	-	-	

TABLE A1.3

FEASIBILITY SUMMARY TO REMOVE FEMA FLOODPLAINS
Existing Conditions 100-year 24-hour storm

Mid-Valley Drainage Management Plan													
Floodplain covers Multiple Sub-catchments	Sub-catchments with FEMA Floodplains	Street Names	Floodplain Confined to Street (Y or N)	Number of Residences Adjacent to or Within the Floodplain	FEMA Floodzone Designation	MH Names (1, 2, 3, 4, 5) with Street Ponding, May not be in FEMA Floodplain	MH 1 ponding depth	MH 2 ponding depth	MH 3 ponding depth	MH 4 ponding depth	MH 5 ponding depth	Average of Ponding Depths per Sub-catchment	AVERAGE Ponding Depth in ALL Streets
Y or N							a	b	c	a	b	a	b
YES. See Figure 4-1 map pocket	A3	Los Alamos	Y	26	AO	-	-	-	-	-	-	-	-
	A3	San Cristobal	Y	3	AO	-	-	-	-	-	-	-	-
	A3	Park	Y	8	AO	-	-	-	-	-	-	-	-
	A5	Los Alamos	Y	4	AO	COA25034, COA9045	0	0	-	-	-	0.00	-
	A5	Park	Y	4	AO	-	-	-	-	-	-	-	-
	A5	15th	Y	2	AO	-	-	-	-	-	-	-	-
	A6	San Cristobal	Y	6	AO	COA8985	0	-	-	-	-	0.00	-
	A6	Los Alamos	Y	16	AO	-	-	-	-	-	-	-	-
	A6	Laguna	Y	2	AO	-	-	-	-	-	-	-	-
	A6	San Pasquale	Y	5	AO	-	-	-	-	-	-	-	-
Total # of Lots				107									
YES. See Figure 4-1 map pocket	A6	San Pasquale	Y	1	AO	COA8985	0	-	-	-	-	0.00	-
	A13	San Pasquale	Y	4	AO	COA24834	0.09	-	-	-	-	0.09	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.05
	Total # of Lots				5								
YES. See Figure 4-1 map pocket	A13	20th St. Non Residential	N	NA	AH	COA24834	0.09	-	-	-	-	0.09	-
	A23-C	Mountain Non Residential	N	NA	AH	-	0	-	-	-	-	-	-
	A-19-C	Mountain Non Residential	N	NA	AH	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.09
Floodplain Removal is Feasible with LOMR * Approval													

TABLE A1.3

FEASIBILITY SUMMARY TO REMOVE FEMA FLOODPLAINS
Existing Conditions 100-year 24-hour storm

Mid-Valley Drainage Management Plan														
Floodplain covers Multiple Sub-catchments	Sub-catchments with FEMA Floodplains	Street Names	Floodplain Confined to Street (Y or N)	Number of Residences Adjacent to or Within the Floodplain	FEMA Floodzone Designation	MH Names (1, 2, 3, 4, 5) with Street Ponding. May not be in FEMA Floodplain	MH 1 ponding depth	MH 2 ponding depth	MH 3 ponding depth	MH 4 ponding depth	MH 5 ponding depth	Average of Ponding Depths per Sub-catchment	AVERAGE Ponding Depth in ALL Streets	Comment Regarding Potential Floodplain Removal
Y or N							a	b	c	d	e	f	g	SEE FIGURE 4-1 (map pocket)
3	a				a c		b	b	b	b	b		h	
NO. See Figure FP2	A15	Rio Grande & Aspen Non Residential	N	NA	AH	COA 7444	0.45	-	-	-	-	0.45	0.45	Potential for floodplain removal is feasible with LOMR* Approval. NOTE - Manhole actually in sub-catchment A18, but is on the border with A15, and A15 was added to this manhole therefore this depth is good. However, low spot in Zearing road profile, needs more analyses at this location.
	A15	19th	N	5	AH	-	-	-	-	-	-	-	-	
	A15	20th	N	6	AH	-	-	-	-	-	-	-	-	
	A15	21st	N	6	AH	-	-	-	-	-	-	-	-	
	A15	22nd	N	2	AH	-	-	-	-	-	-	-	-	
			Total # of Lots	19										
YES. See Figure 4-1 map pocket	BR2	Broadway, Lomas Non Residential	Y	NA	AH	-	0	-	-	-	-	0.00	-	
	BR20	John Non Residential	Y	NA	AH	COA7648	0.96	-	-	-	-	0.96	-	
	BR19	Broadway Lomas Non Residential	Y	NA	AH	COA32878	3.67	-	-	-	-	3.67	-	
	BR5	Broadway Non Residential	Y	NA	AH	COA7766JB	0.38	-	-	-	-	0.38	-	
	BR3	Marble	N	12	AH	COA32865, COA32878.A, COA32878.B	0	1.79	0.83	-	-	0.87	-	
	BR3	Armo	Y	8	-	-	-	-	-	-	-	-	-	Floodplain Removal is NOT Feasible with LOMR Effort
			Total # of Lots	20									1.217	

TABLE A1.3 FEASIBILITY SUMMARY TO REMOVE FEMA FLOODPLAINS Existing Conditions 100-year 24-hour storm Mid-Valley Drainage Management Plan													
Floodplain covers Multiple Sub-catchments	Sub-catchments with FEMA Floodplains	Street Names	Floodplain Confined to Street (Y or N)	Number of Residences Adjacent to or Within the Floodplain	FEMA Floodzone Designation	MH Names (1, 2, 3, 4, 5) with Street Ponding. May not be in FEMA Floodplain	MH 1 ponding depth	MH 2 ponding depth	MH 3 ponding depth	MH 4 ponding depth	MH 5 ponding depth	Average of Ponding Depths per Sub-catchment	AVERAGE Ponding Depth in ALL Streets
Y or N							ft	ft	ft	ft	ft	ft	ft
	B				A C	A	b	b	b	b	b		
	B25	1st, Marquette, Roma : Non Residential	Y	NA	AO	COA9152, COA7865, COA7912, COA7908, COA7955	0	0.03	0.01	0.05	0.08	0.03	
	B27	1st, 2nd, 3rd, Lomas, Marble, Granite: Non Residential	Y	NA	AO	COA7740, COA7630	0.22	0.03	-	-	-	0.13	
	B30	1st, 2nd, 3rd, 4th, Rosmeont, Summer, Kinley: Non Residential	Y	NA	AO	COA7714	0.93	-	-	-	-	0.93	
	B31	1st, 2nd, 3rd, 4th, Constitution, Aspen, Hammet : Non Residential	Y	NA	AO	COA7654	0.67	-	-	-	-	0.67	
	B28	Bellamah	Y	16	AO	COA7616	0.01	-	-	-	-	0.01	
	B28	Constitution	Y	13	AO	-	-	-	-	-	-	-	
	B28	5th	Y	11	AO	-	-	-	-	-	-	-	
	B28	6th	Y	18	AO	-	-	-	-	-	-	-	
	B32	5th, 6th, Aspen Non Residential	Y	NA	AO	COA6259, COA7638, COA25807	0	0	0	-	-	0.00	
	B35	1st, 2nd, Haines, McKnight : Non Residential	Y	NA	AO	COA19719	0.8	-	-	-	-	0.80	
	B34	4th, McKnight Non Residential	Y	NA	AO	COA6045, COA15184, COA6218	0.09	0.56	0.47	-	-	0.37	
	B36	4th, Prospect Non Residential	Y	NA	AO	-	-	-	-	-	-	-	
	B40	2nd, Arvada: Non Residential	Y	NA	AO	-	-	-	-	-	-	-	
	-	-		-		-	-	-	-	-	-	-	Floodplain Removal is Feasible with LOMR * Approval
			Total # of Lots	58									0.37

YES. See Figure 4-1 map pocket

TABLE A1.3

FEASIBILITY SUMMARY TO REMOVE FEMA FLOODPLAINS
Existing Conditions 100-year 24-hour storm
Mid-Valley Drainage Management Plan

Floodplain covers Multiple Sub-catchments	Sub-catchments with FEMA Floodplains	Street Names	Floodplain Confined to Street (Y or N)	Number of Residences Adjacent to Floodplain	FEMA Floodzone Designation	MH Names (1, 2, 3, 4, 5) with Street Ponding. May not be in FEMA Floodplain	MH 1 ponding depth	MH 2 ponding depth	MH 3 ponding depth	MH 4 ponding depth	MH 5 ponding depth	Average of Ponding Depths per Sub-catchment	AVERAGE Ponding Depth in ALL Streets	Comment Regarding Potential Floodplain Removal
Y or N														SEE FIGURE 4-1 (map pocket)
	a				a c									
	BR9	BNSF RR :Non Residential	Y	NA	AO	COA7716, COA7717, COA7963.11A	0	0	0.02	-	-	0.01	-	COA7963.11A is located where there is NOT a FEMA floodplain
	BR14	BNSF RR :Non Residential	Y	NA	AO	COA7635, 7650	1.5	0.12	0	-	-	0.54	-	COA7635 is located where there is NOT a FEMA floodplain. Storm Drainage Improvements probably required to remove floodplains in the Commercial, Broadway, McKnight
YES. See Figure 4-1 map pocket	BR17	Indian School :Non Residential	Y	NA	AO	COA29132	0.39		-	-	-	0.39	-	COA29132 is near but not in a FEMA floodplain. Storm Drainage Improvements required to remove floodplain
	BR18	Commercial	Y	13	AO	COA6246, COA6195, COA29163	0	0.36	0	-	-	0.12	-	
	BR18	Arvada	Y	10	AO	-	-	-	-	-	-	-	0.26	AVERAGE is not valid in this case due to values greater than 1 foot - Floodplain Removal is NOT Feasible unless Storm Drainage Improvements are constructed
	BR18	Culter	Y	10	AO	-	-	-	-	-	-	-	-	
	BR18	Prospect	Y	8	AO	-	-	-	-	-	-	-	-	
		Total # of Lots		41										

a - See Figure 4-1 (map pocket) for Existing Conditions SWMM Modeling map for Floodplains and Subcatchments

b - Obtained from Addendum 1 - Existing Conditions 100-yr. 24-hour Storm SWMM Model Output Letter of Map Removal (LOMR)

c - Zone AO - Flood Depths of 1 to 3 feet (usually sheet flow on sloping terrain); Average Depth Determined.

c - Zone AH - Flood Depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations Determined. Determined from Flood Insurance Rate Maps - Effective Date, September 26, 2008.

TABLE A 1.4

OPTION 51 SUMMARY OF STREET PONDING AND MAN-HOLE FLOODING

Note- negative numbers imply that the HGL did not reach the manhole rim

Represents flooding depth over 1 ft

Represents flooding between 0.5ft - 0.99 ft

Represents flooding depth between 0 - 0.5 ft

INPUT DATA								
MH Name	Manhole Invert Elev.	Max. Depth of Manhole	Manhole Rim Elev.	Maximum HGL	Node Flood Depth Above Manhole Rim	Flood Volume	Flood Volume	Hours Flooded
	(ft)	(ft)	(ft)	(ft)	(ft)	(10 ⁶ gal)	(acre-ft)	
	(a)	(a)	(b)	(c)	(d)	(e)	(f)	
COA25349	4945.26	11.07	4956.33	4956.34	0.01	0.064	0.196	0.16
COA25656	4948.86	10.32	4959.18	4959.31	0.13	0.221	0.678	1.8
COA25622	4948.24	9.58	4957.82	4957.83	0.01	0.064	0.196	0.88
COA7476	4950.32	7.85	4958.17	4958.18	0.01	0.05	0.153	0.59
COA7518	4947.94	8.89	4956.83	4956.89	0.06	0.104	0.319	0.81
COA24834	4944.52	7.06	4951.58	4951.81	0.23	1.048	3.216	2.81
COA25105	4946.31	10.2	4956.51	4956.52	0.01	0.035	0.107	0.31
COA25109	4945.87	10.67	4956.54	4956.55	0.01	0.021	0.064	0.16
COA32878.A	4946.3	8.39	4954.69	4954.75	0.06	0.015	0.046	0.13
COA9229	4913.15	27	4940.15	4940.44	0.29	0.024	0.074	0.51
MH11	4949.35	12.65	4962	4962.02	0.02	0.002	0.006	0.12

(a) Manhole invert elevation from SWMM input under Node Summary Table
 (b) Rim elevation = MH invert elevation + Max depth of manhole
 (c) Max HGL from SWMM output table under Node Depth Summary
 (d) Node Flood Depth above Manhole Rim = HGL Elev-Rim Elev
 (e) Flood volume from SWMM output table under Node Flooding Summary
 (f) 1 gallon = 3.06888 E-6 acre-ft

TABLE A 1.5

OPTION 51 ROUTING SUMMARY

Detention Pond Name	Existing or Proposed Pond (detention or retention)	Model Analysis Point Name	Storm Return Period (100- yr. 24-hr. duration)	Peak Inflow (cfs)	Peak Outflow (cfs)	Peak Storage Volume (ft ³)	Peak Storage Volume (ac-ft)	Peak Water Surface Elevation (ft)	Principal Spillway Elevation (ft)	Emergency Spillway Elevation (ft)	Pond Invert Elevation (ft)	Water Depth (ft)	Top of Pond Embankment Elevation (ft)	Freeboard to Emergency Spillway Elevation (ft)	Freeboard to top of Pond Embankment (ft)
a	a	a		b	c	g	c	d	e	e	e	f	e	f	f
Air Quality Pond	EXISTING	Air Quality Pond	100.0	117	33.0	285639	6.6	4958.9	4952.3	4962.66	4952.3	6.6	4962.66	3.8	3.8
Tingley Surge Pond	EXISTING	Tingley Park Surge Pond	100	80	32	25134	0.577	4940.7	4932.21	4946.66	4941.66	-1.0	4946.66	6.0	6.0
BR21 Pond	CONCEPTUAL	BR21 Pond	100	64	10	93908	2.156	5068.5	5062	5076	5062	6.5	5076	5.5	7.5
Santa Barbara Pond	CONCEPTUAL	Santa Barbara Pond	100	133	31	260256	5.999	4963.0	4961	4972	4961	2.0	4972	7.0	9.0
Wells Park Pond	CONCEPTUAL	Wells Park Pond	100	122	37	570725	13.102	4958.3	4951	4960	4951	7.3	4960	1.7	1.7
McKnight Pond	CONCEPTUAL	McKnight Pond	100	164	42	409055	9.391	4960.6	4952	4962	4952	8.6	4962	1.4	1.4
Marble- Arno Pond	CONCEPTUAL	Broadway / Lomas Pond	100	285	50	596497	13.694	4955.7	4946	4958	4946	9.7	4958	2.3	2.3
Tijeras Pond	CONCEPTUAL	Broadway / Tijeras Pond	100	176	47	302449	6.943	4962.9	4950	4964	4950	12.9	4964	1.1	1.1

a - See Drainage Basin Maps and Figure 6-1

b - See SWMM output for results "Node Inflow Summary" Table

c - Value calculated after unit conversion from SWMM output

d - See SWMM output for results "Node Depth Summary" Table

e - See Volume 2 Appendix 1.2 for Pond Routing Elev-Area-Capacity Discharge Data

f - Negative number indicates the flow depth exceeds referenced elevation - no freeboard available

g - Value from SWMM output under Storage Volume Summary