Stantec

APPENDICES

2019 Sewer Master Plan Update

Prepared for San Bernardino Municipal Water Department

December 2019



APPENDIX A

CATCH BASIN MAPPING

OBJECTID_	Shape *	OBJECTID	CATCHBAS_	CATCHBAS_I	PubWorks_I	SHAPE_Leng	startx	starty	endy	end_x	CONFIRMED	*UNCONFIRMED*	MULTIPLE BASINS WITHIN VICINITY
												Coordinate is in the middle of the street. Two Basins directly across the street from each other. See column AB >>>	
1	Polyline	4	4	4	120031	14.001704	6755257	1893447	1893434	6755250			34.193620, -117.359882 34.193525, -117.359683
2	Polyline	5	5	5	12003030	11.999809	6755466	1893750	1893739	6755461	34.194435, -117.359110		34.194507, -117.359328
3	Polyline	63	63	60		4.00032	6761137	1877862	1877862	6761141	34.150630, -117.340673		
4	Polyline	77	77	74	320001	13.998233	6759403	1884897	1884908	6759394	34.170048, -117.346356		
												Coordinate is in the middle of alley. Three basins in vicinity. See column AB >>>	
5	Polyline	95	97	94	730013	13.999972	6763193	1856691	1856691	6763179			34.092426, -117.334703 34.092424, -117.333970 34.092427, -117.333858
6	Polyline	97	100	97	540006	10.000707	6764923	1869924	1869934	6764924	34.128786, -117.328377		
7	Polyline	98	101	98	540010	14.000148	6764831	1869911	1869909	6764845	34.128746, -117.328661		
8	Polyline	99	102	99	540009	10.39972	6764886	1869938	1869948	6764887	34.12883, -117.3285		
9	Polyline	108	111	107		20.999958	6764802	1856623	1856644	6764802	34.092287, -117.329100		34.092286, -117.329227
10	Polyline	109	112	108		21.000286	6764751	1856603	1856603	6764730	34.092225, -117.329341		
11	Polyline	110	113	109		27.999944	6764744	1856554	1856554	6764716	34.092070, -117.328994		
12	Polyline	114	117	113		27.999944	6764222	1856611	1856611	6764194	34.092247, -117.331215		
13	Polyline	115	118	114		27.999944	6764256	1856611	1856611	6764228	34.092244, -117.331113		
14	Polyline	116	119	115		27.999944	6764214	1856549	1856549	6764186	34.092075, -117.331233		
15	Polyline	117	120	116		27.999944	6764228	1856549	1856549	6764256	34.092070, -117.331082		
16	Polyline	122	0	0	430011	27.999944	6764092	1872743	1872771	6764092	34.136683, -117.331036		
17	Polyline	135	133	128	3300	6.001307	6763192	1884038	1884044	6763190	34.167638, -117.333752		34.167343, -117.333638 34.167200, -117.333633
												No Basin at coordinate. Two basins just west of coordinate. See column AB >>>	
18	Polyline	149	147	142		6.999986	6765426	1856559	1856559	6765419			34.092074, -117.327289 34.092223, -117.327252
19	Polyline	150	148	143		9.99998	6766070	1856572	1856572	6766060	34.092127, -117.325168		
20	Polyline	151	149	144		27.999944	6766059	1856606	1856606	6766031	34.092242, -117.325237		
21	Polyline	152	150	145		3.999992	6765449	1856609	1856609	6765445	34.092227, -117.327250		
22	Polyline	163	161	156	540002	10.000059	6765897	1869884	1869881	6765887	34.128689, -117.325234		
23	Polyline	164	162	157	540003	7.000713	6765847	1869808	1869810	6765853	34.128441, -117.325394		
24	Polyline	201	199	193	640015	13.999972	6767922	1864550	1864550	6767908	34.113988, -117.318695		34.114038, -117.318615 34.114032, -117.318467
25	Polyline	206	204	198	750042	6.999658	6769382	1856651	1856651	6769375	34.092241, -117.314049		
26	Polyline	209	207	201	750043	6.999986	6769392	1856666	1856673	6769392	34.092291, -117.313960		
27	Polyline	233	231	225	750030	13.999644	6771933	1856668	1856668	6771919	34.092253, -117.305572		
28	Polyline	234	232	226	750031	6.999986	6771260	1856702	1856709	6771260	34.092336, -117.307753		
29	Polyline	235	233	227	750032	14.0003	6771229	1856671	1856671	6771215	34.092249, -117.307845		
30	Polyline	236	234	228	750084	13.999972	6772765	1856674	1856674	6772751	34.092248, -117.302946		34.092281, -117.302537
31	Polyline	237	235	229	750078	14.0003	6772596	1856674	1856674	6772582	34.092252, -117.303506		
32	Polyline	238	236	230	750079	3.500321	6772526	1856601	1856601	6772522	34.092060, -117.303714		34.092322, -117.303275 34.092060, -117.303345
33	Polyline	241	239	233	750072	6.999658	6772615	1859180	1859187	6772615	34.098917, -117.303248		34.098915, -117.303055
34	Polyline	244	242	235	750069	6.999986	6772617	1859873	1859880	6772617	34.101048, -117.303257		
35	Polyline	259	257	250	750074	19.99996	6772615	1858221	1858201	6772615	34.096556, -117.303271		34.096616, -117.303041
36	Polyline	270	268	261		3.499993	6773282	1856606	1856606	6773279	34.091852, -117.301144		
37	Polyline	271	269	262		3.499993	6773340	1856677	1856677	6773336		*No Basin at coordinate.*	
38	Polyline	290	288	281		7.035677	6775658	1847081	1847085	6775664	34.065895, -117.293323		
39	Polyline	291	289	282		10.408003	6775697	1847025	1847029	6775707	34.065704, -117.293158		
40	Polyline	296	294	287		6.999986	6775362	1848914	1848921	6775362	34.070808, -117.294294		34.070779, -117.293703 34.070921, -117.293700

41	Polyline	297	295	288		6.999986	6775389	1851413	1851420	6775389	34.077661, -117.294039	
42	Polyline	298	296	289		6.499987	6775309	1851414	1851420	6775309	34.077667, -117.294292	
43	Polyline	309	307	300	760002	7.002283	6774361	1855551	1855558	6774361	34.089379, -117.297589	34.088756, -117.297641 34.088958, -117.297110
44	Polyline	312	310	303	760003	7.000314	6774412	1855551	1855558	6774412	34.089380, -117.297390	
45	Polyline	329	1257	1241	CL	3.999992	6777312	1883145	1883145	6777316	34.164815, -117.287115	34.165031, -117.286859 34.165015, -117.286323 34.165219, -117.287216
46	Polyline	344	311	304	760006	25.999948	6774064	1856691	1856691	6774038	34.092253, -117.298532	
47	Polyline	345	312	305	760007	25.999948	6774063	1856626	1856626	6774037	34.092062, -117.298606	
48	Polyline	354	321	314	760026	13.999972	6776715	1854611	1854625	6776715	34.086497, -117.289777	
49	Polyline	355	322	315	760027	7.000314	6776717	1854306	1854299	6776717	34.085635, -117.289783	34.085835, -117.289552 34.086127, -117.289417
50	Polyline	357	324	317	860002	20.99963	6776725	1853272	1853293	6776725	34.082802, -117.289778	34.082825, -117.289553
51	Polyline	363	330	323	760012	13.999972	6775267	1856632	1856632	6775253	34.092043, -117.294475	
52	Polyline	364	331	324	760010	13.999972	6775332	1856733	1856747	6775332	34.092337, -117.294312	
53	Polyline	365	332	325	760011	20.999958	6775267	1856699	1856699	6775246	34.092246, -117.294520	
54	Polyline	366	333	326	760015	4.00032	6776026	1856698	1856698	6776022	34.092253, -117.292074	
55	Polyline	368	335	328	760014	3.999992	6775680	1856692	1856692	6775676	34.092256, -117.293199	34.092355, -117.293111
56	Polyline	369	336	329		3.999992	6776245	1856641	1856641	6776241	34.092071, -117.291305	34.092246, -117.291363
57	Polyline	370	337	330		14.99997	6776713	1856694	1856694	6776698	34.092232, -117.289851	
58	Polyline	371	338	331	760016	13.999972	6776717	1856646	1856646	6776703	34.092063, -117.289840	
59	Polyline	372	339	332	760017	13.999972	6776800	1856636	1856636	6776814	34.092057, -117.289437	
60	Polyline	373	340	333	760018	13.999972	6776809	1856702	1856702	6776823	34.092252, -117.289416	
61	Polyline	374	341	334	760020	20.999958	6776772	1856750	1856771	6776772	34.092344, -117.289553	
62	Polyline	375	342	335	760019	7.000314	6776772	1856719	1856726	6776772	34.092300, -117.289554	
63	Polyline	384	351	344		3.499665	6773284	1859857	1859861	6773284	34.100947, -117.301071	
64	Polyline	385	352	345		3.499993	6773351	1859853	1859857	6773351		*No Basin at coordinate.*
65	Polyline	386	353	346		3.499993	6773245	1859841	1859841	6773241		*No Basin at coordinate.*
66	Polyline	394	361	354	760044	7.000165	6776053	1859579	1859586	6776049	34.100174, -117.291849	34.100266, -117.291650
67	Polyline	400	367	360	760055	6.999986	6776775	1859808	1859808	6776768	34.100752, -117.289494	
68	Polyline	401	368	361	760056	7.999984	6776775	1859870	1859870	6776767	34.100939, -117.289495	
69	Polyline	402	369	362	760057	4.999662	6776686	1859885	1859890	6776686	34.100980, -117.289776	
70	Polyline	403	370	363	760054	7.000314	6776686	1859776	1859783	6776686	34.100706, -117.289773	
71	Polyline	404	371	364	660096	10.000391	6776767	1860206	1860209	6776764	34.101851, -117.289526	
72	Polyline	405	372	365	660095	4.99999	6776677	1860212	1860217	6776677	34.101950, -117.289774	
73	Polyline	414	381	374	760034	6.999986	6775383	1858534	1858527	6775383	34.097310, -117.294052	
74	Polyline	415	382	375	760033	6.999986	6775383	1858507	1858500	6775383	34.097193, -117.294051	
75	Polyline	416	383	376	760031	15.999968	6775335	1858534	1858518	6775335	34.097330, -117.294271	
76	Polyline	417	384	377	760032	3.999992	6775335	1858488	1858484	6775335	34.096929, -117.294269	
77	Polyline	418	385	378	760042	6.999986	6776688	1858785	1858792	6776688	34.097987, -117.289777	
78	Polyline	419	386	379	760041	13.999972	6776760	1858771	1858785	6776760	34.097977, -117.289554	
79	Polyline	427	394	386	650002	20.000288	6769408	1863912	1863932	6769408	34.112255, -117.313731	
80	Polyline	428	395	387	650001	35.000258	6769348	1863906	1863941	6769348	34.112242, -117.313953	
81	Polyline	433	400	392	660089	13.999972	6775335	1860615	1860629	6775335	34.102963, -117.294306	34.102932, -117.294032 34.102890, -117.294384
82	Polyline	436	403	395		6.999658	6772604	1861261	1861268	6772604	34.104696, -117.303305	34.104755, -117.302967 34.104503, -117.303314
83	Polyline	437	404	396		3.499993	6773325	1861296	1861299	6773325	34.104937, -117.300848	
84	Polyline	438	405	397		3.499797	6773395	1861243	1861245	6773392	34.104767, -117.300680	
85	Polyline	439	406	398		3.499993	6773326	1861336	1861333	6773326	34.105024, -117.300847	
86	Polyline	440	407	399		3.500142	6773344	1861420	1861417	6773347	34.105247, -117.300680	34.105230, -117.300567

87	Polyline	444	411	403	660084	20.999958	6773912	1860562	1860562	6773891	34.102875, -117.298900		34.102945, -117.298520
88	Polyline	447	414	406		7.000314	6772617	1860587	1860594	6772617	34.102874, -117.303249		34.102934, -117.303056
89	Polyline	449	416	408	660085	20.999958	6773943	1860573	1860594	6773943	34.102961, -117.298788		34.102945, -117.298524
90	Polyline	459	426	418		3.499993	6773203	1861881	1861881	6773199		*Coordinate is in the middle of a field*	
91	Polyline	460	427	419		7.000314	6773256	1861937	1861944	6773256	34.106687, -117.301001		34.106642, -117.300782
92	Polyline	467	434	426		11.999976	6772601	1863166	1863154	6772601		*Coordinate falls onto railroad tracks.*	
93	Polyline	483	450	441		0.999998	6772518	1863179	1863179	6772519		*No Basin at coordinate.*	
94	Polyline	498	465	456	660061	3.999992	6775964	1861901	1861901	6775960	34.106546, -117.292088		
95	Polyline	501	468	459	660062	20.99963	6775984	1861944	1861965	6775984	34.106685, -117.292027		34.106700, -117.291815 34.106727, -117.291792
96	Polyline	517	484	475	660033	11.999976	6776651	1863274	1863286	6776651	34.110359, -117.289777		
97	Polyline	526	493	484	660034	11.999976	6776717	1863287	1863299	6776717	34.110371, -117.289548		34.110289, -117.289864
98	Polyline	557	524	515	550046	1.999668	6772473	1870509	1870511	6772473	34.130314, -117.303384		
99	Polyline	558	525	516		3.999992	6772611	1870511	1870515	6772611		*Coordinate is the middle of highway.*	
100	Polyline	567	534	525		9.99998	6772508	1867987	1867987	6772518	34.123313, -117.303407		
101	Polyline	582	549	540	550045	20.999958	6772521	1870814	1870835	6772521	34.131031, -117.303232		
102	Polyline	583	550	541	550044	20.999958	6772526	1870964	1870985	6772526	34.131434, -117.303222		
103	Polyline	585	552	543	550043	27.999944	6772524	1871185	1871213	6772524	34.131996, -117.303222		
104	Polyline	618	1065	1051	680001	13.999972	6784614	1865356	1865356	6784628		*No Basin at coordinate.*	
105	Polyline	620	1067	1053	680005	6.999986	6785379	1866103	1866110	6785379	34.117988, -117.260876		34.118387, -117.261095
106	Polyline	621	1068	1054	680004	3.999664	6785390	1865807	1865811	6785390		*No basin at coordinate*	
107	Polyline	624	1071	1057	580001	13.999972	6786326	1867330	1867330	6786340	34.121219, -117.257717		34.121431, -117.257713 34.121434, -117.258264
108	Polyline	643	580	571		6.999986	6773215	1869949	1869942	6773215	34.128814, -117.300983		34.128694, -117.301308 34.128619, -117.301068
109	Polyline	644	581	572		7.000314	6773256	1869951	1869944	6773256	34.128795, -117.300838		
110	Polyline	647	584	575	560029	28.000272	6773952	1869811	1869839	6773952	34.128362, -117.298551		
111	Polyline	648	585	576	560030	20.999958	6773952	1869780	1869801	6773952	34.128293, -117.298556		34.127904, -117.298778
112	Polyline	652	589	580	550039	7.000314	6773234	1868048	1868055	6773234	34.123480, -117.300991		
113	Polyline	653	590	581	550038	3.999992	6773285	1868058	1868054	6773285	34.123486, -117.300845		
114	Polyline	657	594	585	560031	3.999992	6773950	1869269	1869273	6773950	34.126845, -117.298569		34.126854, -117.298756 34.126775, -117.298822
115	Polyline	661	598	589	550010	20.999958	6773217	1870292	1870313	6773217	34.129720, -117.300978		
116	Polyline	662	599	590		20.999958	6773216	1870260	1870281	6773216		*No Basin at coordinate. Might be duplicate coordinate directly above ^^*	
117	Polyline	663	600	591		20.999958	6773258	1870259	1870280	6773258		*No Basin at coordinate. Might be duplicate directly below*	
118	Polyline	664	601	592	550011	20.999958	6773258	1870290	1870311	6773258	34.129706, -117.300832		
119	Polyline	665	602	593	550007	20.999958	6773227	1870595	1870616	6773227	34.130628, -117.300968		
120	Polyline	666	603	594	550009	20.999958	6773262	1870594	1870615	6773262	34.130612, -117.300843		34.130721, -117.300842 34.130735, -117.300962
121	Polyline	732	669	659	CalTrans	3.500321	6773271	1875992	1875992	6773268	34.145197, -117.300708		34.144908, -117.300736
122	Polyline	745	682	671	CalTrans	1.999668	6773263	1876395	1876397	6773263	34.146364, -117.300721		
123	Polyline	747	684	673	CalTrans	3.499993	6773263	1876391	1876395	6773263		*Basin may be duplicate of line above ^*	34.146300, -117.300968
124	Polyline	752	689	678	450007	21.000286	6772382	1876523	1876523	6772361	34.146769, -117.303576		
125	Polyline	753	690	679	450008	20.999958	6772465	1876523	1876523	6772444	34.146768, -117.303359		
126	Polyline	754	691	680	4500	21.000286	6772382	1876577	1876577	6772361	34.146901, -117.303582		

127	Polyline	755	692	681	4500	20.999958	6772465	1876577	1876577	6772444	34.146912, -117.303367	
128	Polyline	757	694	683	450012	30.000268	6772537	1876596	1876626	6772537	34.147009, -117.303092	
129	Polyline	759	696	685	450015	30.000268	6772483	1876596	1876626	6772483	34.147004, -117.303241	34.147315, -117.303102 34.147388, -117.303176
130	Polyline	762	699	688	CalTrans	3.500321	6773241	1876275	1876271	6773241	34.146022, -117.300707	34.146026, -117.300968
131	Polyline	792	729	718	3600	4.001047	6775269	1883096	1883096	6775265	34.164764, -117.294150	34.164553, -117.294047
132	Polyline	795	732	721	360005	10.000391	6776842	1883145	1883152	6776834	34.164858, -117.288681	34.164982, -117.288792
133	Polyline	798	735	724	350011	6.999986	6771861	1883029	1883029	6771868	34.164693, -117.305233	34.164835, -117.304910 34.164793, -117.304782
134	Polyline	806	743	732		3.499993	6777548	1846128	1846128	6777545	34.063183, -117.287197	34.062951, -117.287185
135	Polyline	843	780	769		20.999958	6777374	1876303	1876324	6777374	34.146146, -117.287069	34.146173, -117.287472 34.146079, -117.286960
136	Polyline	848	785	773	560009	21.000286	6777272	1872007	1872028	6777272	34.134264, -117.287529	
137	Polyline	849	786	774	560010	13.999972	6777272	1871976	1871990	6777272	34.134171, -117.287529	
138	Polyline	850	787	775	560008	28.000272	6777342	1871986	1872014	6777342	34.134214, -117.287293	
139	Polyline	851	788	776	460002	20.999958	6777372	1877598	1877619	6777372	34.149677, -117.287053	
140	Polyline	864	801	789	660010	17.999964	6778060	1865348	1865366	6778060	34.116022, -117.285076	
141	Polyline	872	809	797		6.999986	6780226	1846136	1846136	6780219	34.063174, -117.278410	
142	Polyline	873	810	798		14.0003	6779308	1846060	1846060	6779322	34.062940, -117.281471	
143	Polyline	874	811	799		6.999986	6779315	1846139	1846139	6779308	34.063175, -117.281462	
144	Polyline	875	812	800		20.999958	6780231	1846062	1846062	6780210	34.062949, -117.278393	
145	Polyline	876	813	801		20.999958	6780265	1846064	1846064	6780286	34.062948, -117.278206	
146	Polyline	882	819	807		7.000314	6778643	1846057	1846057	6778636	34.062934, -117.283611	34.062819, -117.283766
147	Polyline	887	824	812	770026	11.999976	6780054	1859941	1859929	6780054	34.101056, -117.278616	34.100948, -117.278445 34.100762, -117.278469
148	Polyline	892	829	817		14.000129	6780130	1852188	1852197	6780120	34.079957, -117.278573	34.079511, -117.278568
149	Polyline	898	835	823		3.999992	6780118	1851443	1851439	6780118		*No Basin at coordinate.*
150	Polyline	899	836	824		3.999992	6780037	1850614	1850610	6780037	34.075586, -117.278862	34.075533, -117.278566
151	Polyline	902	839	827	770005	13.999972	6779997	1855717	1855731	6779997	34.089471, -117.278894	
152	Polyline	903	840	828	770006	13.999972	6780087	1855717	1855731	6780087	34.089469, -117.278596	
153	Polyline	904	841	829		9.999839	6779987	1854426	1854428	6779977	34.085920, -117.278998	
154	Polyline	906	843	831		9.999695	6780113	1854397	1854405	6780120	34.085848, -117.278556	34.086083, -117.278554
155	Polyline	909	846	834		2.999666	6780036	1852759	1852762	6780036	34.081370, -117.278869	34.081227, -117.278567 34.081442, -117.278563
156	Polyline	913	850	838	770015	10.000159	6780095	1856635	1856642	6780102	34.092009, -117.278571	34.092306, -117.278580
157	Polyline	914	851	839	770024	6.999986	6780069	1857552	1857559	6780069	34.094699, -117.278610	
158	Polyline	916	853	841	770025	9.99998	6780067	1858528	1858538	6780067	34.097188, -117.278607	
159	Polyline	964	901	889		6.999986	6785450	1848257	1848250	6785450	34.068800, -117.261072	
160	Polyline	965	902	890		6.999986	6785484	1848290	1848290	6785477	34.068889, -117.260980	
161	Polyline	970	907	895		9.99998	6786347	1851458	1851458	6786357	34.077634, -117.258045	34.077716, -117.258139 34.077710, -117.258284
162	Polyline	973	910	898		28.000272	6786448	1851392	1851392	6786476	34.077447, -117.257696	
163	Polyline	977	914	902		4.999662	6784852	1850839	1850839	6784847	34.075959, -117.262871	
164	Polyline	978	915	903		4.999662	6784865	1850839	1850839	6784860	34.075960, -117.262849	
165	Polyline	979	916	904		4.999662	6784865	1850784	1850784	6784860	34.075828, -117.262853	
166	Polyline	993	930	918	770010	7.000047	6780818	1856661	1856661	6780811	34.092048, -117.276214	
167	Polyline	1000	937	925		3.999992	6779525	1863851	1863851	6779521	34.111968, -117.280361	
168	Polyline	1001	938	926	670010	3.999992	6779528	1863907	1863907	6779524	34.112146, -117.280373	
169	Polyline	1023	960	948		13.999644	6780037	1861525	1861539	6780037	34.105449, -117.278619	34.105468, -117.278923
170	Polyline	1025	962	950	670021	14.0003	6780060	1862628	1862628	6780046	34.108469, -117.278532	
171	Polyline	1026	963	951	670022	14.0003	6780012	1862649	1862663	6780012	34.108553, -117.278628	34.108641, -117.278924
172	Polyline	1027	964	952	670019	13.999972	6780028	1862203	1862217	6780028	34.107262, -117.278630	

173	Polyline	1028	965	953	670018	14.000129	6780043	1861173	1861182	6780052	34.104467, -117.278591	
174	Polyline	1030	967	955	670020	7.000314	6780034	1863327	1863334	6780034	34.110395, -117.278652	
175	Polyline	1050	987	975	BCL	7.999984	6781967	1867372	1867372	6781959		*No Basin at coordinate. Nearest Basin is just West . See next column AB >>>*
176	Polyline	1062	999	987	570011	6.999986	6781336	1872002	1872002	6781343	34.134178, -117.274428	34.121434, -117.272749
177	Polyline	1063	1000	988	570010	6.999658	6781698	1872030	1872030	6781691	34.134269, -117.272960	
178	Polyline	1105	1042	1029	580029	3.999574	6784115	1872396	1872393	6784113		*Coordinate is in the middle of parking lot.*
179	Polyline	1117	1084	1070	580020	6.999986	6784894	1872617	1872617	6784887	34.135779, -117.262318	34.135978, -117.264891 34.136043, -117.264634 34.136044, -117.264787
180	Polyline	1125	1092	1078		2.999994	6787914	1871738	1871741	6787914	34.133444, -117.252525	
181	Polyline	1134	1101	1087	480006	6.999986	6786480	1876586	1876586	6786473	34.146655, -117.256953	34.135973, -117.262676 34.136114, -117.262858 34.136050, -117.263038 34.135972, -117.261485
182	Polyline	1137	1104	1090		14.0003	6787910	1876551	1876551	6787896	34.146649, -117.252185	34.146843, -117.256943
183	Polyline	1150	1117	1103	490006	6.999986	6787920	1875331	1875338	6787920	34.143200, -117.252296	34.146838, -117.252166 34.146650, -117.252645 34.146840, -117.252757
184	Polyline	1151	1118	1104		12.550411	6787969	1875211	1875211	6787969	34.142862, -117.252150	34.143262, -117.252539
185	Polyline	1276	1274	1257	340014	29.408676	6766033	1884314	1884300	6766057	34.168331, -117.324552	
186	Polyline	1277	1275	1258	340005	20.999431	6768465	1884598	1884580	6768455	34.169013, -117.316379	34.169221, -117.316497 34.169131, -117.316559 34.169077, -117.316595 34.169333, -117.316592 34.169738, -117.316902 34.169558, -117.316244
187	Polyline	1278	1276	1259	340006	6.999713	6768231	1884249	1884256	6768233	34.167962, -117.317312	
188	Polyline	1279	1277	1260	340007	7.000221	6768203	1884252	1884255	6768209	34.168027, -117.317380	
189	Polyline	1282	1280	1263	340009	6.999967	6766920	1884420	1884424	6766926	34.168585, -117.321470	34.168714, -117.321526
190	Polyline	1284	1282	1265	340015	28.494139	6766057	1884356	1884343	6766081	34.168460, -117.324537	
191	Polyline	1285	1283	1266	340008	14.000593	6768229	1884296	1884306	6768220	34.168138, -117.317288	
192	Polyline	1353	1352	1333	220006	14.000548	6759000	1891331	1891344	6758996	34.187747, -117.347509	34.188094, -117.347601
193	Polyline	1368	1367	1348	220010	21.815981	6757872	1888233	1888231	6757893	34.179245, -117.351455	
194	Polyline	1369	1368	1349	220011	21.498229	6757793	1888246	1888241	6757814	34.179296, -117.351708	34.179425, -117.351384 34.179466, -117.351604
195	Polyline	1386	1385	1365	240009	7.594167	6767590	1887788	1887791	6767597	34.177852, -117.319049	34.178095, -117.318537
196	Polyline	1387	1386	1365	240010	6.999756	6767599	1887705	1887703	6767593	34.177622, -117.318936	
197	Polyline	1561	0	0	430013	28.000272	6764091	1872868	1872896	6764091	34.136893, -117.331031	
198	Polyline	1562	0	0	43001	15.999968	6764052	1872656	1872672	6764052	34.136344, -117.331197	

APPENDIX B

2018 SEWER FLOW MONITORING AND INFLOW/ INFILTRATION STUDY

San Bernardino Municipal Water Department

2018 Sewer Flow Monitoring and Inflow/Infiltration Study



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Date:

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Prepared by:

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V&A Project No. 17-0311

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Abbreviations and Acronyms

Abbreviations/Acronyms	Definition
ADWF	Average Dry Weather Flow
AVG.	Average
CCTV	Closed-Circuit Television
CDEC	California Data Exchange Center
CIP	Capital Improvement Plan
CO	Carbon Monoxide
CWOP	Citizen Weather Observing Program
DIA.	Diameter
d/D	Depth/Diameter Ratio
FT.	Feet
FM	Flow Monitor
GPD	Gallons per Day
GPM	Gallons per Minute
GWI	Groundwater Infiltration
H2S	Hydrogen Sulfide
IN.	Inch
I/I	Inflow and Infiltration
IDM	Inch-Diameter Mile
IDW	Inverse Distance Weighting
LEL	Lower Explosive Limit
MAX.	Maximum
MGD	Million Gallons per Day
MIN.	Minimum
NOAA	National Oceanic and Atmospheric Administration
N/A	Not applicable
PF	Peaking Factor
PS	Pump Station
Q	Flow Rate
RDI/I	Rainfall-Dependent Infiltration and Inflow
RG	Rain Gauge
SSO	Sanitary Sewer Overflow
V&A	V&A Consulting Engineers, Inc.
WEF	Water Environment Federation
WRCC	Western Regional Climate Center

Terms and Definitions

Term	Definition
Average dry weather flow (ADWF)	Average flow rate or pattern from days without noticeable inflow or infiltration response. ADWF usage patterns for weekdays and weekends differ and must be computed separately. ADWF is expressed as a numeric average and may include the influence of normal groundwater infiltration (not related to a rain event).
Basin	Sanitary sewer collection system upstream of a given location (often a flow meter), including all pipelines, inlets, and appurtenances. Also refers to the ground surface area near and enclosed by pipelines. A basin may refer to the entire collection system upstream from a flow meter or exclude separately monitored basins upstream.
Depth/diameter (*d/D*) ratio	Depth of water in a pipe as a fraction of the pipe's diameter. A measure of fullness of the pipe used in capacity analysis.
Design storm	A theoretical storm event of a given duration and intensity that aligns with historical frequency records of rainfall events. For example, a 10-year, 24-hour design storm is a storm event wherein the volume of rain that falls in a 24-hour period would historically occur once every 10 years. Design storm events are used to predict RDI/I response and are useful for modeling how a collection system will react to a given set of storm event scenarios.
Infiltration and inflow	Infiltration and inflow (I/I) rates are calculated by subtracting the ADWF flow curve from the instantaneous flow measurements taken during and after a storm event. Flow in excess of the baseline consists of inflow, rainfall-responsive infiltration, and rainfall-dependent infiltration. **Total I/I** is the total sum in gallons of additional flow attributable to a storm event.
Infiltration, *groundwater*	Groundwater infiltration (**GWI**) is groundwater that enters the collection system through pipe defects. GWI depends on the depth of the groundwater table above the pipelines as well as the percentage of the system that is submerged. The variation of groundwater levels and subsequent groundwater infiltration rates is seasonal by nature. On a day-to-day basis, groundwater infiltration rates are relatively steady and will not fluctuate greatly.
Infiltration, *rainfall-dependent*	Rainfall-dependent infiltration (**RDI**) is similar to groundwater infiltration but occurs as a result of storm water. The storm water percolates into the soil, submerges more of the pipe system, and enters through pipe defects. RDI is the slowest component of storm-related infiltration and inflow, beginning gradually and often lasting 24 hours or longer. The response time depends on the soil permeability and saturation levels.
Inflow	**Inflow** is defined as water discharged into the sewer system, including private sewer laterals, from **direct** connections such as downspouts, yard and area drains, holes in manhole covers, cross-connections from storm drains, or catch basins. Inflow creates a peak flow problem in the sewer system and often dictates the required capacity of downstream pipes and transport facilities to carry these peak instantaneous flows. Overflows are often attributable to high inflow rates.
Peaking factor (PF)	PF is the ratio of peak measured flow to average dry weather flow. This ratio expresses the degree of fluctuation in flow rate over the monitoring period and is used in capacity analysis.
Surcharge	When the flow level is higher than the crown of the pipe, then the pipeline is said to be in a **surcharged** condition. The pipeline is surcharged when the *d/D* ratio is greater than 1.0.
Synthetic hydrograph	A set of algorithms has been developed to approximate the actual RDI/I hydrograph. The synthetic hydrograph is developed strictly using rainfall data and response parameters representing response time, recession coefficient and soil saturation.

Executive Summary

Scope and Purpose

V&A Consulting Engineers, Inc. (V&A) has completed sanitary sewer flow monitoring within the San Bernardino Municipal Water Department (SBMWD). Flow monitoring was performed in a phased approach:

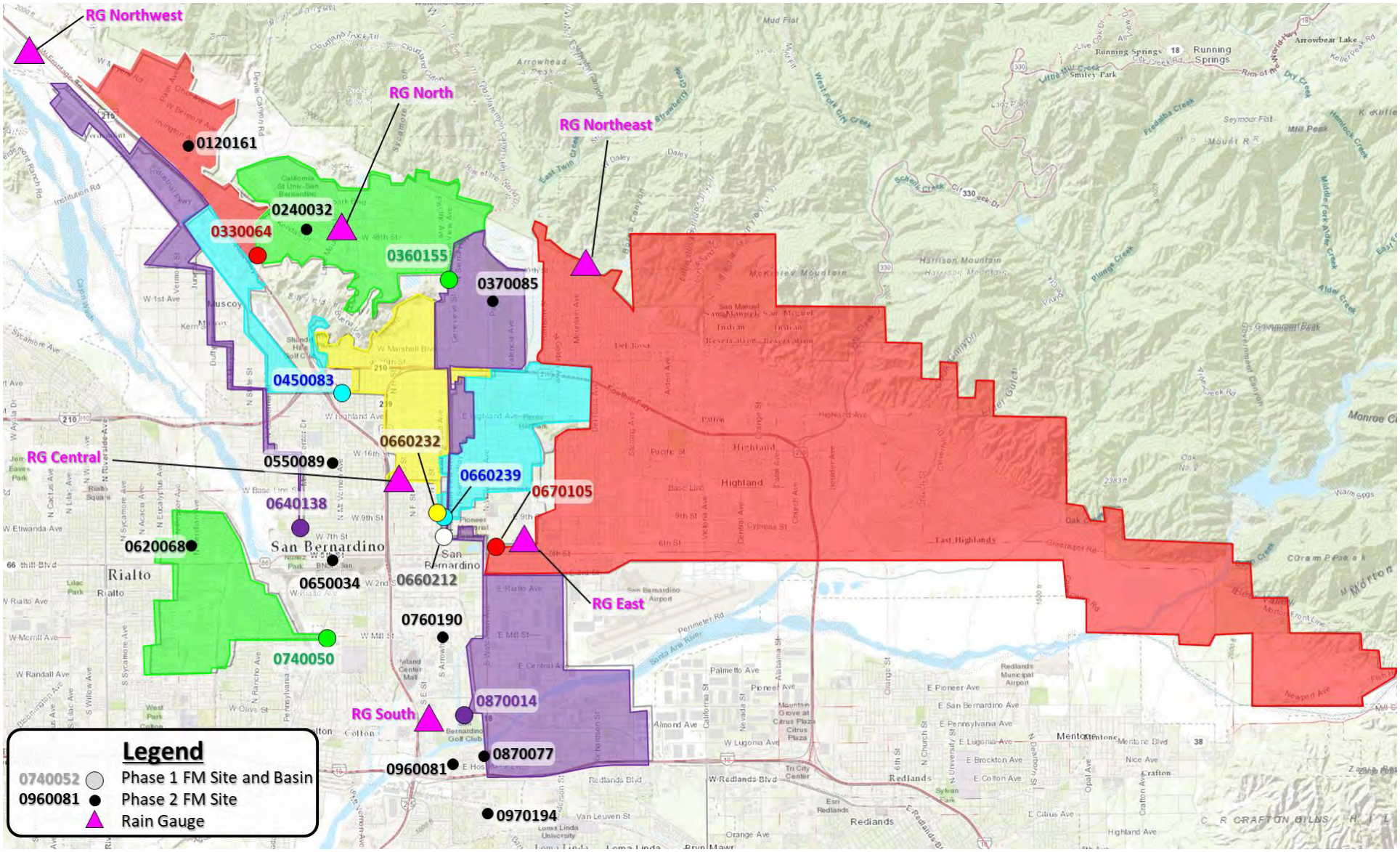
- **Phase 1:** Flow monitoring was conducted at 10 locations for 6.5 weeks from February 14 to April 1, 2018. The 10 flow metering sites were large-diameter pipelines, intended to capture flows through main trunk lines and isolating major sewerage basins. These data will assist to calibrate the master plan collection system model and will be used for performing rain-dependent infiltration and inflow (RDI/I) analysis.
- **Phase 2:** Flow monitoring was conducted at 10 locations for 4.5 weeks from March 1 to April 2, 2018. These 10 flow metering sites were small-diameter pipelines, intended to measure flow rates within isolated smaller basins of specific usage types (i.e. residential, commercial, etc.). Phase 2 flow monitoring sites were not intended for RDI/I analysis.

There were four general purposes of this overall project.

1. Establish the baseline sanitary sewer flows at the flow monitoring sites.
2. Establish the peak flow conditions; estimate sewer capacity.
3. Isolate RDI/I response (Phase 1 sites) and perform RDI/I analysis.
4. Perform synthetic RDI/I hydrograph analysis; estimate peak flows for a 10-year, 24-hour model storm event.

Monitoring Locations

The flow monitoring sites were selected by Stantec and approved by SBMWD. The flow monitoring sites, associated sewerage basins (basins for Phase 1 sites only) and rain gauge locations are illustrated in Figure ES-1. Additional site information (latitude, longitude coordinates, rim elevations, photos, maps, etc.) can be found in *Appendix A* and *Appendix B*.



Note: colors shown in this figure are intended to differentiate sewerage basins only. The colors do not represent any additional basin information.
Per Department's request, East Valley Water District (EVWD) service area were included in FM 0670105 basin.

Figure ES-1. Map of Flow Monitoring Sites, Basins and Rain Gauge

Rainfall Monitoring

Rain data was obtained from six installed rain gauges intending to capture rainfall throughout the SBMWD collection system. Rainfall was triangulated and distributed to the sewerage basins per the IDW method. The following rainfall data items are noted:

- Overall, rainfall totals were approximately 30% lower than historical normal levels over the flow monitoring period.
- There were six rainfall events that elicited an RDI/I response from some or many flow monitoring sites. These six events were sufficient to conduct RDI/I analyses for this study.
- Storm event classification analyses were conducted for the six rain events at the six rain gauges, looking at both short-duration, high intensity events ("cloudbursts" - from 15-minute to 1-hour durations), as well as for 1-hour to 24-hour event durations.
    - All rain events for all rain gauges were classified as less than 1-year rainfall events.

Site Flow Monitoring and Capacity Results

Peak measured flows and the corresponding flow levels (depths) are important to understand the capacity limitations of a collection system. The peak flows and flow levels reported are from the peak measurements as taken across the entirety of the flow monitoring period. Peak flows and levels may not correspond to a rainfall event.

The following capacity analyses terms are defined as follows:

- **d/D Ratio:** The d/D ratio is the peak measured depth of flow (d) divided by the pipe diameter (D). The d/D ratio for each site was computed based on the maximum depth of flow for the study. Standards for d/D ratio vary from agency to agency, but typically range between $d/D \leq 0.5$ and $d/D \leq 0.75$.
- **Peaking Factor:** Peaking factor is defined as the peak measured flow divided by the ADWF. Peaking factors are influenced by many factors including size/topography of tributary area, proximity to pump stations, and the characteristics of I/I entering the collection system. Flow attenuation and flow restrictions will also affect the peaking factor. A peaking factor threshold value of 3.0 is commonly used for sanitary sewer design of new pipe; however, it is noted that this value is variable, subject to attenuation and the size of the upstream collector area. The Department should follow its own standards and criteria when examining peaking factors.

Table ES-1 summarizes the peak recorded flows, levels, *d/D* ratios, and peaking factors per site during the flow monitoring period. Results of note have been shaded in RED. Capacity analysis data is presented on a site-by-site basis and represents the hydraulic conditions only at the point site locations. Hydraulic conditions in other areas of the collection system will differ.

Figure ES-2 shows a flow schematic highlighting the average daily flows and flow depths through the flow monitoring locations.

Table ES-1. Capacity Analysis Summary

Monitoring Site	ADWF (mgd)	Peak Measured Flow (mgd)	Peaking Factor	Pipe Diameter, *D* (in)	Max Depth, *d* (in)	Max *d/D* Ratio
Phase 1 Flow Monitoring Sites						
SMH 0330064	1.096	2.50	2.3	27	9.81	0.36
SMH 0360155	2.056	3.90	1.9	33	9.73	0.29
SMH 0450083	0.485	0.91	1.9	18	6.38	0.35
SMH 0640138	0.338	1.07	3.2	27	7.04	0.26
SMH 0660212	1.350	2.42	1.8	30	8.76	0.29
SMH 0660232	1.867	3.09	1.7	24	7.06	0.29
SMH 0660239	1.338	2.48	1.9	21	13.34	0.64
SMH 0670105	5.115	8.29	1.6	33	18.25	0.55
SMH 0740050	0.052	0.34	6.5	12	6.06	0.51
SMH 0870014	10.67	18.76	1.8	54	23.87	0.44
Phase 2 Flow Monitoring Sites						
SMH 0120161	0.062	0.158	2.5	8	3.56	0.45
SMH 0240032	0.027	0.065	2.4	8	2.54	0.32
SMH 0370085	0.026	0.103	3.9	8	2.44	0.31
SMH 0550089	0.016	0.057	3.6	8	1.78	0.22
SMH 0620068	0.035	0.071	2.0	8	2.37	0.30
SMH 0650034	0.029	0.243	8.4	8	4.87	0.61
SMH 0760190	0.0071	0.027	3.8	8	2.93	0.37
SMH 0870077	0.166	0.368	2.2	15	4.99	0.33
SMH 0960081	0.020	0.091	4.5	8	2.6	0.33
SMH 0970194	0.222	0.398	1.8	8	5.8	0.73

The following capacity analysis results are noted:

- **Peaking Factor:**
  - Phase 1: SMH 0740050 had a peaking factor of PF = 6.5, clearly higher than other sites during the Phase 1 flow monitoring effort. It is noted that SMH 0650034 had very low ADWF values and flow patterns suggesting a non-residential collection region (industrial or commercial). The low ADWF values and abnormal usage patterns may skew this peaking factor high.
  - Phase 2: SMH 0650034 had a peaking factor of PF = 8.4, clearly higher than other sites during the Phase 2 flow monitoring effort. The peak flow occurred during a rainfall event and appears to be due to a high volume of RDI/I, specifically inflow.
- **d/D Ratio:** All flow monitoring sites had max d/D ratios less than the common threshold value of 0.75 d/D. None of the sites reached a surcharge condition during the study.

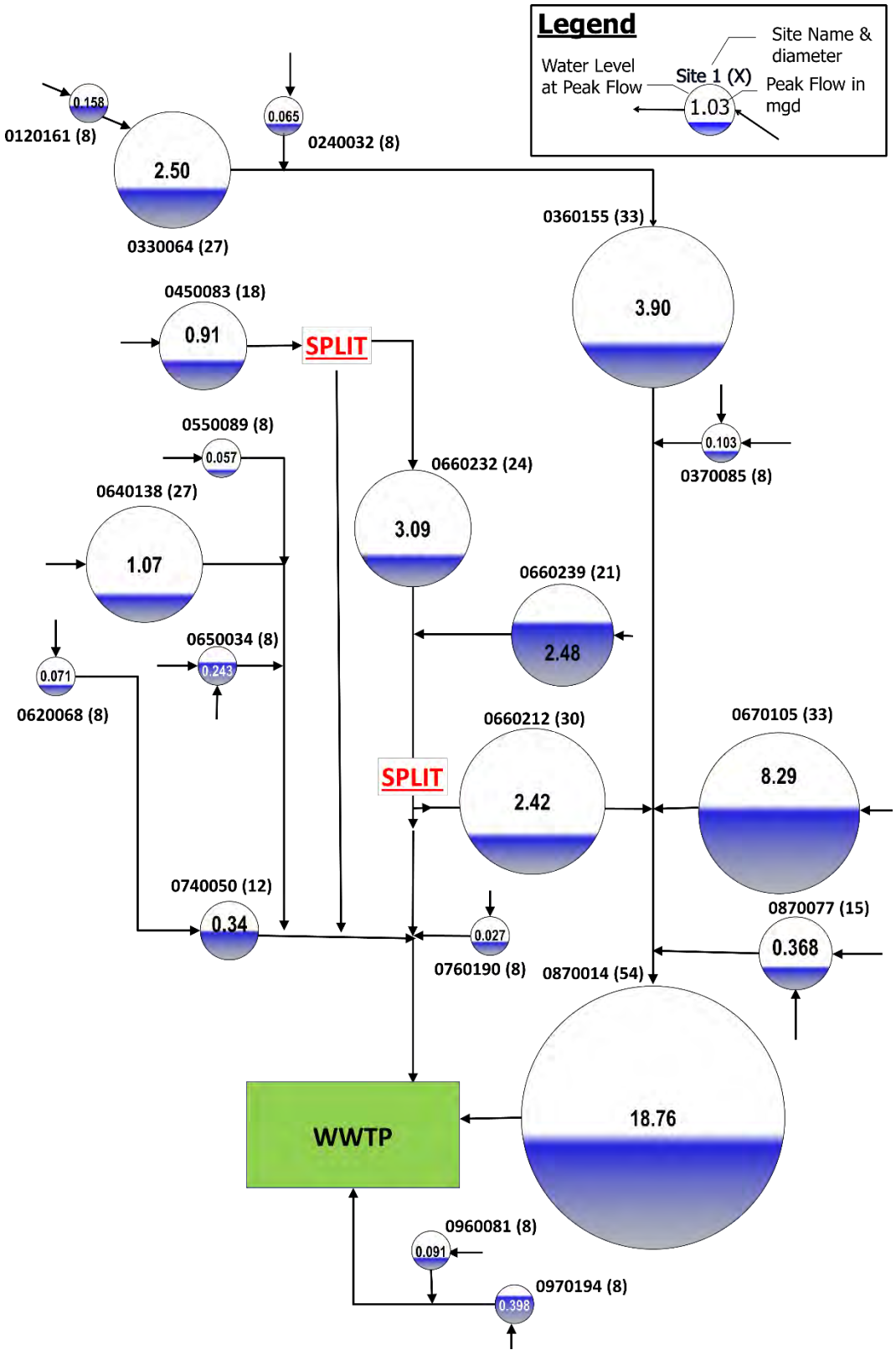


Figure ES-2. Peak Flow Schematic

Infiltration and Inflow Analysis

RDI/I analyses were performed on the six defined rainfall events; after review of the data, Events 3, 4 and 6 elicited the greatest RDI response from the flow monitoring sites. RDI/I response from Events 3, 4 and 6 were considered for final rankings of the flow monitoring basins. The following additional items are noted:

- RDI/I analyses were performed on Phase 1 sites only. Phase 2 sites were reviewed for RDI/I response; commentary will be qualitative for Phase 2 sites.
- RDI/I analyses were performed on a basin-by-basin basis. The basins for SMH 0360155, and SMH 0870014 required subtraction of upstream flows.
- Site (Basin) SMH 0660212 and SMH 0660232 were not analyzed. SMH 0660212 and SMH 0660232 were downstream from a manhole split with an undefined upstream drainage basin.
- RDI rates (strictly infiltration, not including inflow) were extremely low or negligible for the flow monitoring sites. An RDI analysis could not be accurately performed; RDI in SBMWD appears to be generally very low. Nearly all of the RDI/I response comes from inflow sources.

Table ES-2 summarizes the RDI/I results for all basins in the study. Results of note have been shaded in RED. Please refer to the *RDI/I Methods* section for more information on inflow and infiltration analysis methods.

Table ES-2. RDI/I Analysis Summary

Monitoring Basin	ADWF (mgd)	Peak Inflow Rate (mgd)	Peak Inflow to ADWF Ratio	Inflow Ranking [A]	Total Infiltration (gallons)	Total RDI/I to ADWF (per in-rain)	Total RDI/I Ranking [A]
SMH 0330064	1.096	1.15	1.05	3	568,000	0.16	4
SMH 0360155	0.960	0.03	0.03	8	392,000	0.16	5
SMH 0450083	0.485	0.23	0.47	5	131,000	0.10	7
SMH 0640138	0.338	0.64	1.88	1	262,000	0.28	2
SMH 0660239	1.338	0.58	0.44	6	326,000	0.12	6
SMH 0670105	5.115	1.63	0.32	7	899,000	0.08	8
SMH 0740050	0.052	0.10	1.84	2	43,000	0.46	1
SMH 0870014	3.504	2.21	0.63	4	1,341,000	0.21	3

[A] Ranking of 1 represents most inflow or total RDI/I after normalization.

The following RDI/I analysis results are noted:

- **Inflow:** The basins upstream from SMH 0640138, SMH 0740050 and SMH 0870014 ranked highest for total RDI/I response.
- **Total RDI/I:** The basins upstream from SMH 0330064, SMH 0640138 and SMH 0740050 ranked highest for inflow response.

Figure ES-3 and Figure ES-4 illustrate temperature maps summarizing the inflow and total RDI/I rankings, respectively, by basin.

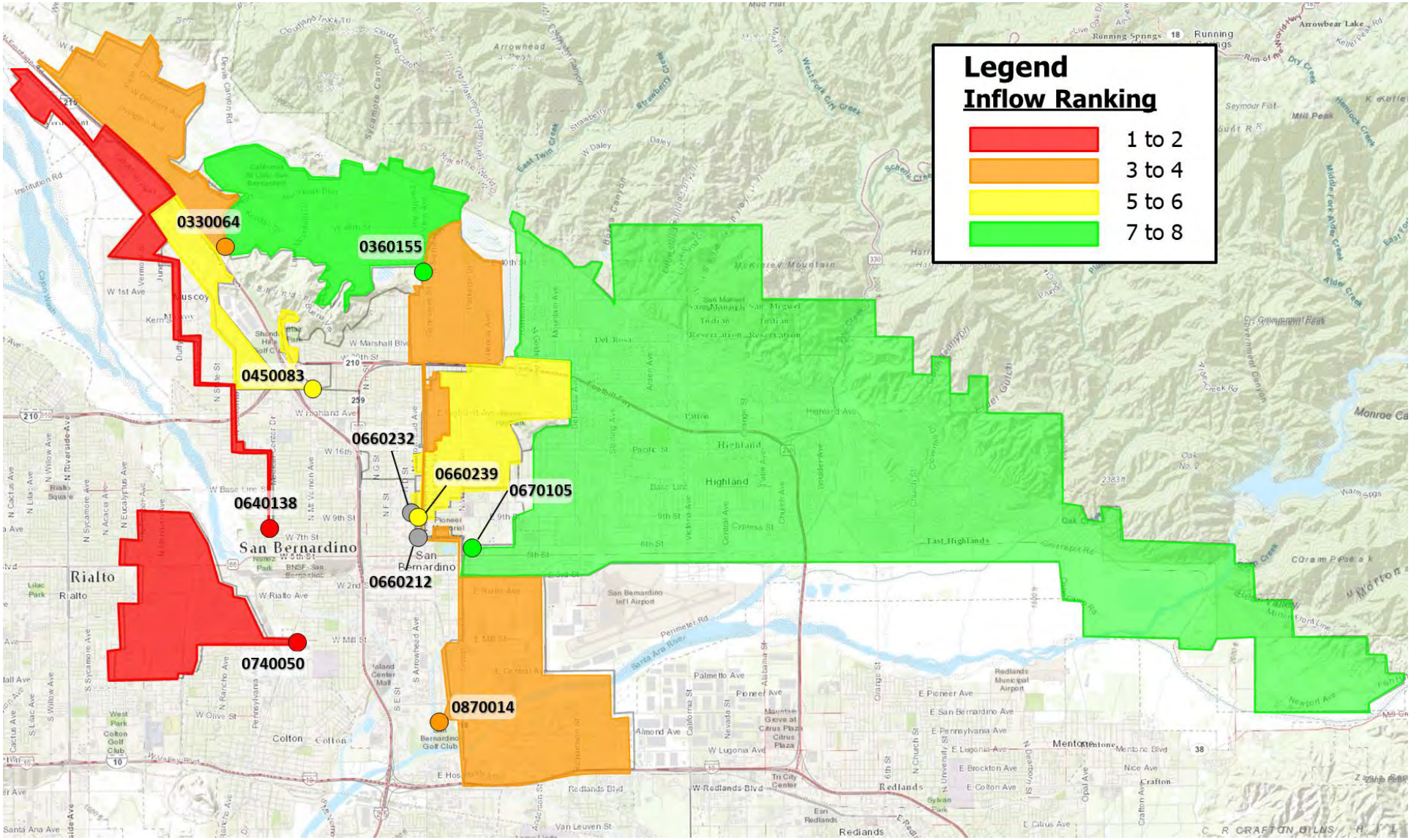


Figure ES-3. Temperature Map: Inflow Analysis Summary – Inflow Rankings

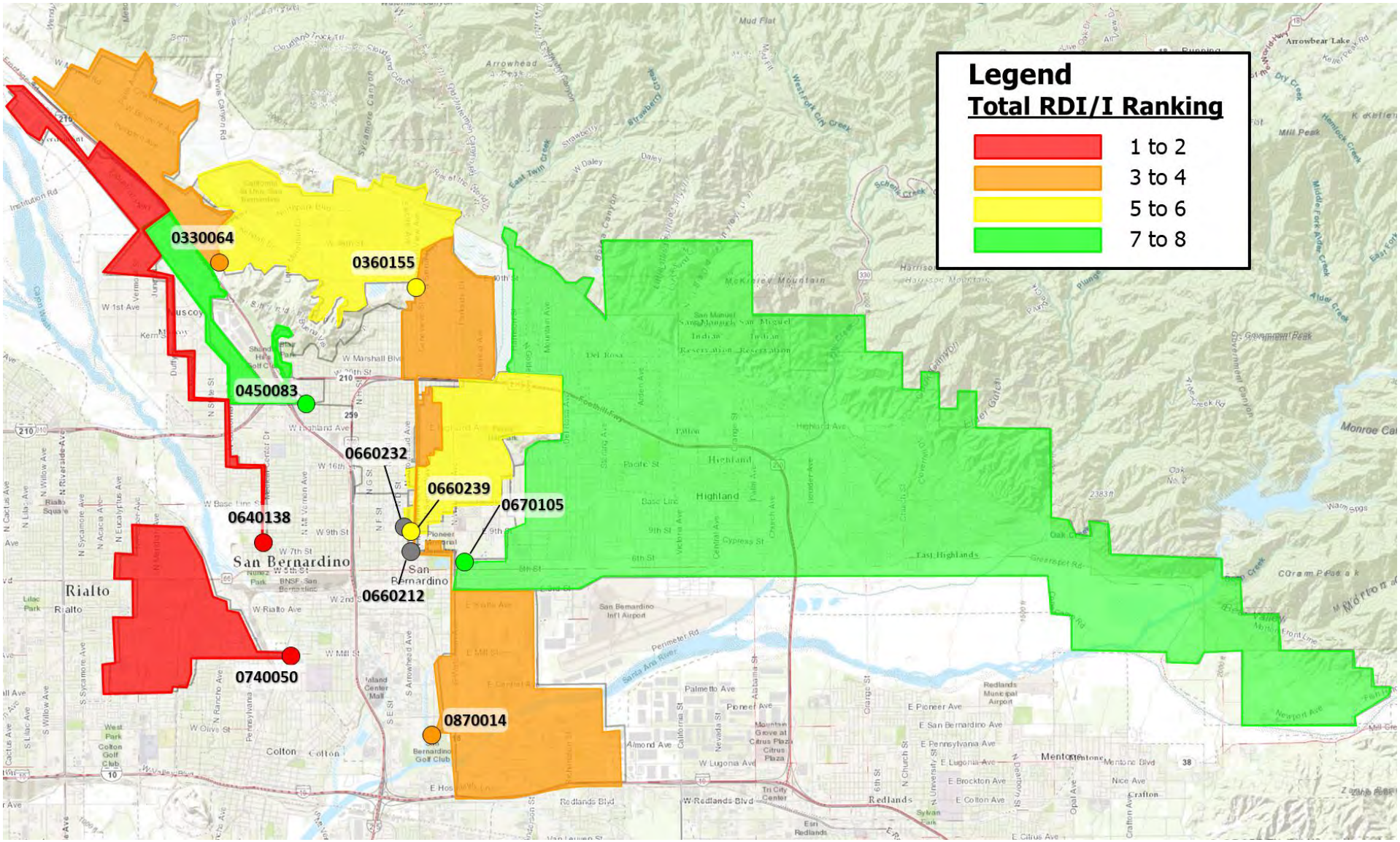


Figure ES-4. Temperature Map: Total RDI/I Analysis Summary – Total RDI/I Rankings

10-Year, 24-Hour Model Design Storm Results

Synthetic I/I hydrographs were developed and applied to the 10-year, 24-hour design storm event to approximate the peak flow response for this design scenario (Phase 1 only). These results assume full ground saturation, and the peak I/I flows from the design storm coincide with peak sanitary flows to get a "worst-case" scenario of peak wet weather flows. Table ES-3 summarizes the final results for the 10-year, 24-hour design storm on a site-by-site basis. The estimated peak flows do not account for system capacity limitations; it is possible that the peak I/I flows that are generated upstream from each monitoring location may not be conveyed downstream due to the conveyance capacity limitations of the local collection system.

Table ES-3. 10-Year, 24-Hour Design Storm: Estimated RDI/I Response and Peak Flows Summary

Monitoring Site	Measured Peak Dry Weather Flow (mgd)	Estimated Peak RDI/I Rate (mgd)	Peak Estimated Flow (mgd)
SMH 0330064	2.12	5.72	7.84
SMH 0360155	3.14	8.61	11.75
SMH 0450083	0.68	1.29	1.97
SMH 0640138	0.57	3.41	3.98
SMH 0660212	1.87	3.88	5.75
SMH 0660232	2.78	3.37	6.16
SMH 0660239	1.81	4.52	6.33
SMH 0670105	7.78	12.50	20.27
SMH 0740050	0.29	0.78	1.08
SMH 0870014	17.10	35.47	52.57

Recommendations

V&A advises that future RDI/I reduction plans consider the following recommendations:

1. **Determine RDI/I Reduction Program:** SBMWD should examine its RDI/I reduction needs to determine their needs and goals for a future RDI/I reduction program.
    a. If peak flows, sanitary sewer overflows, and pipeline capacity issues are of greater concern, then priority can be given to investigate and reduce sources of inflow within the basins with the higher inflow/ADWF ratios. The results of this study suggest that inflow is the larger component of RDI/I within the SBMWD collection system.
    b. If infiltration and general pipeline deterioration are of greater concern, then the program can be weighted to investigate and reduce sources of infiltration within the basins with the higher RDI/ADWF ratios. The results of this study suggest that RDI is a significantly smaller component of RDI/I within the SBMWD collection system and may be of lesser concern.
2. **RDI/I Investigation Methods:** Potential RDI/I investigation methods include the following:
    a. Smoke testing
    b. Mini-basin flow monitoring
    c. Night-time reconnaissance work to (1) investigate and determine direct point sources of inflow, and (2) determine the areas and/or pipe reaches responsible for high levels of infiltration contribution.
    d. CCTV inspection
3. **RDI/I Reduction Cost Effective Analysis:** SBMWD should conduct a study to determine which is more cost-effective: (1) locating the sources of inflow/infiltration and systematically rehabilitating or replacing the faulty pipelines; or (2) continued treatment of the additional rainfall dependent RDI/I flow.

1 Introduction

1.1 Scope and Purpose

V&A Consulting Engineers, Inc. (V&A) has completed sanitary sewer flow monitoring within the San Bernardino Municipal Water Department (SBMWD). Flow monitoring was performed in a phased approach:

- **Phase 1:** Flow monitoring was conducted at 10 locations for 6.5 weeks from February 14 to April 1, 2018. The 10 flow metering sites were large-diameter pipelines, intended to capture flows through main trunk lines and isolating major sewerage basins. These data will assist to calibrate the master plan collection system model and will be used for performing rain-dependent infiltration and inflow (RDI/I) analysis.
- **Phase 2:** Flow monitoring was conducted at 10 locations for 4.5 weeks from March 1 to April 2, 2018. These 10 flow metering sites were small-diameter pipelines, intended to measure flow rates within isolated smaller basins of specific usage types (i.e. residential, commercial, etc.). Phase 2 flow monitoring sites were not intended for RDI/I analysis.

There were four general purposes of this overall project.

1. Establish the baseline sanitary sewer flows at the flow monitoring sites.
2. Establish the peak flow conditions; estimate sewer capacity.
3. Isolate RDI/I response (Phase 1 sites) and perform RDI/I analysis.
4. Perform synthetic RDI/I hydrograph analysis; estimate peak flows for a 10-year, 24-hour model storm event.

1.2 Flow Monitoring Sites, Sewerage Basins and Rain Gauges

Flow monitoring sites are identified by the manholes where the flow monitors were secured and the pipelines wherein the flow sensors were placed. Flow monitoring basins are localized areas of a sanitary sewer collection system upstream of a given location (often a flow meter), including all pipelines, inlets, and appurtenances. The basin refers to the ground surface area near and enclosed by the pipelines[1]. A basin may refer to the entire collection system upstream from a flow meter or may exclude separately monitored basins upstream. To isolate a flow monitoring basin, an addition or subtraction of flows may be required[2].

Capacity and flow rate information is presented on a **site-by-site** basis. RDI/I analysis in this report will be conducted on a **basin-by-basin** basis for the Phase 1 sites only. For this study, subtraction of flows was required to isolate the drainage areas of some flow monitoring basins. Rain data was obtained from six installed rain gauges intending to capture rainfall throughout the SBMWD collection system.

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[1] Basin boundaries were determined using GIS data provided by Stantec.

[2] There is error inherent in flow monitoring. The error of adding flows is a weighted average of the component errors. The potential error caused by flow subtraction can be much more severe and depends on the component flow rates.

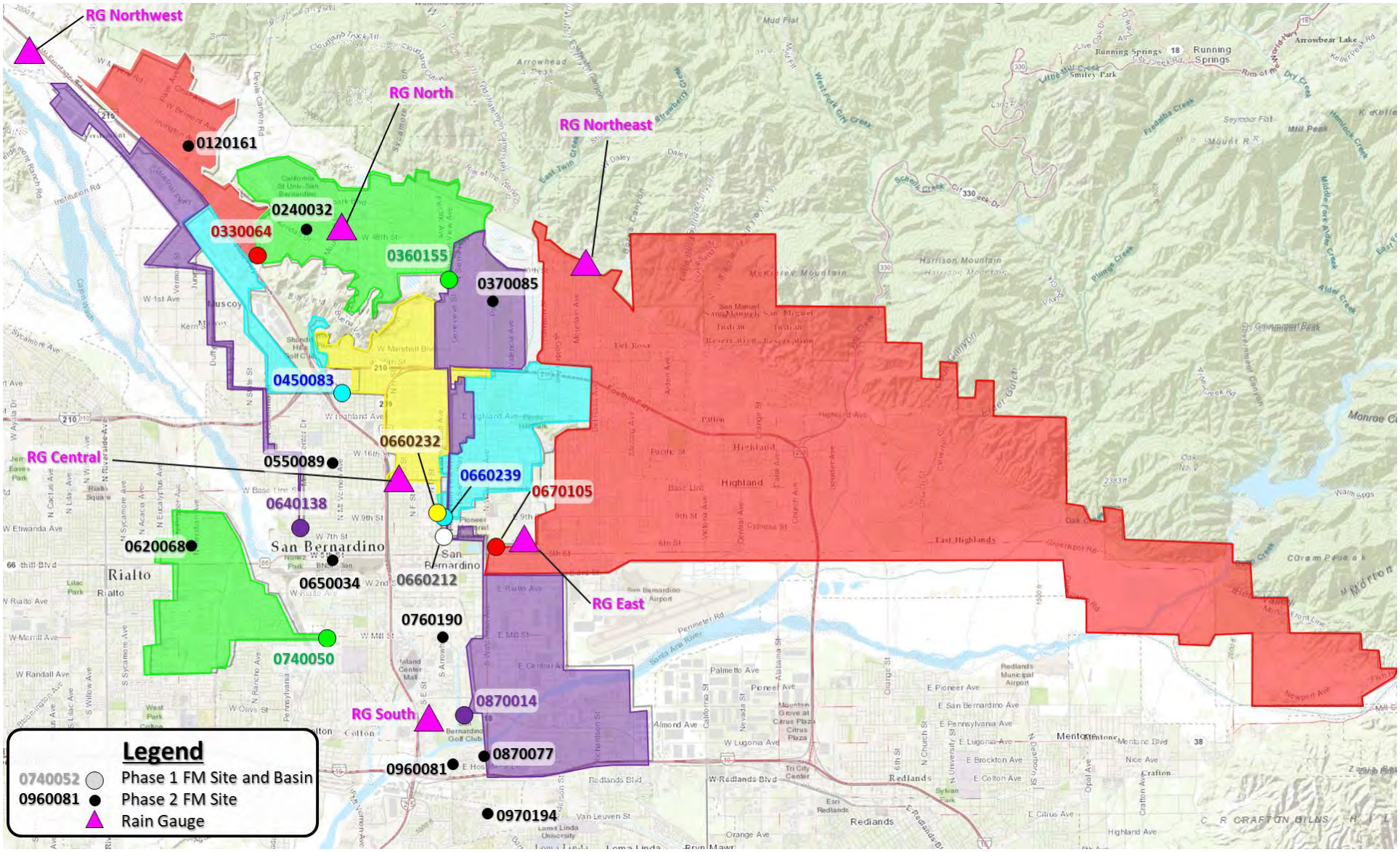
The flow monitoring sites were selected by Stantec and approved by SBMWD. Information regarding the flow monitoring sites, associated sewerage basins (basins for Phase 1 sites only) and rain gauge locations are listed in Table 1-1 and illustrated in Figure 1-1. Additional site information (latitude, longitude coordinates, rim elevations, photos, maps, etc.) can be found in *Appendix A* and *Appendix B*.

Table 1-1. List of Flow Monitoring Sites, Basins and Rain Gauge Locations

Monitoring Site	Pipe Monitored	Dia. (in)	Location	Basin Isolation Equation
Phase 1 Flow Monitoring				
SMH 0330064	West Inlet	27	Driveway northwest of University Parkway and N State Street	= $Q_{0330064}$
SMH 0360155	North Inlet	33	Mountain View Ave, south of Ralston Ave	= $Q_{0360155}$ – $Q_{0330064}$
SMH 0450083	West Inlet	18	1275 W 27th Street	= $Q_{0450083}$
SMH 0640138	North Inlet	27	W 8th Street and Medical Center Drive	= $Q_{0640138}$
SMH 0660212	West Inlet	30	W 7th Street and N Pershing Avenue	Basin is not isolated [A]
SMH 0660232	North Inlet	24	N Arrowhead Avenue north of W 9th Street	Basin is not isolated [A]
SMH 0660239	East Inlet	21	248 W 9th Street	= $Q_{0660239}$
SMH 0670105	East Inlet	33	6th Street west of Cooley Street	= $Q_{0670105}$
SMH 0740050	West Inlet	12	W Mill Street west of S Grape Street	= $Q_{0740050}$
SMH 0870014	East Inlet	54	E Dumas Street, east of S Washington Avenue	= $Q_{0870014}$ – $Q_{0360155}$ – $Q_{0660212}$ – $Q_{0670105}$
Phase 2 Flow Monitoring				
SMH 0120161	NW Inlet	8	Washington Avenue and Laura Lane	n/a
SMH 0240032	North Inlet	8	1494 Creekside Drive	n/a
SMH 0370085	West Outlet	8	E Parkdale Drive and Parkside Drive	n/a
SMH 0550089	West Inlet	8	W 15th Street east of N Pico Avenue	n/a
SMH 0620068	North Inlet	8	N Meridian Avenue and W 6th Street	n/a
SMH 0650034	East Outlet	8	W Kingman St, west of N Mt Vernon Ave	n/a
SMH 0760190	North Inlet	8	S Pershing Avenue and W Mill Street	n/a
SMH 0870077	North Outlet	15	S Waterman Avenue and E Vanderbilt Way	n/a
SMH 0960081	East Inlet	8	Commercenter Dr, north of Hospitality Ln	n/a
SMH 0970194	South Inlet	8	Industrial Rd east of S Waterman Ave E	n/a

Rain Gauge	Location
Northwest	**Cajon Reservoir:** Latitude: 34.2083° Longitude: -117.3876° Elevation: 1,910 feet
North	**Newmark Reservoir:** Latitude: 34.1734° Longitude: -117.3128° Elevation: 1,416 feet
Northeast	**Del Rosa Reservoir:** Latitude: 34.1664° Longitude: -117.2544° Elevation: 1,498 feet
Central	**EPA 108 Well:** Latitude: 34.1236° Longitude: -117.2991° Elevation: 1,118 feet
East	**Antil Reservoir:** Latitude: 34.1117° Longitude: -117.2693° Elevation: 1,055 feet
South	**397 Chandler Place WWTP:** Latitude: 34.0764° Longitude: -117.2918° Elevation: 989 feet

[A] SMH 0660212 and 0660232 were downstream from a manhole split with an undefined upstream drainage basin.



Note: colors shown in this figure are intended to differentiate sewerage basins only. The colors do not represent any additional basin information.
Per District's request, East Valley Water District (EVWD) sewer-sheds were included in FM 0670105 basin.

Figure 1-1. Map of Flow Monitoring Sites, Basins and Rain Gauges

2 Methods and Procedures

2.1 Confined Space Entry

A confined space (Photo 2-1) is defined as any space that is large enough and so configured that a person can bodily enter and perform assigned work, has limited or restricted means for entry or exit and is not designed for continuous employee occupancy. In general, the atmosphere must be constantly monitored for sufficient levels of oxygen (19.5% to 23.5%), and the presence of hydrogen sulfide (H_2S) gas, carbon monoxide (CO) gas, and lower explosive limit (LEL) levels. A typical confined space entry crew has members with OSHA-defined responsibilities of Entrant, Attendant and Supervisor. The Entrant is the individual performing the work. He or she is equipped with the necessary personal protective equipment needed to perform the job safely, including a personal four-gas monitor (Photo 2-2). If it is not possible to maintain line-of-sight with the Entrant, then more Entrants are required until line-of-sight can be maintained. The Attendant is responsible for maintaining contact with the Entrants to monitor the atmosphere using another four-gas monitor and maintaining records of all Entrants, if there is more than one. The Supervisor is responsible for developing the safe work plan for the job at hand prior to entering.



Photo 2-1. Confined Space Entry



Photo 2-2. Typical Personal Four-Gas Monitor

2.2 Flow Meter Installation

Depending on the hydraulic conditions of the flow monitoring location, V&A installed one of two types of flow meters:

- **Isco 2150 - Submersible Sensor Area-Velocity:** The Isco 2150 meter uses submerged sensors with a pressure transducer to collect depth readings and an ultrasonic Doppler sensor to determine the average fluid velocity.
- **Isco 2160 - Non-Contact LaserFlow Area-Velocity:** The Isco 2160 is a non-contact flow meter which utilizes a down-looking ultrasonic sensor to measure depth readings and laser technology to determine the average fluid velocity.

Isco 2150 – Submersible Sensor Area Velocity Flow Meter

Isco 2150 meters use submerged sensors with a pressure transducer to collect depth readings and an ultrasonic Doppler sensor to determine the average fluid velocity. The ultrasonic sensor emits high-frequency sound waves, which are reflected by air bubbles and suspended particles in the flow. The sensor receives the reflected signal and determines the Doppler frequency shift, which indicates the estimated average flow velocity. The sensor is typically mounted at a manhole inlet to take advantage of smoother upstream flow conditions. The sensor may be offset to one side to lessen the chances of fouling and sedimentation where these problems are expected to occur. Manual level and velocity measurements were taken during installation of the flow meters and again when they were removed and were compared to simultaneous level and velocity readings from the flow meters to ensure proper calibration and accuracy. The pipe diameter was also verified in order to accurately calculate the flow cross-section. The continuous depth and velocity readings were recorded by the flow meters on 5-minute intervals. Figure 2-1 shows a typical installation for a flow meter with a submerged sensor.

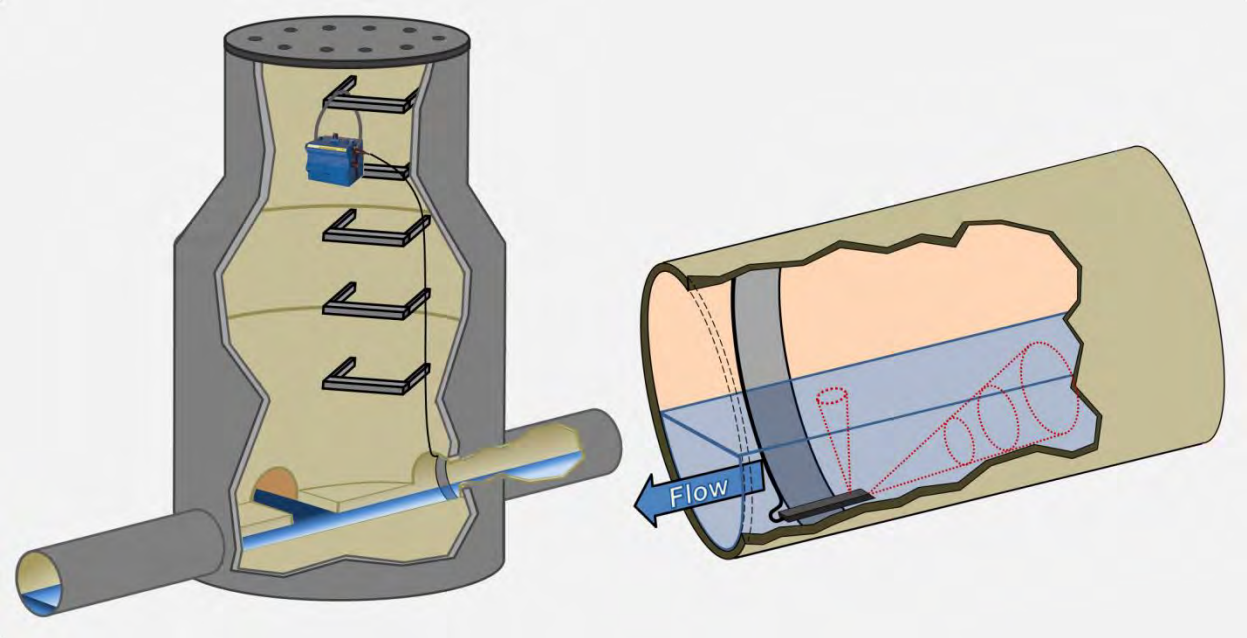


Figure 2-1. Typical Installation for Flow Meter with Submerged Sensor

Isco 2160 – LaserFlow Non-Contact Sensor Area Velocity Flow Meter

An Isco LaserFlow non-contact flow meter uses a laser Doppler sensor to measure velocity and a down-looking ultrasonic sensor to measure flow depth. The LaserFlow determines multiple points below the wastewater stream to focus a laser beam and measures the frequency shift of the returned light. The Doppler frequency shift indicates the estimated average flow velocity. Figure 2-2 illustrates a typical Isco LaserFlow installation.

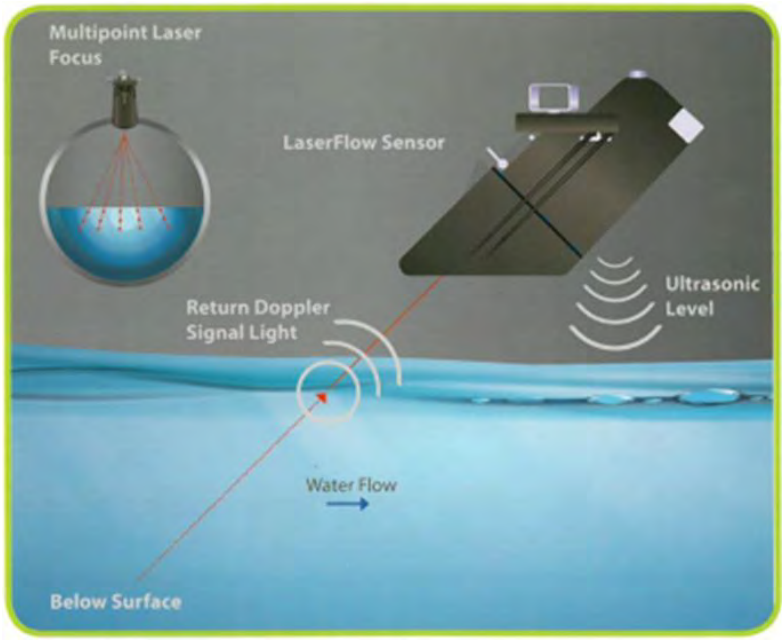


Figure 2-2. Typical Isco 2160 LaserFlow Flow Meter Installation

Lab and In Situ Calibration Procedures

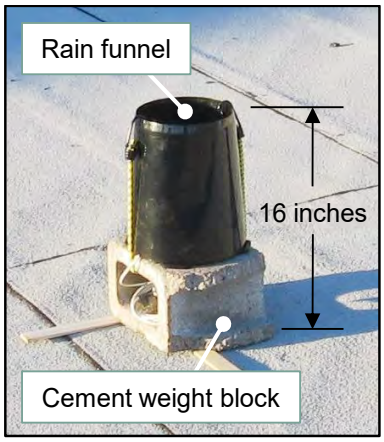
For both submerged and non-contact sensors, V&A used the calibration method outlined below.

- Prior to field work, flow meters were tested in an in-house flume to verify operability and accuracy.
- Manual level and velocity measurements were taken during flow meter installation and removal and as required intermittently throughout the duration of the study.
- Manual measurements were compared to simultaneous level and velocity readings from the flow meters to ensure proper calibration and accuracy.

2.3 Rain Gauge Installation

Accurate rainfall data is required to establish a correlation between rainfall intensity and RDI/I within the sewer system flows. Factors in selecting a rain gauge location include surrounding vegetation, a suitable installation surface, publicly owned facilities, and site access during normal business hours.

A rain gauge (shown at right) is a simple electronic device using a funnel to collect rain and a self-emptying mechanism to measure how much rain has fallen. A data logger records the result and stores it for download later. The rain gauge is self-contained, requires no external power, and does not send or receive remote signals. The gauge is attached to a cement block, which weights the device and prevents it from moving in high winds. Installation of the gauge simply consists of placing the gauge on a flat roof surface. The installer must have access to the roof, but no building modification or attachment is required.



Rain gauge on rooftop

2.4 Flow Calculation

Data retrieved from the flow meter was placed into a spreadsheet program for analysis. Data analysis includes data comparison to field calibration measurements, as well as necessary geometric adjustments as required for sediment (sediment reduces the pipe's wetted cross-sectional area available to carry flow). Area-velocity flow metering uses the continuity equation,

$$Q = v \cdot A = v \cdot (A_T - A_S)$$

where Q: volume flow rate
v: average velocity as determined by the ultrasonic sensor
A: cross-sectional area available to carry flow
A_T: total cross-sectional area with both wastewater and sediment
A_S: cross-sectional area of sediment.

For circular pipe,

$$A_T = \left[\frac{D^2}{4} \cos^{-1}\left(1 - \frac{2d_W}{D}\right) \right] - \left[\left(\frac{D}{2} - d_W\right)\left(\frac{D}{2}\right) \sin\left(\cos^{-1}\left(1 - \frac{2d_W}{D}\right)\right) \right]$$

$$A_S = \left[\frac{D^2}{4} \cos^{-1}\left(1 - \frac{2d_S}{D}\right) \right] - \left[\left(\frac{D}{2} - d_S\right)\left(\frac{D}{2}\right) \sin\left(\cos^{-1}\left(1 - \frac{2d_S}{D}\right)\right) \right]$$

where d_W: distance between wastewater level and pipe invert
d_S: depth of sediment
D: pipe diameter

2.5 Average Dry Weather Flow Determination

For this study, four distinct average dry weather flow curves were established for each site location:

- Mondays – Thursdays
- Fridays
- Saturdays
- Sundays

Flows for many sites differ on Friday evenings compared to Mondays through Thursdays. Starting around 7 pm, the flows are often decreased (compared to Monday through Thursday). Similarly, flow patterns for Saturday and Sunday were also separated due to their unique evening flow pattern. This type of differentiation can be important when determining RDI/I response, especially if a rain event occurs on a Friday, Saturday or Sunday evening.

Figure 2-3 illustrates a sample of varying flow patterns within a typical week dry week.

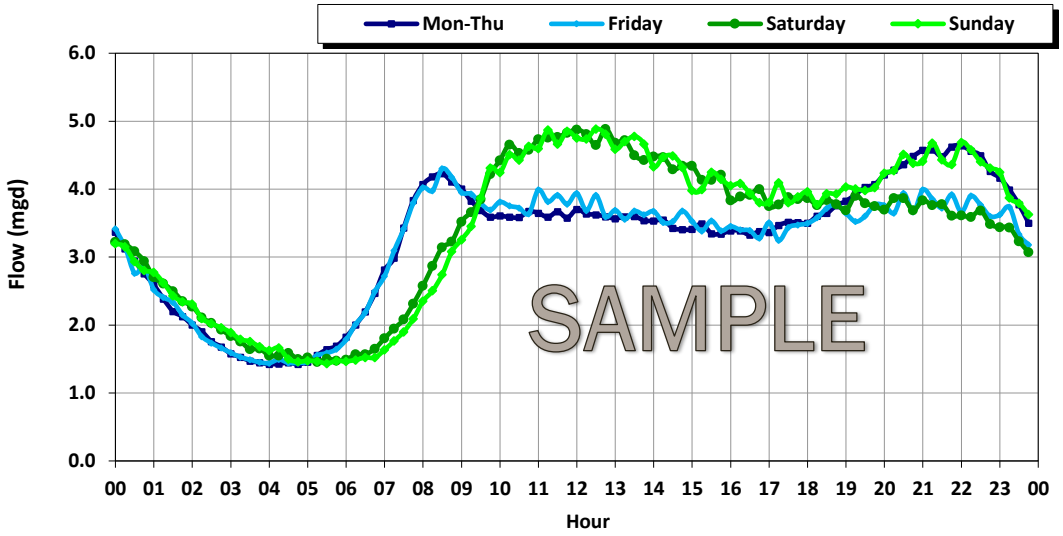


Figure 2-3. Sample ADWF Diurnal Flow Patterns

ADWF curves are generated from "Dry Days", when RDI had the least impact on the baseline flow. Abnormal days with atypical flow patterns (holidays, spring break, etc.) are also avoided. The overall average dry weather flow (ADWF) was calculated per the following equation:

$$ADWF = \left(ADWF_{Mon-Thu} \times \frac{4}{7} \right) + \left(ADWF_{Fri} \times \frac{1}{7} \right) + \left(ADWF_{Sat} \times \frac{1}{7} \right) + \left(ADWF_{Sun} \times \frac{1}{7} \right),$$

2.6 Flow Attenuation

Flow attenuation in a sewer collection system is the natural process of the reduction of the peak flow rate through redistribution of the same volume of flow over a longer period of time. This occurs as a result of friction (resistance), internal storage and diffusion along the sewer pipes. Fluids are constantly working towards equilibrium. For example, a volume of fluid poured into a static vessel with no outside turbulence will eventually stabilize to a static state, with a smooth fluid surface without peaks and valleys. Attenuation within a sanitary sewer collection system is based upon this concept. A flow profile with a strong peak will tend to stabilize towards equilibrium, as shown in Figure 2-4.

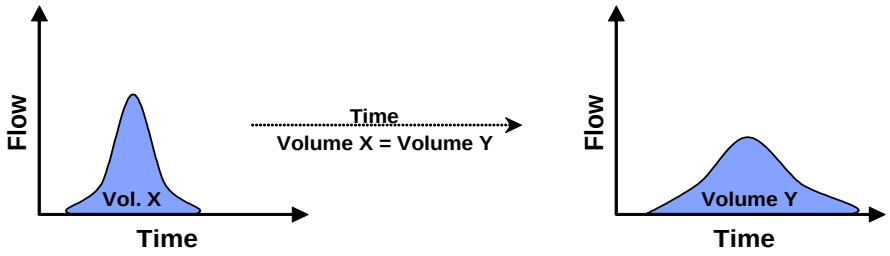


Figure 2-4. Attenuation Illustration

Within a sanitary sewer collection system, each individual basin will have a specific flow profile. As the flows from the basins combine within the trunk sewer lines, the peaks from each basin will (a) not necessarily coincide at the same time, and (b) due to the length and time of travel through the trunk sewers, peak flows will attenuate prior to reaching the treatment facility. The sum of the peak flows of the individual basins within a collection system will usually be greater than the peak flows observed at the treatment facility.

2.7 Inflow / Infiltration Analysis: Definitions and Identification

Inflow and infiltration (RDI/I) consists of storm water and groundwater that enter the sewer system through pipe defects and improper storm drainage connections and is defined as follows:

2.7.1 Definition and Typical Sources

- **Inflow:** Storm water inflow is defined as water discharged into the sewer system, including private sewer laterals, from direct connections such as downspouts, yard and area drains, holes in manhole covers, cross-connections from storm drains, or catch basins.
- **Infiltration:** Infiltration is defined as water entering the sanitary sewer system through defects in pipes, pipe joints, and manhole walls, which may include cracks, offset joints, root intrusion points, and broken pipes.

Figure 2-5 illustrates the possible sources and components of RDI/I.

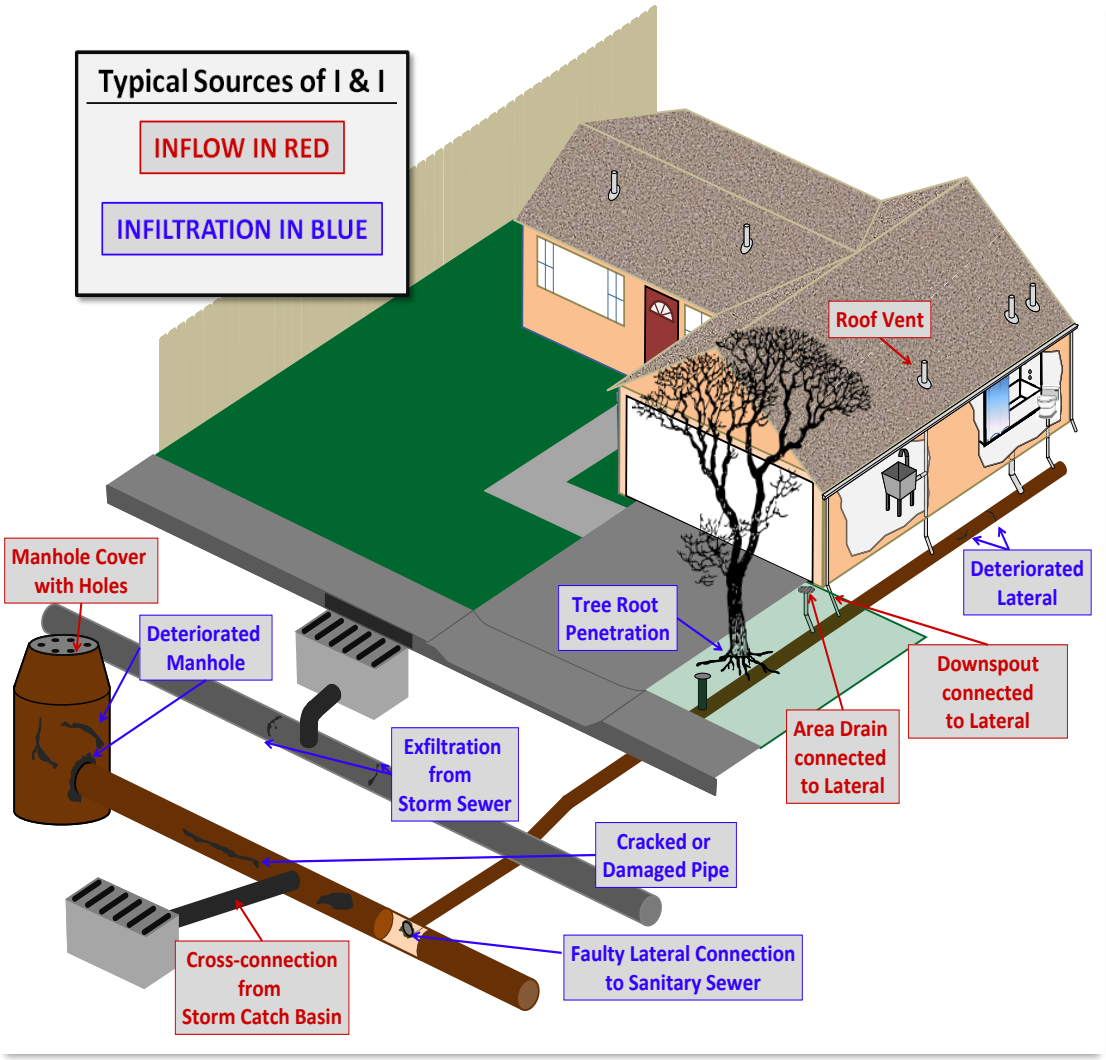


Figure 2-5. Typical Sources of Infiltration and Inflow

2.7.2 Infiltration Components

Infiltration can be further subdivided into components as follows:

- **Groundwater Infiltration:** Groundwater infiltration (GWI) depends on the depth of the groundwater table above the pipelines as well as the percentage of the system submerged. The variation of groundwater levels and subsequent groundwater infiltration rates is seasonal by nature. On a day-to-day basis, groundwater infiltration rates are relatively steady and will not fluctuate greatly.
- **Rainfall-Dependent Infiltration:** Rainfall-Dependent Infiltration (RDI) occurs as a result of storm water and enters the sewer system through pipe defects, as with groundwater infiltration. The storm water first percolates directly into the soil and then migrates to an infiltration point. Typically, the time of concentration for rainfall-related infiltration may be 24 hours or longer, but this depends on the soil permeability and saturation levels.
- **Rainfall-Responsive Infiltration** is storm water which enters the collection system indirectly through pipe defects, but normally in sewers constructed close to the ground surface such as private laterals. Rainfall-responsive infiltration is independent of the groundwater table and reaches defective sewers via the pipe trench in which the sewer is constructed, particularly if the pipe is placed in impermeable soil and bedded and backfilled with a granular material. In this case, the pipe trench serves as a conduit similar to a French drain, conveying storm drainage to defective joints and other openings in the system. This type of infiltration can have a quick response and graphically can look very similar to inflow.

2.7.3 Impact and Cost of Source Detection and Removal

- **Inflow:**
  - Impact: This component of RDI/I creates a peak flow problem in the sewer system and often dictates the required capacity of downstream pipes and transport facilities to carry these peak instantaneous flows. Because the response and magnitude of inflow is tied closely to the intensity of the storm event, the short-term peak instantaneous flows may result in surcharging and overflows within a collection system. Severe inflow may result in sewage dilution, resulting in upsetting the biological treatment (secondary treatment) at the treatment facility.
  - Cost of Source Identification and Removal: Inflow locations are usually less difficult to find and less expensive to correct. These sources include direct and indirect cross-connections with storm drainage systems, roof downspouts, and various types of surface drains. Generally, the costs to identify and remove sources of inflow are low compared to potential benefits to public health and safety or the costs of building new facilities to convey and treat the resulting peak flows.
- **Infiltration:**
  - Impact: Infiltration typically creates long-term annual volumetric problems. The major impact is the cost of pumping and treating the additional volume of water, and of paying for treatment (for municipalities that are billed strictly on flow volume).
  - Cost of Source Detection and Removal: Infiltration sources are usually harder to find and more expensive to correct than inflow sources. Infiltration sources include defects in deteriorated sewer pipes or manholes that may be widespread throughout a sanitary sewer system.

2.7.4 Graphical Identification of RDI/I

Inflow is usually recognized graphically by large-magnitude, short-duration spikes immediately following a rain event. Infiltration is often recognized graphically by a gradual increase in flow after a wet-weather event. The increased flow typically sustains for a period after rainfall has stopped and then gradually drops off as soils become less saturated and as groundwater levels recede to normal levels. Real time flows were plotted against ADWF to analyze the RDI/I response to rainfall events. Figure 2-6 illustrates a sample of how this analysis is conducted and some of the measurements that are used to distinguish infiltration and inflow. Similar graphs were generated for the individual flow monitoring sites and can be found in *Appendix A*.

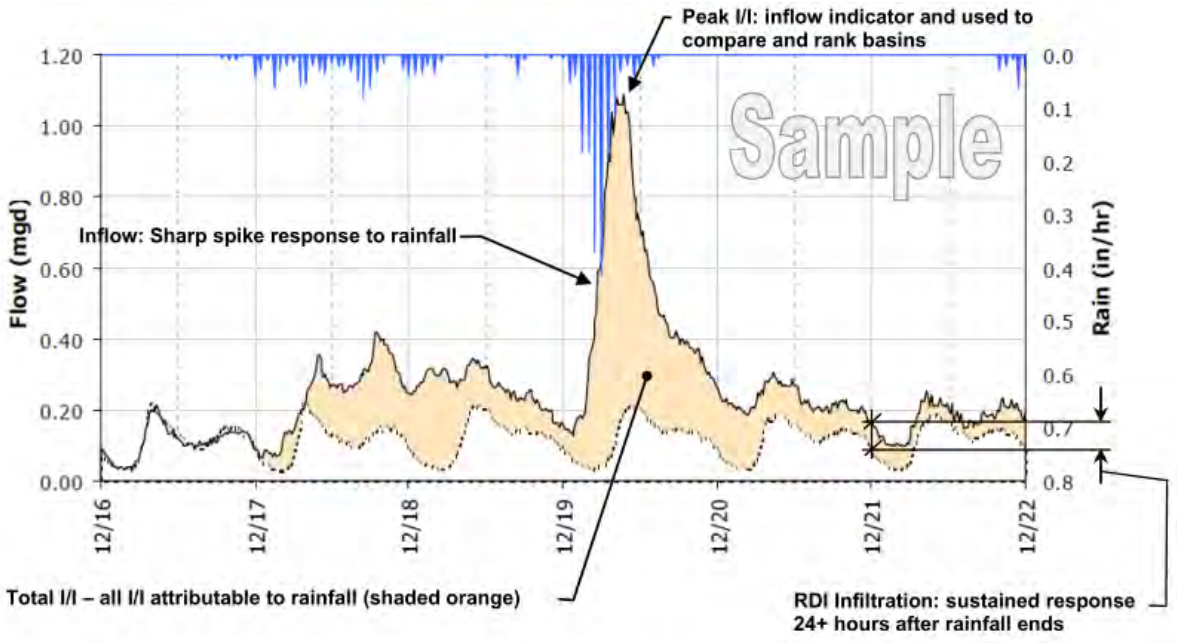


Figure 2-6. Sample Infiltration and Inflow Isolation Graph

2.7.5 Analysis Metrics

After differentiating RDI/I flows from ADWF flows, various calculations can be made to determine which RDI/I component (inflow or infiltration) is more prevalent at a particular site and to compare the relative magnitudes of the RDI/I components between drainage basins and between storm events:

- **Inflow – Peak RDI/I Flow Rate:** Inflow is characterized by sharp, direct spikes occurring during a rainfall event. Peak RDI/I rates are used for inflow analysis[3].
- **Groundwater Infiltration:** GWI analysis is conducted by looking at minimum dry weather flow to average dry weather flow ratios and comparing them to established standards to quantify the rate of excess groundwater infiltration.
- **Rainfall-Dependent Infiltration:** RDI Analysis is conducted by looking at the infiltration rates at set periods after the conclusion of a storm event. Depending on the particular collection system

[3] RDI/I flow rate is the real time flow less the estimated average dry weather flow rate. It is an estimate of flows attributable to rainfall. By using peak measured flow rates (inclusive of ADWF), the RDI/I flow rate would be skewed higher or lower depending on whether the storm event RDI/I response occurs during low-flow or high-flow hours.

and the time required for flows to return to ADWF levels, different periods may be examined to determine the basins with the greatest or most sustained rainfall-dependent infiltration rates.

- **Total Infiltration:** The total inflow and infiltration is measured in gallons per site and per storm event. Because it is based on total RDI/I volume, it is an indicator of combined inflow and infiltration and is used to identify the overall volumetric influence of RDI/I within the monitoring basin.

2.7.6 Normalization Methods

There are three ways to *normalize* the RDI/I analysis metrics for an "apples-to-apples" comparison amongst the different drainage basins:

- **per-ADWF:** The metric is divided by the established average dry weather flow rate and typically expressed as a ratio. *Peaking Factors* are examples of using ADWF to normalize data from different sites.
- **per-IDM:** The metric is divided by length of pipe (IDM [inch-diameter mile]) contained within the upstream basin. Final units typically are gallons per day (gpd) per IDM.
- **per-ACRE:** The metric is divided by the acreage of the upstream basin. Final units typically are gallons per day (gpd) per ACRE.

The infiltration and inflow indicators were normalized by the per-ADWF method in this report.

3 Rainfall Results

3.1 Flow Study Rainfall Data

There were six rainfall events that elicited an RDI/I response from some or many flow monitoring sites. Table 3-1 summaries the duration and precipitation of each rainfall event for the six rain gauges installed within SBMWD. Figure 3-1 illustrates the rainfall data in hourly intervals over the flow monitoring period (RG Central data plotted). Figure 3-2 shows the rain accumulation plot of the period rainfall for the six rain gauges, as well as the historical average rainfall[4] in San Bernardino during this project duration. Comparing the historical average to RG Central, rainfall totals were approximately 30% lower than historical normal levels over the flow monitoring period.

Table 3-1. Rainfall Events Used for RDI/I Analysis

Rainfall Event	Duration	RG Northwest (in)	RG North (in)	RG Northeast (in)	RG Central (in)	RG East (in)	RG South (in)
1	February 27, 2018, 12:15 am to 4:30 am (4.25 hours)	0.36	0.32 [5]	0.44	0.27 [5]	0.26	0.29
2	March 2, 2018, 12:30 pm to 11:00 pm (10.5 hours)	0.39	0.45 [5]	0.42	0.22 [5]	0.15	0.19
3	March 10, 9:15 am to March 11, 1:45 am (16.5 hours)	1.26	1.15	1.09	0.98	0.63	0.72
4	March 14, 9:45 pm to March 15, 5:45 am (8.0 hours)	0.72	0.54	0.43	0.35	0.35	0.28
5	March 16, 10:45 pm to March 17, 5:30 am (6.75 hours)	0.61	0.52	0.38	0.48	0.13	0.30
6	March 22, 8:15 am to March 23, 7:00 am (10.75 hours)	1.49	1.05	0.84	0.67	0.45	0.55
Total over Monitoring Period:		***5.81***	***5.11***	***4.62***	***3.57***	***2.46***	***2.61***

[4] Historical data taken from the WRCC (Station 047723 in San Bernardino): http://www.wrcc.dri.edu/summary/climsmsca.html

[5] Two V&A rain gauges (RG North and RG Central) were inactive for Events 1 and 2. V&A analyzed rainfall data from publicly available rain gauges maintained by weather enthusiasts. The National Oceanic and Atmospheric Administration (NOAA) Citizen Weather Observer Program (CWOP) members send data from their private weather stations to the NOAA MADIS server; the data undergoes QAQC and then is distributed. While V&A has no direct control over these gauges, V&A performed QAQC on the data before using it for analysis. Rainfall for Events 1 and 2 for RG North and RG Central were estimated from these local CWOP rain gauges.

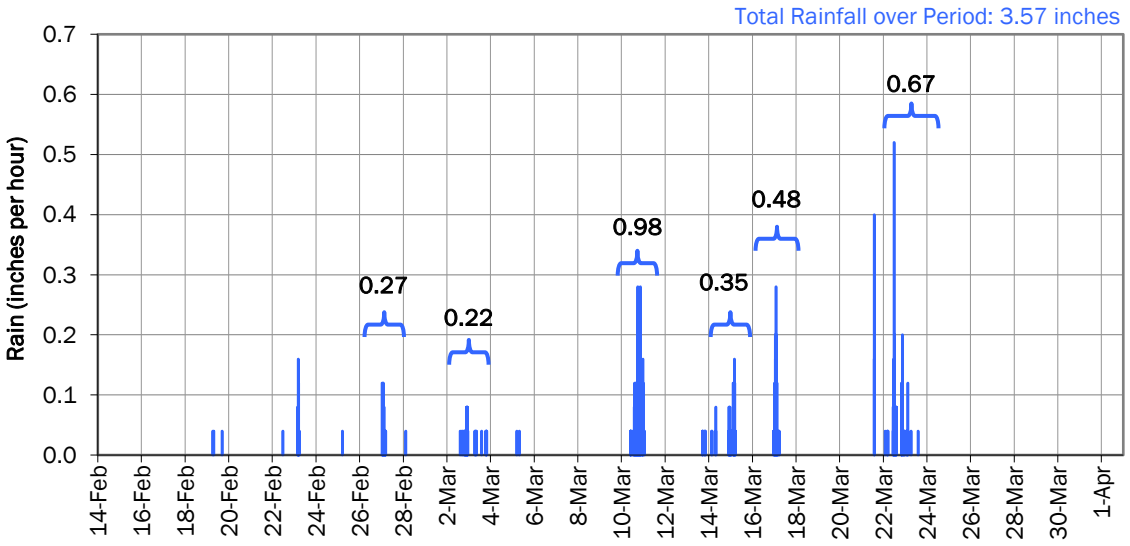


Figure 3-1. Rainfall Activity over Monitoring Period (RG Central)

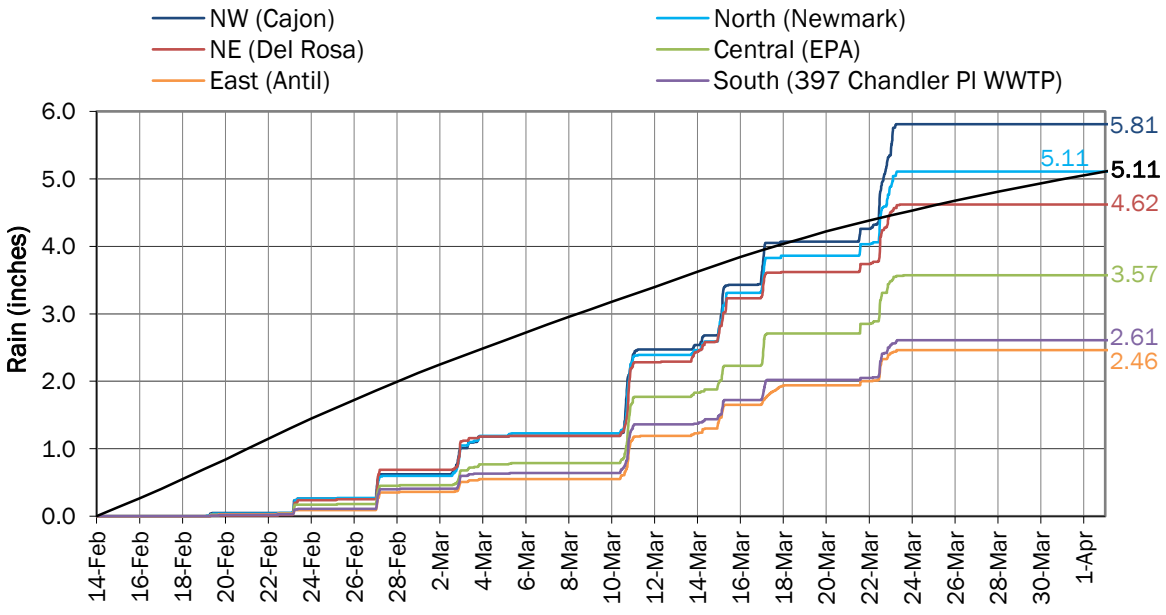


Figure 3-2. Rainfall Accumulation Plot

3.2 Rainfall: Storm Event Classification

It is important to classify the relative size of storm events that occurs over the course of a flow monitoring period in order to compare the observed flow response to that occurring during a design storm event (sanitary sewers are often designed to withstand RDI/I contribution to sanitary flows for specific-sized "design" storm events). Rainfall events are classified by intensity and duration. For example, the National Oceanic and Atmospheric Administration (NOAA) Rainfall Frequency Atlas shown in Figure 3-3[6] classifies a 10-year, 24-hour storm event at the RG Central rain gauge location as 3.84 inches. This means that in any given year, at this specific location, there is a 10% chance that 3.84 inches of rain will fall in any 24-hour period.

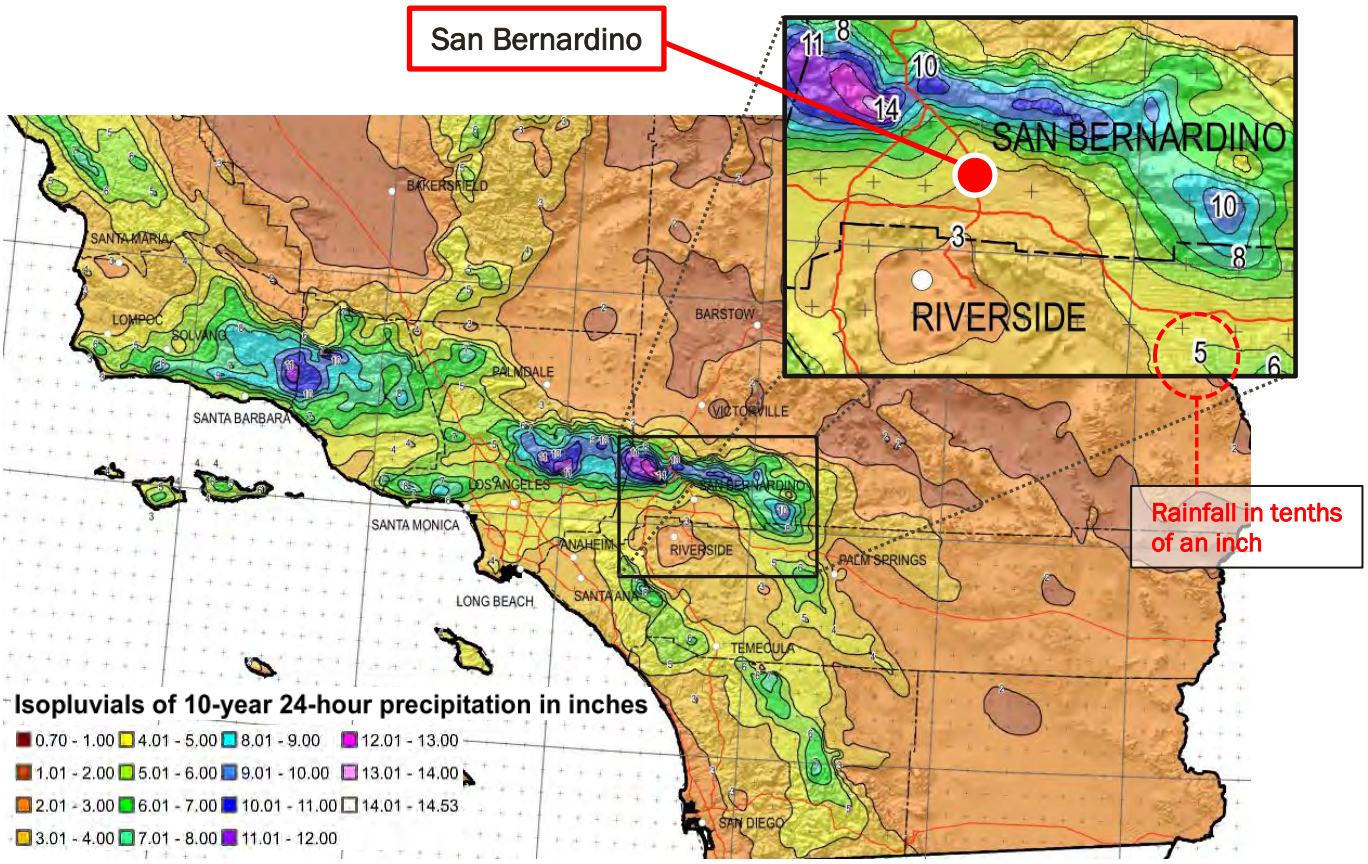


Figure 3-3. NOAA California Map of Isopluvials of 10-year, 24-hour Precipitation

From the NOAA frequency maps, for a specific latitude and longitude, the rainfall densities for period durations ranging from 15 minutes to 60 days are known for rain events ranging from 1-year to 100-year intensities. These are plotted to develop a rain event frequency map specific to each rainfall monitoring site. Superimposing the peak measured densities for the rainfall events on the rain event frequency plot determines the classification of the rainfall event.

[6] NOAA Western U.S. Precipitation Frequency Maps Atlas 14, Volume 6, Version 2, 2011: ftp://hdsc.nws.noaa.gov/pub/hdsc/data/sw/ca10y24h.pdf

Storm event classification analyses were conducted for the six rain events at the six rain gauges, looking at both short-duration, high intensity events ("cloudbursts" - from 15-minute to 1-hour durations, Figure 3-4 shown for RG Central), as well as for 1-hour to 24-hour event durations (Figure 3-5 shown for RG Central). All rain events for all rain gauges were classified as less than 1-year rainfall events, summarized in Table 3-2.

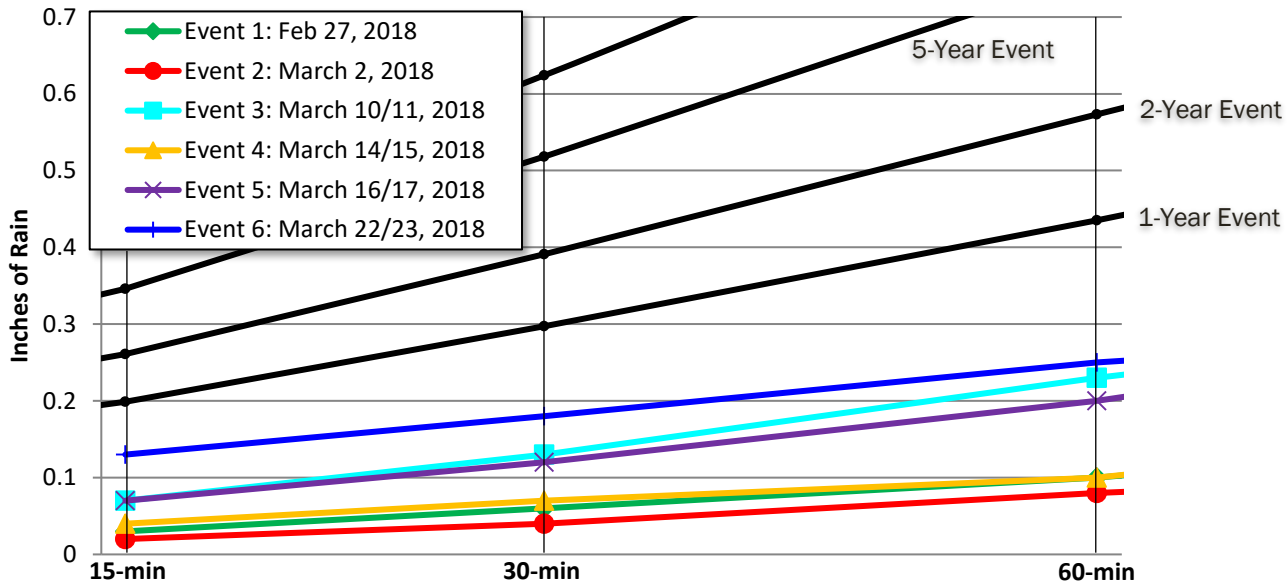


Figure 3-4. Rainfall Event Classification – 15-Minute to 1-Hour Duration (RG Central)

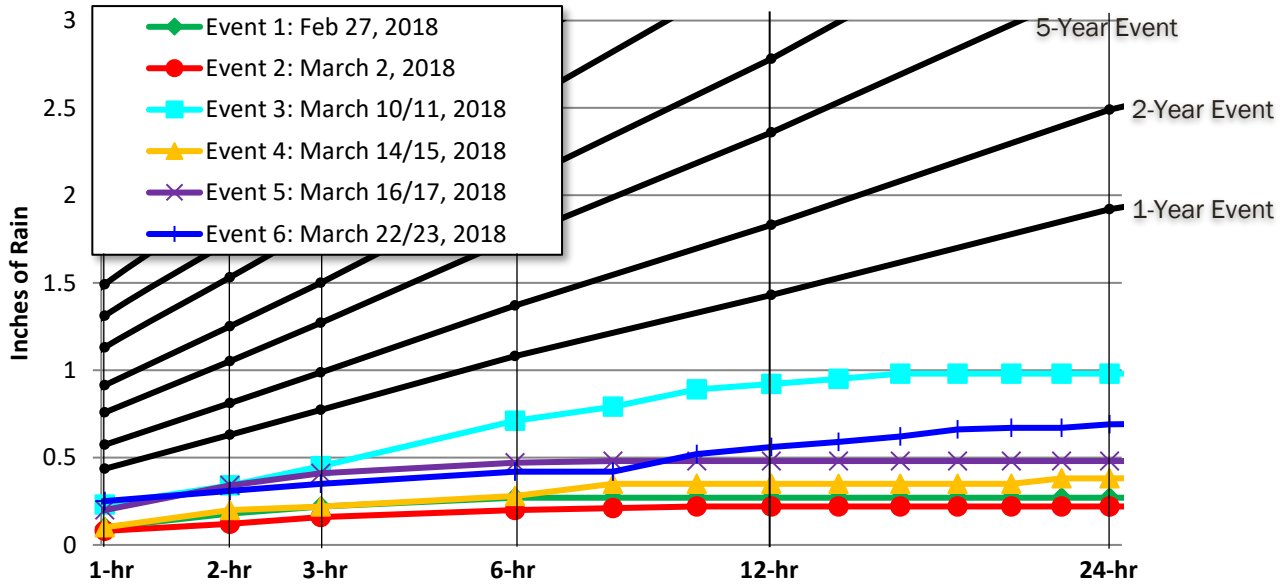


Figure 3-5. Rainfall Event Classification – 1-Hour to 24-Hour Duration (RG Central)

Table 3-2. Rainfall Event Classification Summary

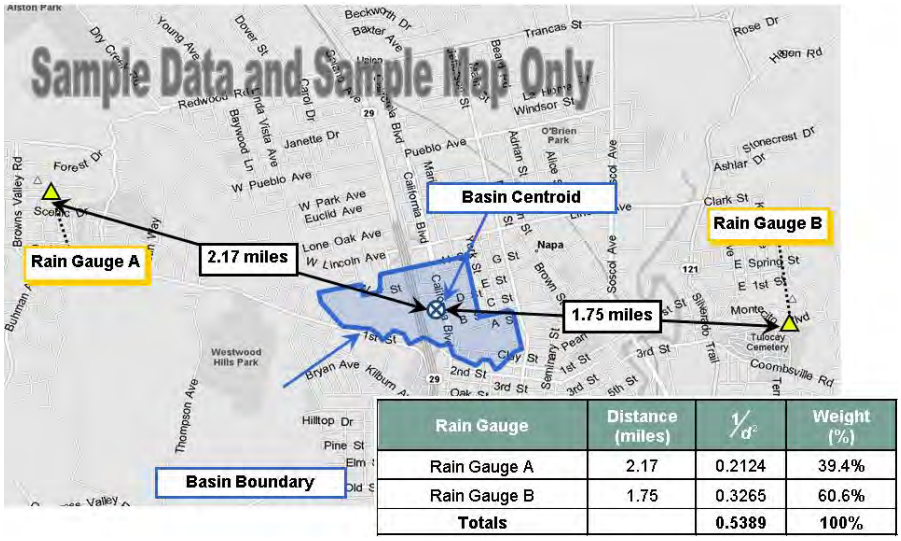
Event	Date(s)	RG Northwest (in)	RG North (in)	RG Northeast (in)	RG Central (in)	RG East (in)	RG South (in)
1	February 27, 2018	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year
2	March 2, 2018	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year
3	March 10/11, 2018	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year
4	March 14/15, 2018	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year
5	March 16/17, 2018	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year
6	March 22/23, 2018	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year	< 1-Year

3.3 Rain Gauge Triangulation Distribution

The rainfall affecting the sanitary sewer collection system basins must be calculated based on the proximity to the rain gauge locations. The mean precipitation for each basin was calculated by taking data from rain gauges in close proximity to the basin and using the inverse distance weighting (IDW) method. IDW is an interpolation method that assumes the influence of each rain gauge location diminishes with distance. The approximate geographic coordinates of each basin centroid were determined and a weighted average was taken of the precipitation data from nearby rain gauge locations. IDW is performed using the equation:

$$w = \frac{1/d^p}{\sum 1/d^p}$$

where the weight, w, depends on the distance, d, from the rain gauge to the basin centroid and p, a user-selected power ($p > 0$). The most common choice of p in hydrological studies of watershed areas is 2. Figure 3-6 illustrates the IDW method with sample data. The rain gauge distribution as calculated for each basin is shown in Table 3-3.



Rain Gauge	Distance (miles)	$1/d^2$	Weight (%)
Rain Gauge A	2.17	0.2124	39.4%
Rain Gauge B	1.75	0.3265	60.6%
Totals		**0.5389**	**100%**

Figure 3-6. Rainfall Inverse Distance Weighting Method

Table 3-3. Rain Gauge Distribution per Monitoring Site

Monitoring Site	RG Northwest	RG North	RG Northeast	RG Central	RG East	RG South
Phase 1 Flow Monitoring Sites						
SMH 0330064	55.9%	44.1%				
SMH 0360155	5.9%	94.1%				
SMH 0450083	9.9%	72.2%		17.9%		
SMH 0640138	55.0%	45.0%				
SMH 0660212	2.5%	29.0%	7.7%	42.8%	18.0%	
SMH 0660232	4.4%	49.9%		45.7%		
SMH 0660239			18.2%	38.9%	42.9%	
SMH 0670105			86.2%		13.8%	
SMH 0740050				55.1%		44.9%
SMH 0870014	1.5%	24.7%	14.0%	25.3%	27.7%	6.8%
Phase 2 Flow Monitoring Sites						
SMH 0120161	59.3%	40.7%				
SMH 0240032	1.4%	98.6%				
SMH 0370085		18.0%	70.3%	11.7%		
SMH 0550089		11.1%		88.9%		
SMH 0620068				67.0%		33.0%
SMH 0650034				58.7%	18.7%	22.6%
SMH 0760190				18.8%	31.7%	49.5%
SMH 0870077						100%
SMH 0960081						100%
SMH 0970194						100%

4 Flow Monitoring Results

4.1 Average Flow Analysis

ADWF curves were established from "Dry Days", when RDI had the least impact on the baseline flow. Abnormal days with atypical flow patterns (holidays, spring break, etc.) are also avoided. Table 4-1 summarizes the dry weather flow data measured for this study. ADWF curves for each site can be found in *Appendix A* and *Appendix B.*

Figure 4-1 shows a flow schematic highlighting the average daily flows and flow depths through the flow monitoring locations.

Table 4-1. Dry Weather Flow

Monitoring Site	Mon-Thu ADWF (mgd)	Friday ADWF (mgd)	Saturday ADWF (mgd)	Sunday ADWF (mgd)	Overall ADWF (mgd)
Phase 1 Flow Monitoring Sites					
SMH 0330064	1.078	1.023	1.102	1.238	1.096
SMH 0360155	2.037	2.054	2.051	2.139	2.056
SMH 0450083	0.512	0.474	0.424	0.449	0.485
SMH 0640138	0.341	0.321	0.338	0.345	0.338
SMH 0660212	1.352	1.361	1.345	1.338	1.350
SMH 0660232	1.865	1.841	1.844	1.923	1.867
SMH 0660239	1.350	1.235	1.402	1.334	1.338
SMH 0670105	5.065	4.987	5.171	5.384	5.115
SMH 0740050	0.042	0.025	0.073	0.097	0.052
SMH 0870014	10.56	10.15	10.89	11.44	10.67
Phase 2 Flow Monitoring Sites					
SMH 0120161	0.060	0.063	0.066	0.066	0.062
SMH 0240032	0.028	0.025	0.027	0.027	0.027
SMH 0370085	0.026	0.023	0.028	0.030	0.026
SMH 0550089	0.016	0.015	0.014	0.018	0.016
SMH 0620068	0.035	0.034	0.033	0.035	0.035
SMH 0650034	0.029	0.028	0.029	0.029	0.029
SMH 0760190	0.0076	0.0073	0.0061	0.0060	0.0071
SMH 0870077	0.163	0.174	0.180	0.158	0.166
SMH 0960081	0.022	0.019	0.016	0.018	0.020
SMH 0970194	0.220	0.224	0.224	0.225	0.222

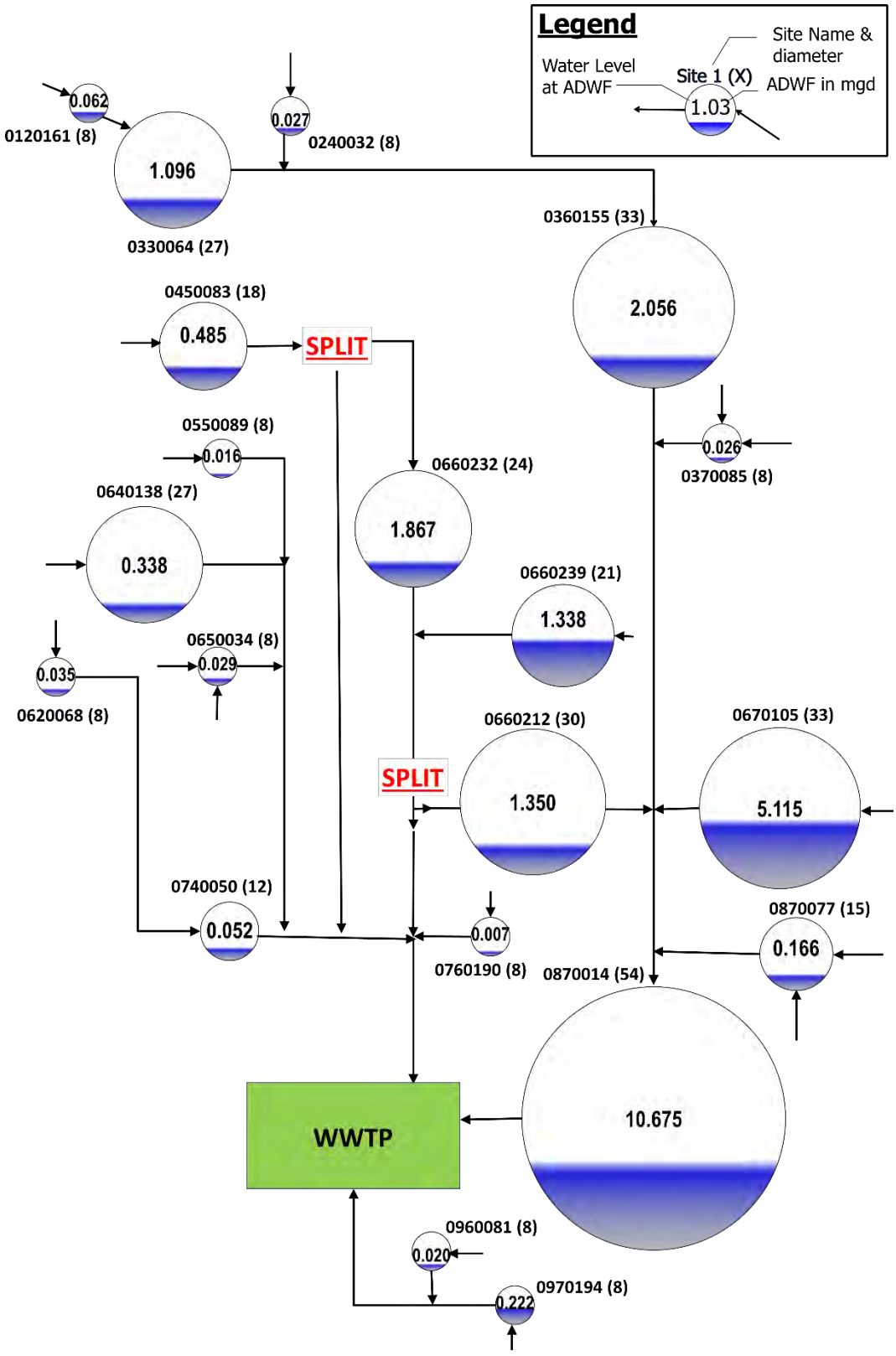


Figure 4-1. Dry Weather Flow Schematic – V&A Sites

4.2 Capacity Analysis: Peaking Factor and d/D Ratio

Peak measured flows and the corresponding flow levels (depths) are important to understand the capacity limitations of a collection system. The peak flows and flow levels reported are from the peak measurements as taken across the entirety of the flow monitoring period. Peak flows and levels may not correspond to a rainfall event.

The following capacity analysis terms are defined as follows:

- **Peaking Factor:** Peaking factor is defined as the peak measured flow divided by the ADWF. Peaking factors are influenced by many factors including size/topography of tributary area, proximity to pump stations, and the characteristics of I/I entering the collection system. Flow attenuation and flow restrictions will also affect the peaking factor. A peaking factor threshold value of 3.0 is commonly used for sanitary sewer design of new pipe; however, it is noted that this value is variable, subject to attenuation and the size of the upstream collector area. The Department should follow its own standards and criteria when examining peaking factors.
- **d/D Ratio:** The d/D ratio is the peak measured depth of flow (d) divided by the pipe diameter (D). Standards for d/D ratio vary from agency to agency, but typically range between $d/D \leq 0.5$ and $d/D \leq 0.75$. The d/D ratio for each site was computed based on the maximum depth of flow for the flow monitoring study.

Table 4-2 summarizes the peak recorded flows, levels, *d/D* ratios, and peaking factors per site during the flow monitoring period. Results of note have been shaded in RED. Capacity analysis data is presented on a site-by-site basis and represents the hydraulic conditions only at the point site locations. Hydraulic conditions in other areas of the collection system will differ.

Table 4-2. Capacity Analysis Summary

Monitoring Site	ADWF (mgd)	Peak Measured Flow (mgd)	Peaking Factor	Pipe Diameter, *D* (in)	Max Depth, *d* (in)	Max *d/D* Ratio
Phase 1 Flow Monitoring Sites						
SMH 0330064	1.096	2.50	2.3	27	9.81	0.36
SMH 0360155	2.056	3.90	1.9	33	9.73	0.29
SMH 0450083	0.485	0.91	1.9	18	6.38	0.35
SMH 0640138	0.338	1.07	3.2	27	7.04	0.26
SMH 0660212	1.350	2.42	1.8	30	8.76	0.29
SMH 0660232	1.867	3.09	1.7	24	7.06	0.29
SMH 0660239	1.338	2.48	1.9	21	13.34	0.64
SMH 0670105	5.115	8.29	1.6	33	18.25	0.55
SMH 0740050	0.052	0.34	6.5	12	6.06	0.51
SMH 0870014	10.67	18.76	1.8	54	23.87	0.44

Monitoring Site	ADWF (mgd)	Peak Measured Flow (mgd)	Peaking Factor	Pipe Diameter, *D* (in)	Max Depth, *d* (in)	Max *d/D* Ratio
Phase 2 Flow Monitoring Sites						
SMH 0120161	0.062	0.158	2.5	8	3.56	0.45
SMH 0240032	0.027	0.065	2.4	8	2.54	0.32
SMH 0370085	0.026	0.103	3.9	8	2.44	0.31
SMH 0550089	0.016	0.057	3.6	8	1.78	0.22
SMH 0620068	0.035	0.071	2.0	8	2.37	0.30
SMH 0650034	0.029	0.243	8.4	8	4.87	0.61
SMH 0760190	0.0071	0.027	3.8	8	2.93	0.37
SMH 0870077	0.166	0.368	2.2	15	4.99	0.33
SMH 0960081	0.020	0.091	4.5	8	2.6	0.33
SMH 0970194	0.222	0.398	1.8	8	5.8	0.73

The following capacity analysis results are noted:

- **Peaking Factor:**
  - Phase 1: SMH 0740050 had a peaking factor of PF = 6.5, clearly higher than other sites during the Phase 1 flow monitoring effort. It is noted that SMH 0650034 had very low ADWF values and flow patterns suggesting a non-residential collection region (industrial or commercial). The low ADWF values and abnormal usage patterns may skew this peaking factor high.
  - Phase 2: SMH 0650034 had a peaking factor of PF = 8.4, clearly higher than other sites during the Phase 2 flow monitoring effort. The peak flow occurred during a rainfall events and appears to be due to a high volume of RDI/I, specifically inflow.
- **d/D Ratio:** All flow monitoring sites had max d/D ratios less than the common threshold value of 0.75 d/D. None of the sites reached a surcharge condition during the study.

Figure 4-2 and Figure 4-3 show bar graphs summarizing the site-by-site peaking factors and d/D ratios, respectively. Figure 4-4 shows a flow schematic showing the peak flow levels for the V&A flow meters.

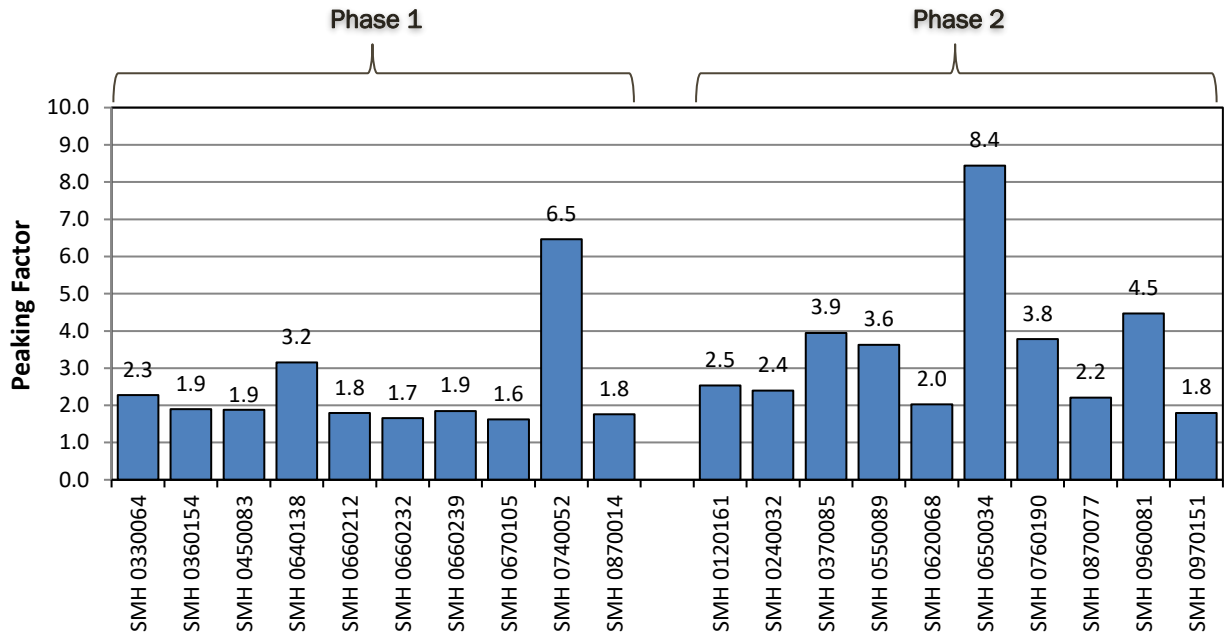


Figure 4-2. Capacity Summary: Peaking Factors

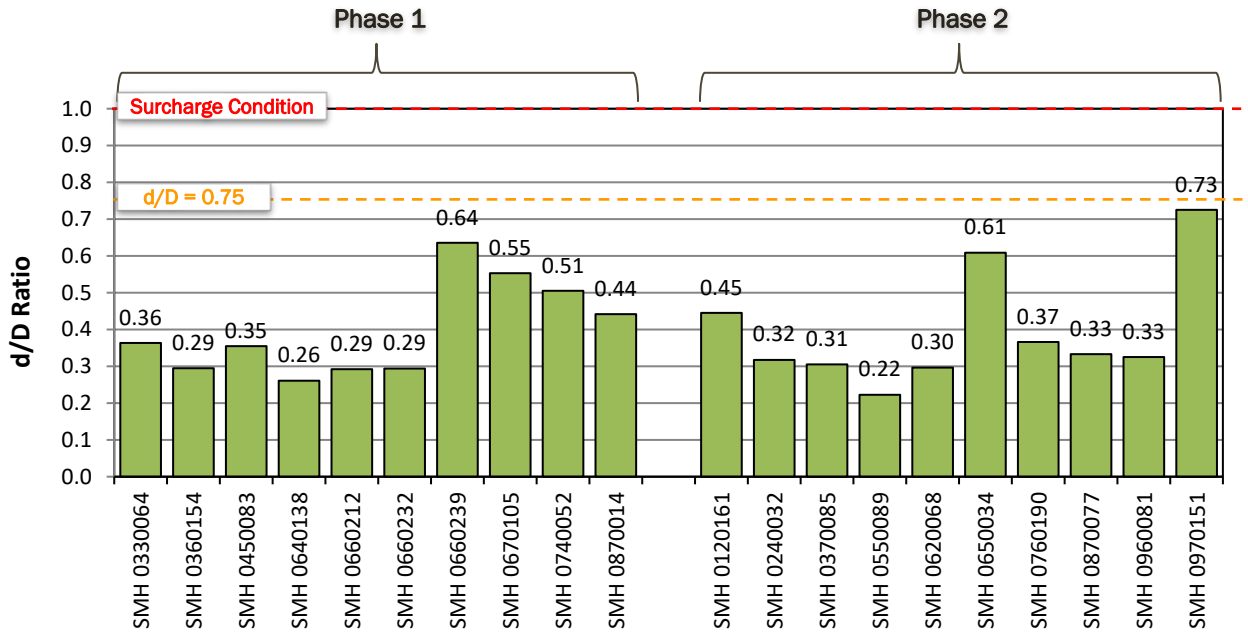


Figure 4-3. Capacity Summary: d/D Ratios

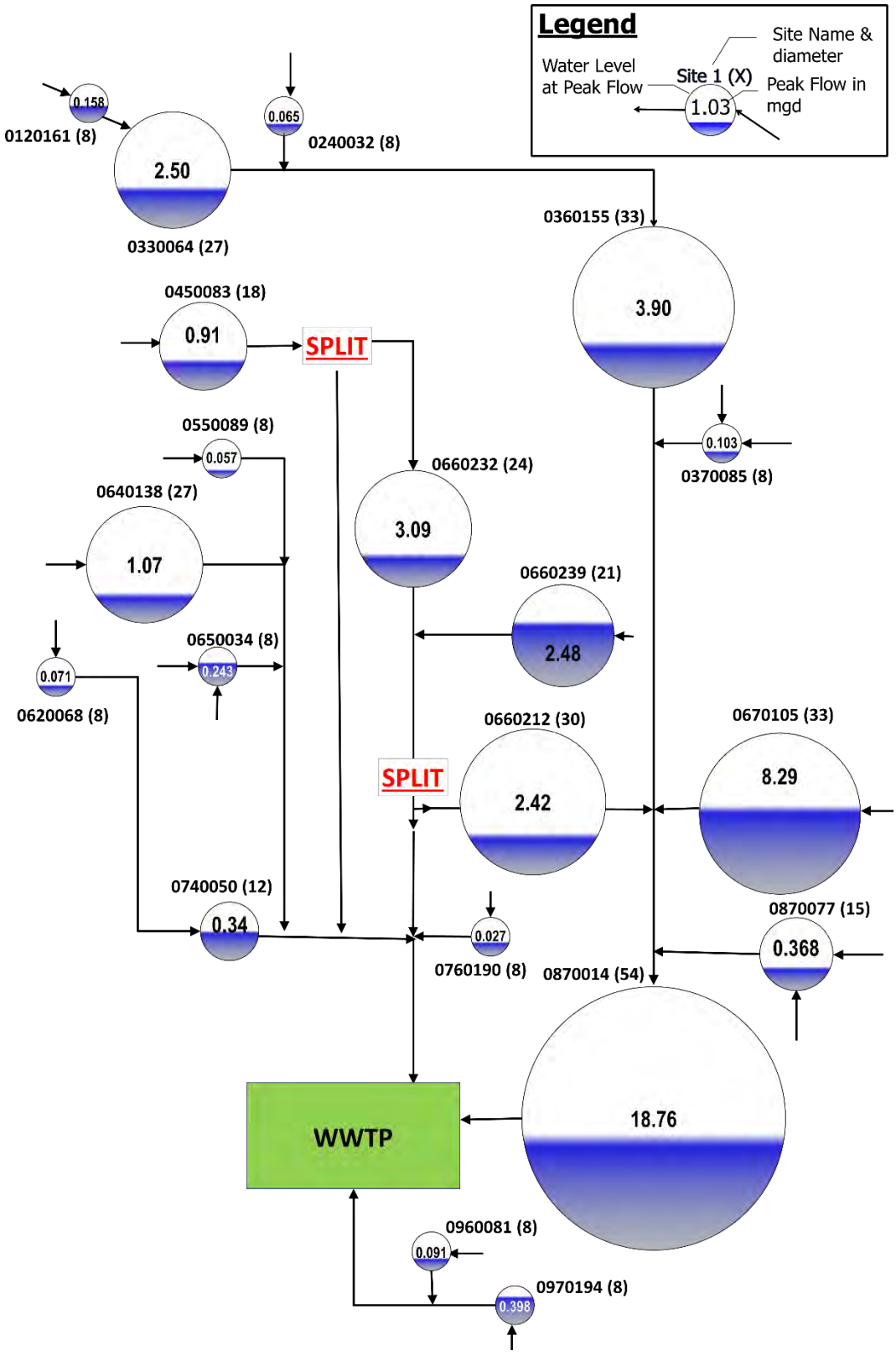


Figure 4-4. Peak Flow Schematic

5 Inflow and Infiltration Results

5.1 Preface

The following is noted for the RDI/I analyses of this study:

- RDI/I analyses were performed on Phase 1 sites only. Phase 2 sites were reviewed for RDI/I response; commentary will be qualitative for Phase 2 sites.
- RDI/I analyses were performed on a basin-by-basin basis. The basins for SMH 0360155, and SMH 0870014 required subtraction of upstream flows.
- Site (Basin) SMH 0660212 and SMH 0660232 were not analyzed. SMH 0660212 and SMH 0660232 was downstream from a manhole split with an undefined upstream drainage basin.
- Analyses were performed on the six defined rainfall events; after review of the data, Events 3, 4 and 6 elicited the greatest RDI response from the flow monitoring sites. RDI/I response from Events 3, 4 and 6 were considered for final rankings of the flow monitoring basins.
- RDI rates (strictly infiltration, not including inflow) were extremely low or negligible for the flow monitoring sites. An RDI analysis could not be accurately performed; RDI in SBMWD appears to be generally very low. Nearly all of the RDI/I response comes from inflow sources. Refer to Figure 5-1.

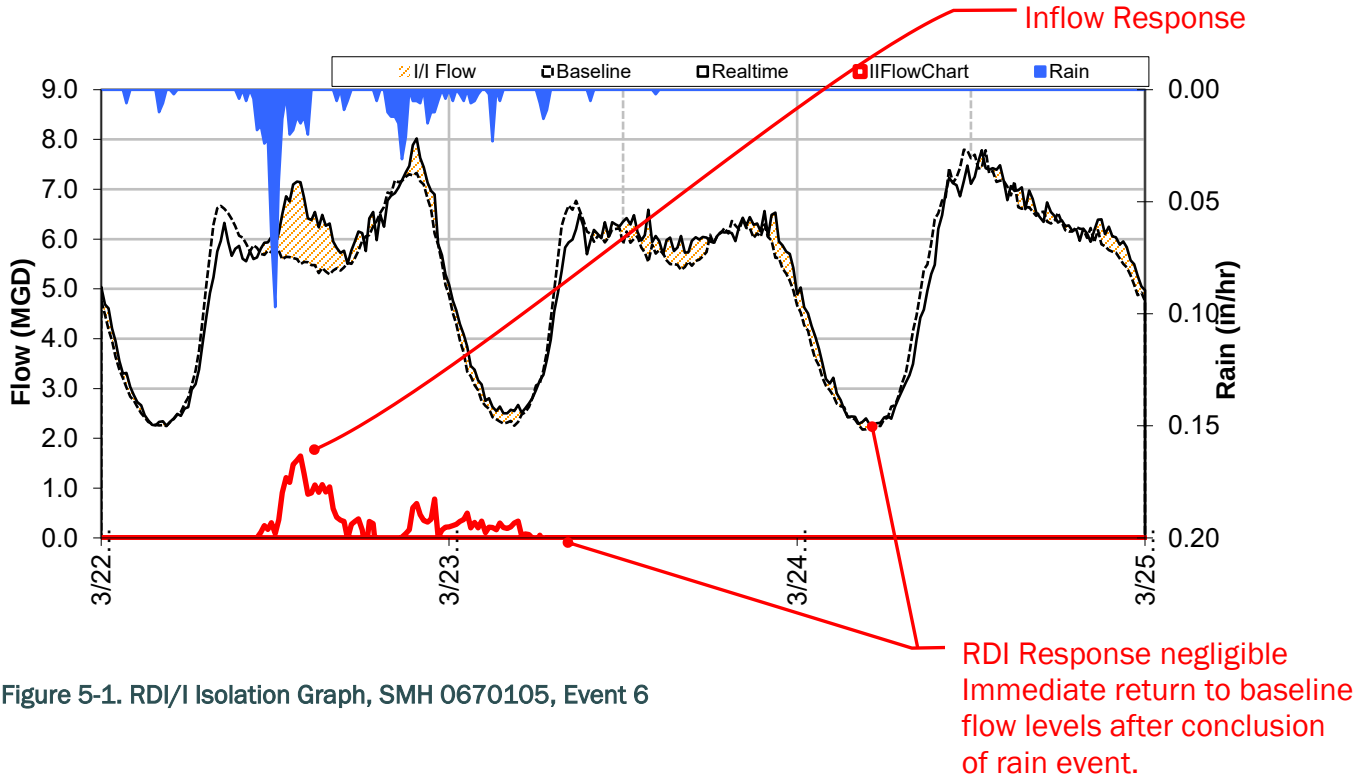


Figure 5-1. RDI/I Isolation Graph, SMH 0670105, Event 6

5.2 Inflow Results Summary

Inflow is storm water discharged into the sewer system through direct connections such as downspouts, area drains, cross-connections to catch basins, etc. These sources transport rain water directly into the sewer system and the corresponding flow rates are tied closely to the intensity of the storm. This component of RDI/I often causes a peak flow problem in the sewer system and often dictates the required capacity of downstream pipes and transport facilities to carry these peak instantaneo us flows.

Table 5-1 and Figure 5-2 summarize the inflow analysis results. The peak inflow rate shown is an average of the peak inflows from Events 3, 4 and 6. The Top 3 ranked basins with the highest normalized inflow have been shaded in RED. Figure 5-3 illustrates a temperature map of the results.

Table 5-1. Inflow Analysis Summary

Monitoring Basin	ADWF (mgd)	Peak Inflow Rate (mgd)	Peak Inflow to ADWF Ratio	Inflow Ranking [A]
SMH 0330064	1.096	1.15	1.05	3
SMH 0360155	0.960	0.03	0.03	8
SMH 0450083	0.485	0.23	0.47	5
SMH 0640138	0.338	0.64	1.88	1
SMH 0660239	1.338	0.58	0.44	6
SMH 0670105	5.115	1.63	0.32	7
SMH 0740050	0.052	0.10	1.84	2
SMH 0870014	3.504	2.21	0.63	4

[A] Ranking of 1 represents most inflow after normalization.

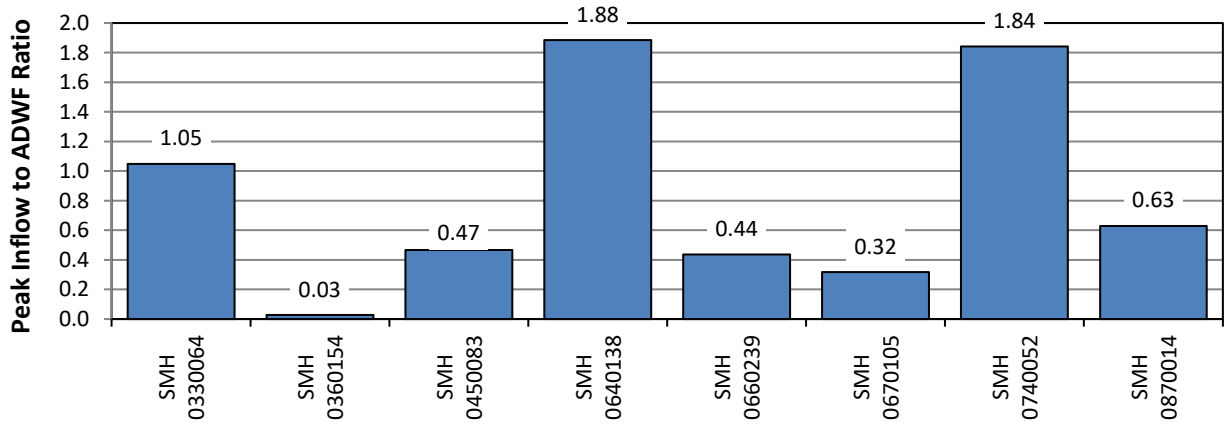


Figure 5-2. Bar Graph: Inflow Analysis Summary – Peak RDI/I to ADWF

The following inflow analysis results are noted:

- The basins upstream from SMH 0330064, SMH 0640138 and SMH 0740050 ranked highest for inflow response.

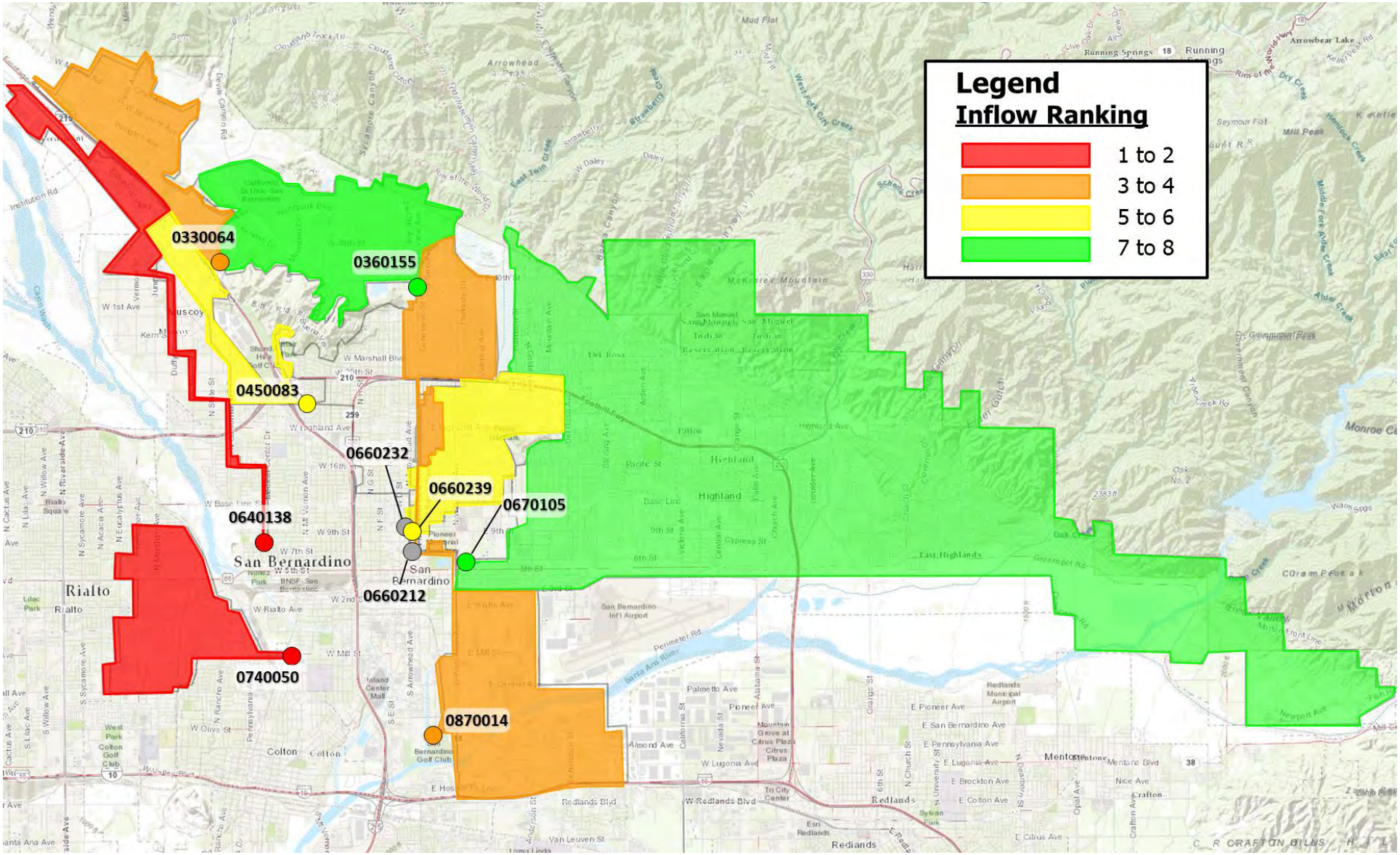


Figure 5-3. Temperature Map: Inflow Analysis Summary – Inflow Rankings

5.3 Total RDI/I Results Summary

Total RDI/I analysis considers the totalized volume (in gallons) of both inflow and rainfall-dependent infiltration over the course of a storm event. Table 5-2 summarizes the combined RDI/I flow results for total RDI/I measured for Events 3, 4 and 6. Results of note have been shaded in RED. Figure 5-4 shows a bar graph summary of the combined RDI/I analysis. Figure 5-5 illustrates a temperature map of the total RDI/I rankings.

Table 5-2. Combined RDI/I Analysis Summary

Monitoring Basin	ADWF (mgd)	Total Infiltration (gallons)	Basin Rain (in)	Total RDI/I to ADWF (per in-rain)	Total RDI/I Ranking [A]
SMH 0330064	1.096	568,000	3.26	0.16	4
SMH 0360155	0.960	392,000	2.63	0.16	5
SMH 0450083	0.485	131,000	2.82	0.10	7
SMH 0640138	0.338	262,000	3.25	0.24	2
SMH 0660239	1.338	326,000	1.87	0.13	6
SMH 0670105	5.115	899,000	2.43	0.07	8
SMH 0740050	0.052	43,000	1.80	0.46	1
SMH 0870014	3.504	1,341,000	1.86	0.21	3

[A] Ranking of 1 represents most total RDI/I after normalization.

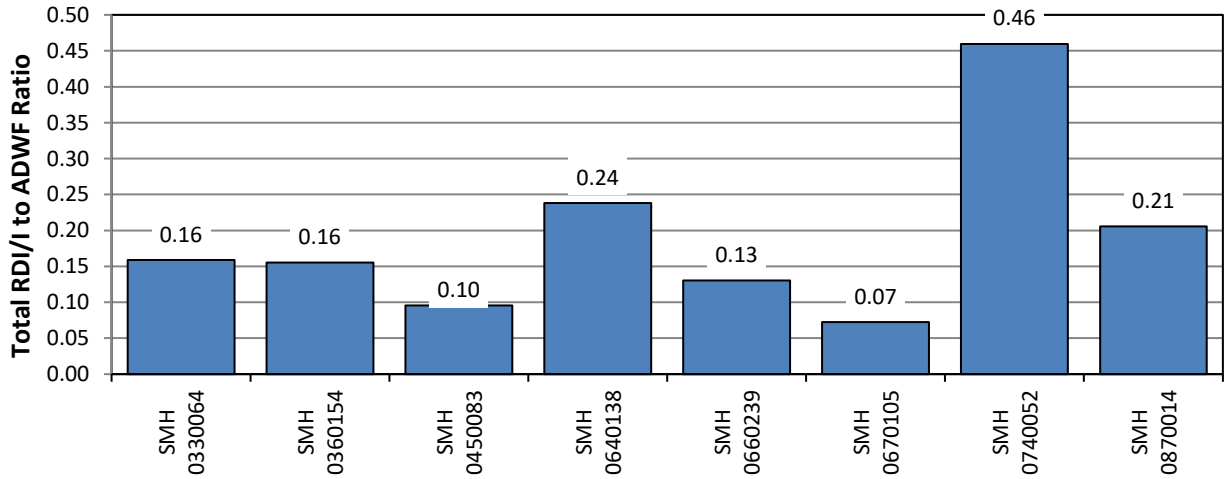


Figure 5-4. Bar Graph: Total RDI/I Analysis Summary – Total RDI/I Rate to ADWF

The following total RDI/I analysis results are noted:

- The basins upstream from SMH 0640138, SMH 0740050 and SMH 0870014 ranked highest for total RDI/I response.

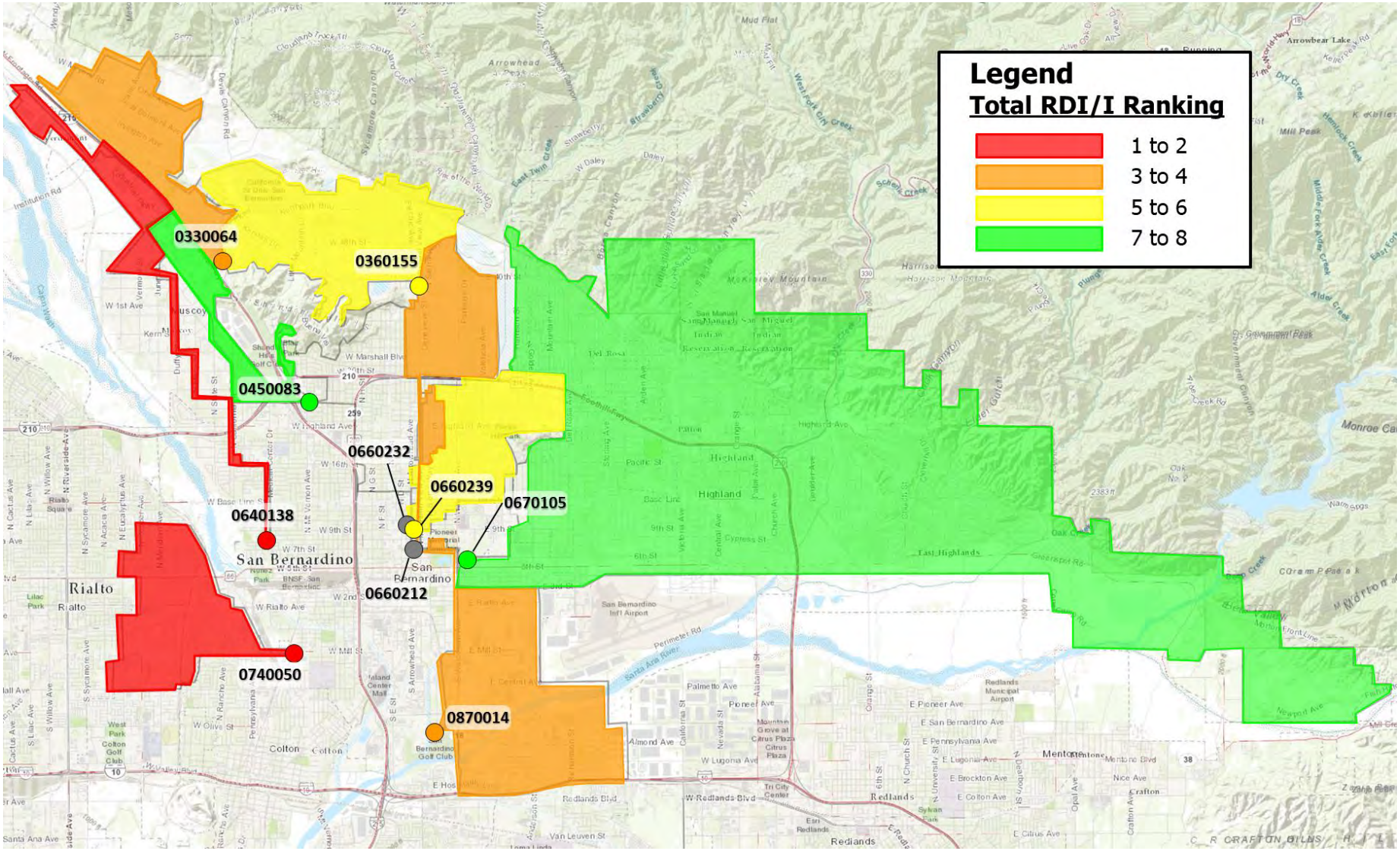


Figure 5-5. Temperature Map: Total RDI/I Analysis Summary – Total RDI/I Ranking

6 Model Design Storm Results

6.1 Synthetic RDI/I Hydrograph Development

V&A modeled I/I response as a function of rainfall using synthetic hydrographs analysis techniques. Synthetic hydrographs were developed to approximate the actual RDI hydrograph shape in terms of the time to the peak and the recession coefficient. The actual RDI hydrograph was best matched with a synthetic hydrograph by separating the synthetic hydrograph into seven volume components (R1 through R7). The seven components represent different response times to the rainfall event and, therefore, different infiltration or inflow paths into the sewer system. R1 is characterized by a short response time (inflow) and R7 represents slower response and longer recession times (RDI). Levels of soil saturation are also considered. Using synthetic hydrograph analysis, appropriate time and recession parameters were estimated by a trial-and-error procedure until a good match was obtained. For example, the hydrograph and its component hydrographs for Site SMH 0330064 are shown in Figure 6-1.

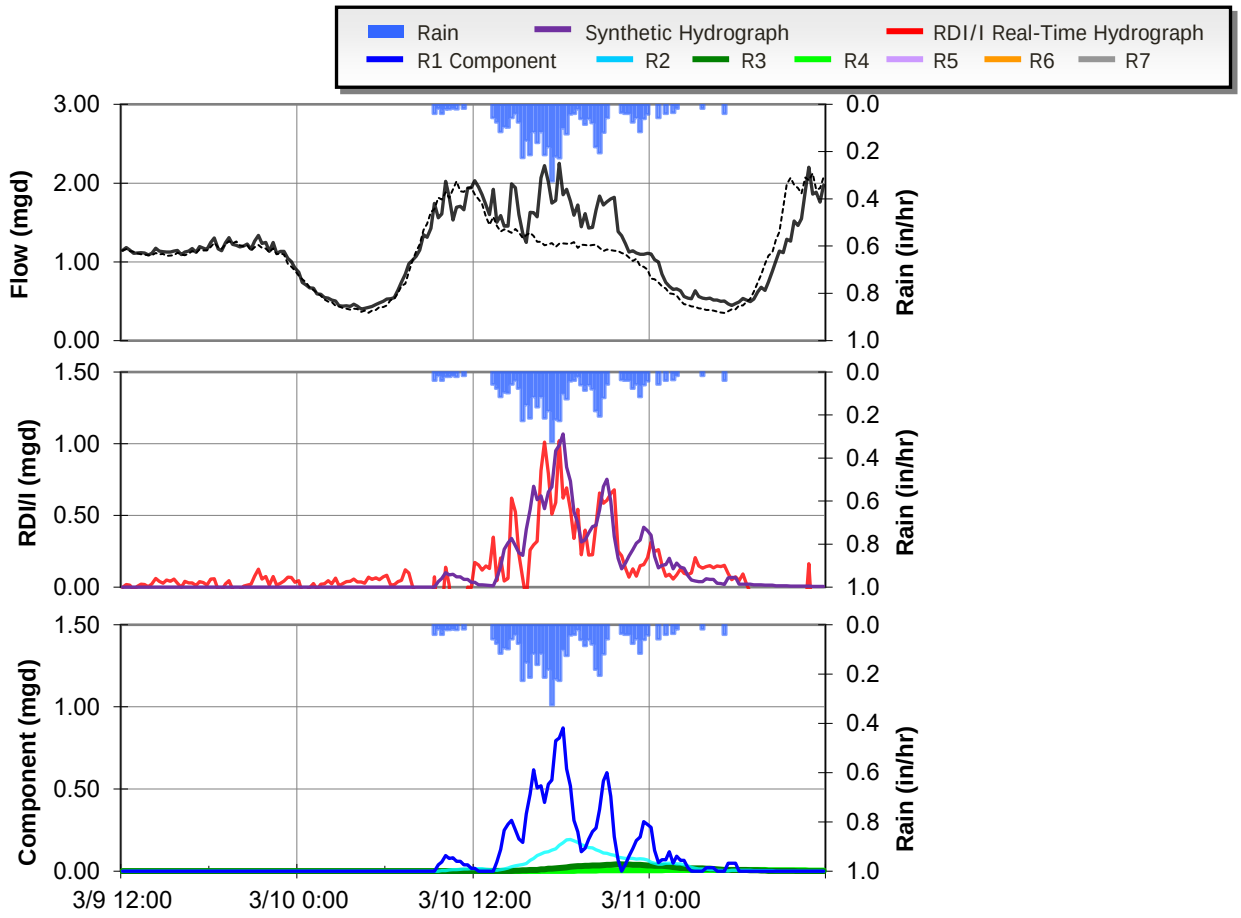


Figure 6-1. Synthetic Hydrograph Development (SMH 0330064)

6.2 Design Storm Development

With the RDI/I response modeled as a function of rainfall by synthetic hydrographs, the unique site-by-site algorithms can be applied to design storm rainfall events to estimate peak RDI/I response under more extreme weather conditions. These data can be input into modeling efforts to determine if the collection system has adequate capacity to handle very large storm events. V&A used a 10-year, 24-hour design storm for this analysis. Storm events volumes were taken from the NOAA Precipitation-Frequency Atlas of the Western United States.

Figure 6-2 summarizes the design storm magnitude and profile at the RG Central location. This particular profile distribution also fits the NOAA criterion for 1-hour, 2-hour and 6-hour durations, in addition to the 24-hour duration.

10-Year, 24-hour Design Storm	
Hour	**Inches of Rain**
1	0.009
2	0.023
3	0.226
4	0.136
5	0.045
6	0.014
7	0.194
8	0.111
9	0.155
10	0.055
11	0.028
12	0.011
13	0.114
14	0.320
15	0.038
16	0.161
17	0.161
18	0.354
19	0.911
20	0.322
21	0.161
22	0.092
23	0.153
24	0.046
Total:	**3.84**

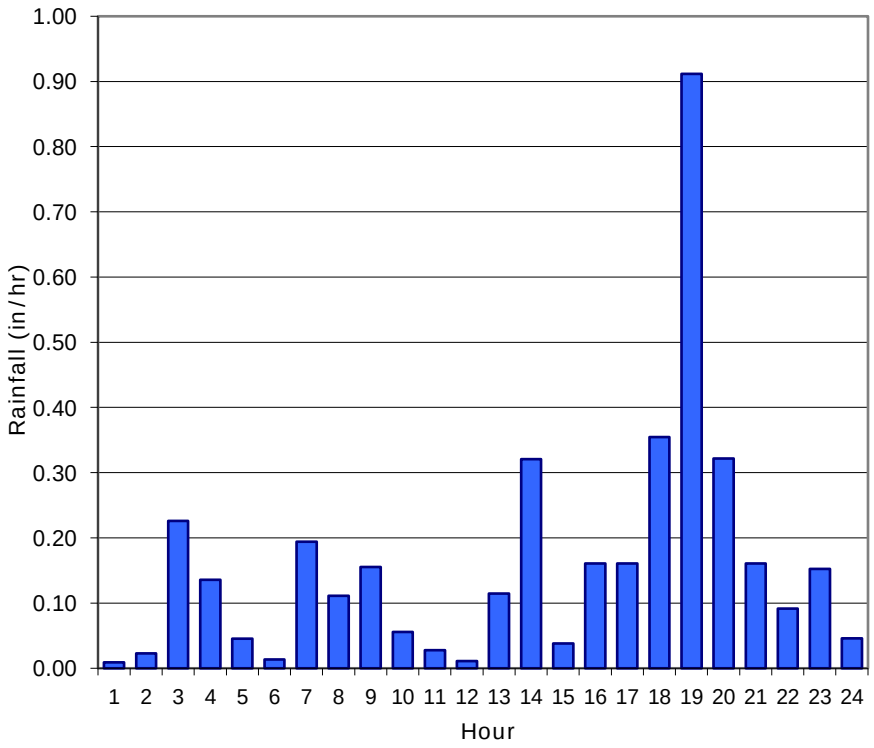


Figure 6-2. 10-Year, 24-Hour Design Storm Values and Profile

The 10-year, 24-hour design storm assigned to each site was weighted per the same IDW triangulation method described in Section 3.3.

6.3 Design Storm Response Summary

The synthetic I/I hydrograph algorithms were applied to the 10-year, 24-hour design storm event. The resulting estimated peak flows hydrographs can be applied to sanitary sewer modeling efforts to determine if the collection system has adequate capacity to handle very large storm events. These results assume full ground saturation, and the peak I/I flows from the design storm coincide with peak baseline sanitary flows to get a "worst-case" scenario of peak wet weather flows. Table 6-1 summarizes the results for the design storm on a site-by-site basis.

Table 6-1. 10-Year, 24-Hour Design Storm: Estimated RDI/I Response and Peak Flows Summary

Monitoring Site	Measured Peak Dry Weather Flow (mgd)	Estimated Peak RDI/I Rate (mgd)	Peak Estimated Flow (mgd)
SMH 0330064	2.12	5.72	7.84
SMH 0360155	3.14	8.61	11.75
SMH 0450083	0.68	1.29	1.97
SMH 0640138	0.57	3.41	3.98
SMH 0660212	1.87	3.88	5.75
SMH 0660232	2.78	3.37	6.16
SMH 0660239	1.81	4.52	6.33
SMH 0670105	7.78	12.50	20.27
SMH 0740050	0.29	0.78	1.08
SMH 0870014	17.10	35.47	52.57

Note: It is possible that the peak flow rates predicted for a design storm event cannot be conveyed due to conveyance capacity limitations of the local collection system. The comprehensive dynamic model of the master planning effort will determine if the collection system can convey the generated peak flows of the 10-year, 24-hour design storm event. Figure 6-3 shows the synthetic hydrograph response for the design storm event at Site SMH 0330064.

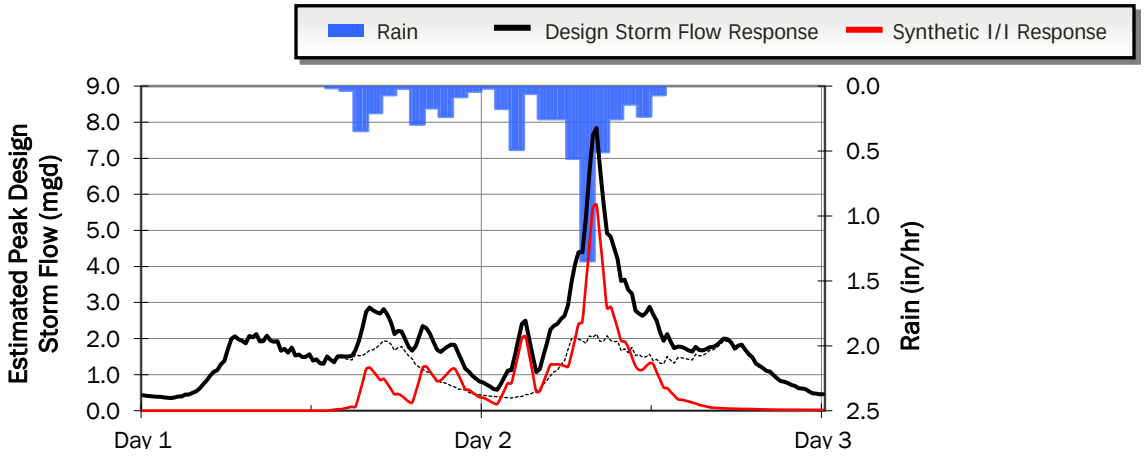


Figure 6-3. 10-Year, 24-Hour Design Storm: Estimated I/I Response at SMH 0330064

7 Recommendations

V&A advises that future RDI/I reduction plans consider the following recommendations:

1. **Determine RDI/I Reduction Program:** SBMWD should examine its RDI/I reduction needs to determine their needs and goals for a future RDI/I reduction program.
    a. If peak flows, sanitary sewer overflows, and pipeline capacity issues are of greater concern, then priority can be given to investigate and reduce sources of inflow within the basins with the higher inflow/ADWF ratios. The results of this study suggest that inflow is the larger component of RDI/I within the SBMWD collection system.
    b. If infiltration and general pipeline deterioration are of greater concern, then the program can be weighted to investigate and reduce sources of infiltration within the basins with the higher RDI/ADWF ratios. The results of this study suggest that RDI is a significantly smaller component of RDI/I within the SBMWD collection system and may be of lesser concern.
2. **RDI/I Investigation Methods:** Potential RDI/I investigation methods include the following:
    a. Smoke testing
    b. Mini-basin flow monitoring
    c. Night-time reconnaissance work to (1) investigate and determine direct point sources of inflow, and (2) determine the areas and/or pipe reaches responsible for high levels of infiltration contribution.
    d. CCTV inspection
3. **RDI/I Reduction Cost Effective Analysis:** SBMWD should conduct a study to determine which is more cost-effective: (1) locating the sources of inflow/infiltration and systematically rehabilitating or replacing the faulty pipelines; or (2) continued treatment of the additional rainfall dependent RDI/I flow.

Appendix A
Phase 1

Flow Monitoring Site Reports: Data, Graphs, Information

San Bernardino Municipal Water District

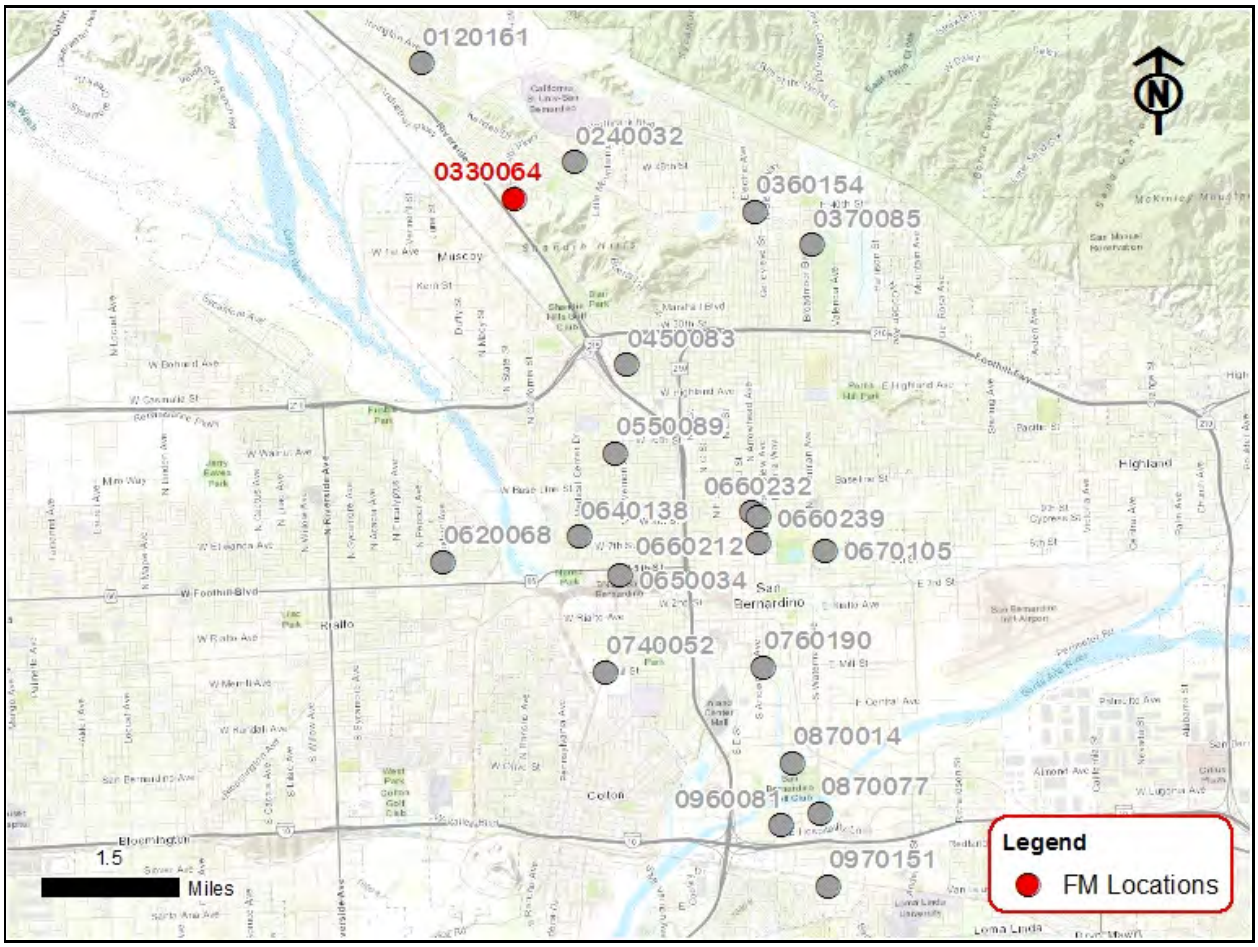
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0330064

Location: Driveway northwest of University Parkway and N State Street

Data Summary Report



Vicinity Map: SMH 0330064

SMH 0330064

Site Information

Location: Driveway northwest of University Parkway and N State Street

Coordinates: 117.3330° W, 34.1679° N

Rim Elevation (Earth): 1465 feet

Pipe Diameter: 27 inches

ADWF: 1.096 mgd

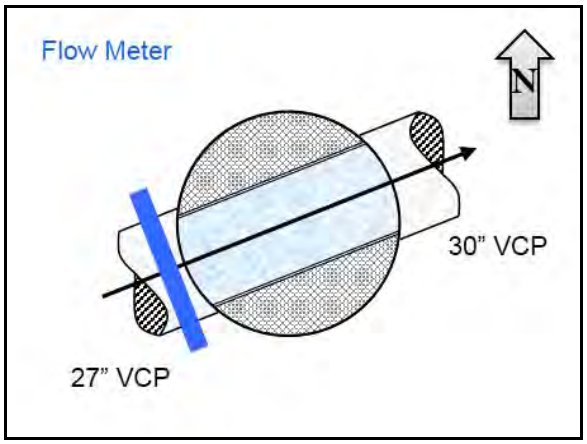
Peak Measured Flow: 2.496 mgd



Satellite Map



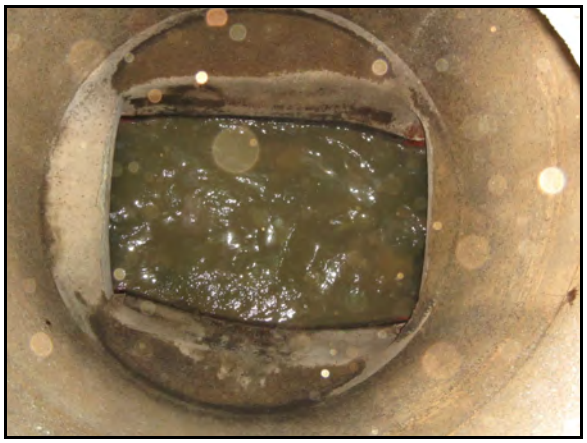
Sewer Map



Flow Sketch



Street View



Plan View

SMH 0330064

Additional Site Photos

Effluent Pipe



Influent Pipe

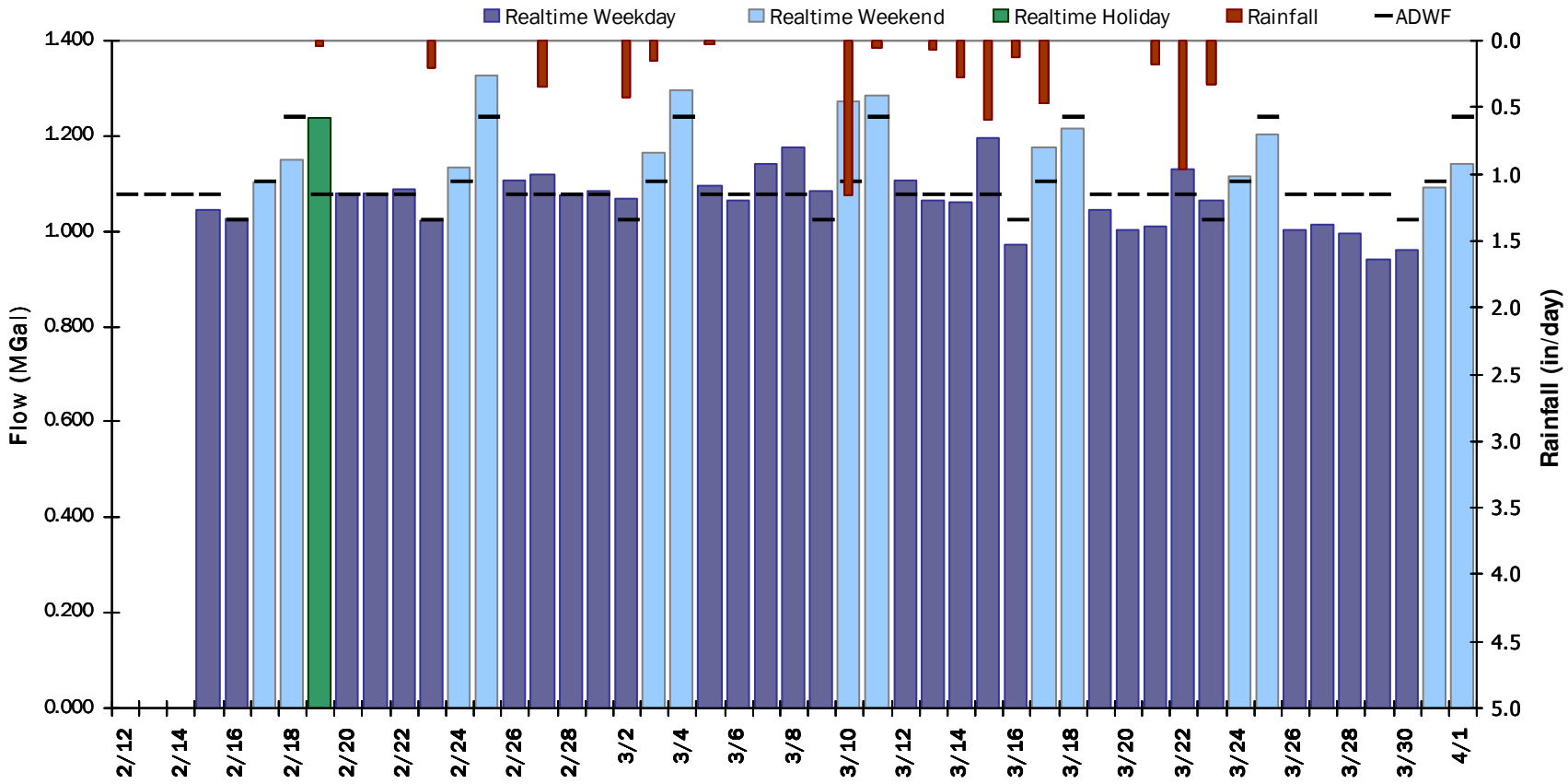


SMH 0330064

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 1.105 MGal Peak Daily Flow: 1.325 MGal Min Daily Flow: 0.942 MGal

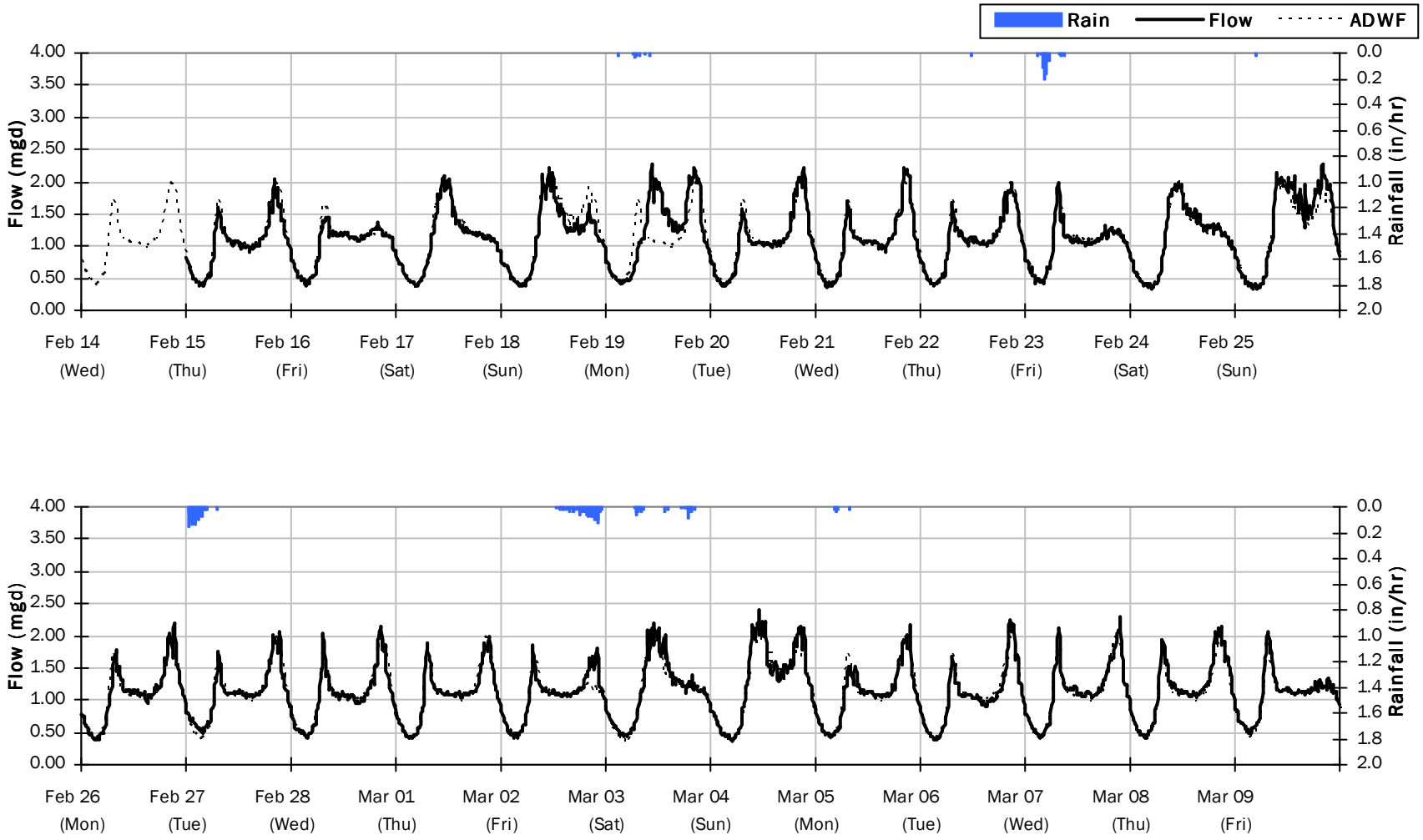
Total Period Rainfall: 5.43 inches



SMH 0330064

Flow Summary: 2/14/2018 to 3/9/2018

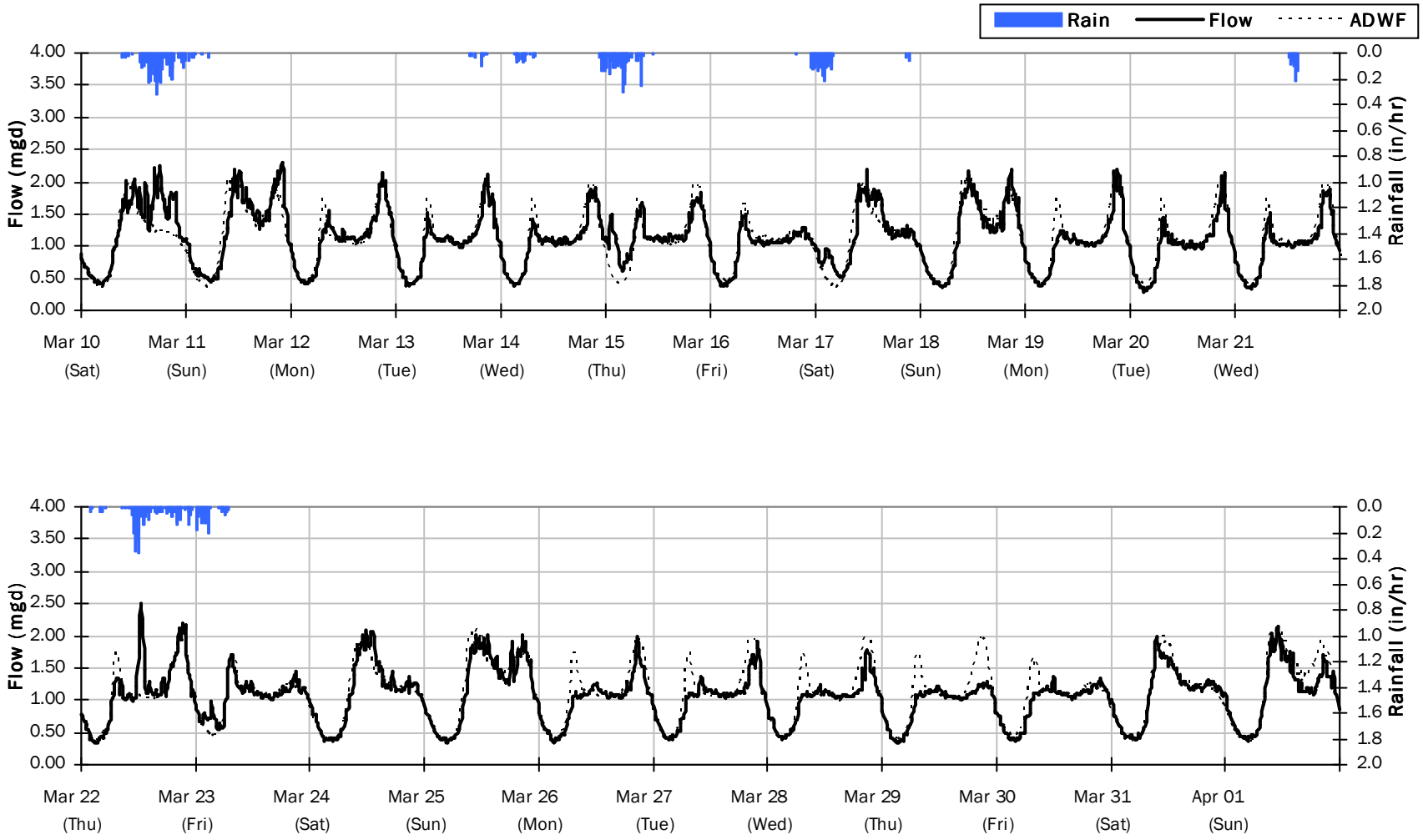
Total Period Rainfall: 1.21 inches **Avg Flow: 1.121 mgd** **Peak Flow: 2.388 mgd** **Min Flow: 0.339 mgd**



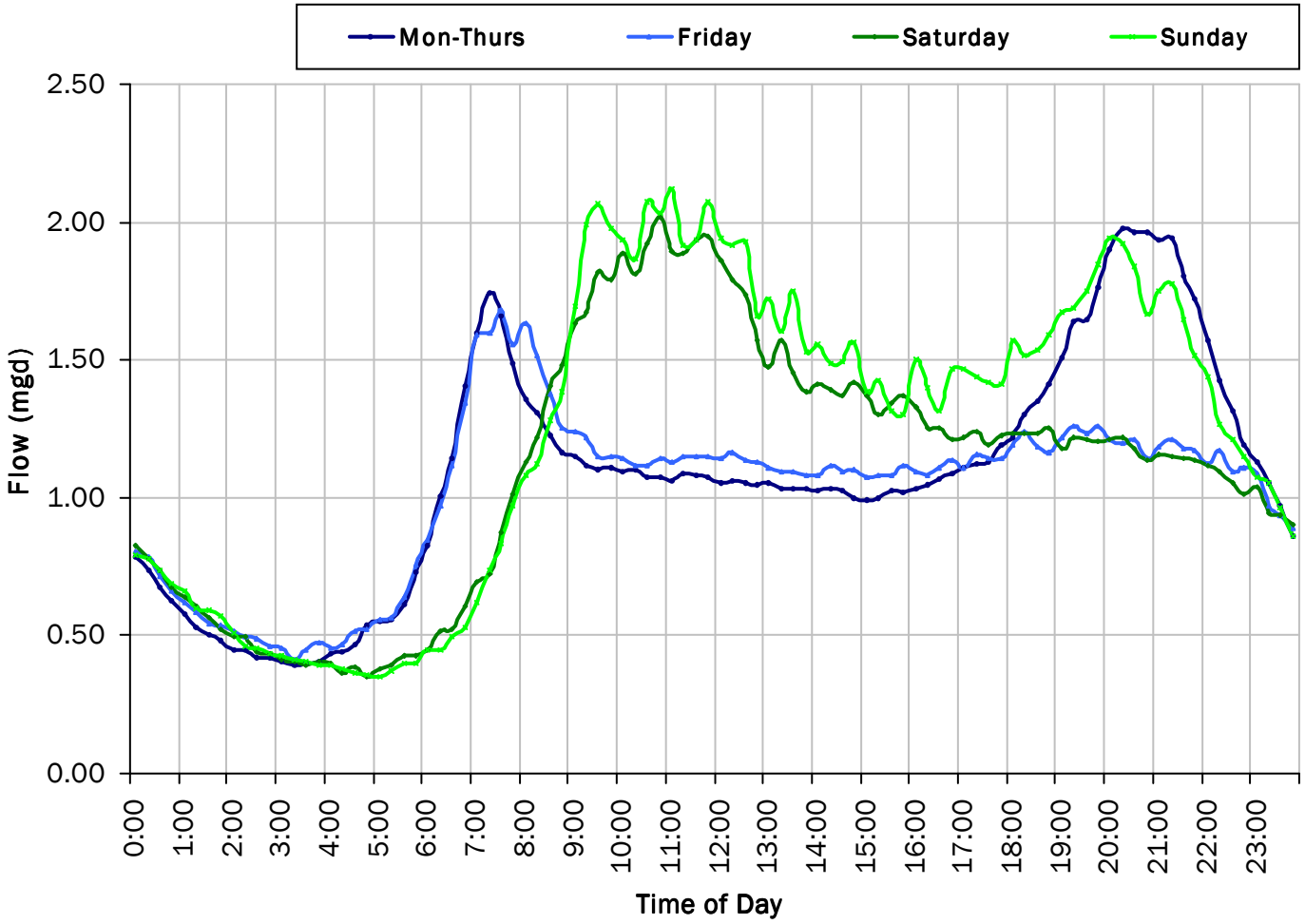
SMH 0330064

Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 4.22 inches **Avg Flow: 1.090 mgd** **Peak Flow: 2.496 mgd** **Min Flow: 0.277 mgd**

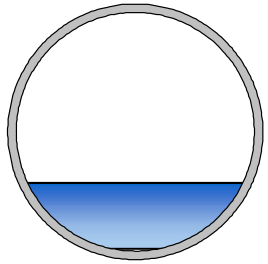


SMH 0330064
Average Dry Weather Flow Hydrographs



ADWF:

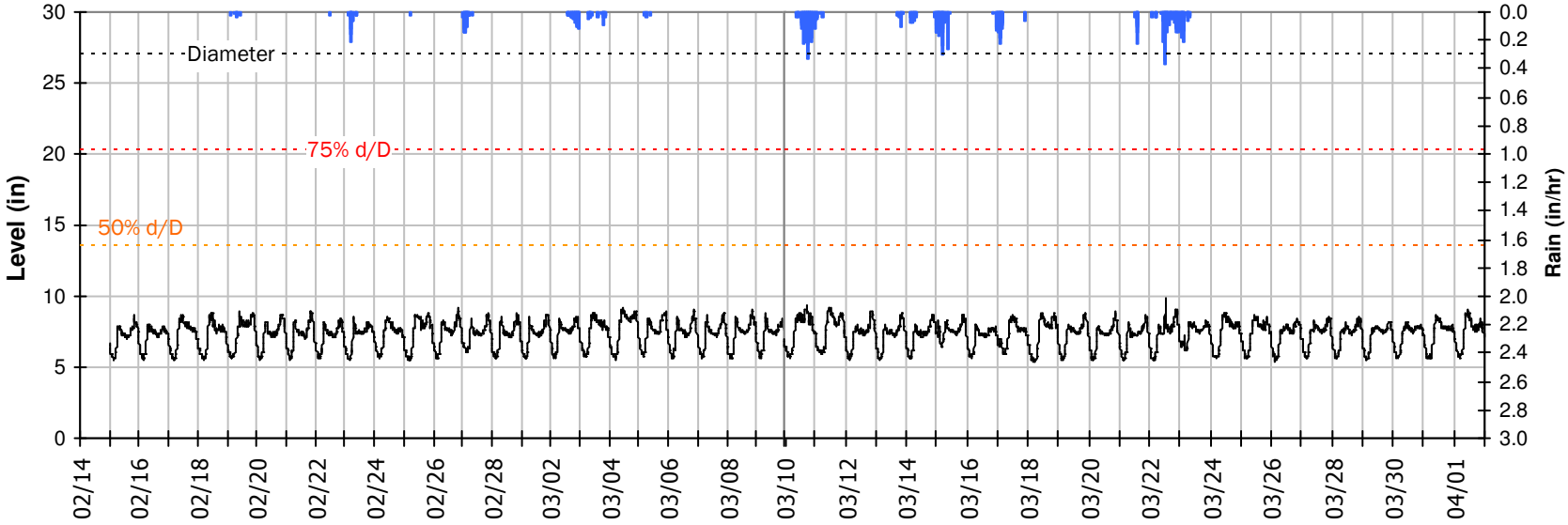
1.096 *mgd*

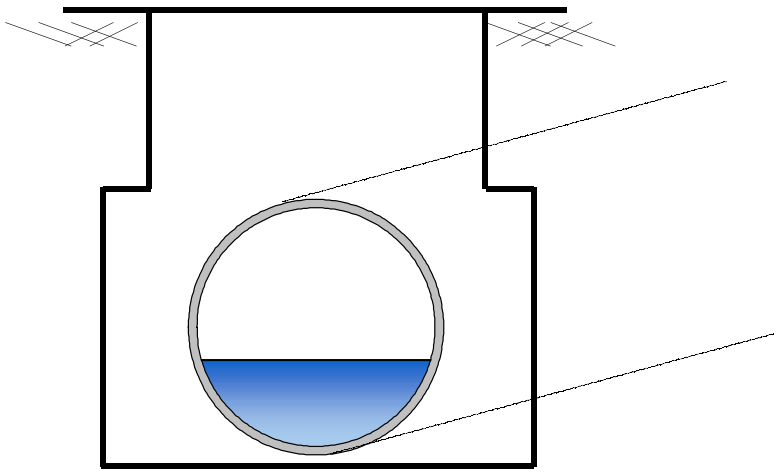


SMH 0330064

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

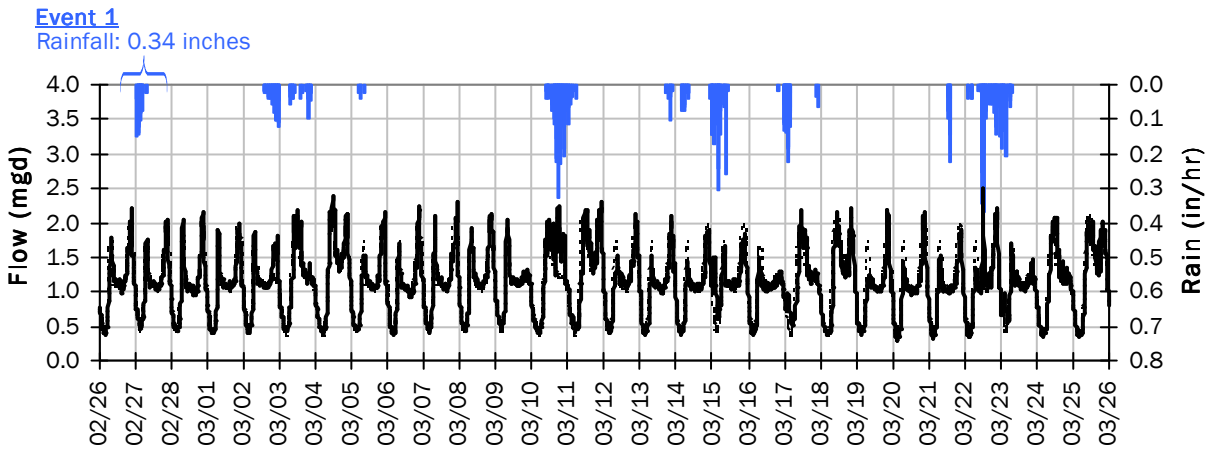




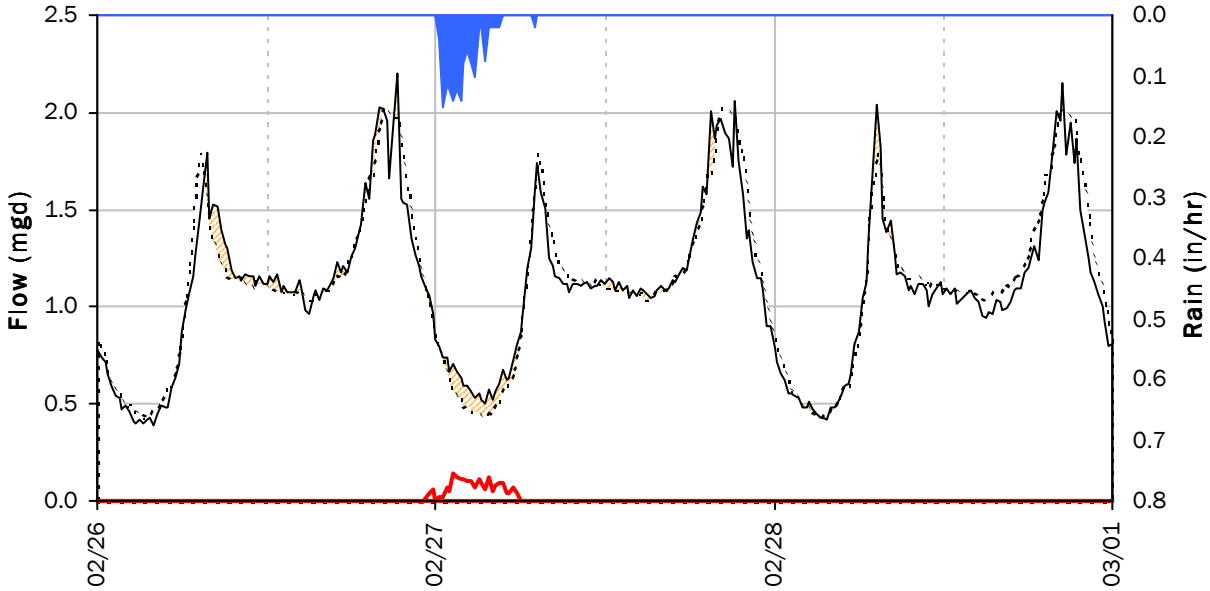
Pipe Diameter:	27	*inches*
Peak Measured Level:	9.81	*inches*
Peak d/D Ratio:	0.36	

SMH 0330064
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

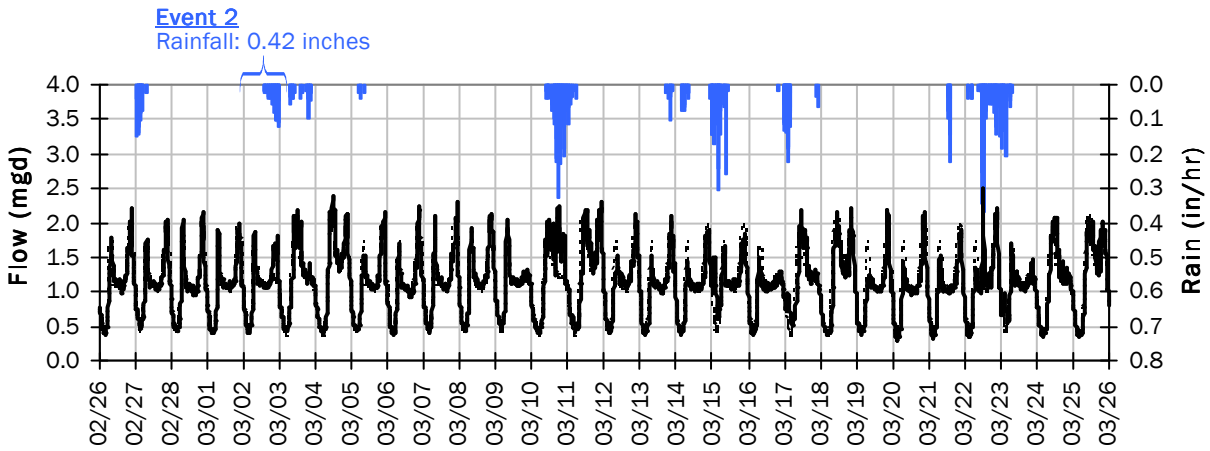


Storm Event I/I Analysis (Rain = 0.34 inches)

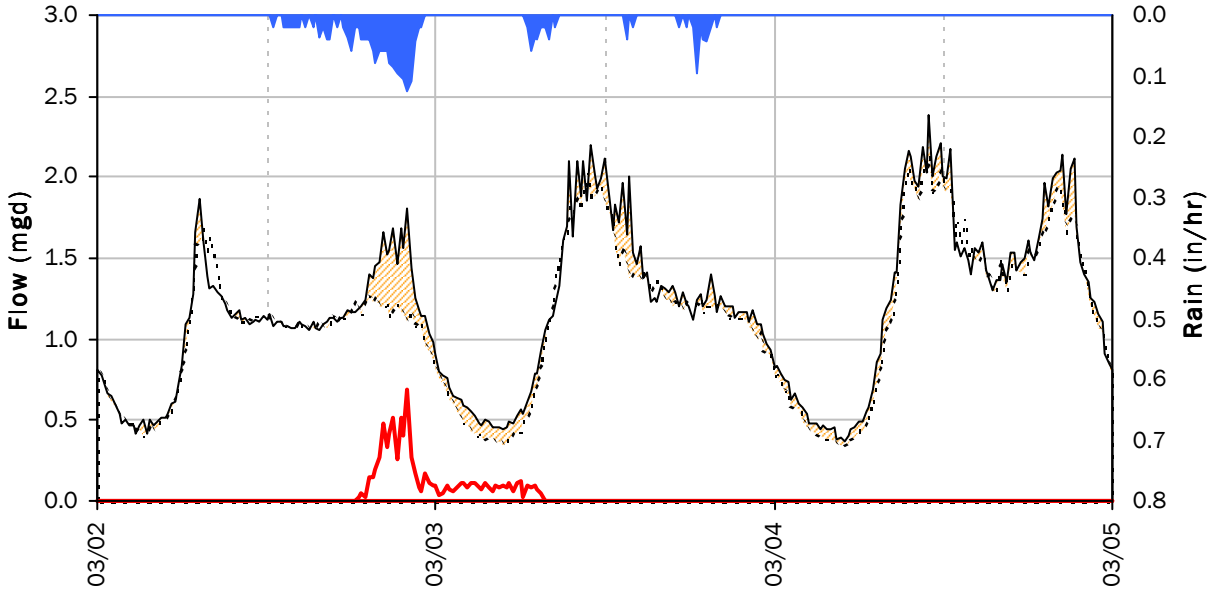
Capacity		Inflow / Infiltration	
Peak Flow:	1.16 *mgd*	**Peak I/I Rate:**	0.14 *mgd*
PF:	1.06	**Total I/I:**	20,000 *gallons*
Peak Level:	7.78 *in*		
d/D Ratio:	0.29		

SMH 0330064
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

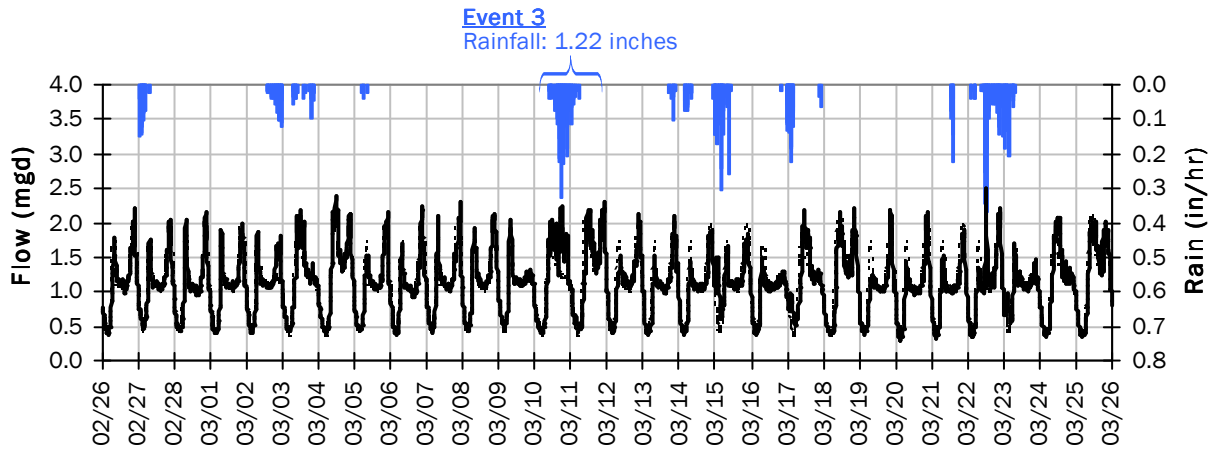


Storm Event I/I Analysis (Rain = 0.42 inches)

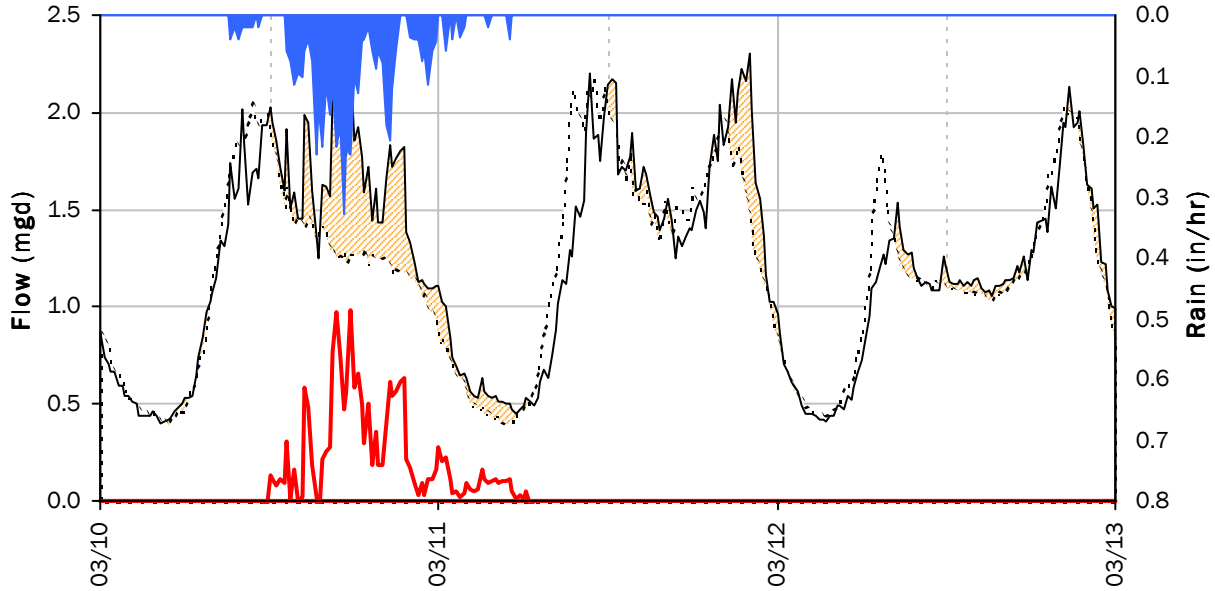
Capacity		Inflow / Infiltration	
Peak Flow:	1.80 *mgd*	**Peak I/I Rate:**	0.69 *mgd*
PF:	1.64	**Total I/I:**	85,000 *gallons*
Peak Level:	8.52 *in*		
d/D Ratio:	0.32		

SMH 0330064
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

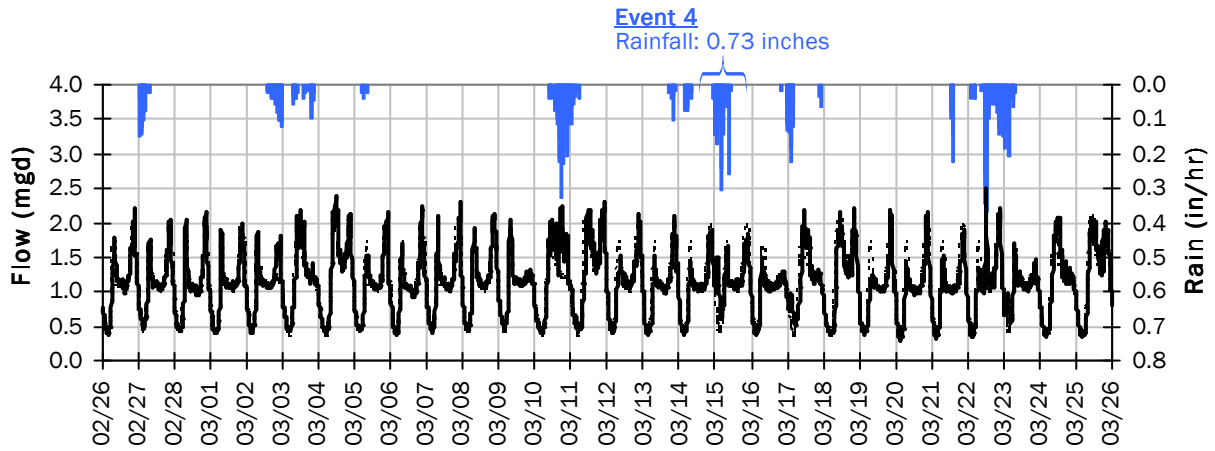


Storm Event I/I Analysis (Rain = 1.22 inches)

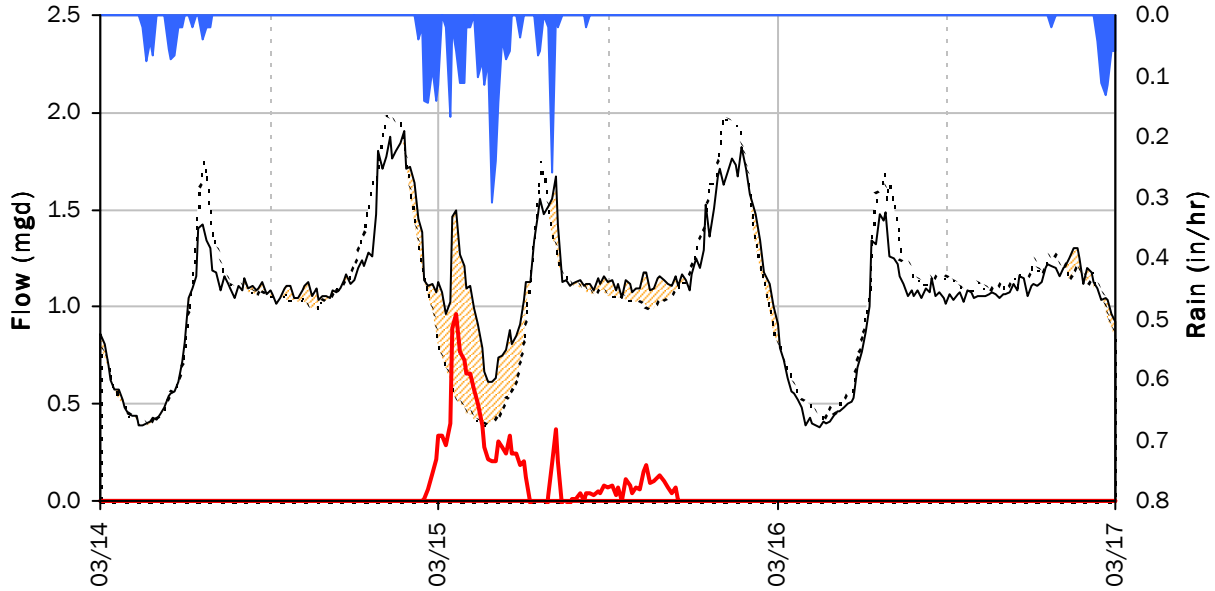
Capacity		Inflow / Infiltration	
Peak Flow:	2.25 *mgd*	**Peak I/I Rate:**	0.98 *mgd*
PF:	2.05	**Total I/I:**	183,000 *gallons*
Peak Level:	9.39 *in*		
d/D Ratio:	0.35		

SMH 0330064
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

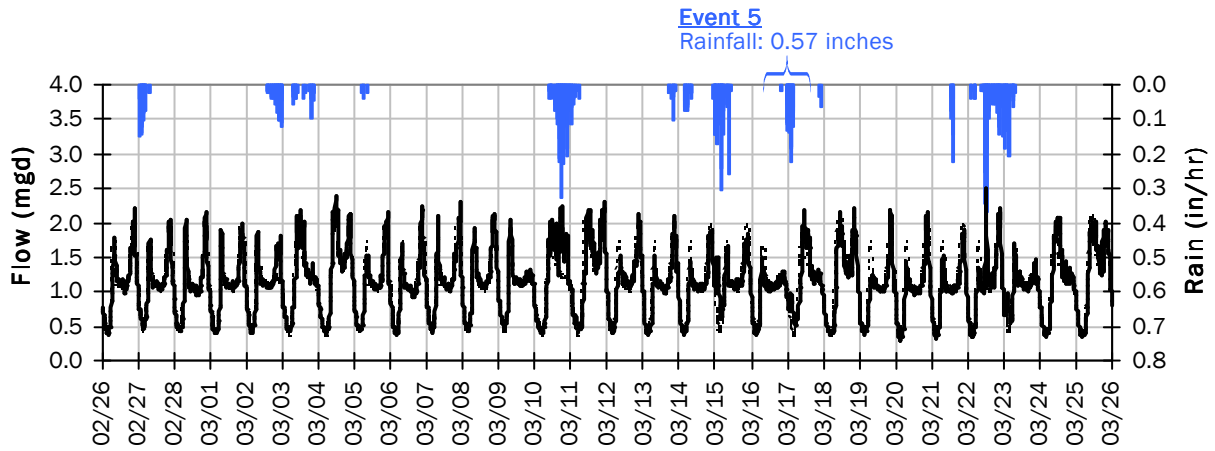


Storm Event I/I Analysis (Rain = 0.73 inches)

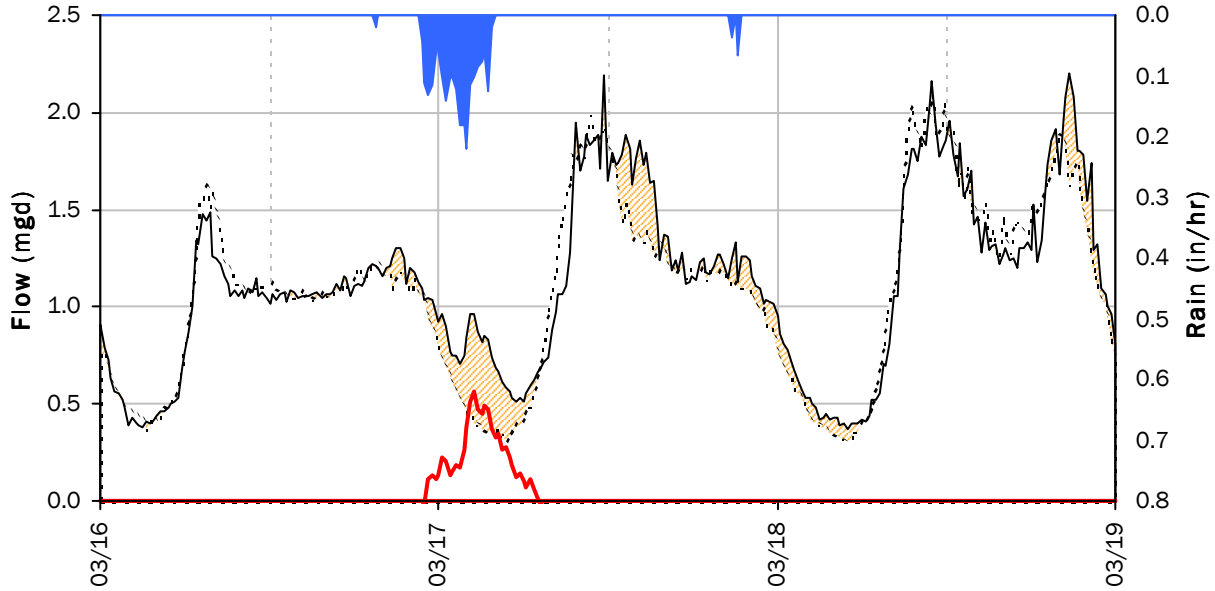
Capacity		Inflow / Infiltration	
Peak Flow:	1.67 *mgd*	**Peak I/I Rate:**	0.97 *mgd*
PF:	1.52	**Total I/I:**	137,000 *gallons*
Peak Level:	8.31 *in*		
d/D Ratio:	0.31		

SMH 0330064
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

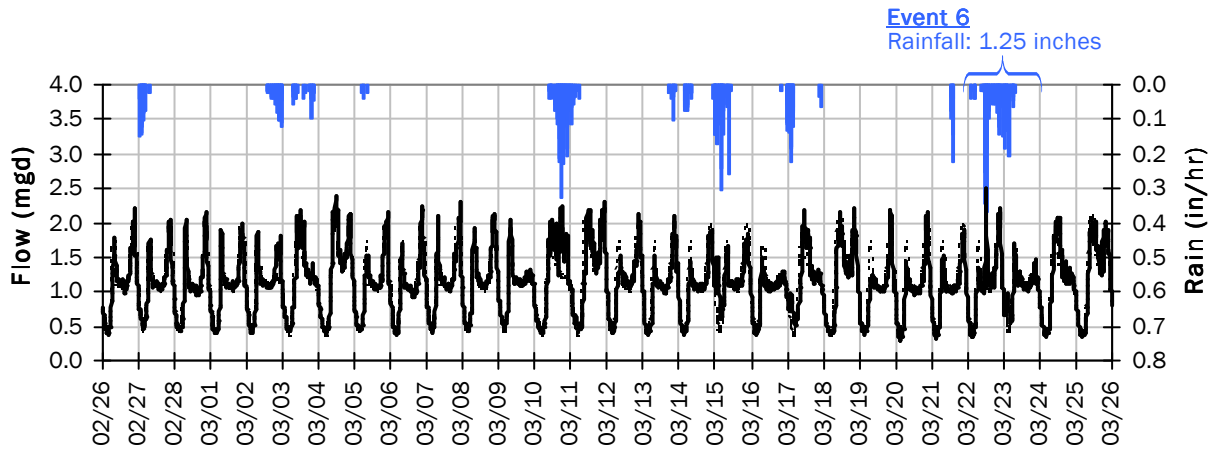


Storm Event I/I Analysis (Rain = 0.57 inches)

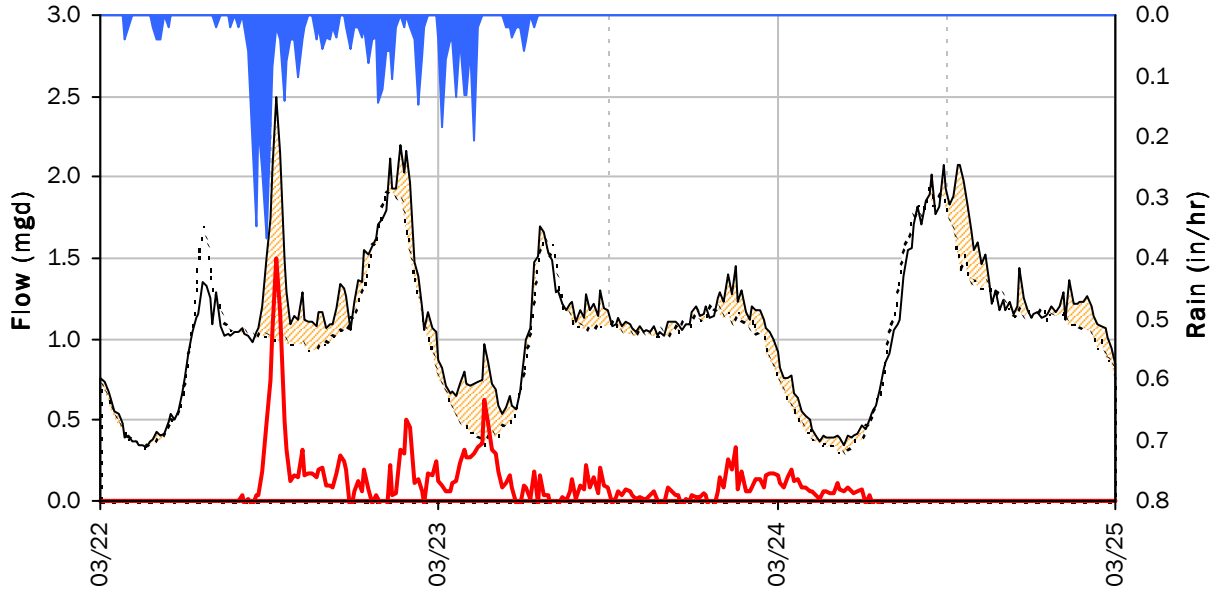
Capacity		Inflow / Infiltration	
Peak Flow:	1.05 *mgd*	**Peak I/I Rate:**	0.56 *mgd*
PF:	0.95	**Total I/I:**	81,000 *gallons*
Peak Level:	7.34 *in*		
d/D Ratio:	0.27		

SMH 0330064
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



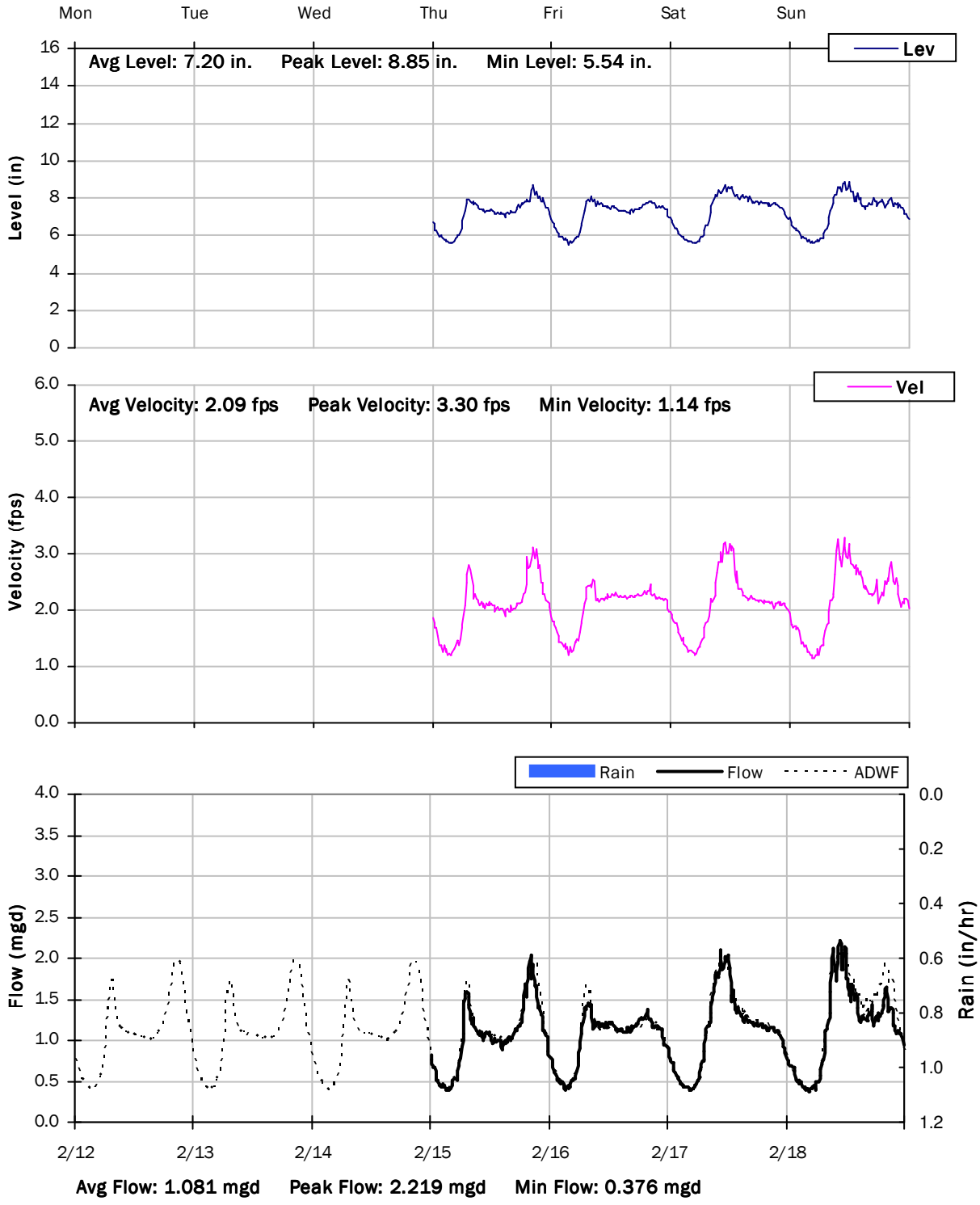
Storm Event I/I Analysis (Rain = 1.25 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	2.50 *mgd*	**Peak I/I Rate:**	1.50 *mgd*
PF:	2.28	**Total I/I:**	248,000 *gallons*
Peak Level:	9.81 *in*		
d/D Ratio:	0.36		

SMH 0330064

Weekly Level, Velocity and Flow Hydrographs

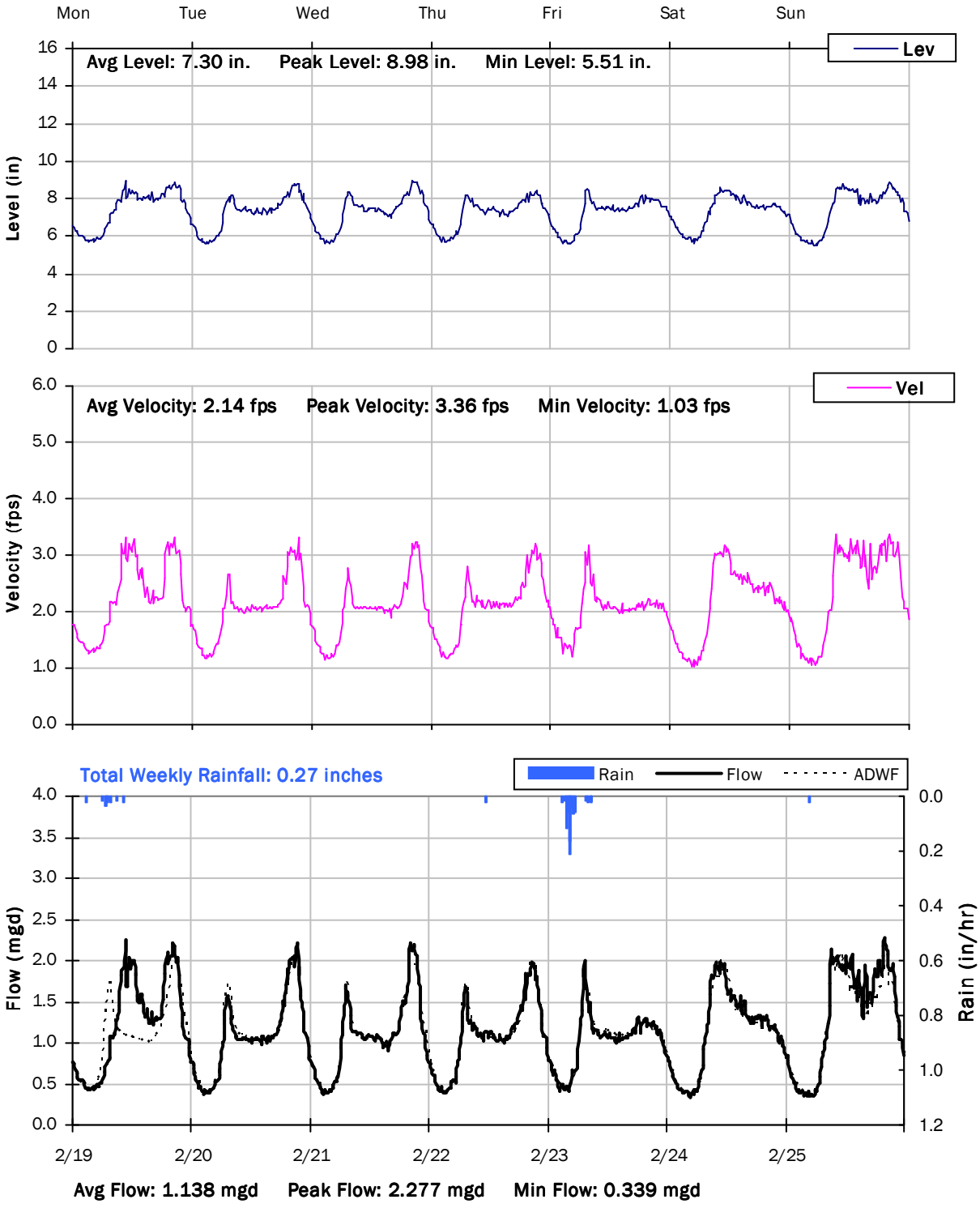
2/12/2018 to 2/19/2018



SMH 0330064

Weekly Level, Velocity and Flow Hydrographs

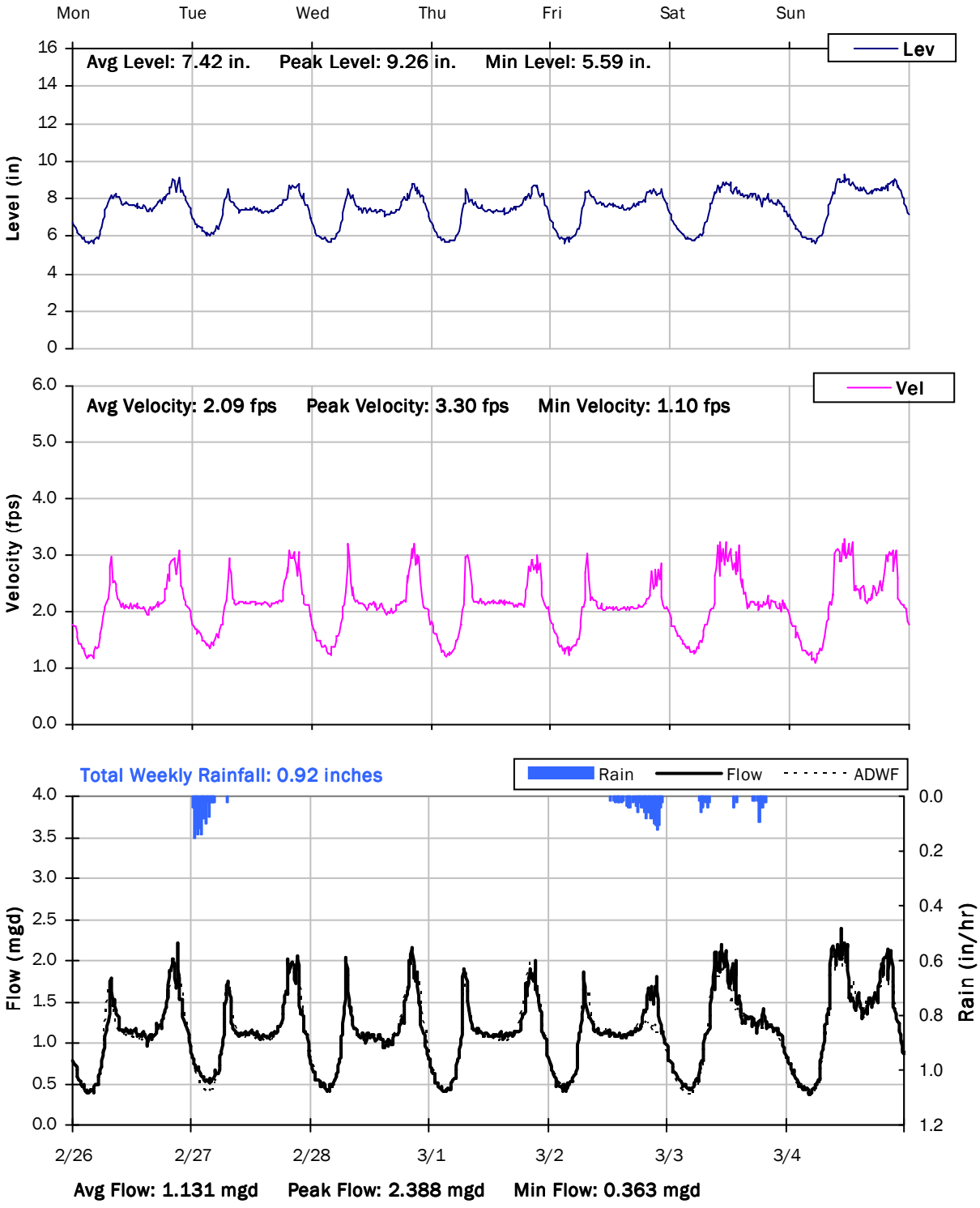
2/19/2018 to 2/26/2018



SMH 0330064

Weekly Level, Velocity and Flow Hydrographs

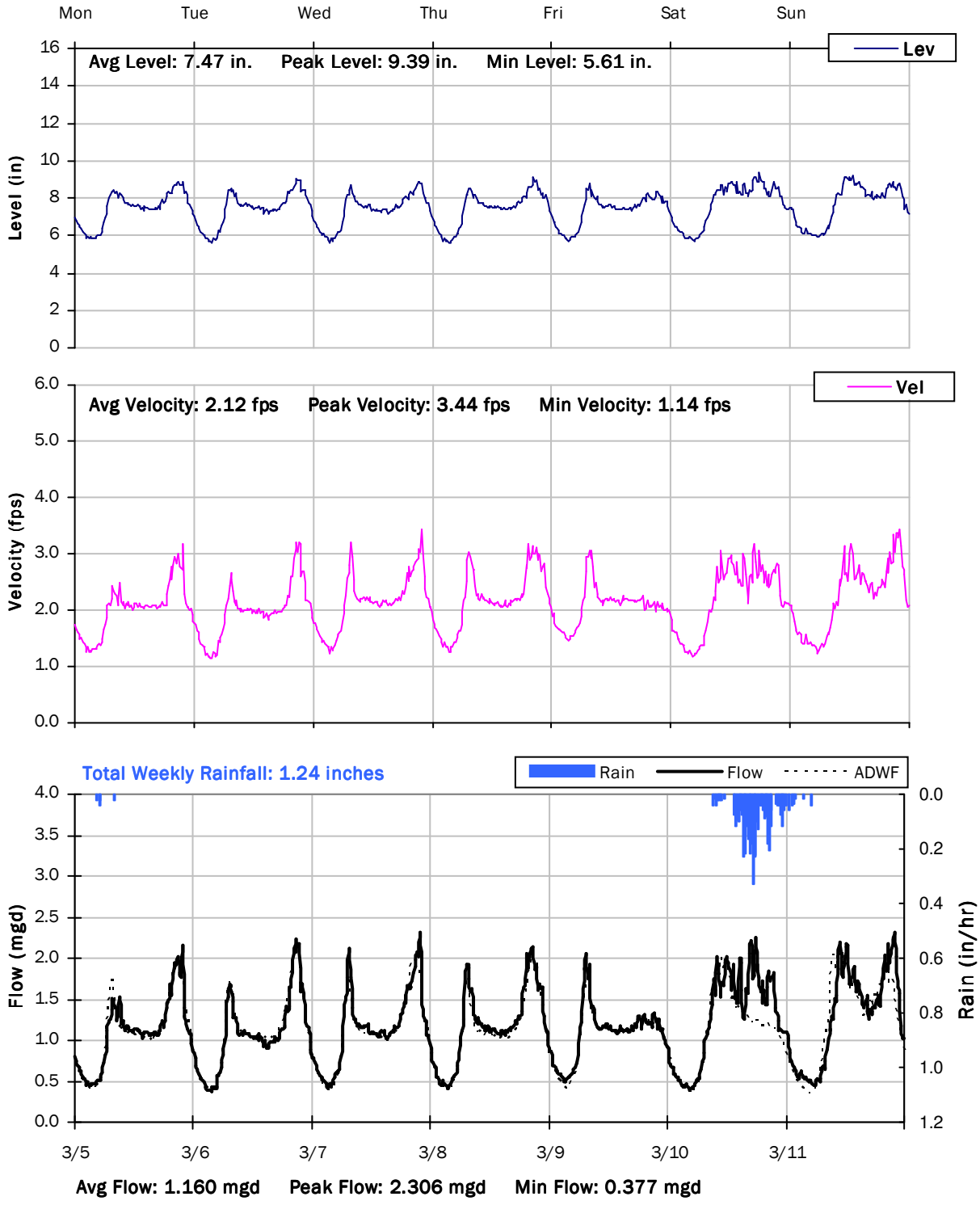
2/26/2018 to 3/5/2018



SMH 0330064

Weekly Level, Velocity and Flow Hydrographs

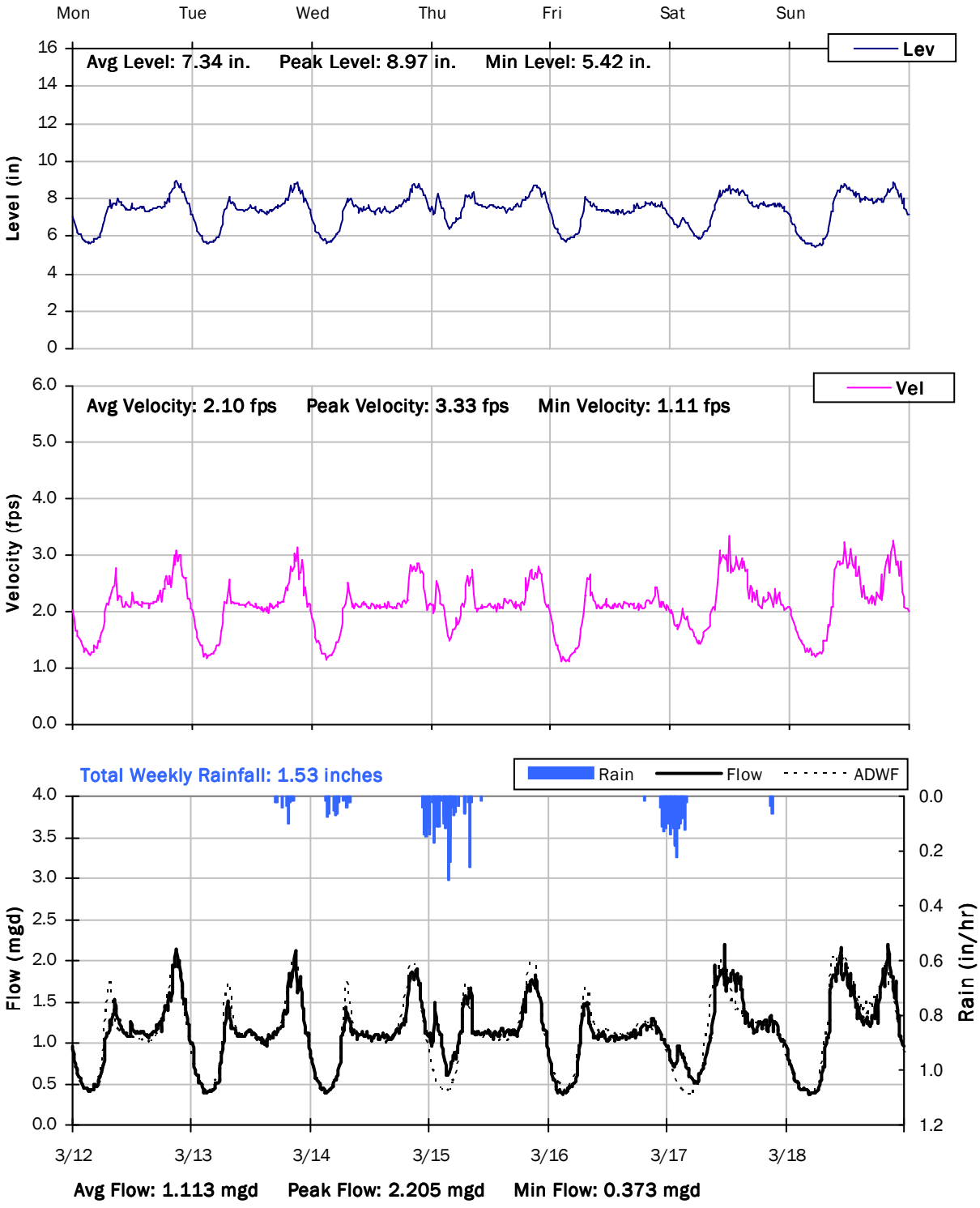
3/5/2018 to 3/12/2018



SMH 0330064

Weekly Level, Velocity and Flow Hydrographs

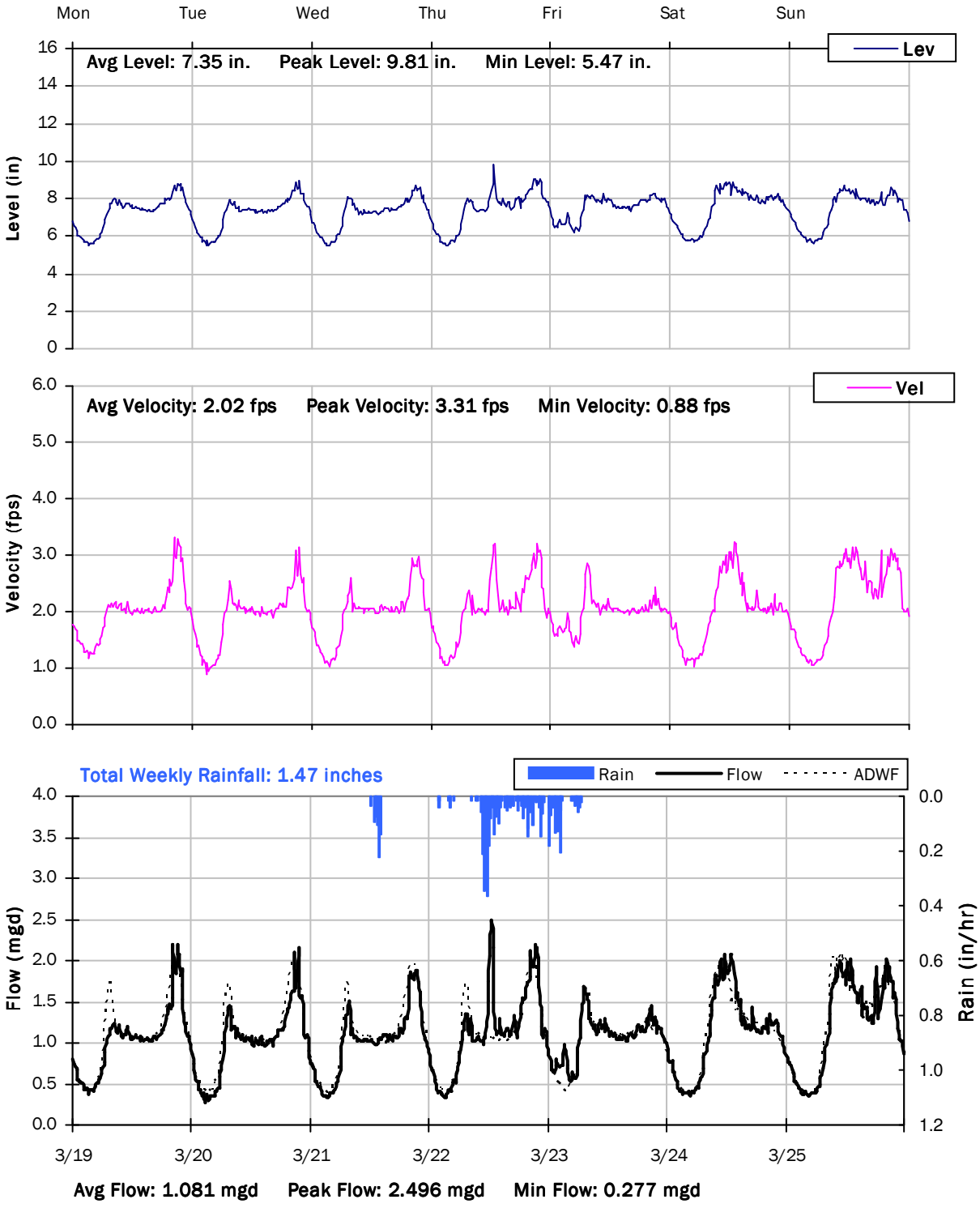
3/12/2018 to 3/19/2018



SMH 0330064

Weekly Level, Velocity and Flow Hydrographs

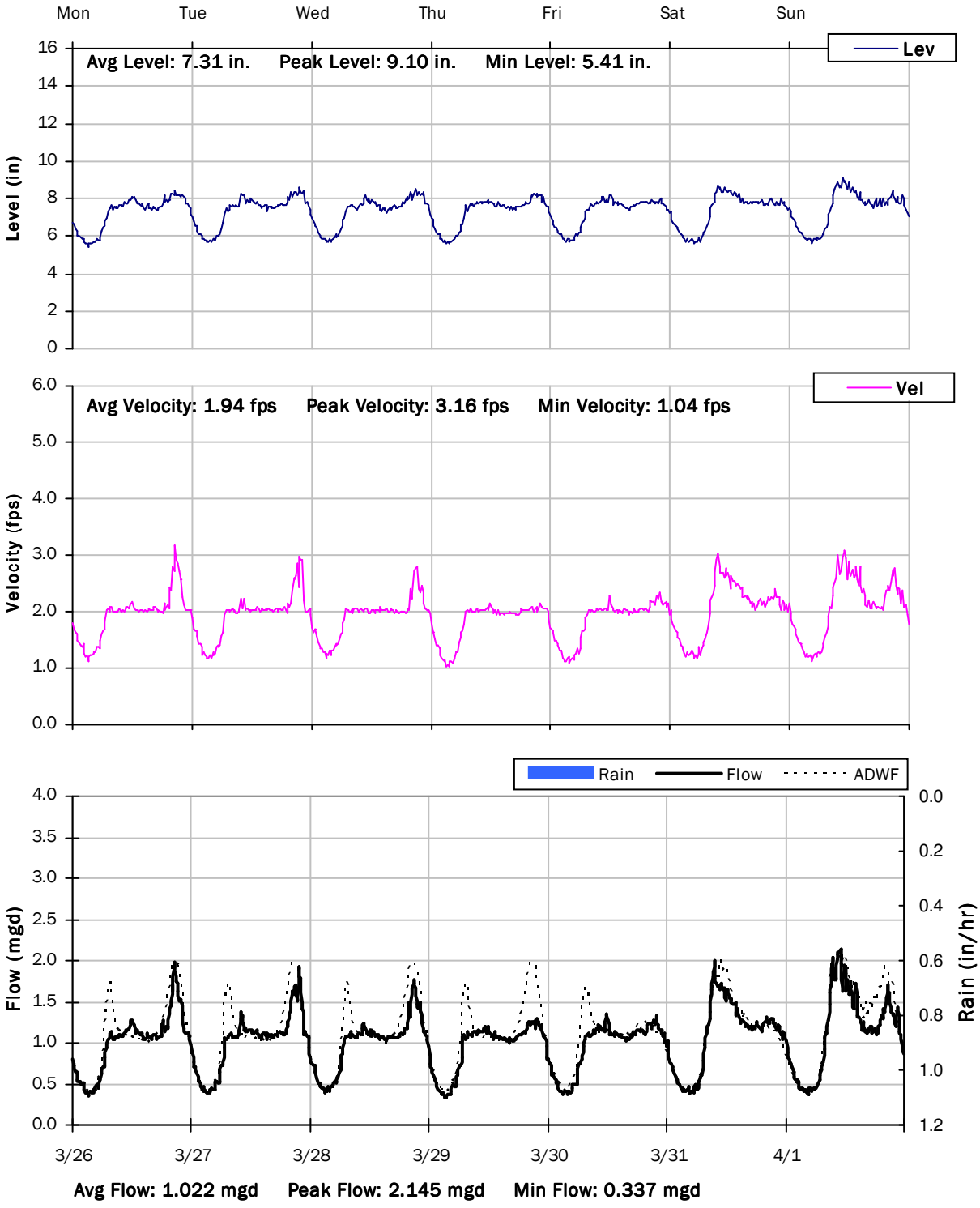
3/19/2018 to 3/26/2018



SMH 0330064

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

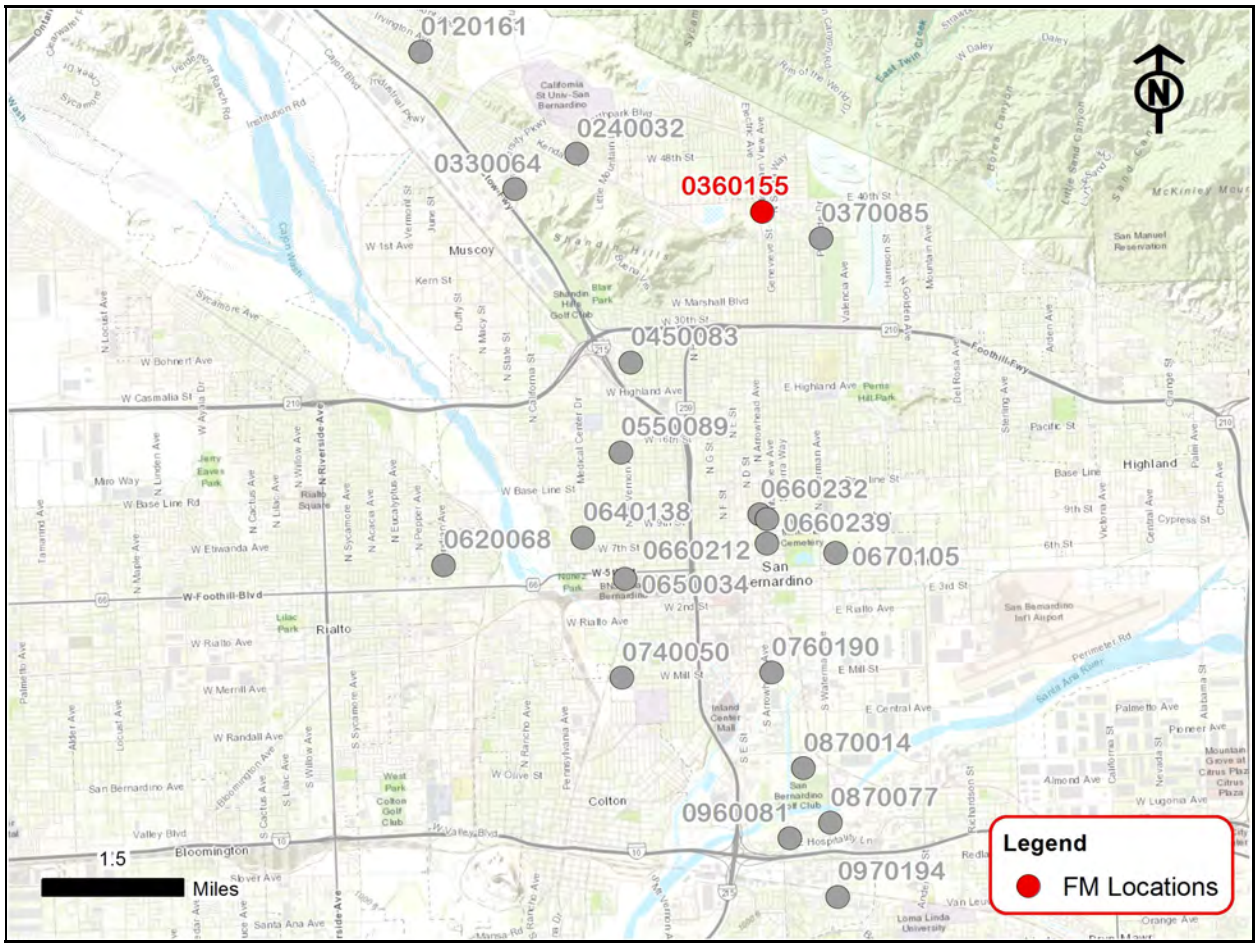
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0360155

Location: N Mountain View Avenue south of W Ralston Avenue

Data Summary Report



Vicinity Map: SMH 0360155

SMH 0360155

Site Information

Location: N Mountain View Avenue south of W Ralston Avenue

Coordinates: 117.2873° W, 34.1632° N

Rim Elevation (Earth): 1302 feet

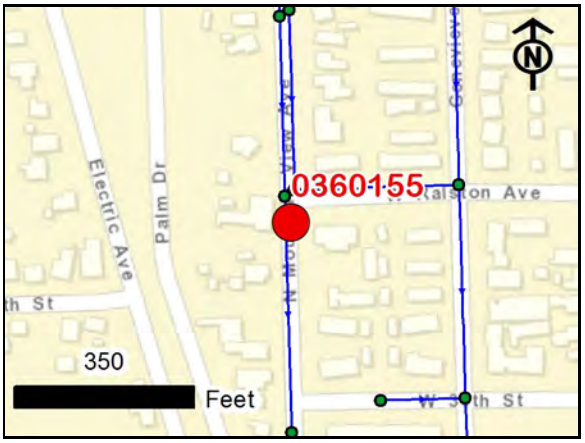
Pipe Diameter: 33 inches

ADWF: 2.056 mgd

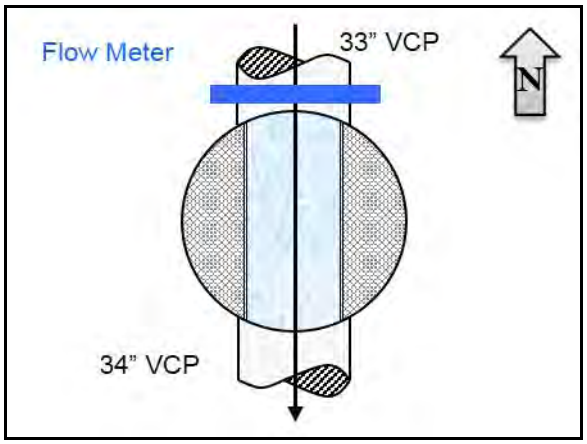
Peak Measured Flow: 3.897 mgd



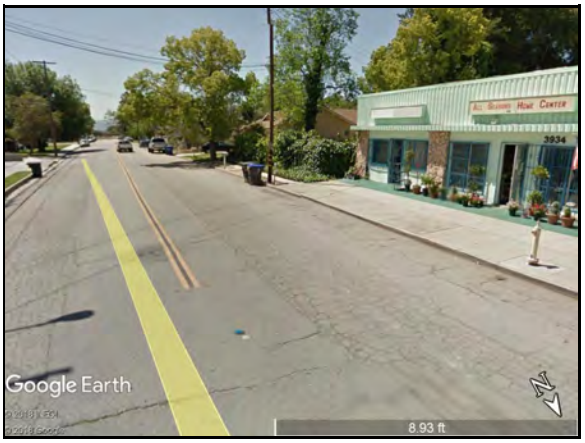
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

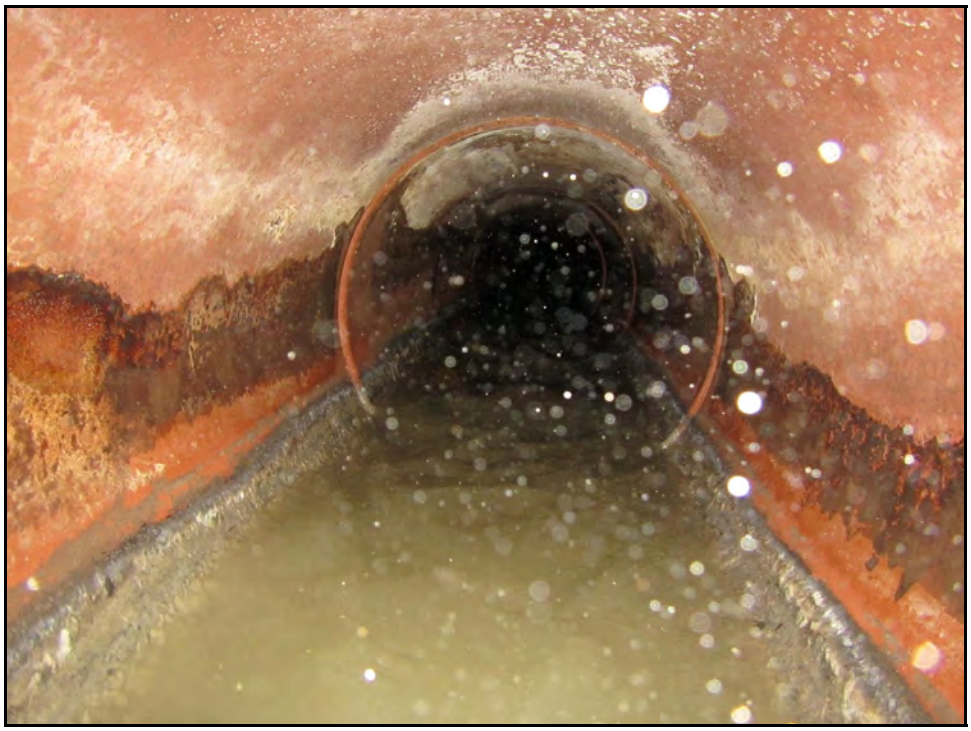
SMH 0360155

Additional Site Photos

Effluent Pipe



Influent Pipe

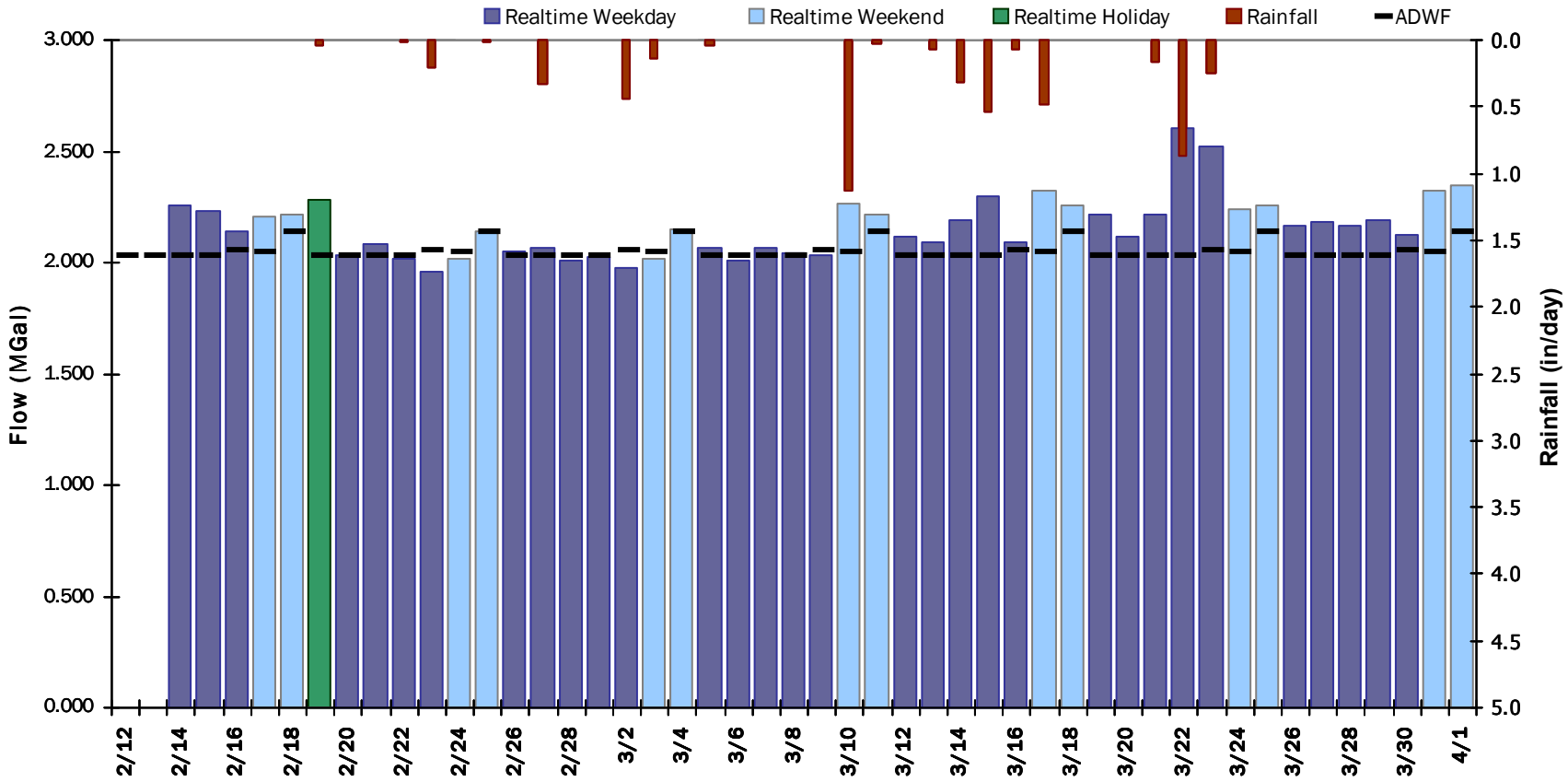


SMH 0360155

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 2.161 MGal Peak Daily Flow: 2.603 MGal Min Daily Flow: 1.958 MGal

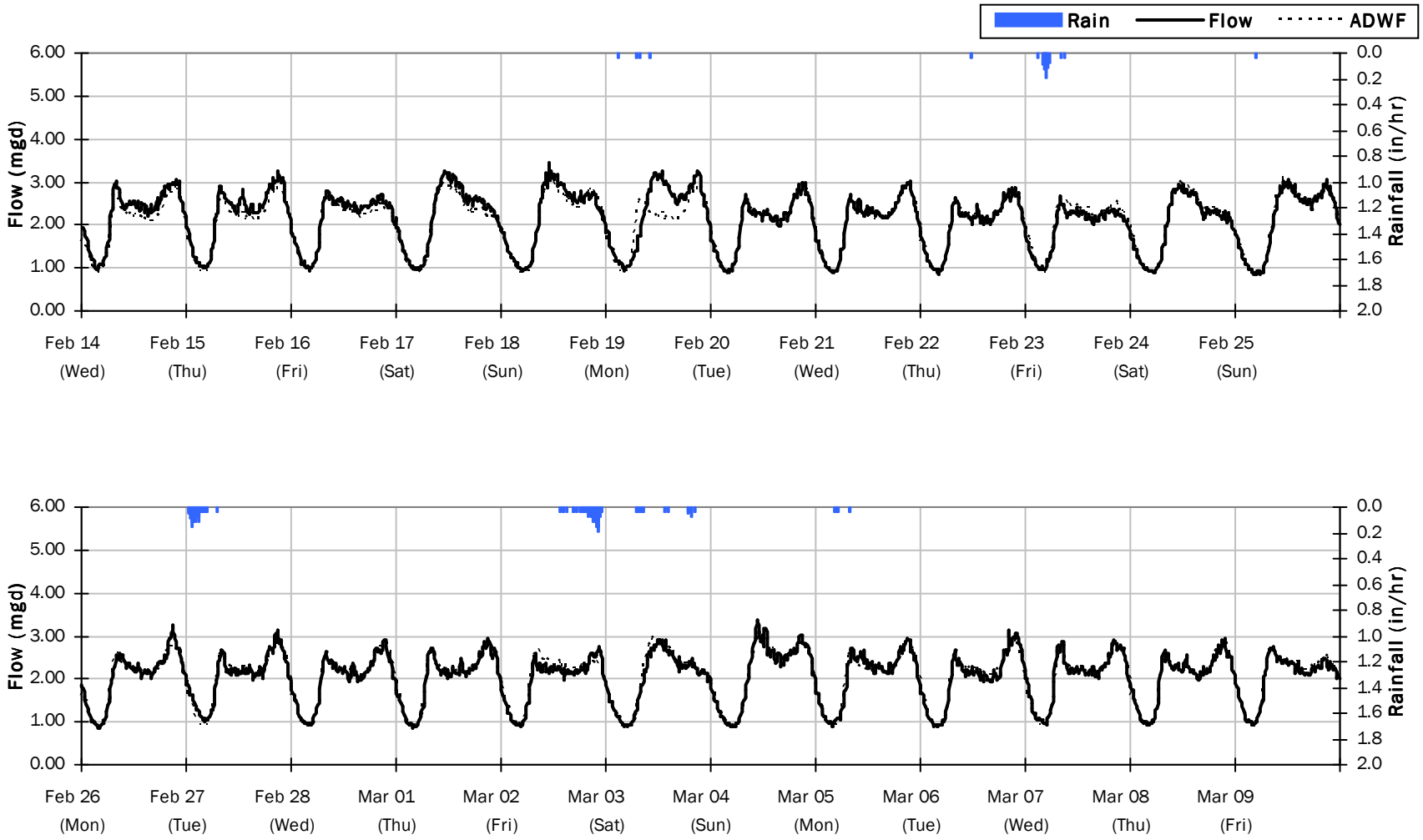
Total Period Rainfall: 5.15 inches



SMH 0360155

Flow Summary: 2/14/2018 to 3/9/2018

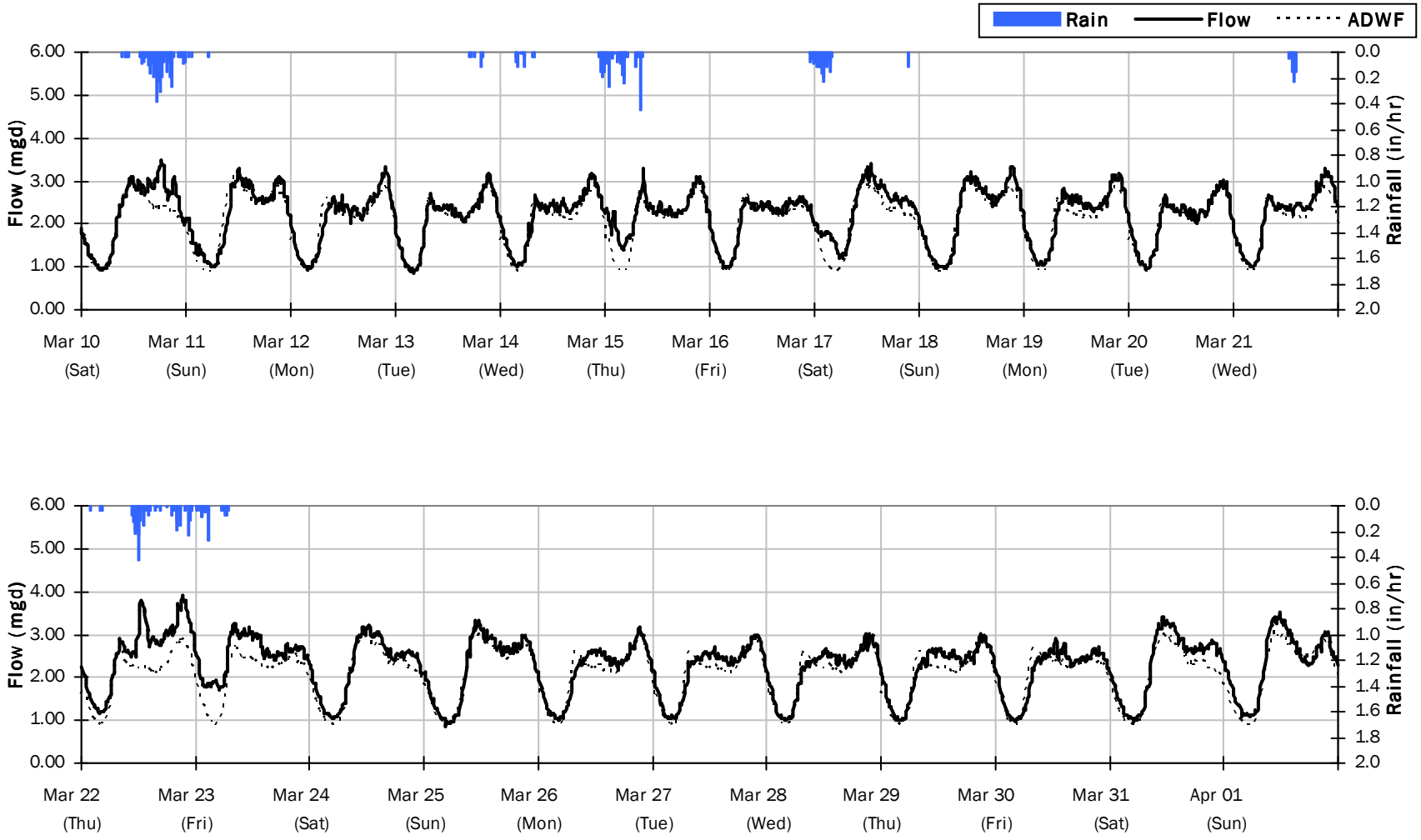
Total Period Rainfall: 1.23 inches Avg Flow: 2.087 mgd Peak Flow: 3.439 mgd Min Flow: 0.847 mgd



SMH 0360155

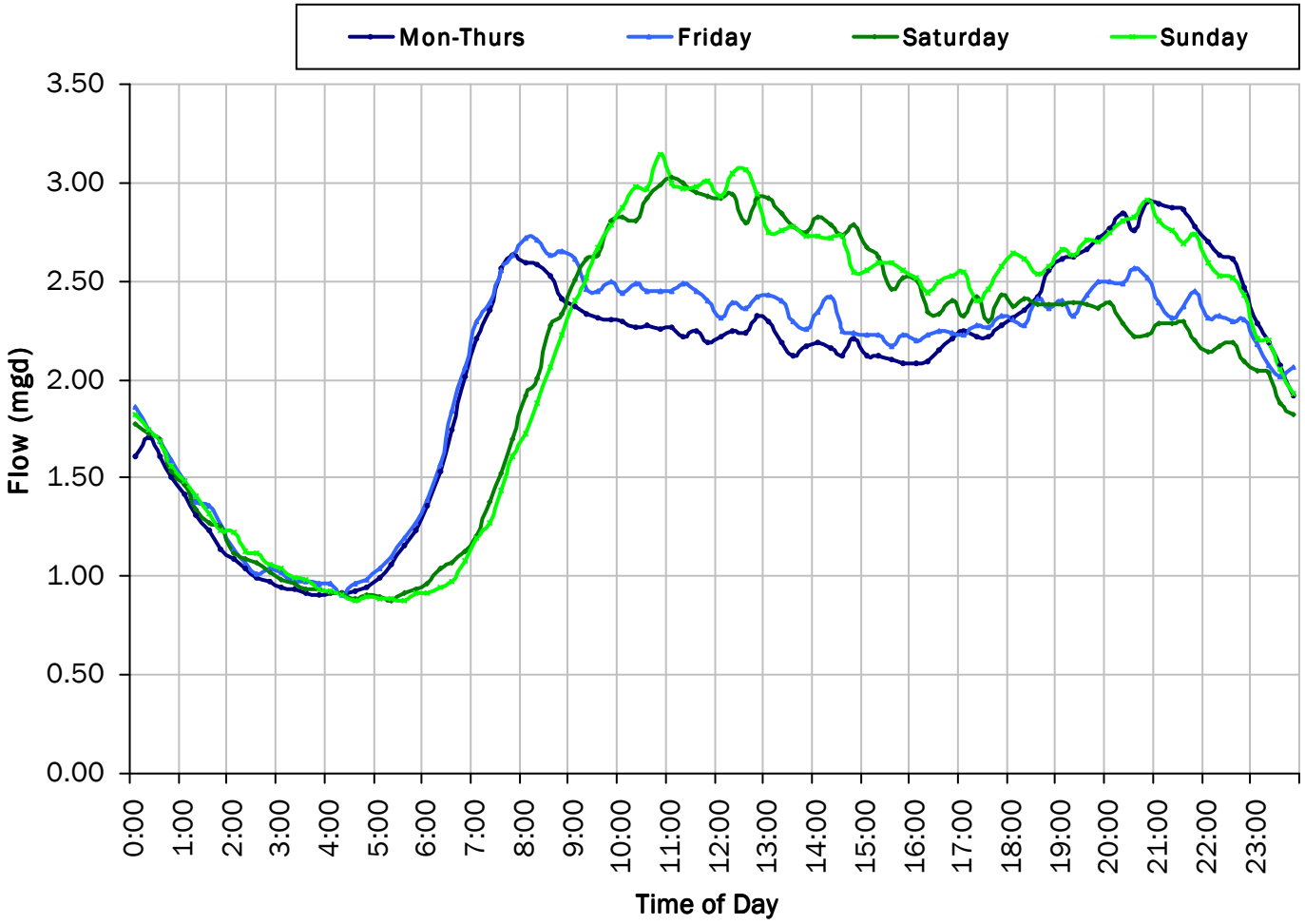
Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 3.92 inches Avg Flow: 2.239 mgd Peak Flow: 3.897 mgd Min Flow: 0.837 mgd



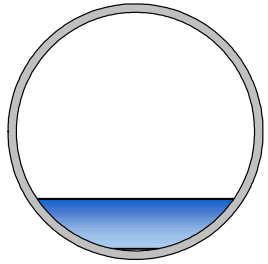
SMH 0360155

Average Dry Weather Flow Hydrographs



ADWF:

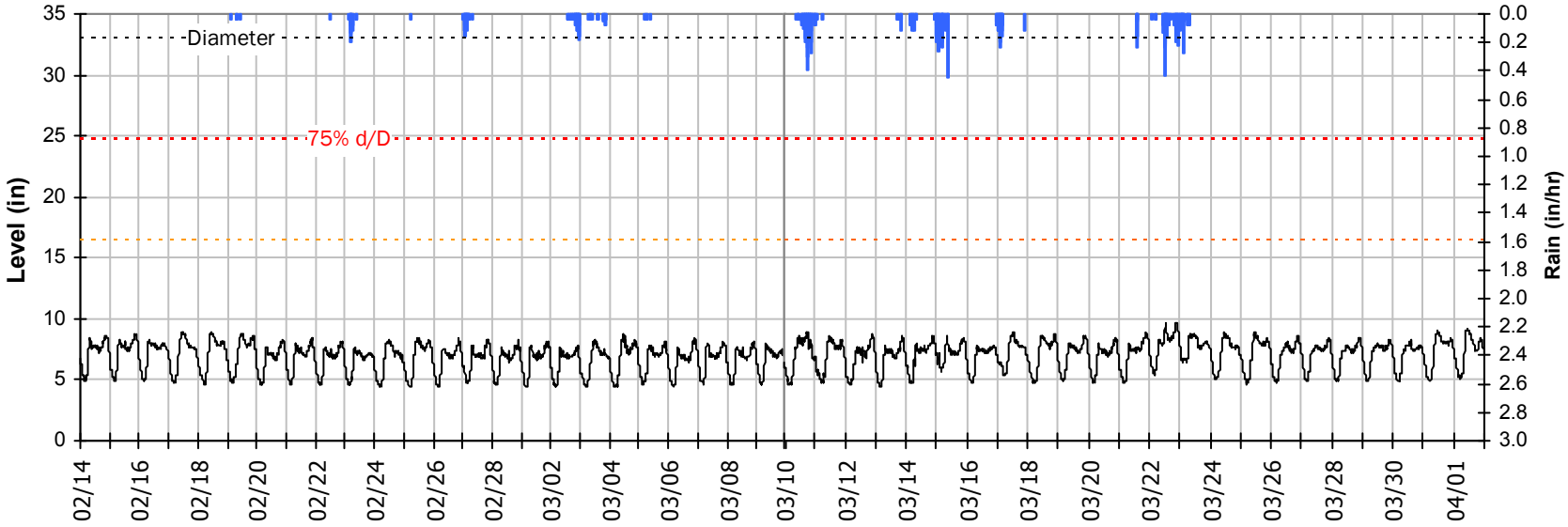
2.056 *mgd*

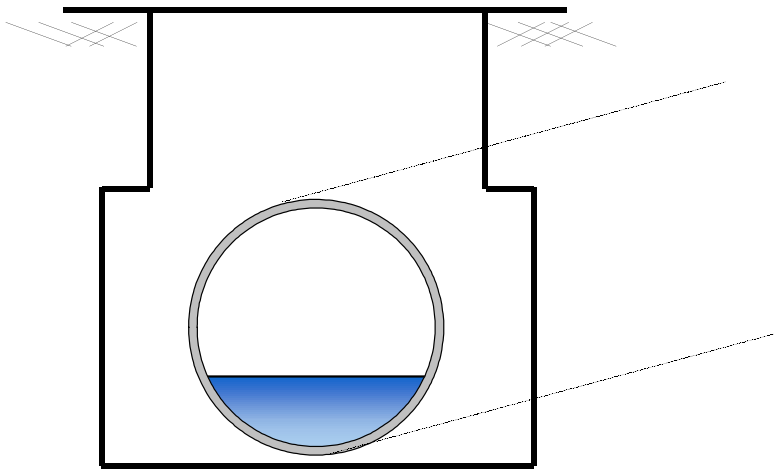


SMH 0360155

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

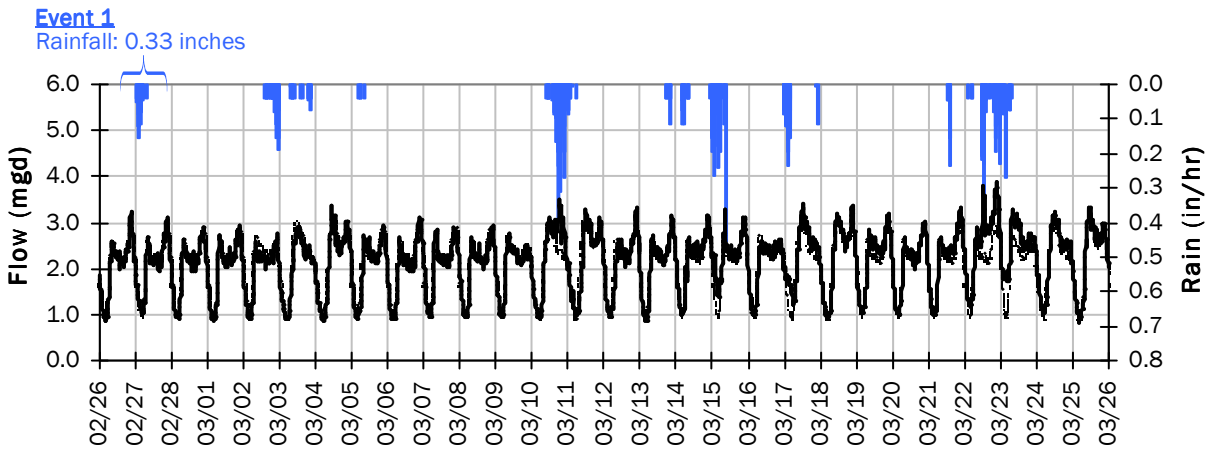




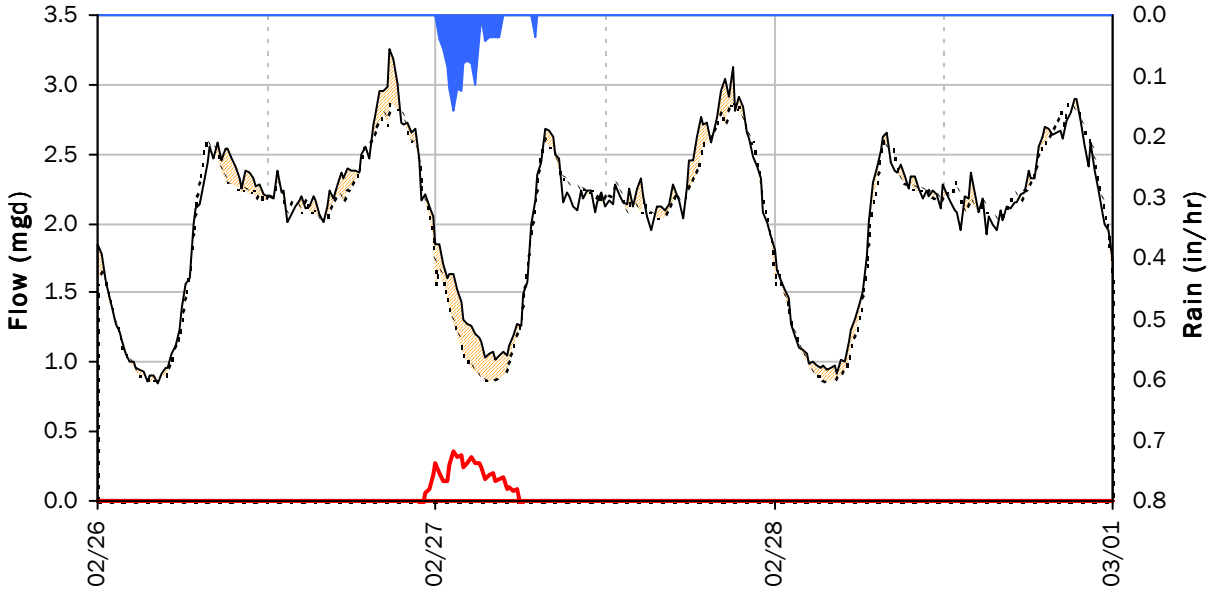
Pipe Diameter:	33	*inches*
Peak Measured Level:	9.73	*inches*
Peak d/D Ratio:	0.29	

SMH 0360155
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

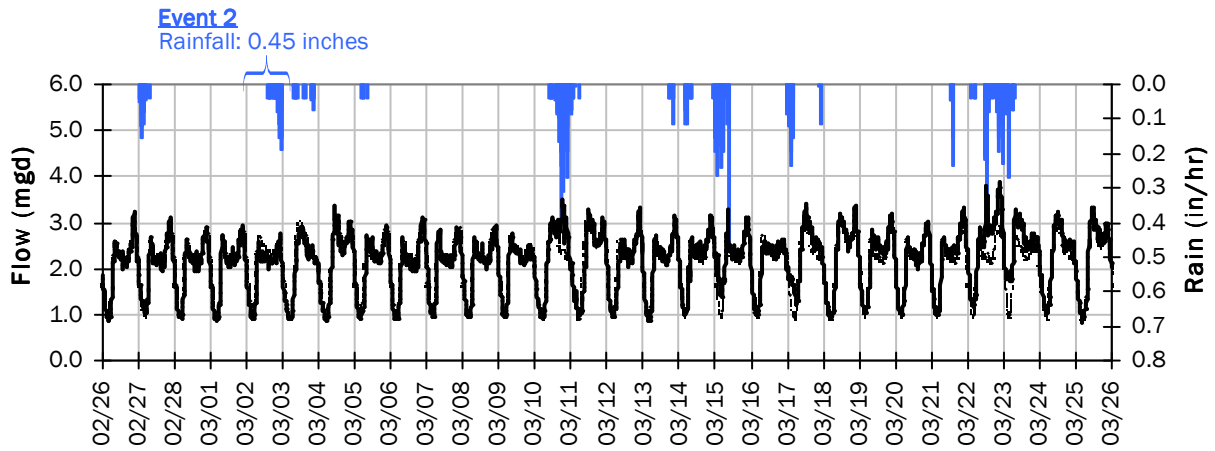


Storm Event I/I Analysis (Rain = 0.33 inches)

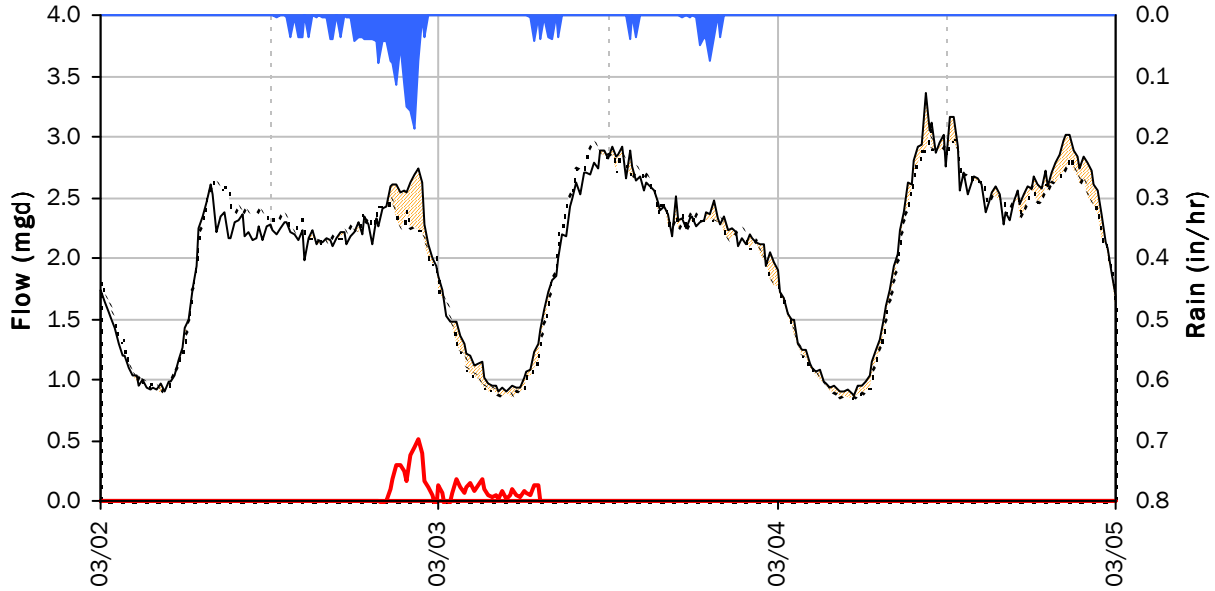
Capacity		Inflow / Infiltration	
Peak Flow:	2.20 *mgd*	**Peak I/I Rate:**	0.37 *mgd*
PF:	1.07	**Total I/I:**	54,000 *gallons*
Peak Level:	7.17 *in*		
d/D Ratio:	0.22		

SMH 0360155
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

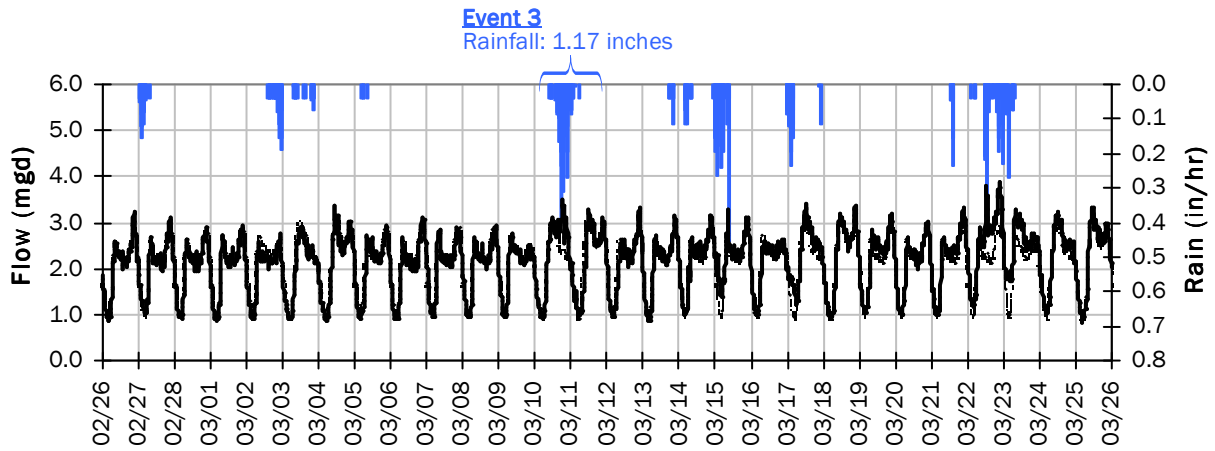


Storm Event I/I Analysis (Rain = 0.45 inches)

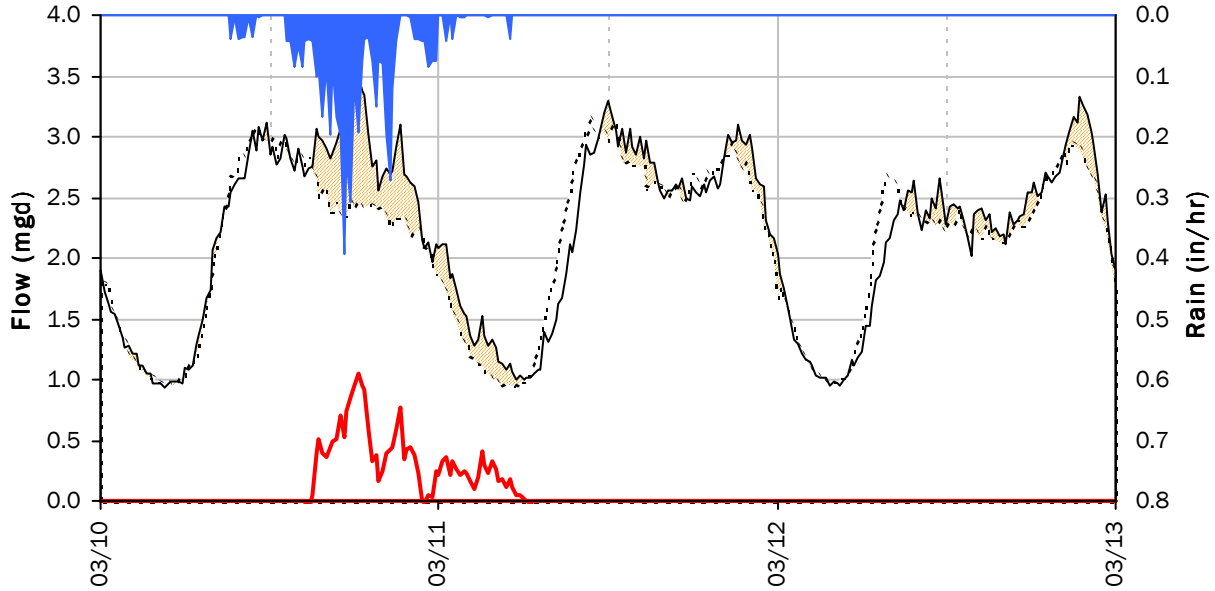
Capacity		Inflow / Infiltration	
Peak Flow:	2.74 *mgd*	**Peak I/I Rate:**	0.51 *mgd*
PF:	1.33	**Total I/I:**	57,000 *gallons*
Peak Level:	7.89 *in*		
d/D Ratio:	0.24		

SMH 0360155
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

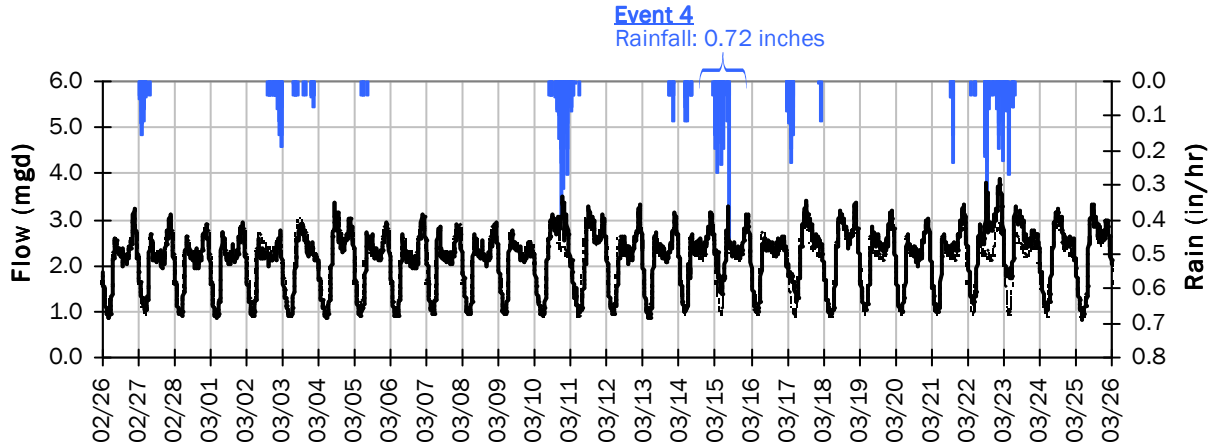


Storm Event I/I Analysis (Rain = 1.17 inches)

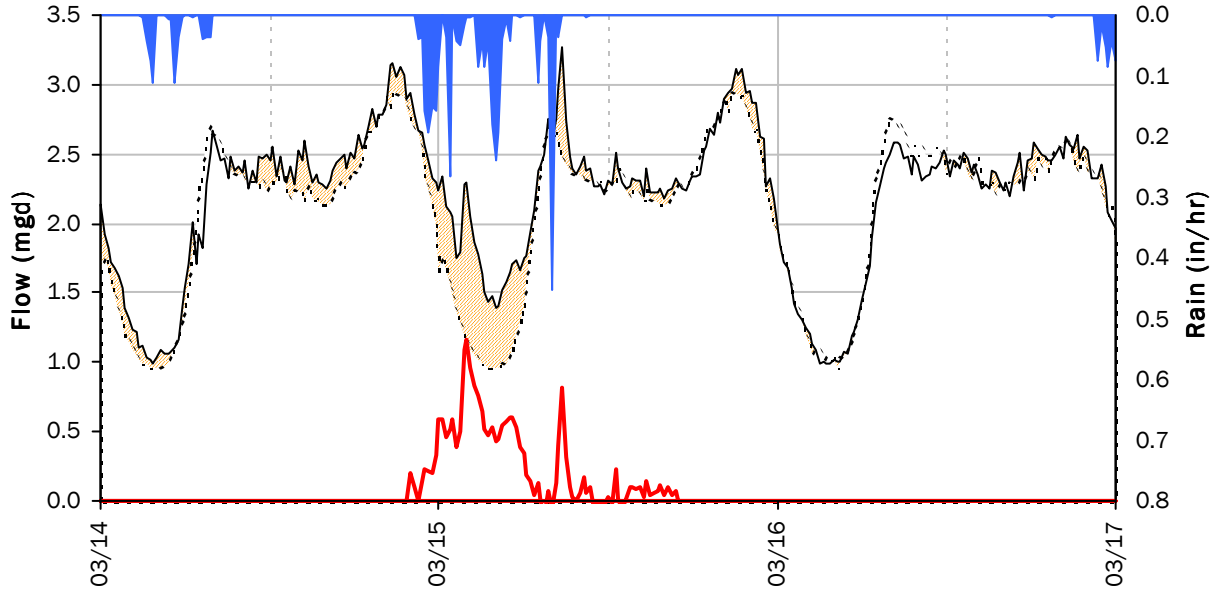
Capacity		Inflow / Infiltration	
Peak Flow:	3.50 *mgd*	**Peak I/I Rate:**	1.04 *mgd*
PF:	1.70	**Total I/I:**	224,000 *gallons*
Peak Level:	8.90 *in*		
d/D Ratio:	0.27		

SMH 0360155
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

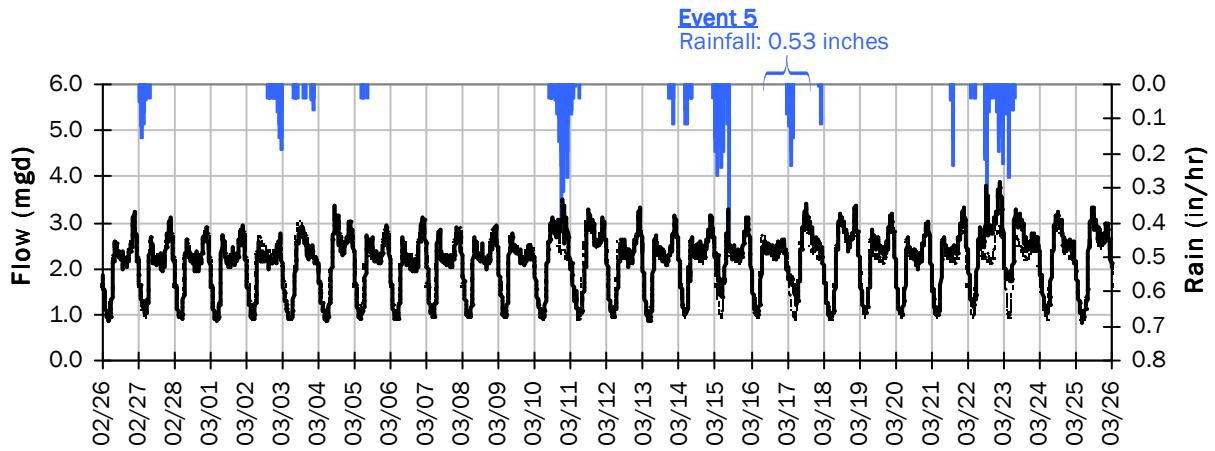


Storm Event I/I Analysis (Rain = 0.72 inches)

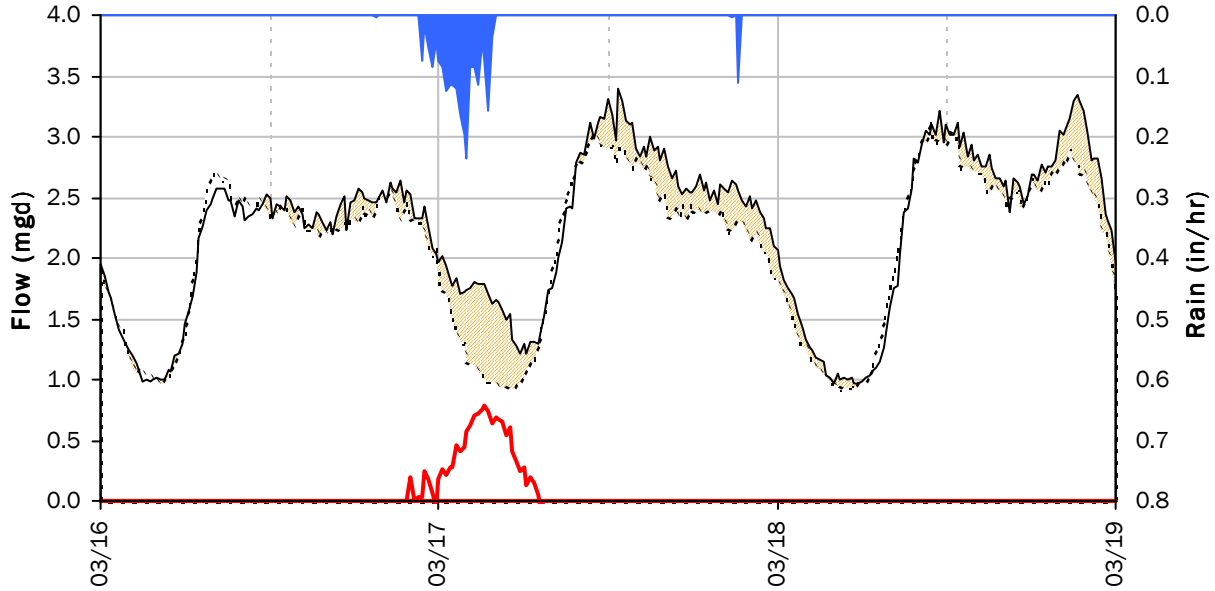
Capacity		Inflow / Infiltration	
Peak Flow:	3.28 *mgd*	**Peak I/I Rate:**	1.16 *mgd*
PF:	1.59	**Total I/I:**	210,000 *gallons*
Peak Level:	8.62 *in*		
d/D Ratio:	0.26		

SMH 0360155
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

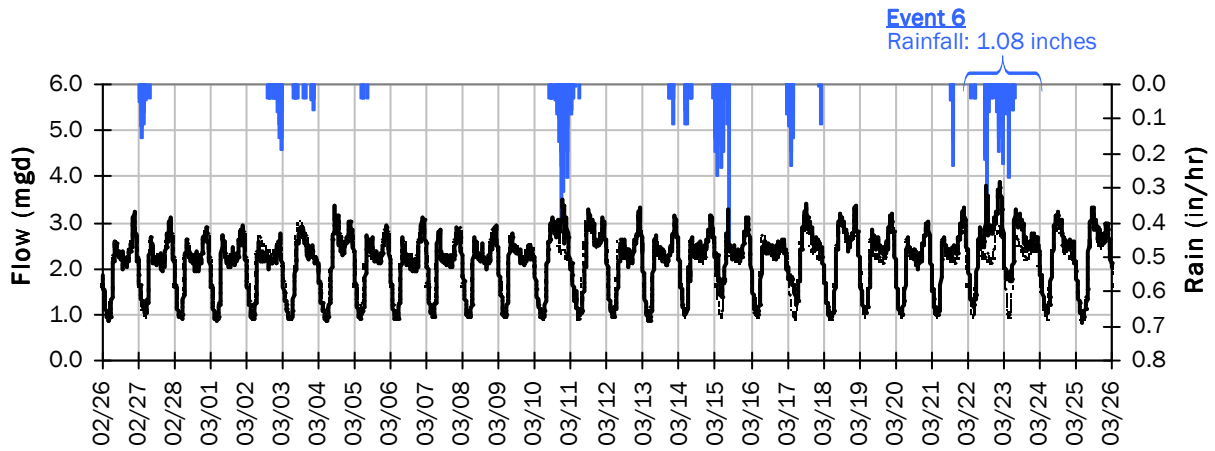


Storm Event I/I Analysis (Rain = 0.53 inches)

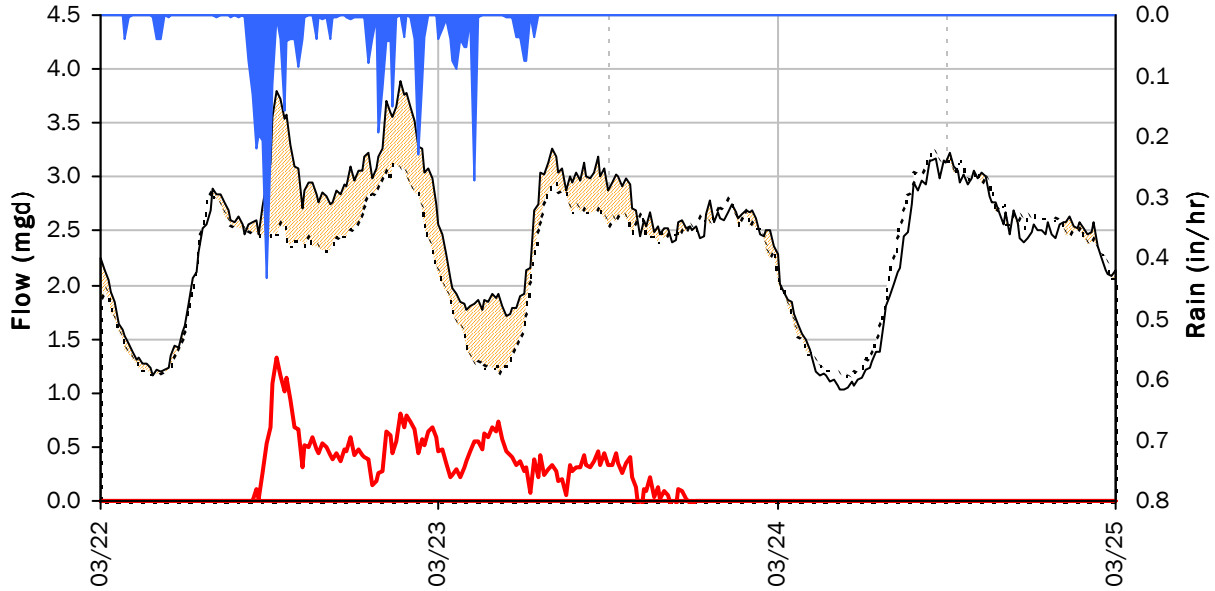
Capacity		Inflow / Infiltration	
Peak Flow:	2.52 *mgd*	**Peak I/I Rate:**	0.78 *mgd*
PF:	1.23	**Total I/I:**	142,000 *gallons*
Peak Level:	7.62 *in*		
d/D Ratio:	0.23		

SMH 0360155
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



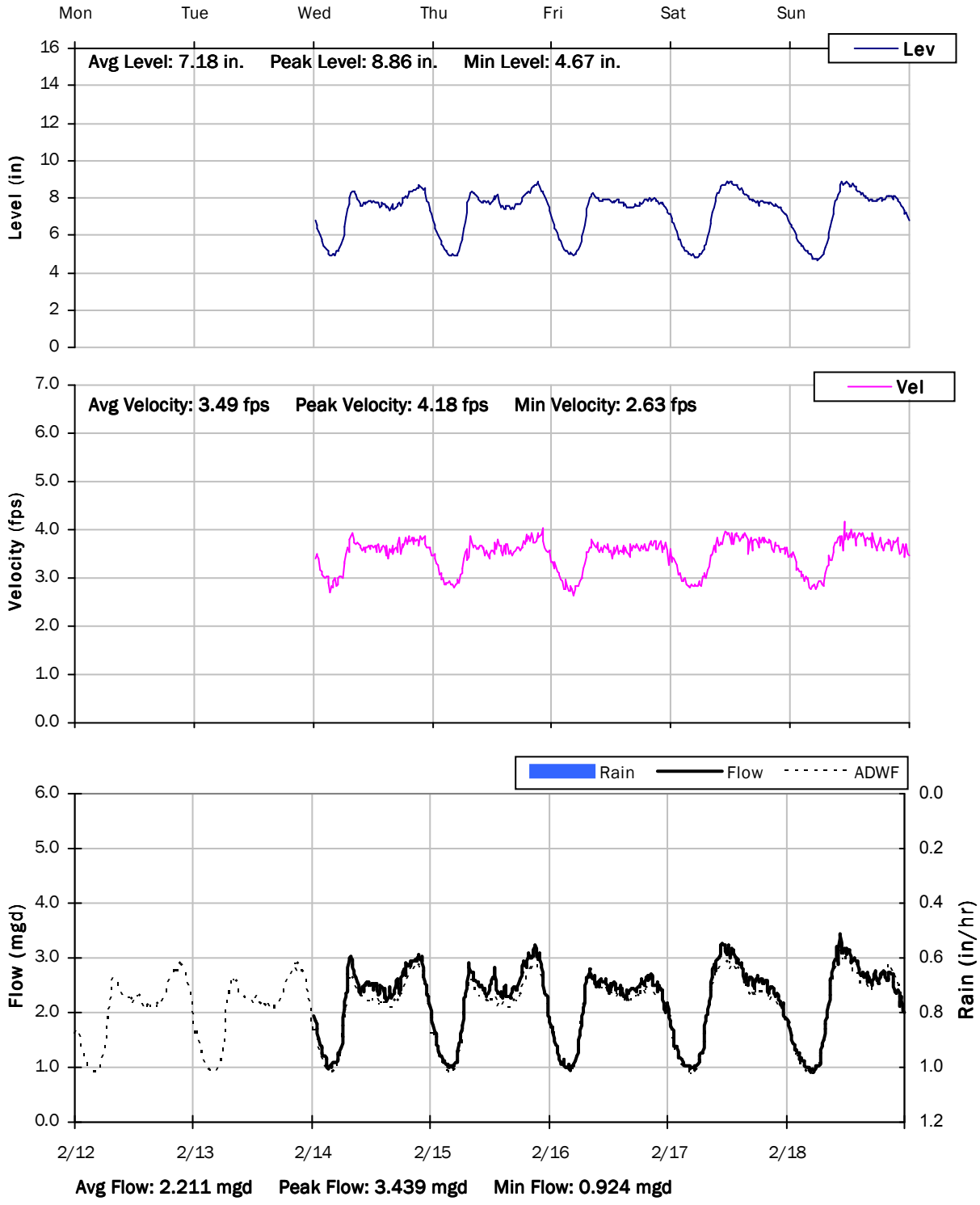
Storm Event I/I Analysis (Rain = 1.08 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	3.90 *mgd*	**Peak I/I Rate:**	1.33 *mgd*
PF:	1.90	**Total I/I:**	526,000 *gallons*
Peak Level:	9.73 *in*		
d/D Ratio:	0.29		

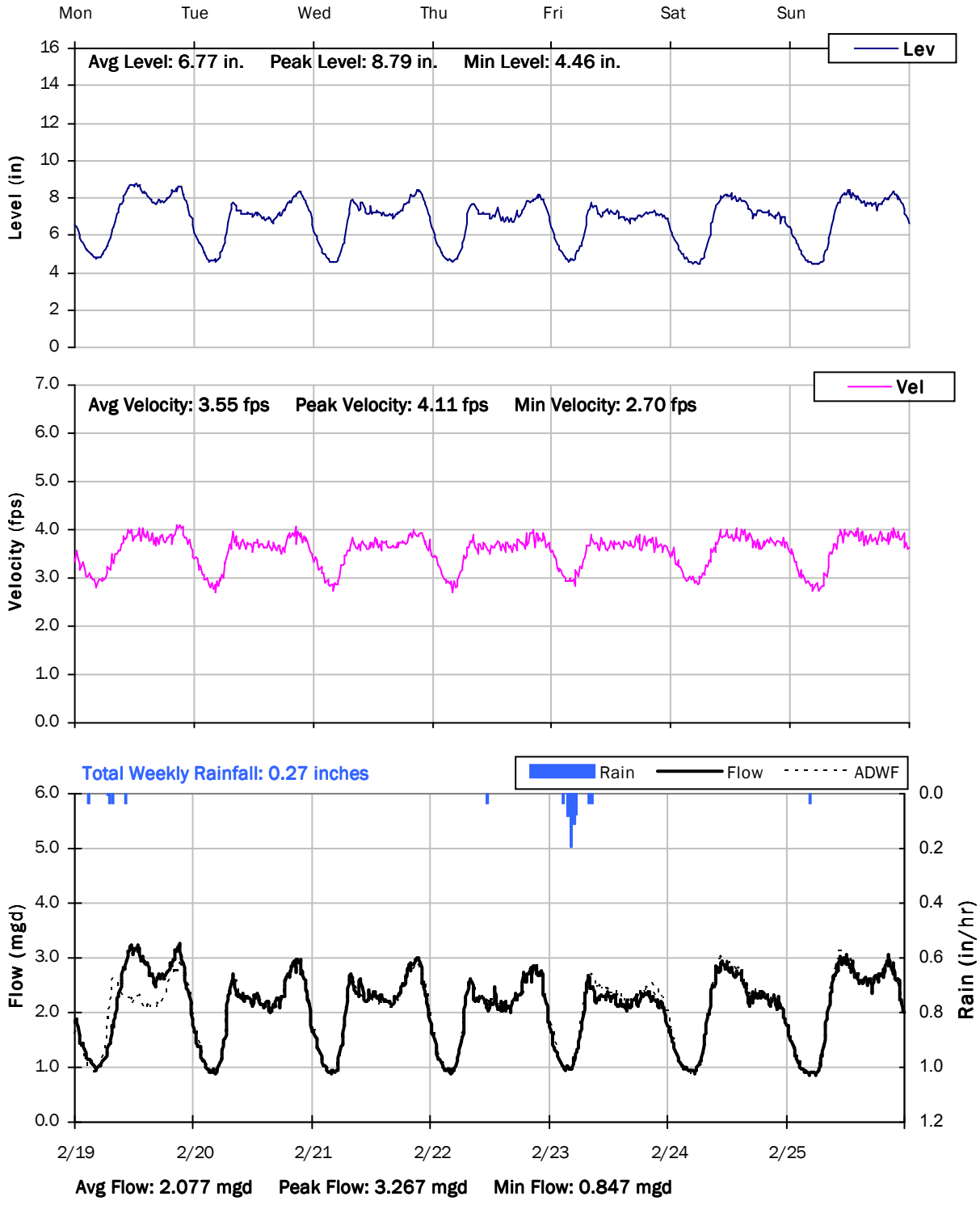
SMH 0360155

Weekly Level, Velocity and Flow Hydrographs

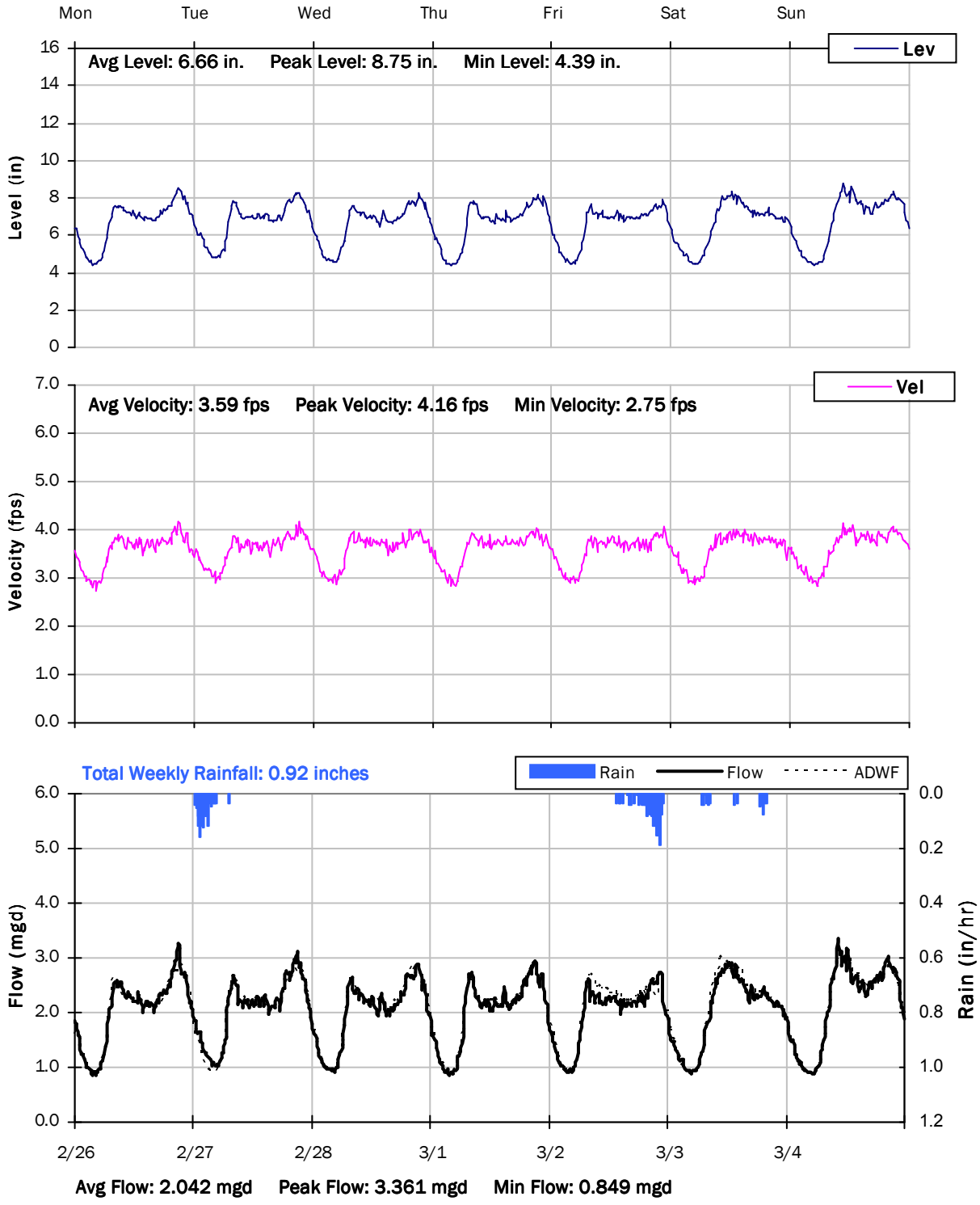
2/12/2018 to 2/19/2018



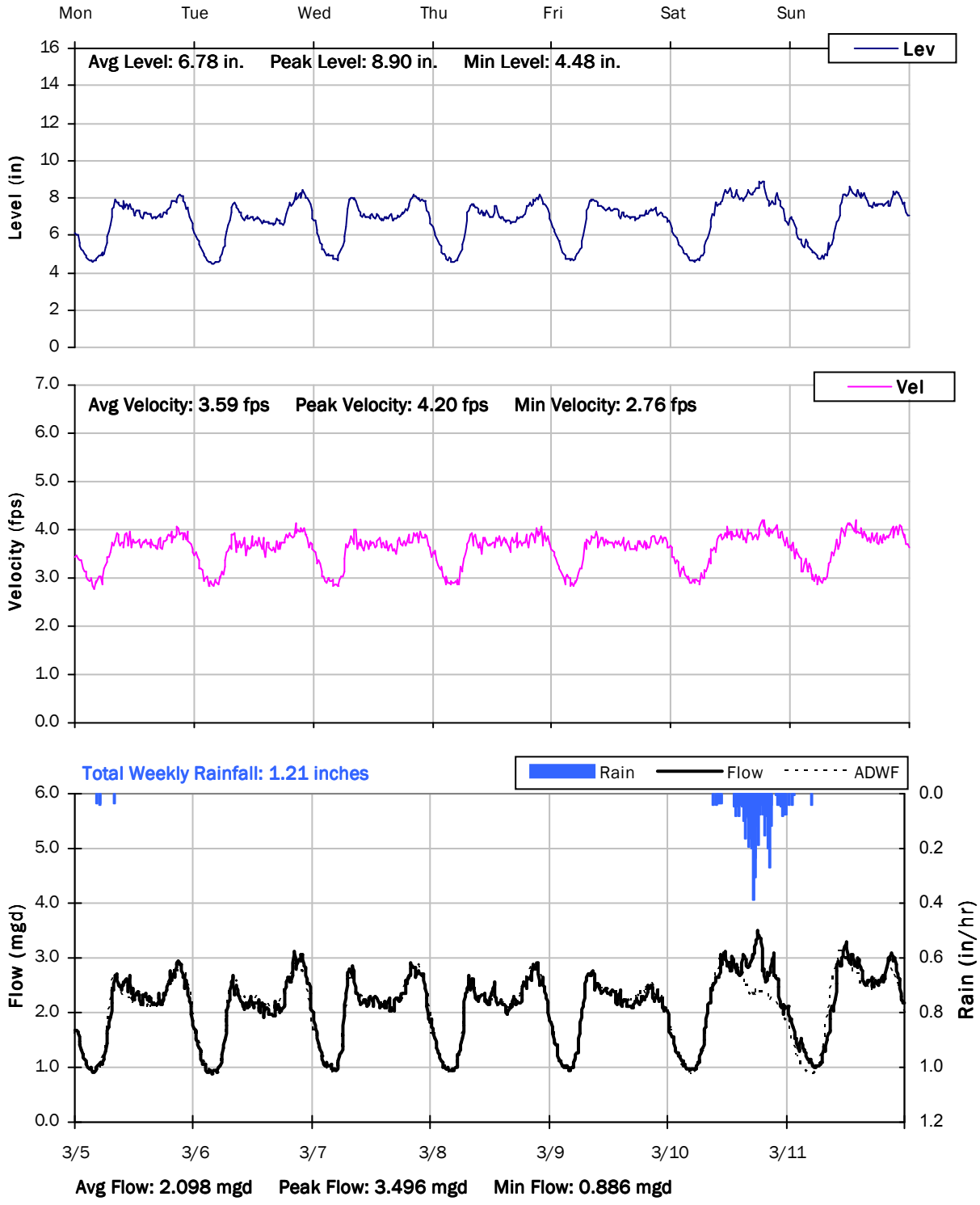
SMH 0360155
Weekly Level, Velocity and Flow Hydrographs
2/19/2018 to 2/26/2018



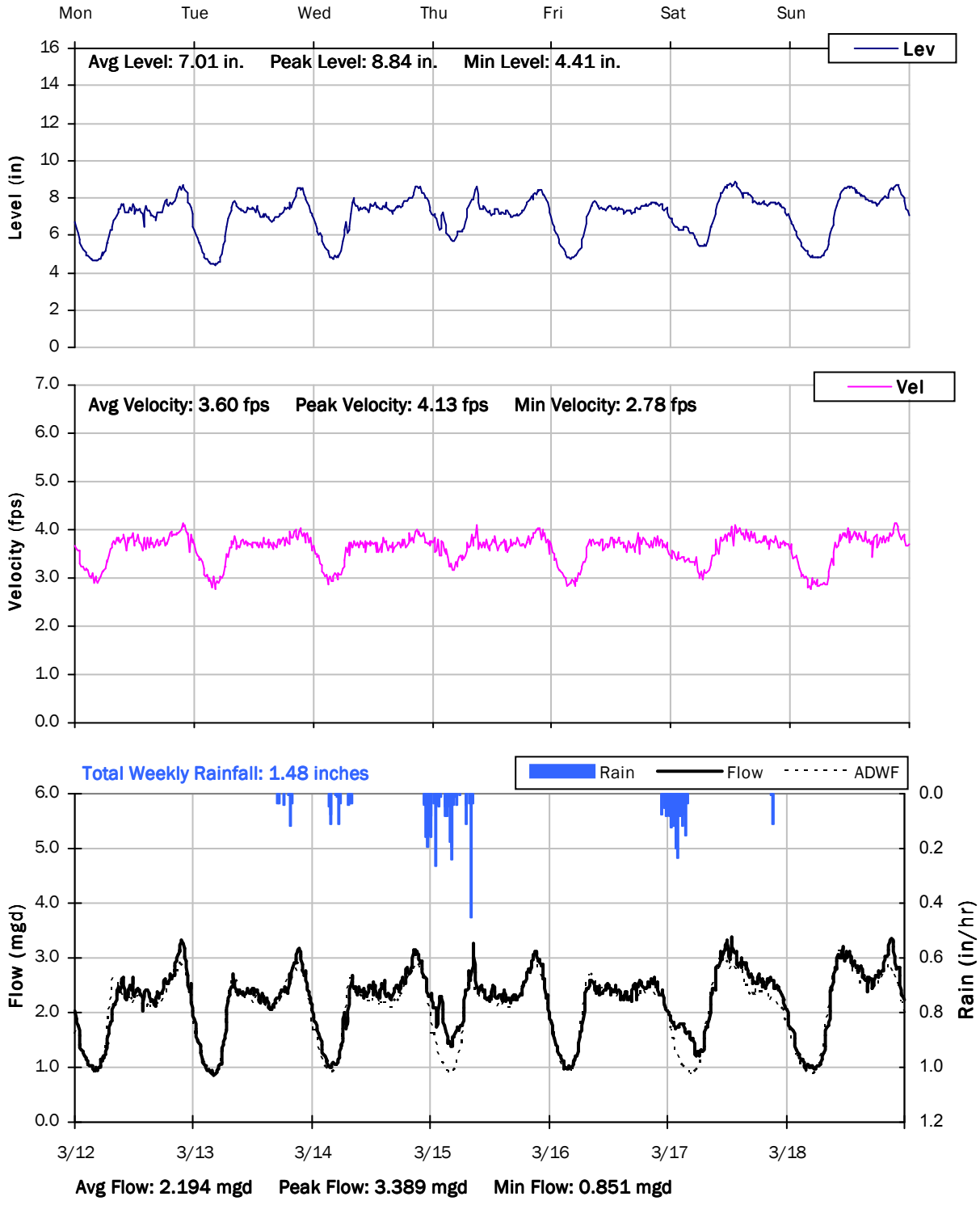
SMH 0360155
Weekly Level, Velocity and Flow Hydrographs
2/26/2018 to 3/5/2018



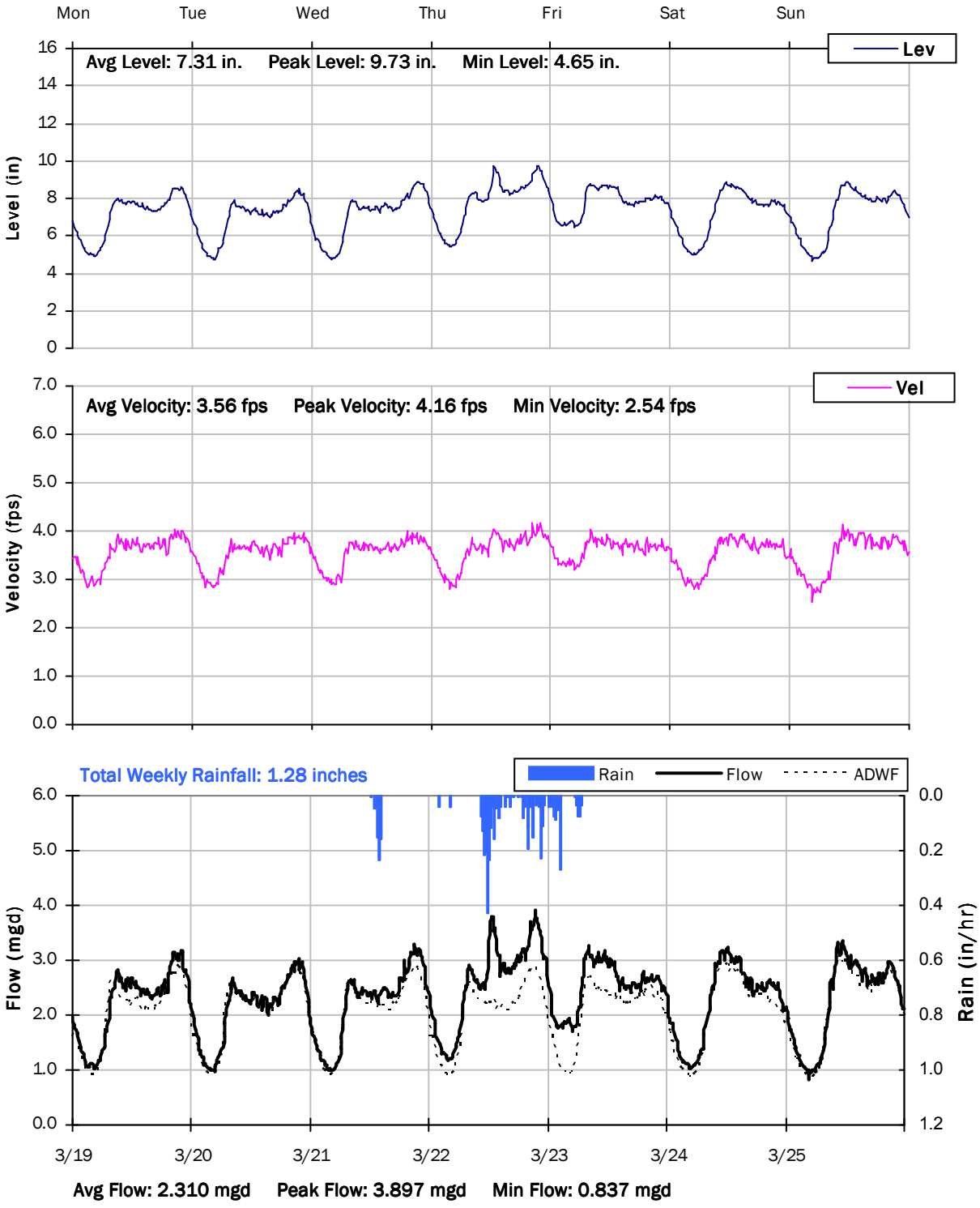
SMH 0360155
Weekly Level, Velocity and Flow Hydrographs
3/5/2018 to 3/12/2018



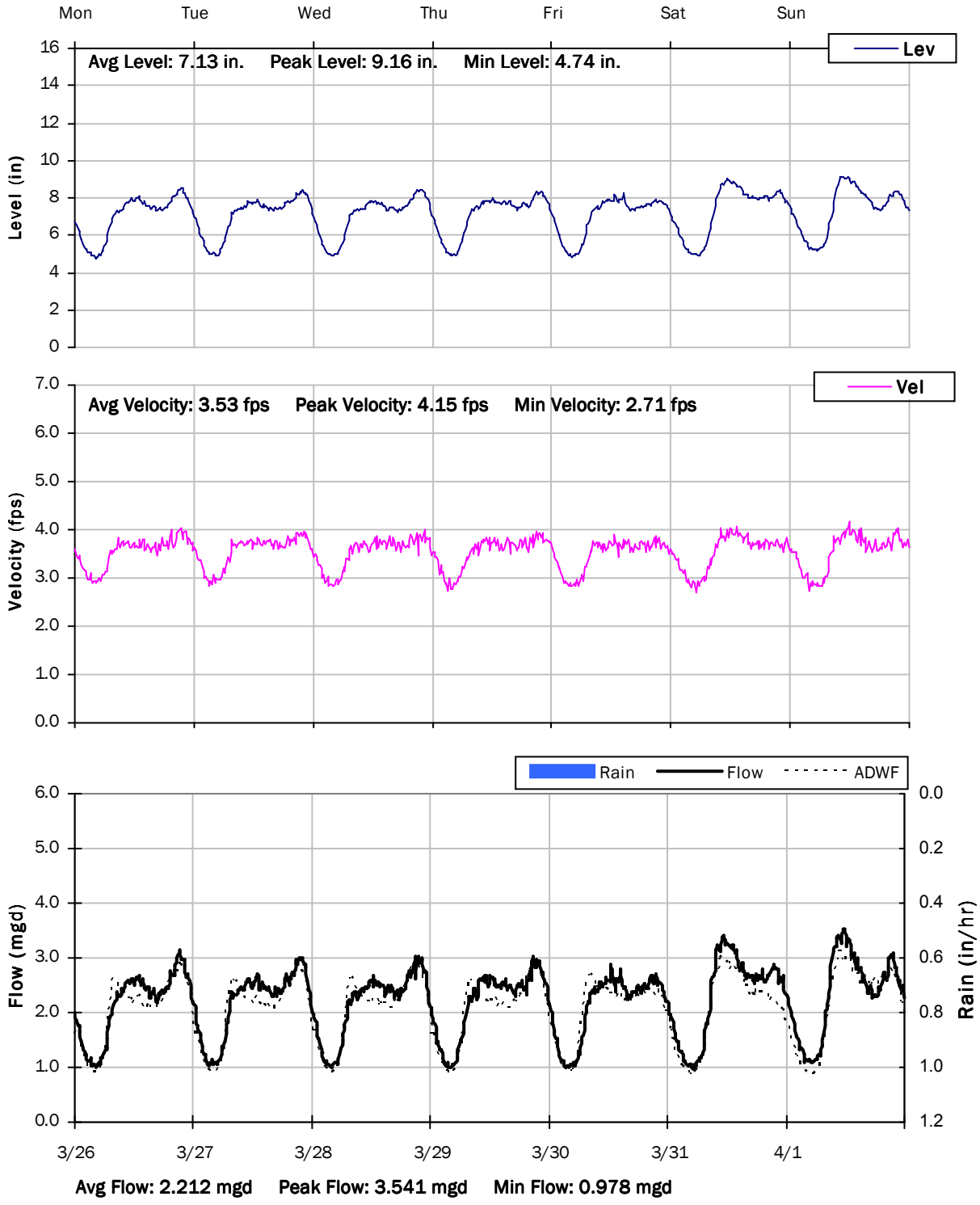
SMH 0360155
Weekly Level, Velocity and Flow Hydrographs
3/12/2018 to 3/19/2018



SMH 0360155
Weekly Level, Velocity and Flow Hydrographs
3/19/2018 to 3/26/2018



SMH 0360155
Weekly Level, Velocity and Flow Hydrographs
3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

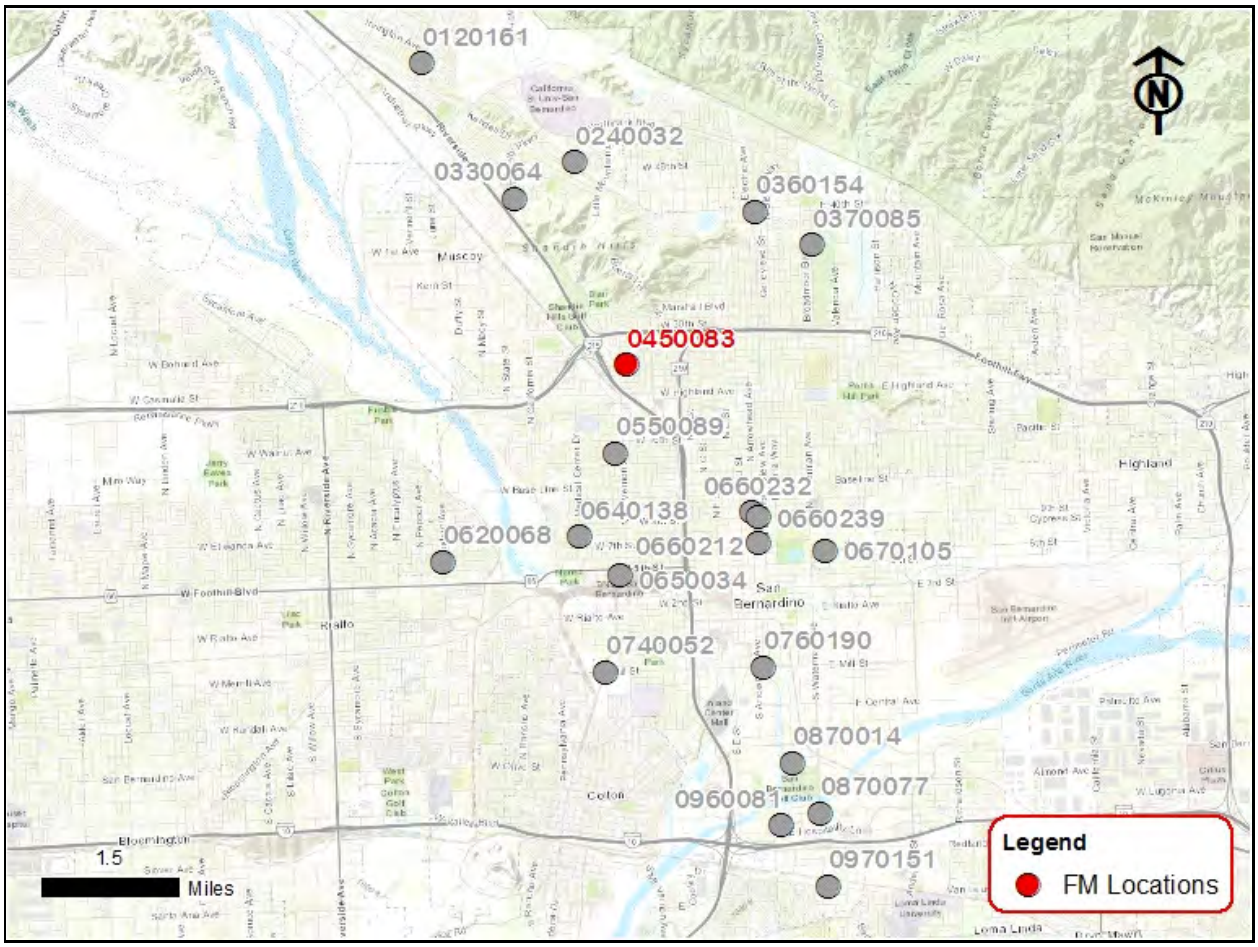
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0450083

Location: 1275 W 27th Street

Data Summary Report



Vicinity Map: SMH 0450083

SMH 0450083

Site Information

Location: 1275 W 27th Street

Coordinates: 117.3126° W, 34.1407° N

Rim Elevation (Earth): 1219 feet

Pipe Diameter: 18 inches

ADWF: 0.485 mgd

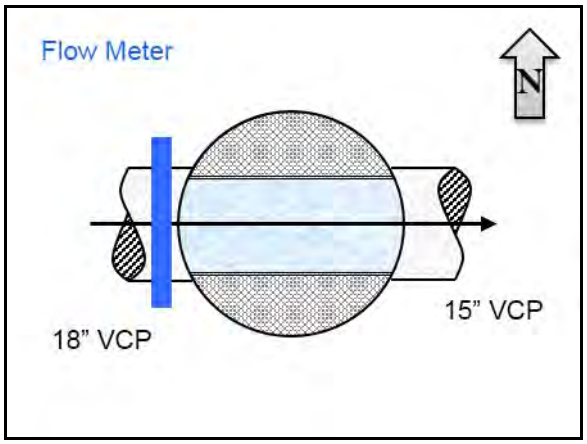
Peak Measured Flow: 0.913 mgd



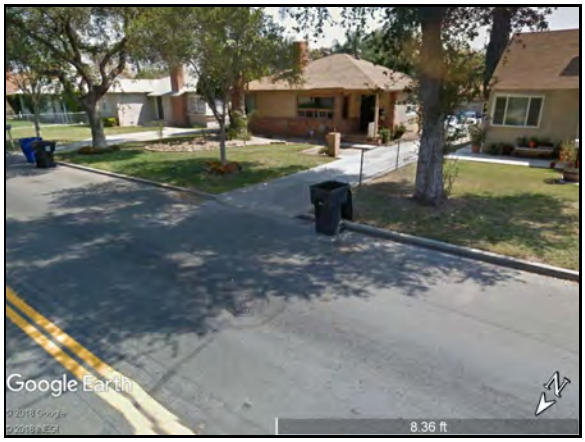
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0450083

Additional Site Photos

Effluent Pipe



Influent Pipe

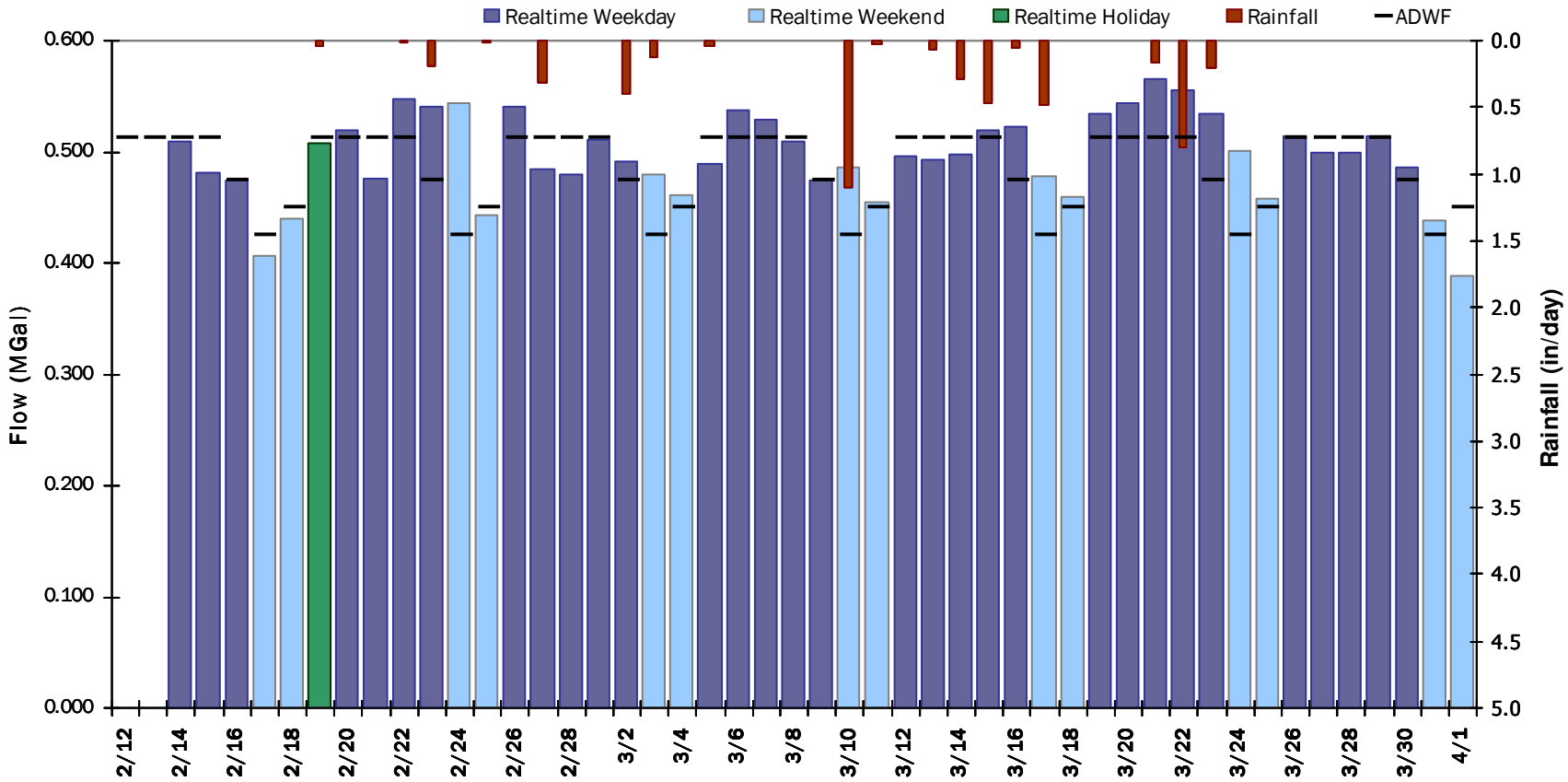


SMH 0450083

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.496 MGal **Peak Daily Flow: 0.566 MGal** **Min Daily Flow: 0.389 MGal**

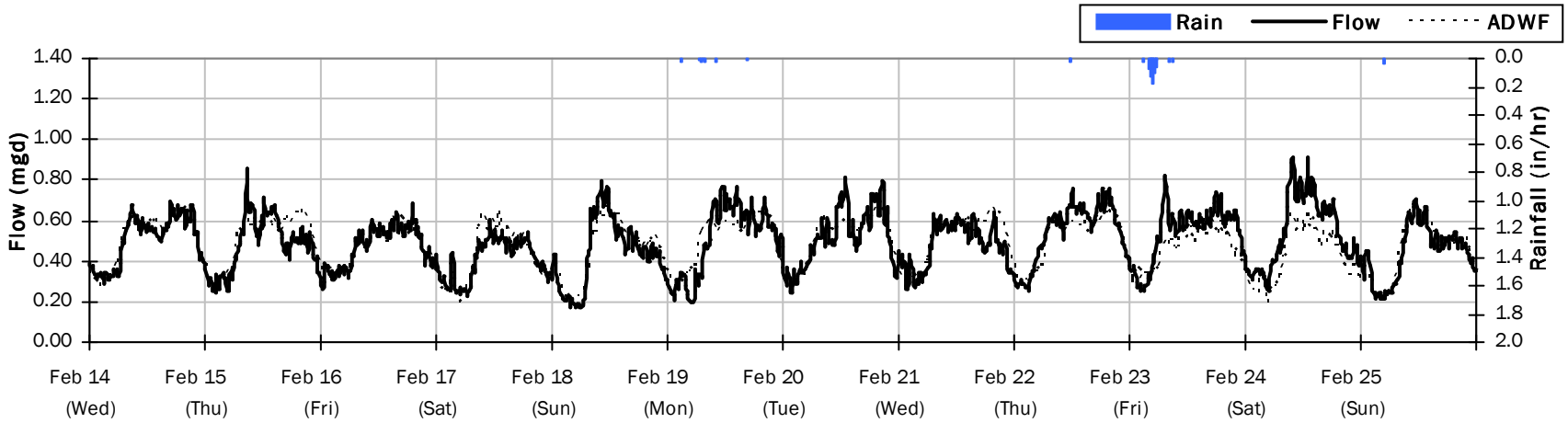
Total Period Rainfall: 4.78 inches

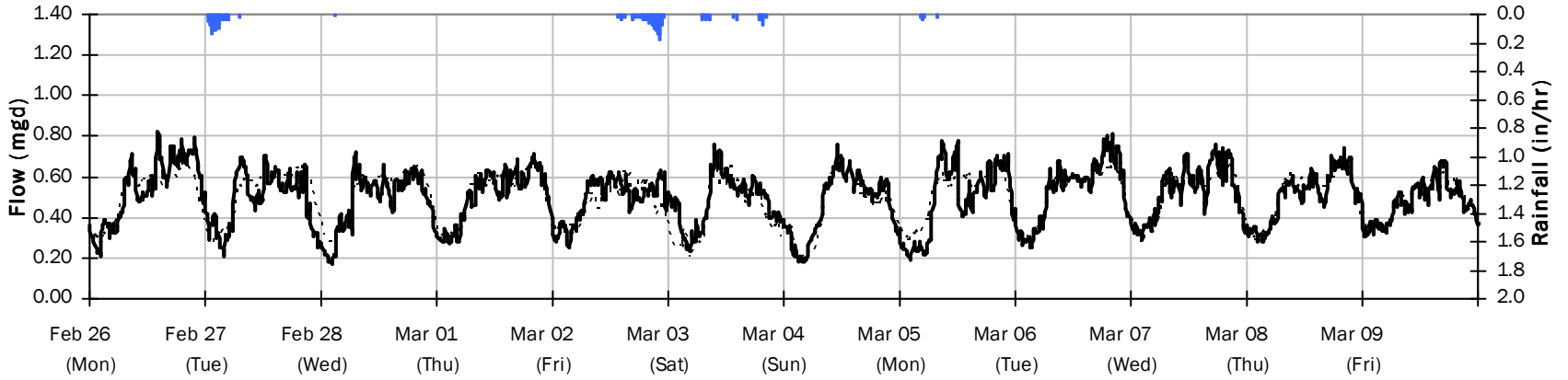


SMH 0450083

Flow Summary: 2/14/2018 to 3/9/2018

Total Period Rainfall: 1.14 inches **Avg Flow: 0.495 mgd** **Peak Flow: 0.913 mgd** **Min Flow: 0.170 mgd**

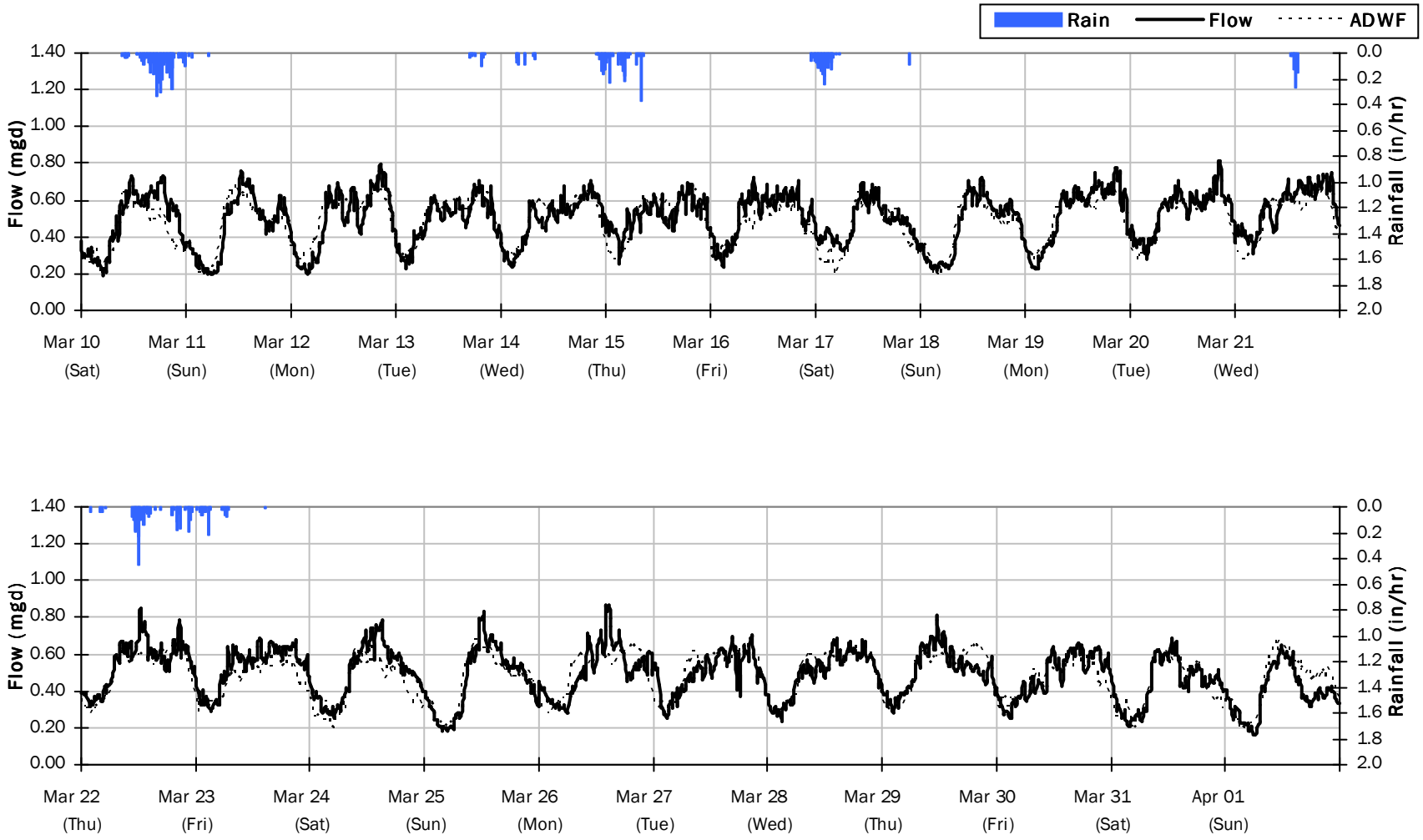




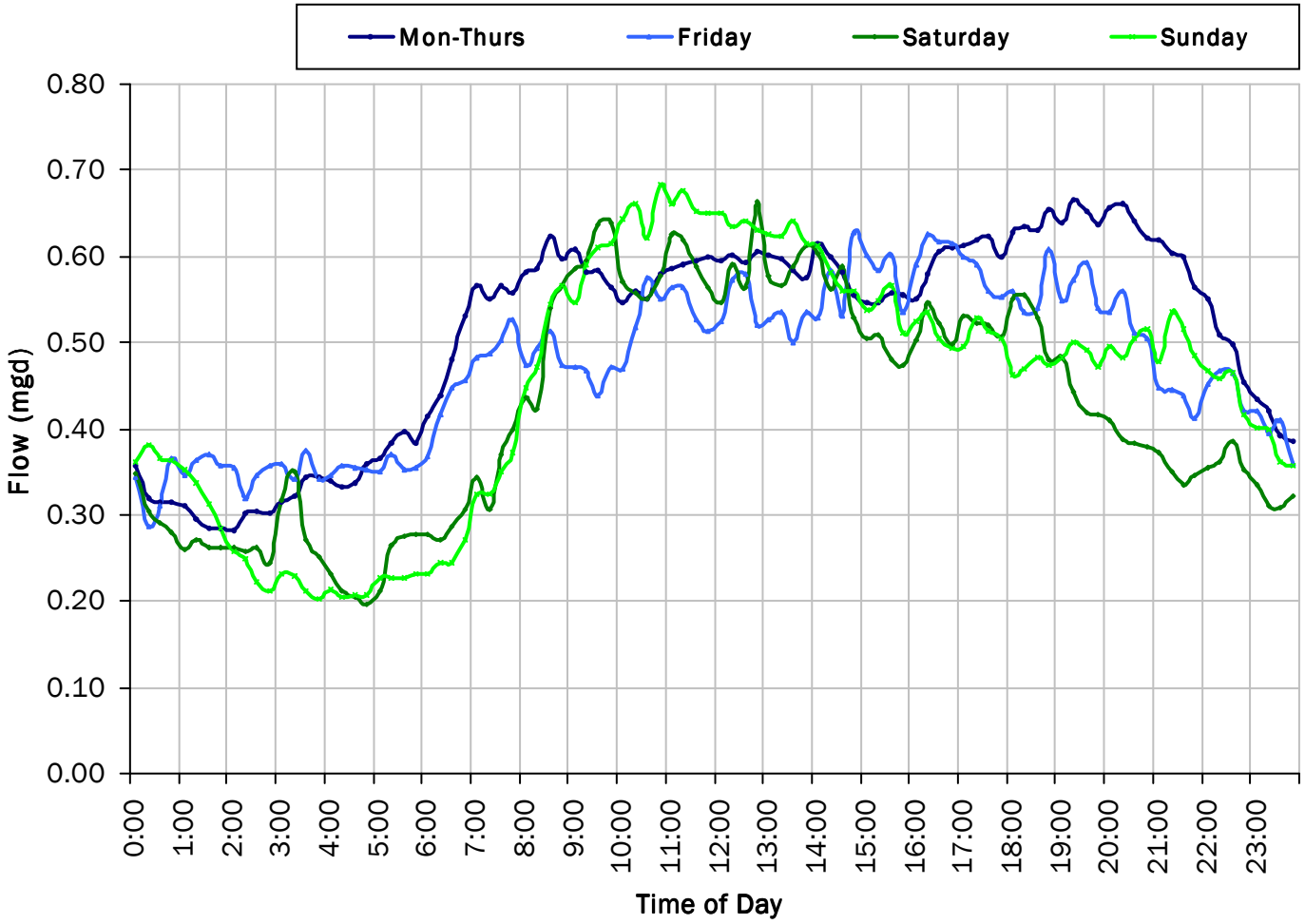
SMH 0450083

Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 3.64 inches **Avg Flow: 0.497 mgd** **Peak Flow: 0.866 mgd** **Min Flow: 0.166 mgd**

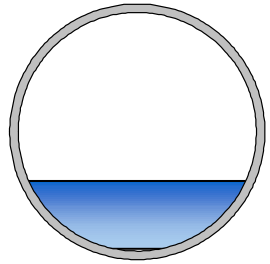


SMH 0450083
Average Dry Weather Flow Hydrographs



ADWF:

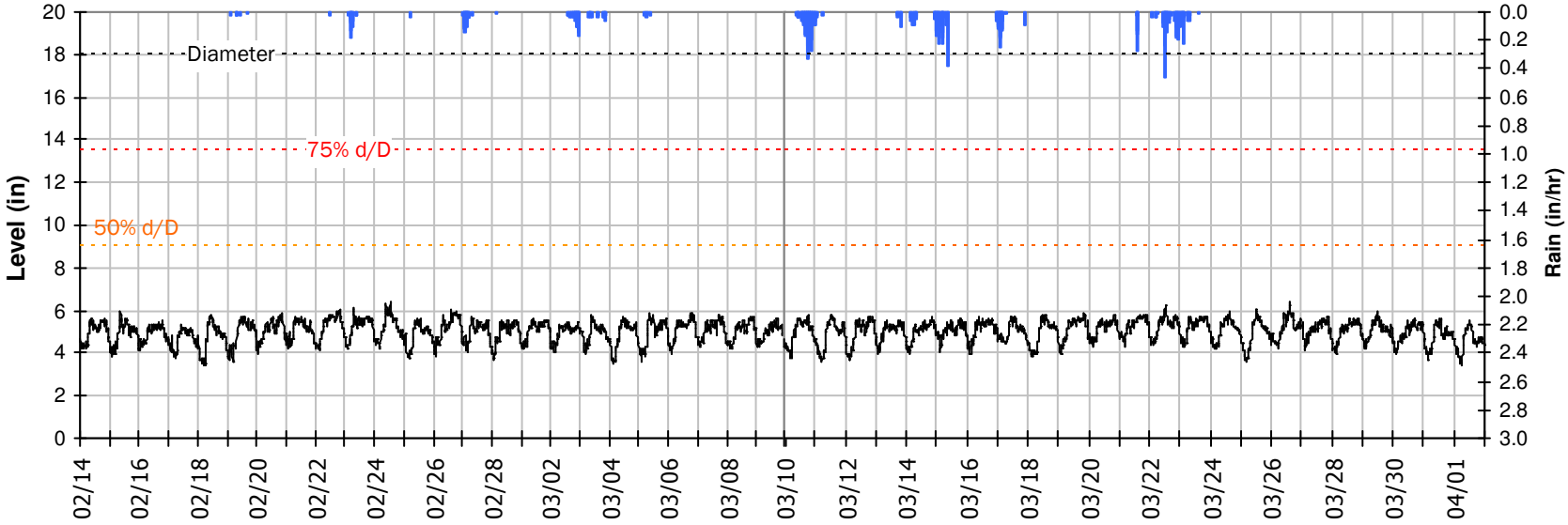
0.485 *mgd*

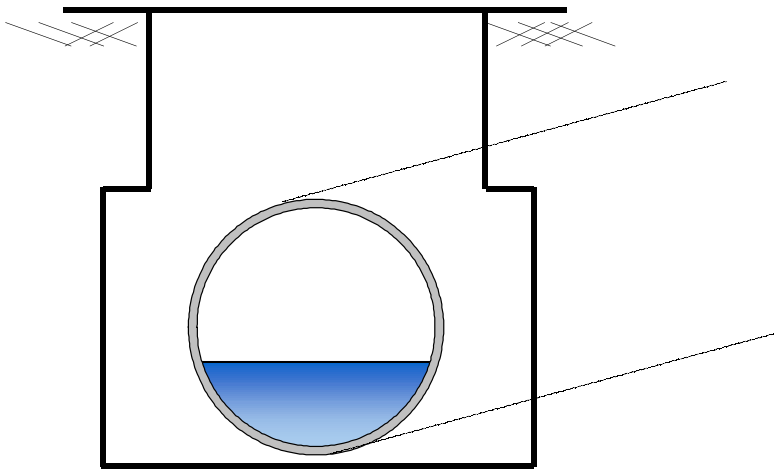


SMH 0450083

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

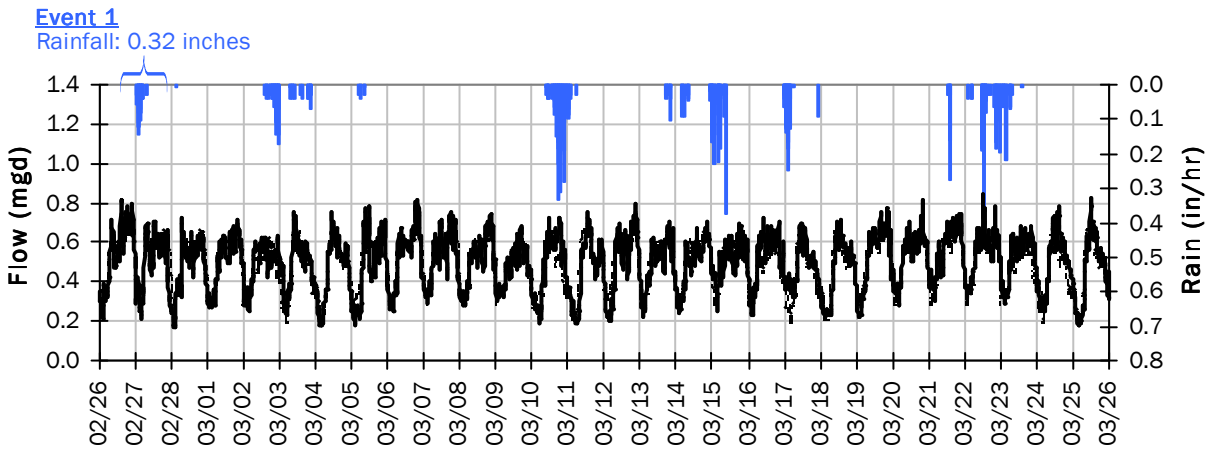




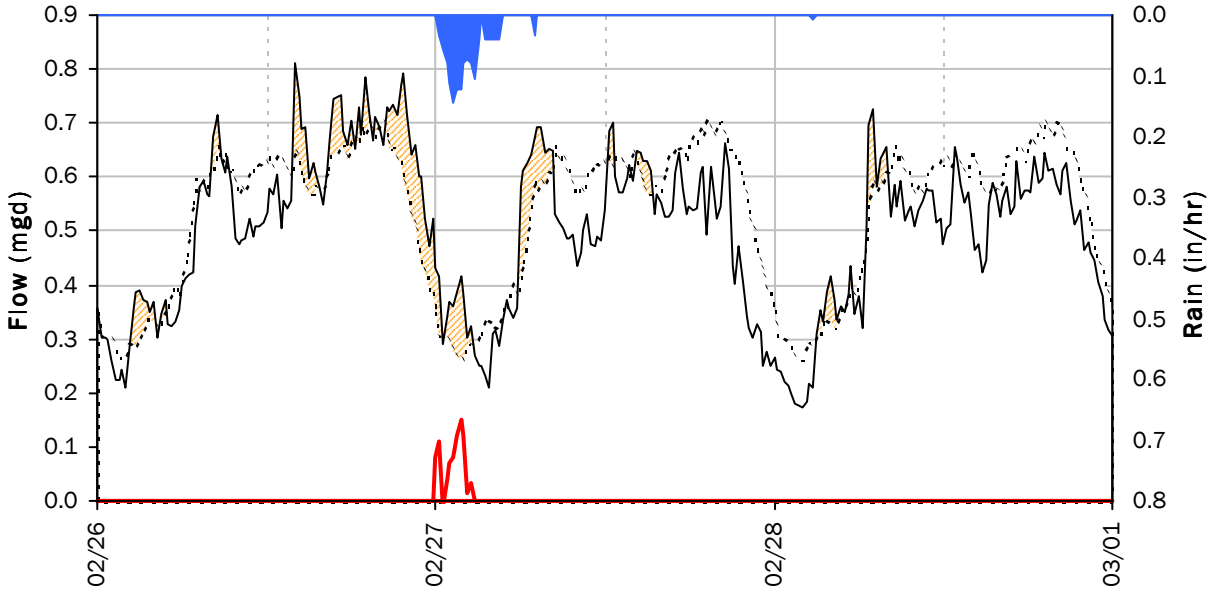
Pipe Diameter:	18	*inches*
Peak Measured Level:	6.38	*inches*
Peak d/D Ratio:	0.35	

SMH 0450083
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

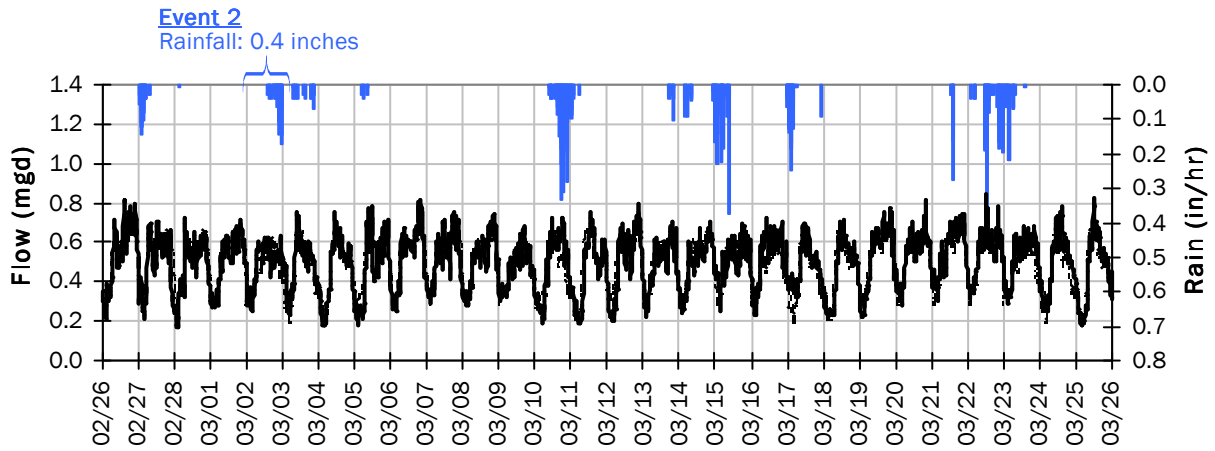


Storm Event I/I Analysis (Rain = 0.32 inches)

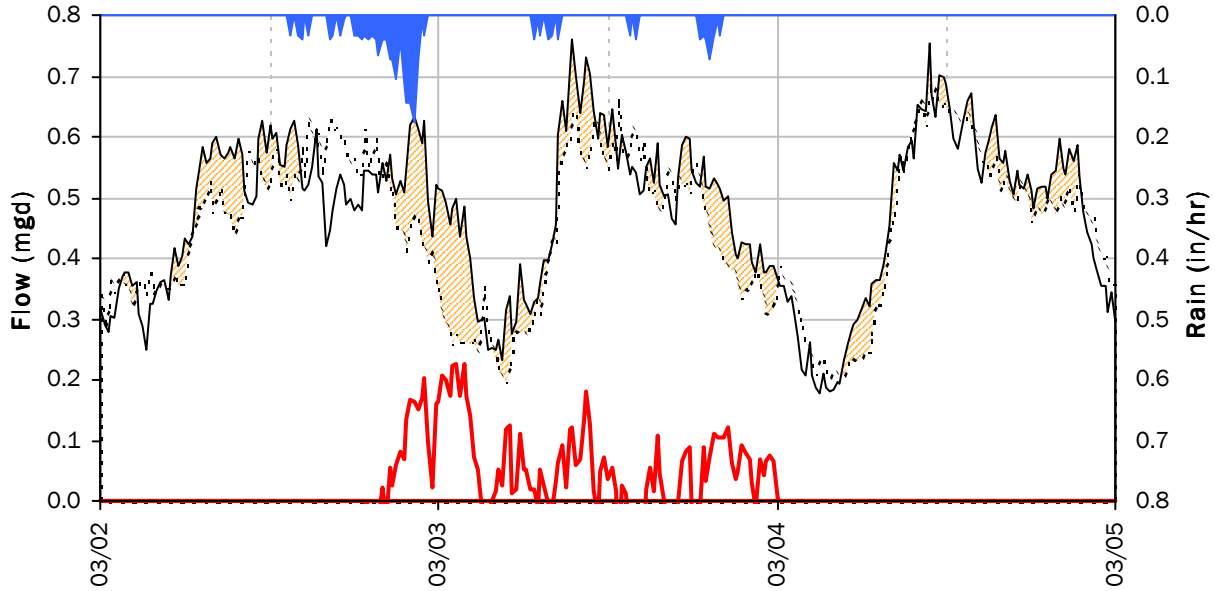
Capacity		Inflow / Infiltration	
Peak Flow:	0.43 *mgd*	**Peak I/I Rate:**	0.15 *mgd*
PF:	0.89	**Total I/I:**	8,000 *gallons*
Peak Level:	4.81 *in*		
d/D Ratio:	0.27		

SMH 0450083
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

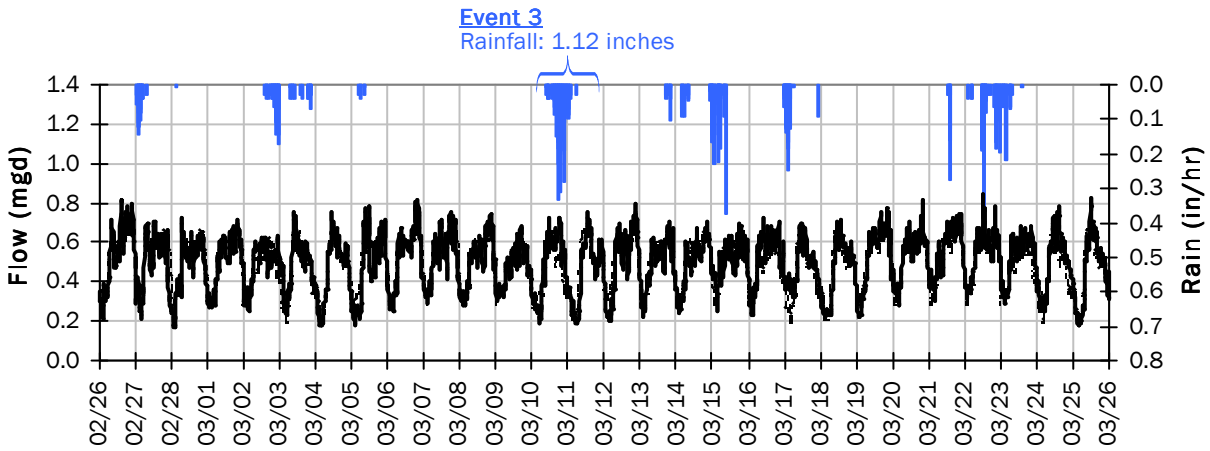


Storm Event I/I Analysis (Rain = 0.40 inches)

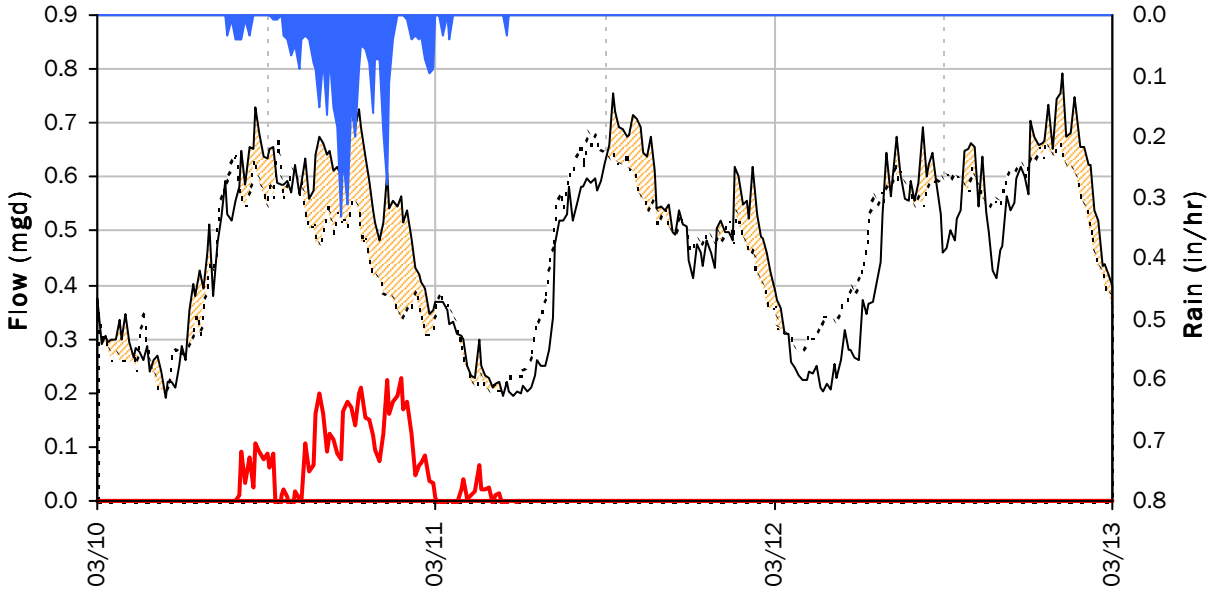
Capacity		Inflow / Infiltration	
Peak Flow:	0.76 *mgd*	**Peak I/I Rate:**	0.23 *mgd*
PF:	1.56	**Total I/I:**	69,000 *gallons*
Peak Level:	5.75 *in*		
d/D Ratio:	0.32		

SMH 0450083
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

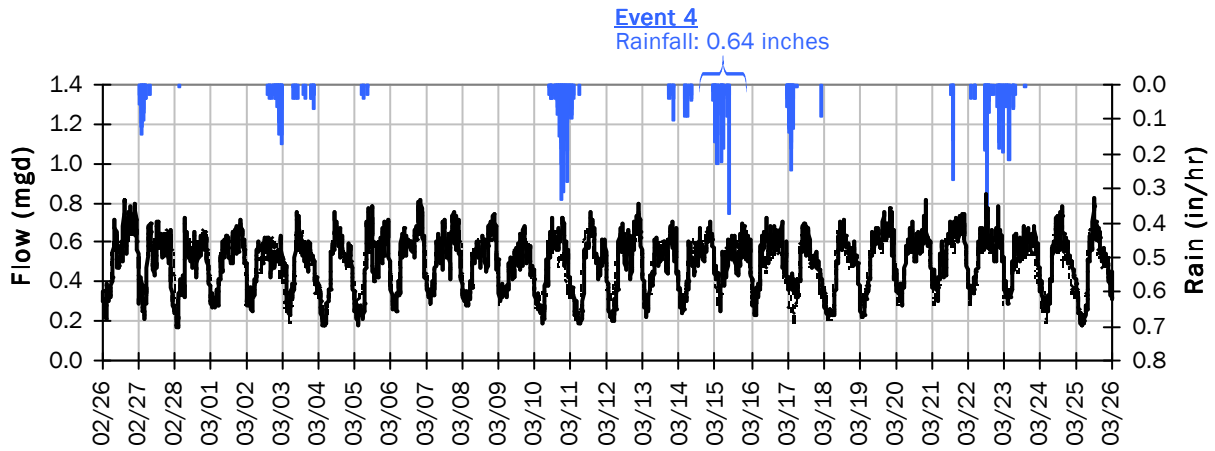


Storm Event I/I Analysis (Rain = 1.12 inches)

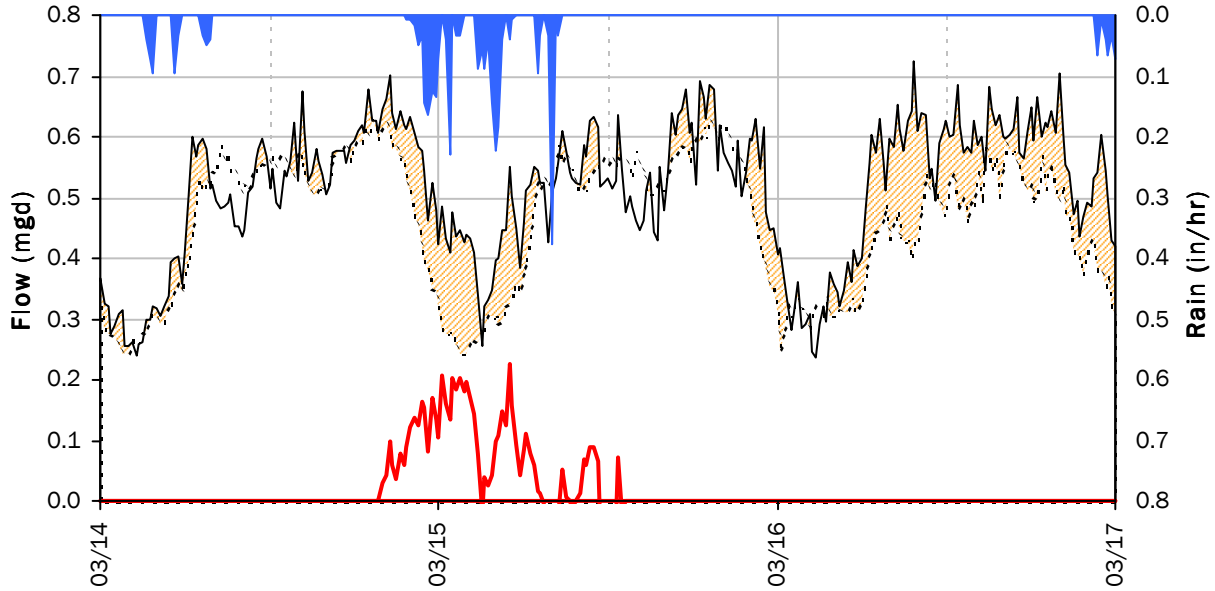
Capacity		Inflow / Infiltration	
Peak Flow:	0.73 *mgd*	**Peak I/I Rate:**	0.23 *mgd*
PF:	1.50	**Total I/I:**	60,000 *gallons*
Peak Level:	5.77 *in*		
d/D Ratio:	0.32		

SMH 0450083
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

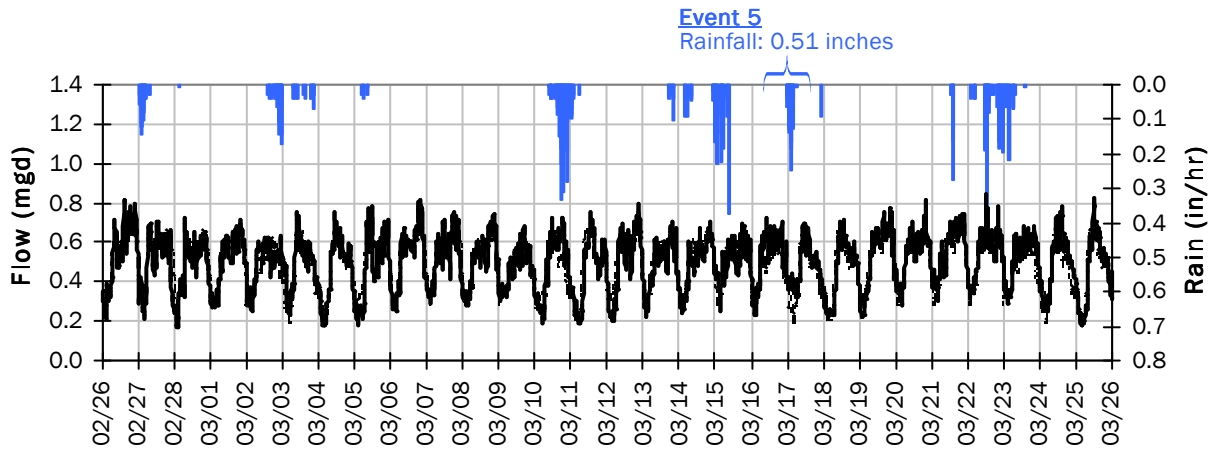


Storm Event I/I Analysis (Rain = 0.64 inches)

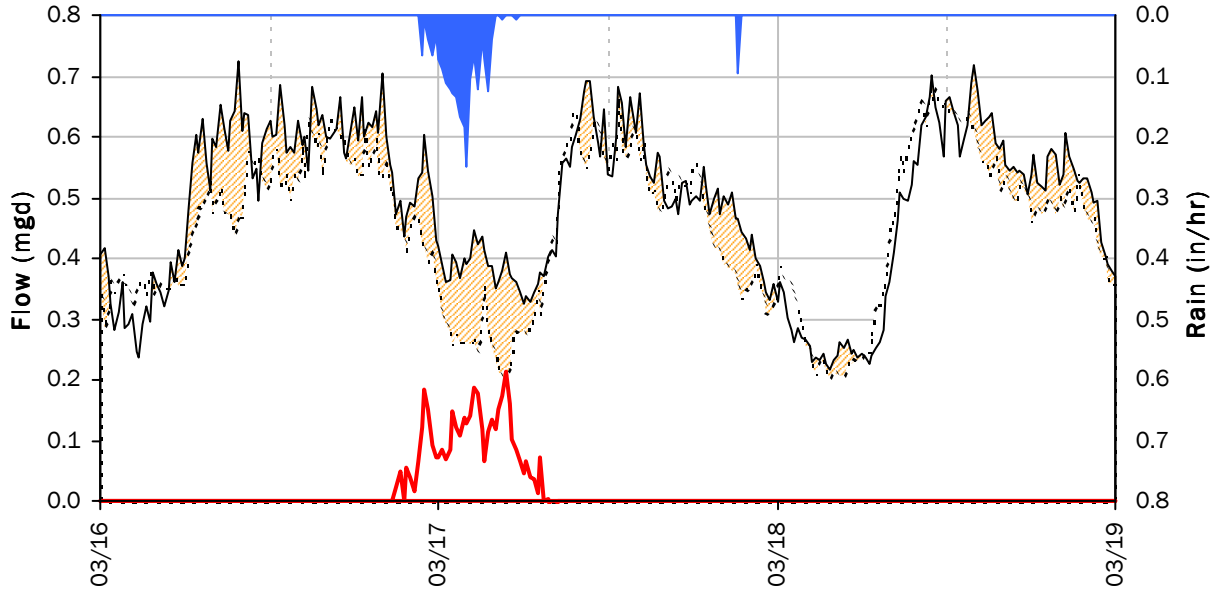
Capacity		Inflow / Infiltration	
Peak Flow:	0.70 *mgd*	**Peak I/I Rate:**	0.23 *mgd*
PF:	1.44	**Total I/I:**	54,000 *gallons*
Peak Level:	5.68 *in*		
d/D Ratio:	0.32		

SMH 0450083
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

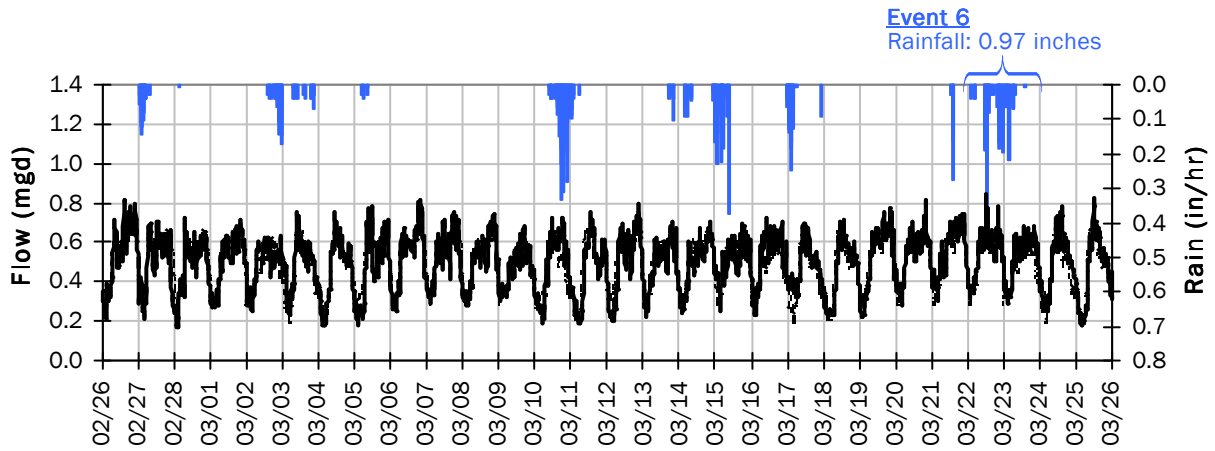


Storm Event I/I Analysis (Rain = 0.51 inches)

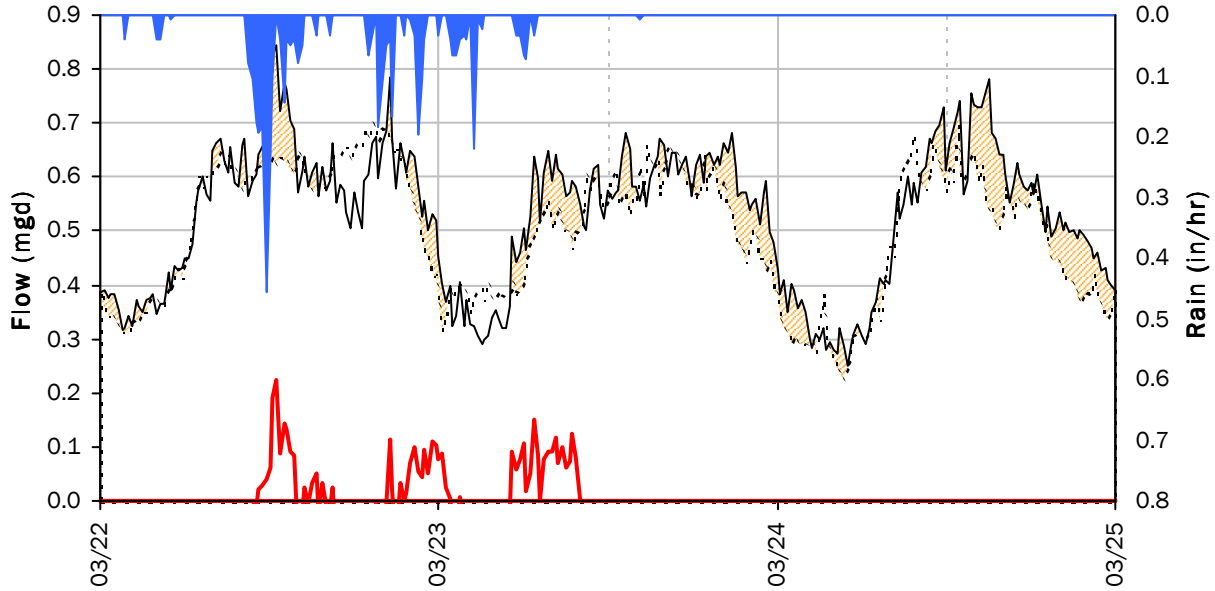
Capacity		Inflow / Infiltration	
Peak Flow:	0.60 *mgd*	**Peak I/I Rate:**	0.21 *mgd*
PF:	1.24	**Total I/I:**	42,000 *gallons*
Peak Level:	5.36 *in*		
d/D Ratio:	0.30		

SMH 0450083
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



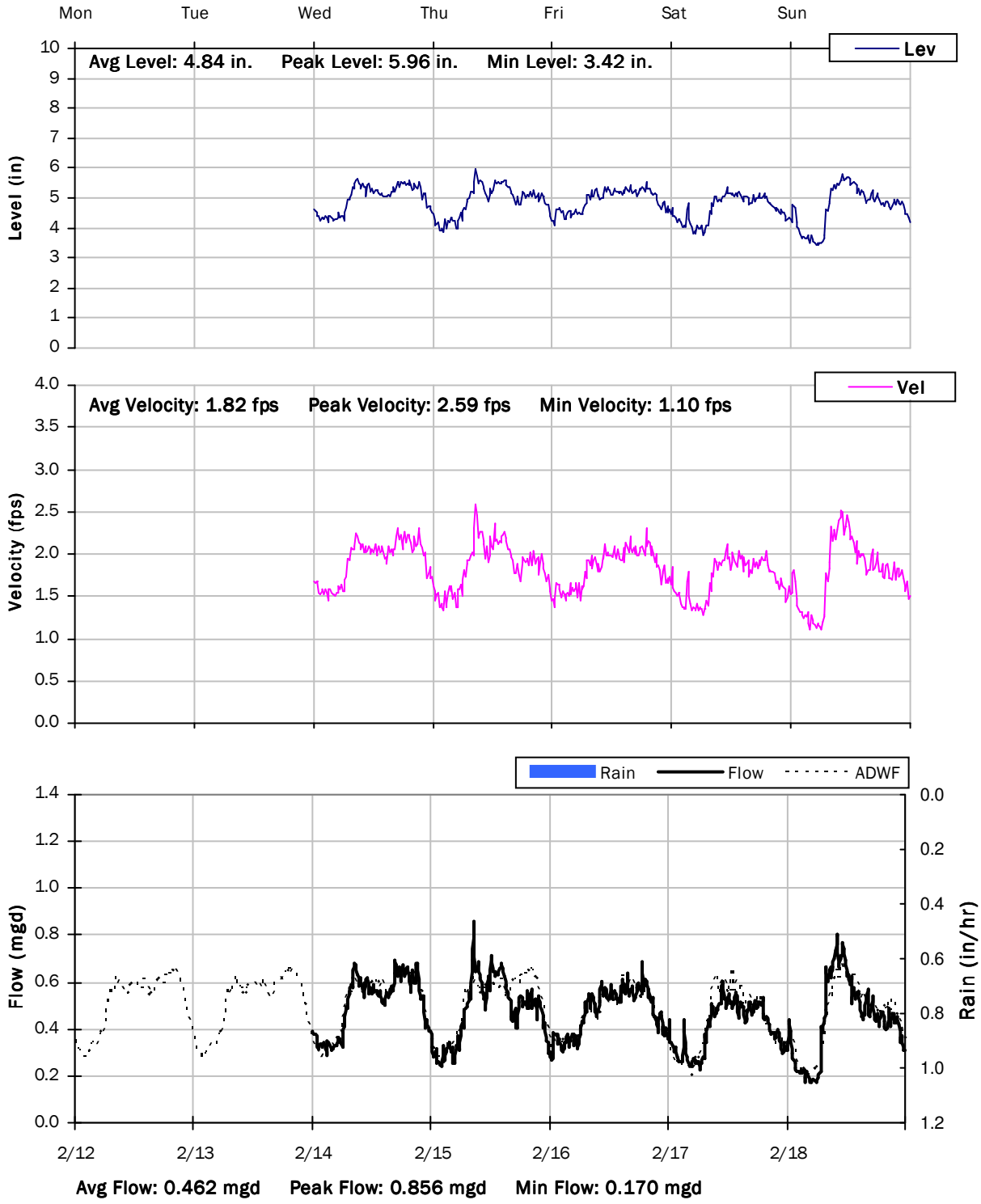
Storm Event I/I Analysis (Rain = 0.97 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	0.85 *mgd*	**Peak I/I Rate:**	0.22 *mgd*
PF:	1.74	**Total I/I:**	17,000 *gallons*
Peak Level:	6.27 *in*		
d/D Ratio:	0.35		

SMH 0450083

Weekly Level, Velocity and Flow Hydrographs

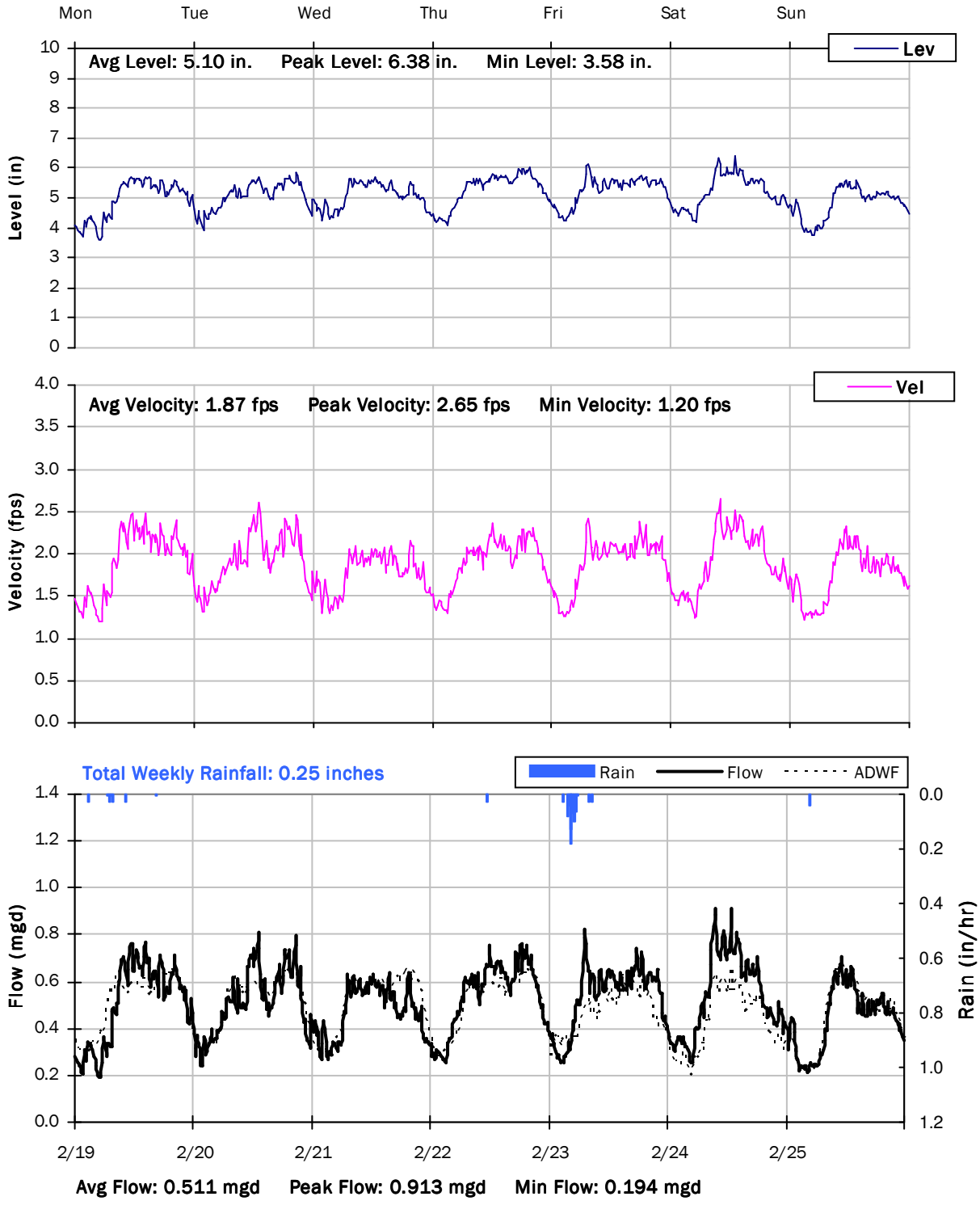
2/12/2018 to 2/19/2018



SMH 0450083

Weekly Level, Velocity and Flow Hydrographs

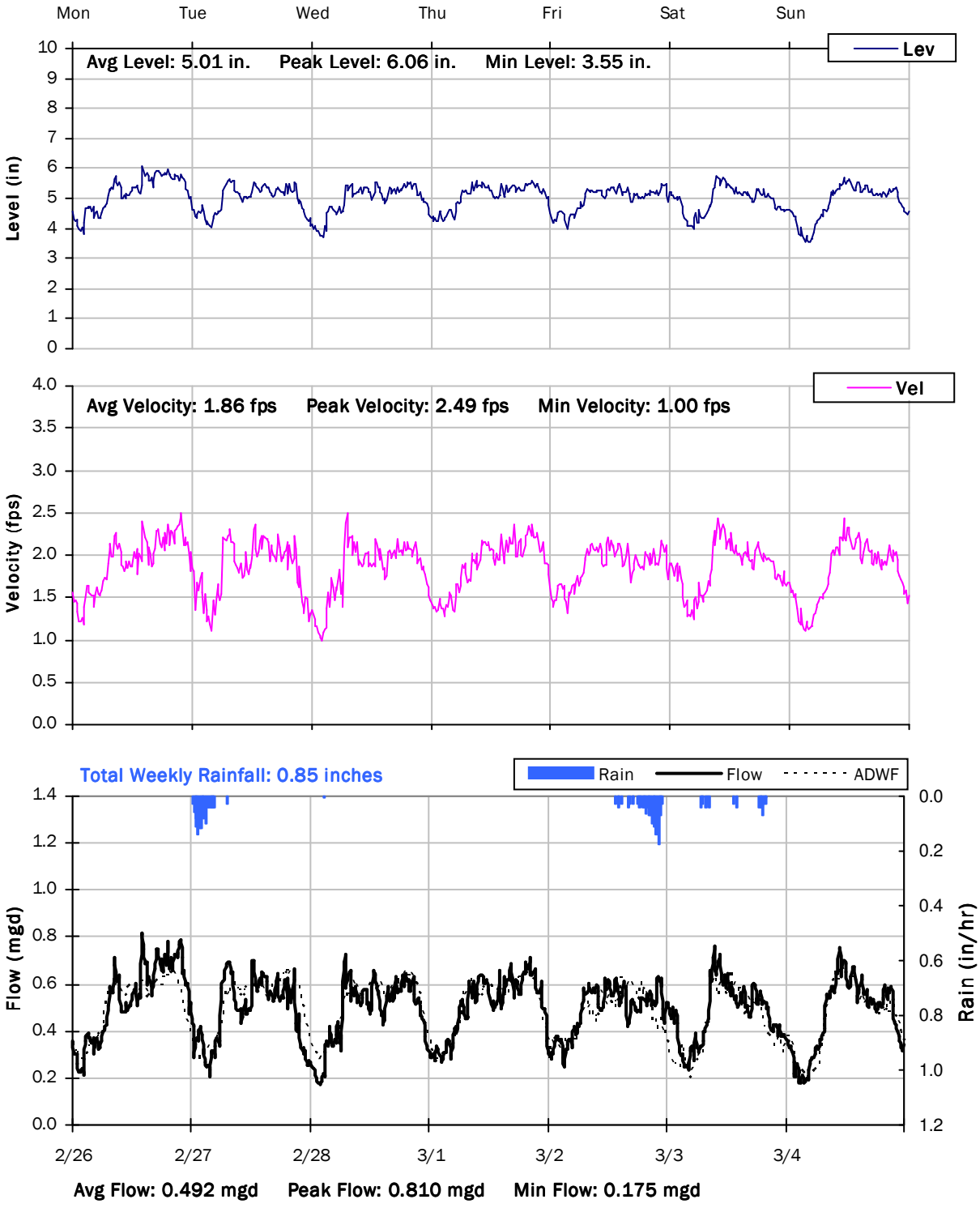
2/19/2018 to 2/26/2018



SMH 0450083

Weekly Level, Velocity and Flow Hydrographs

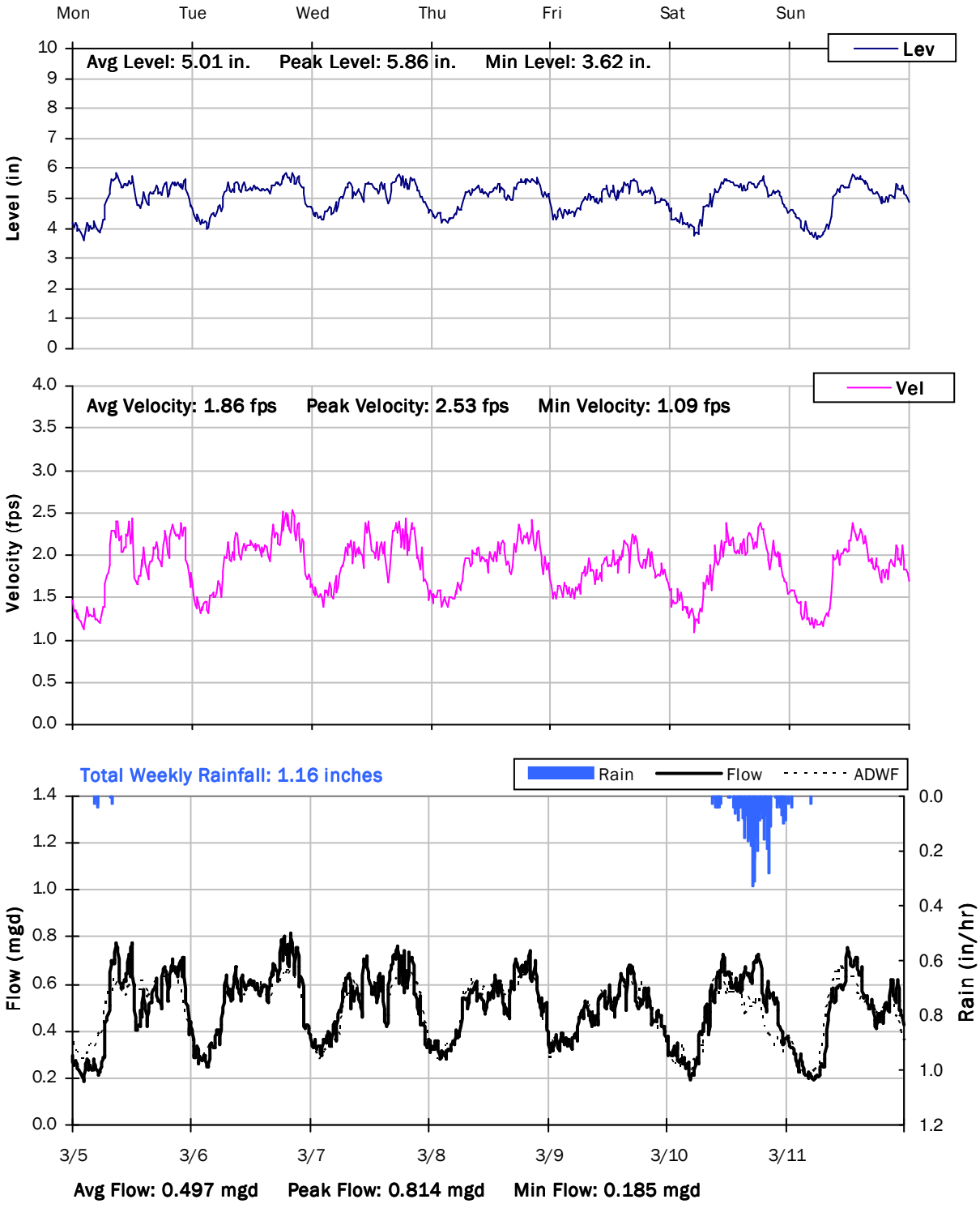
2/26/2018 to 3/5/2018



SMH 0450083

Weekly Level, Velocity and Flow Hydrographs

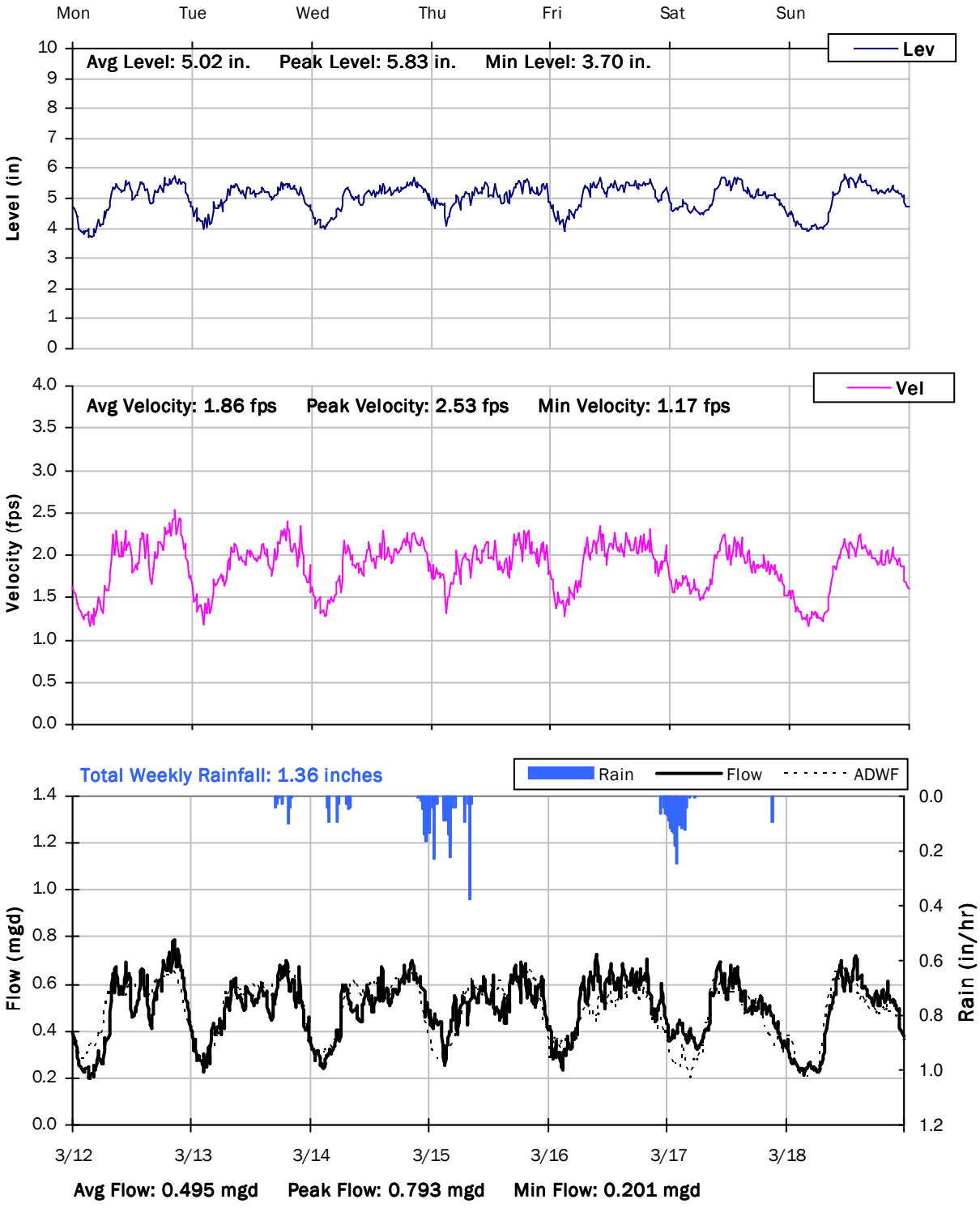
3/5/2018 to 3/12/2018



SMH 0450083

Weekly Level, Velocity and Flow Hydrographs

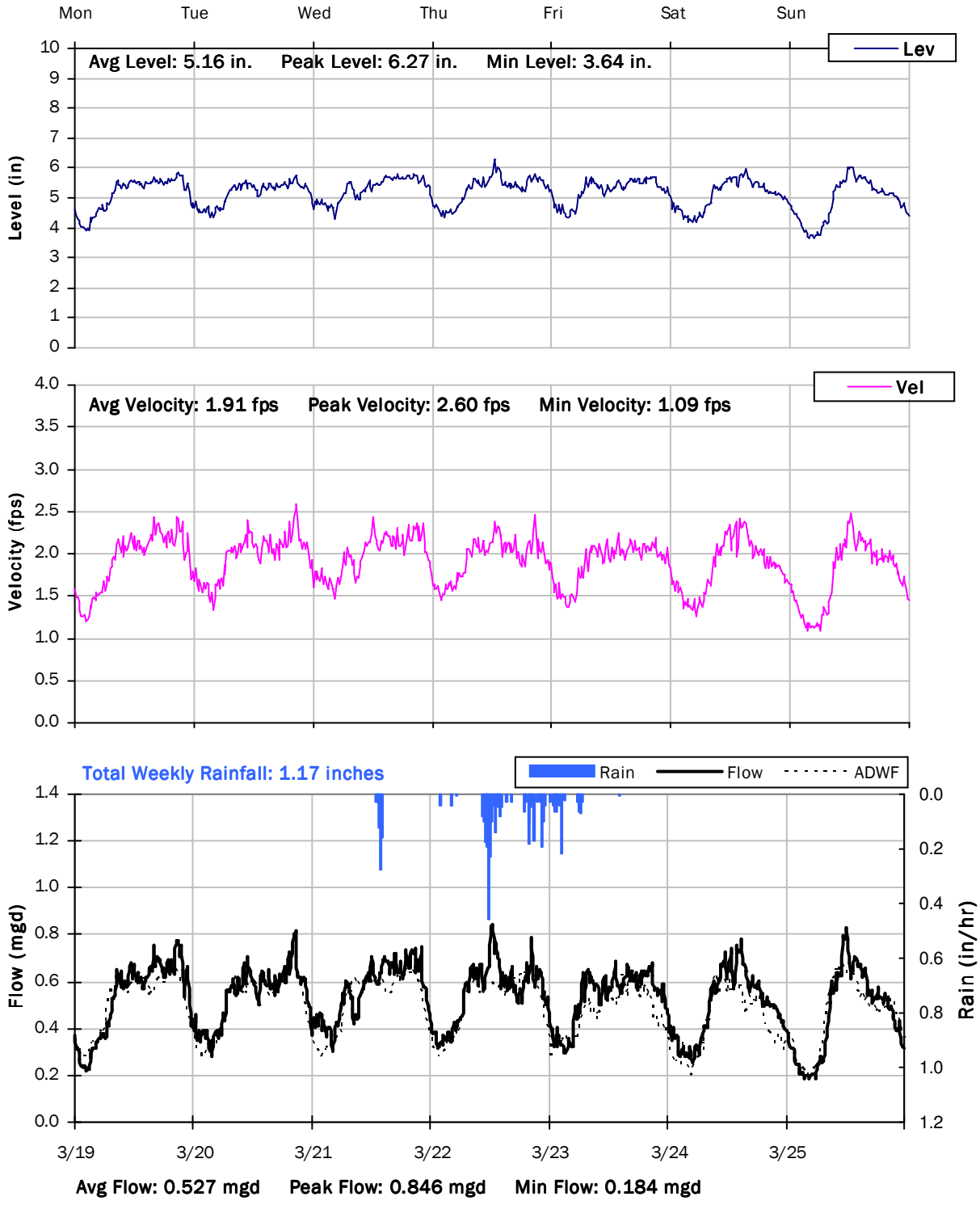
3/12/2018 to 3/19/2018



SMH 0450083

Weekly Level, Velocity and Flow Hydrographs

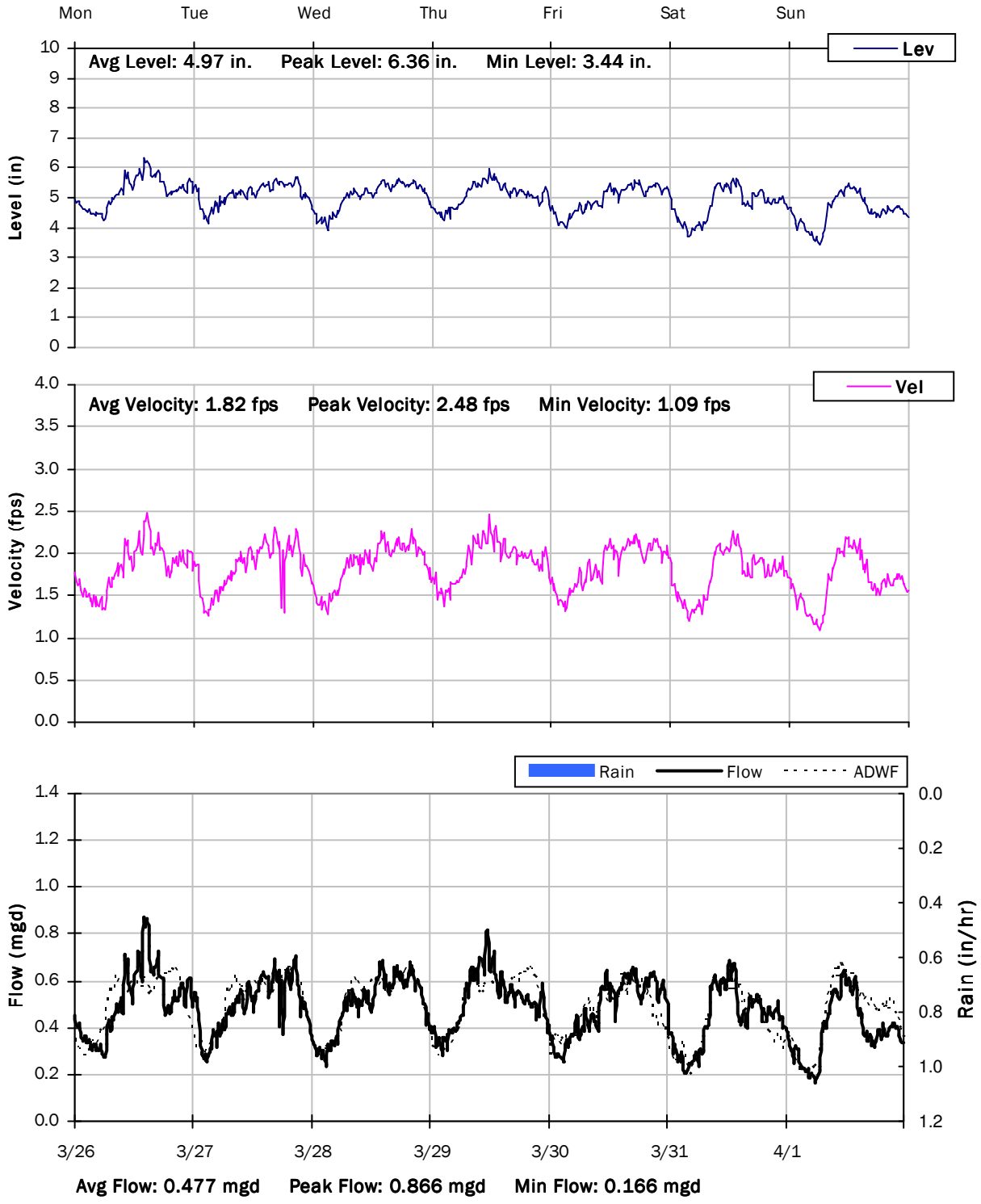
3/19/2018 to 3/26/2018



SMH 0450083

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

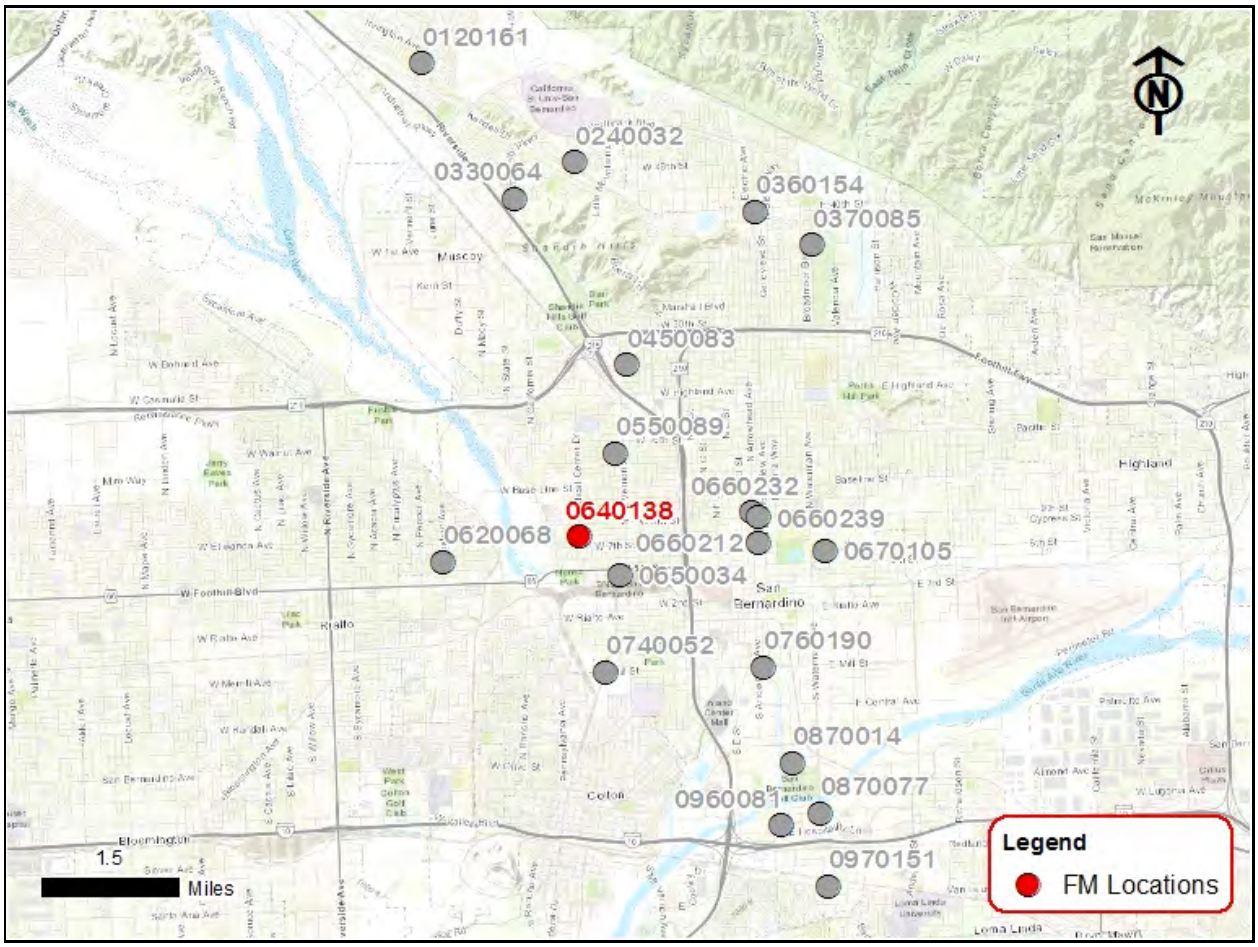
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0640138

Location: W 8th Street and Medical Center Drive

Data Summary Report



Vicinity Map: SMH 0640138

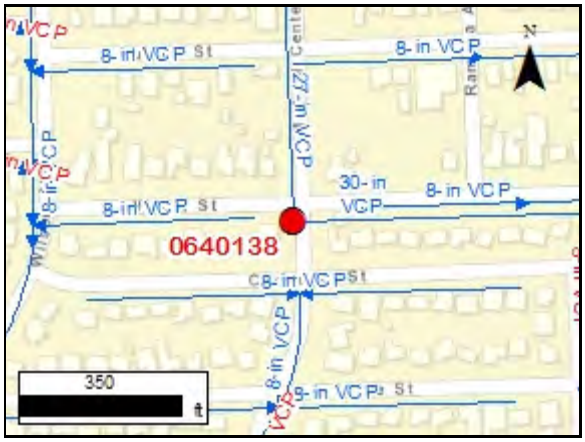
SMH 0640138

Site Information

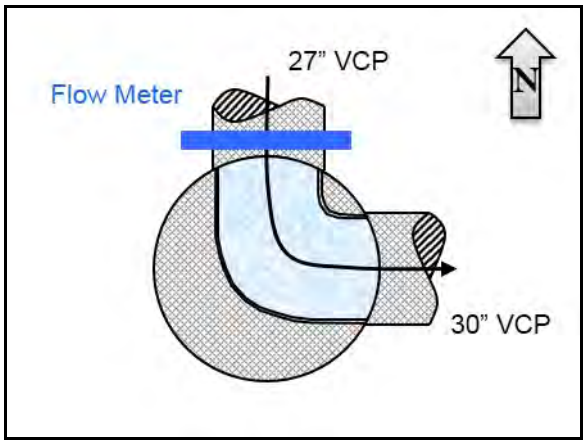
Location:	W 8th Street and Medical Center Drive
Coordinates:	117.3226° W, 34.1139° N
Rim Elevation (Earth):	1146 feet
Pipe Diameter:	27 inches
ADWF:	0.338 mgd
Peak Measured Flow:	1.067 mgd



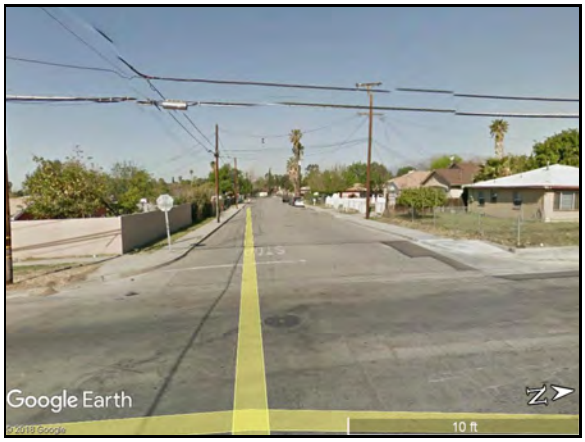
Satellite Map



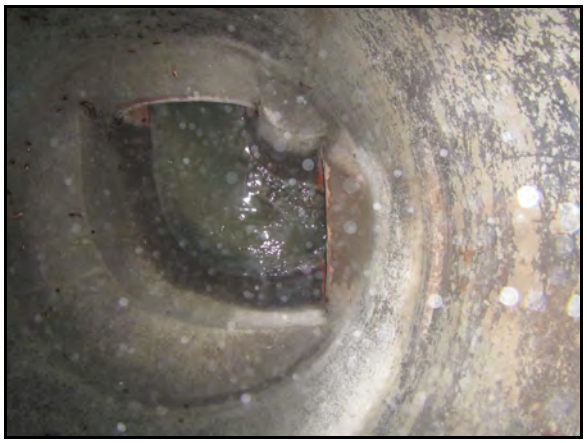
Sewer Map



Flow Sketch



Street View



Plan View

SMH 0640138

Additional Site Photos

Effluent Pipe



Influent Pipe

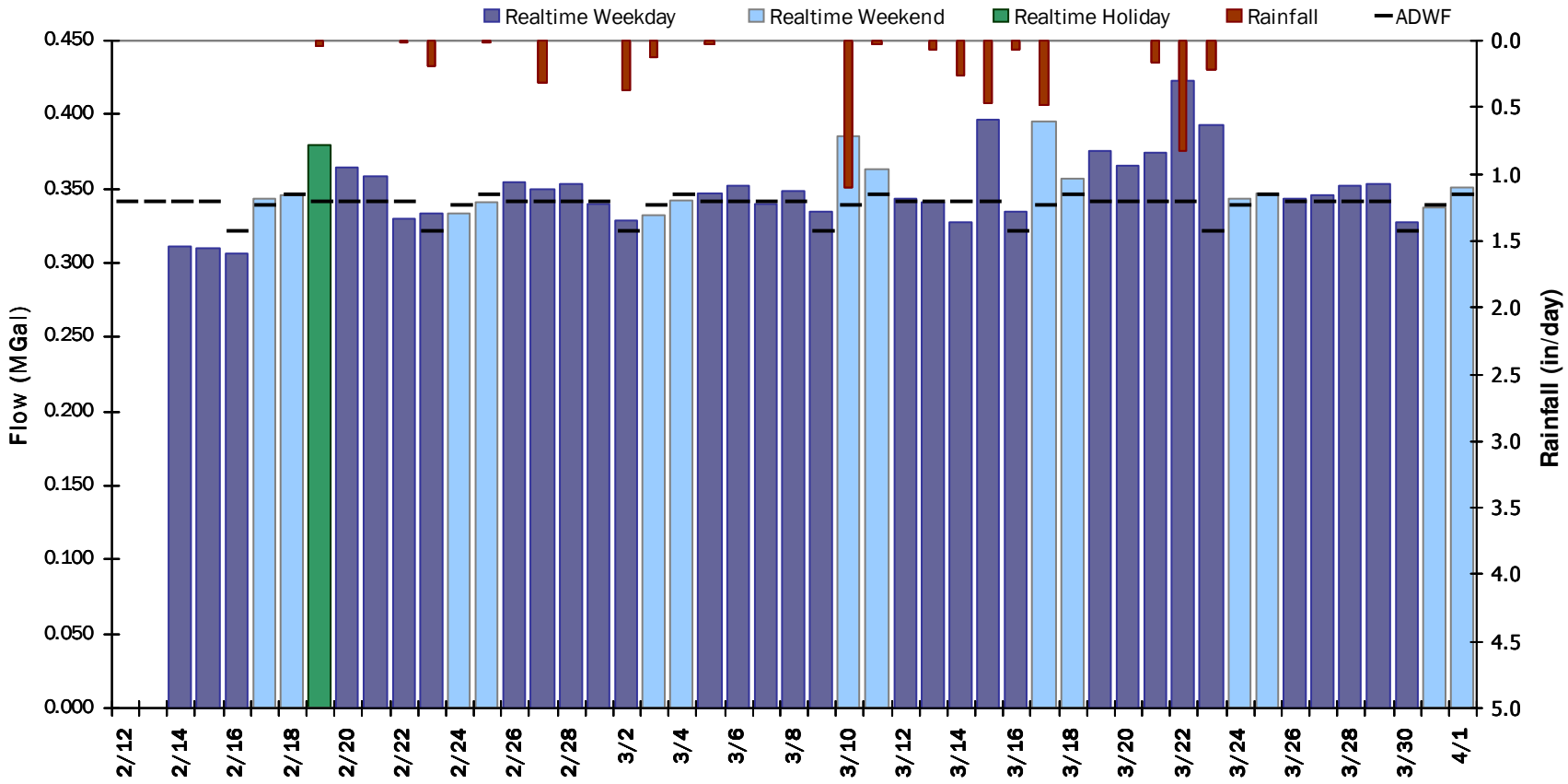


SMH 0640138

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.350 MGal **Peak Daily Flow: 0.423 MGal** **Min Daily Flow: 0.307 MGal**

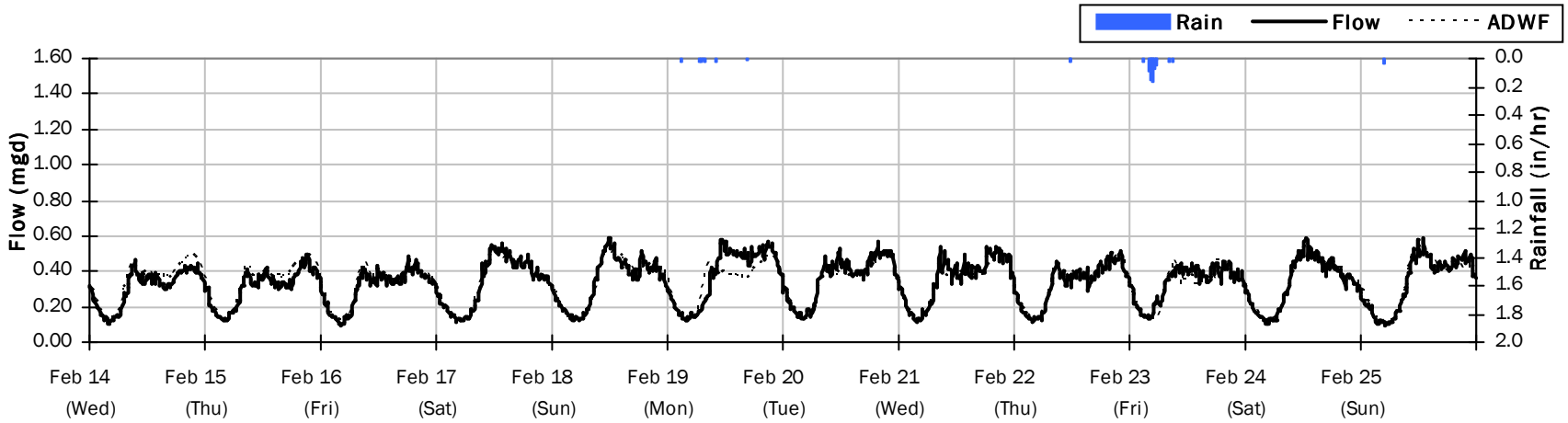
Total Period Rainfall: 4.78 inches

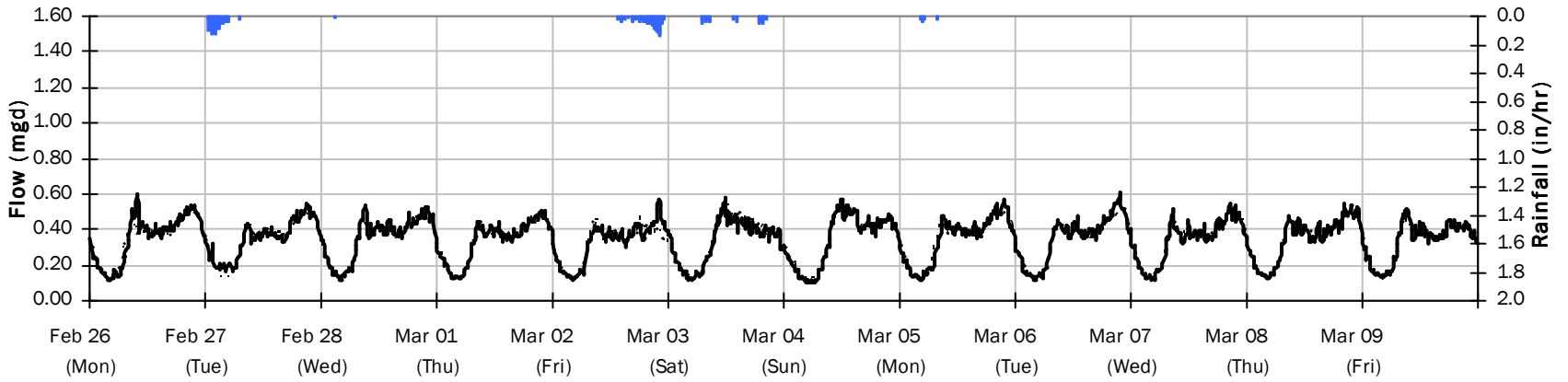


SMH 0640138

Flow Summary: 2/14/2018 to 3/9/2018

Total Period Rainfall: 1.10 inches **Avg Flow: 0.341 mgd** **Peak Flow: 0.605 mgd** **Min Flow: 0.092 mgd**

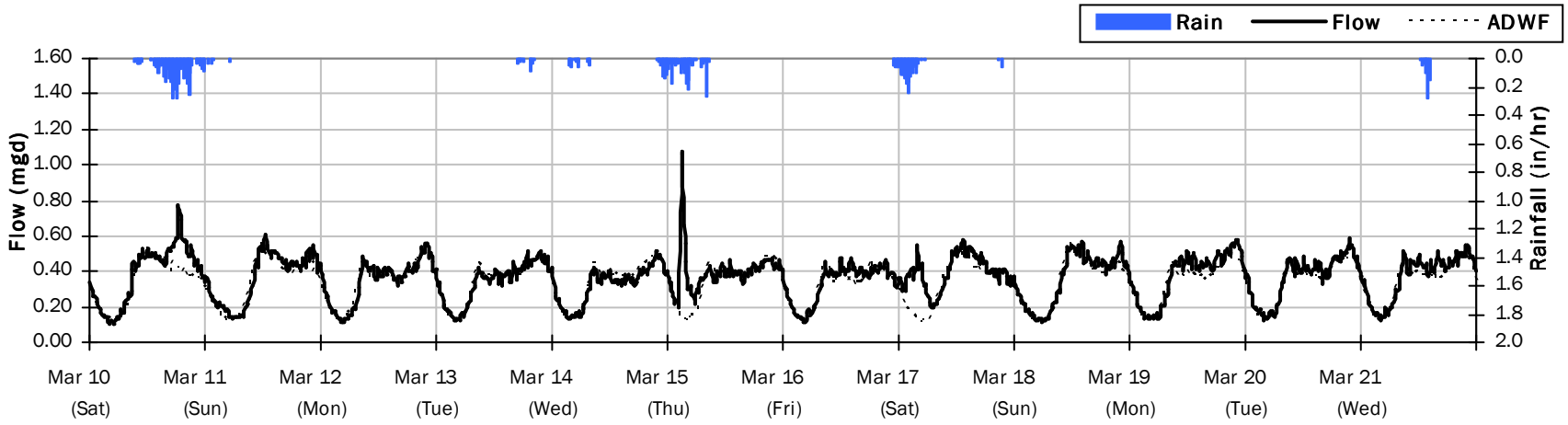


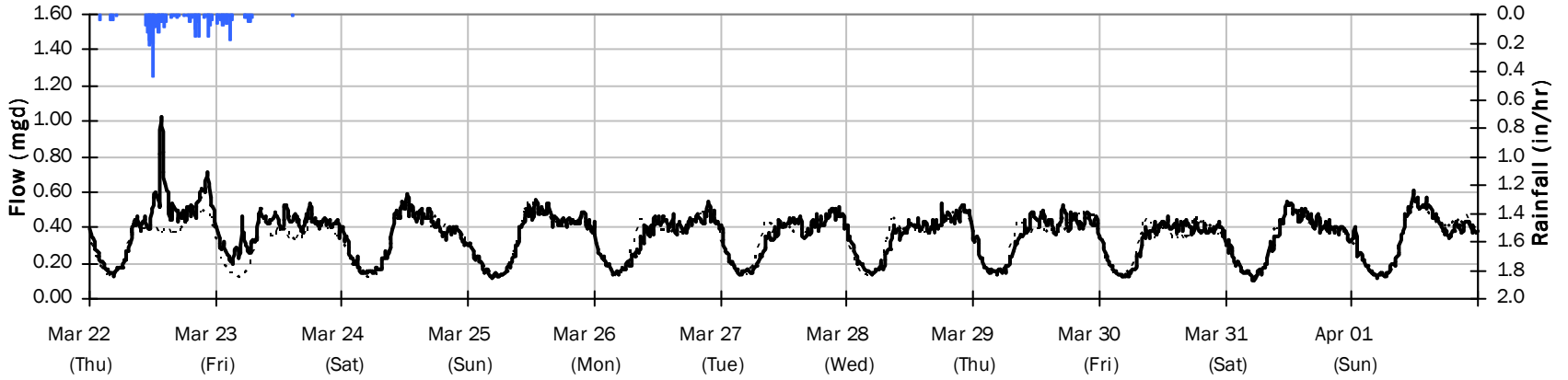


SMH 0640138

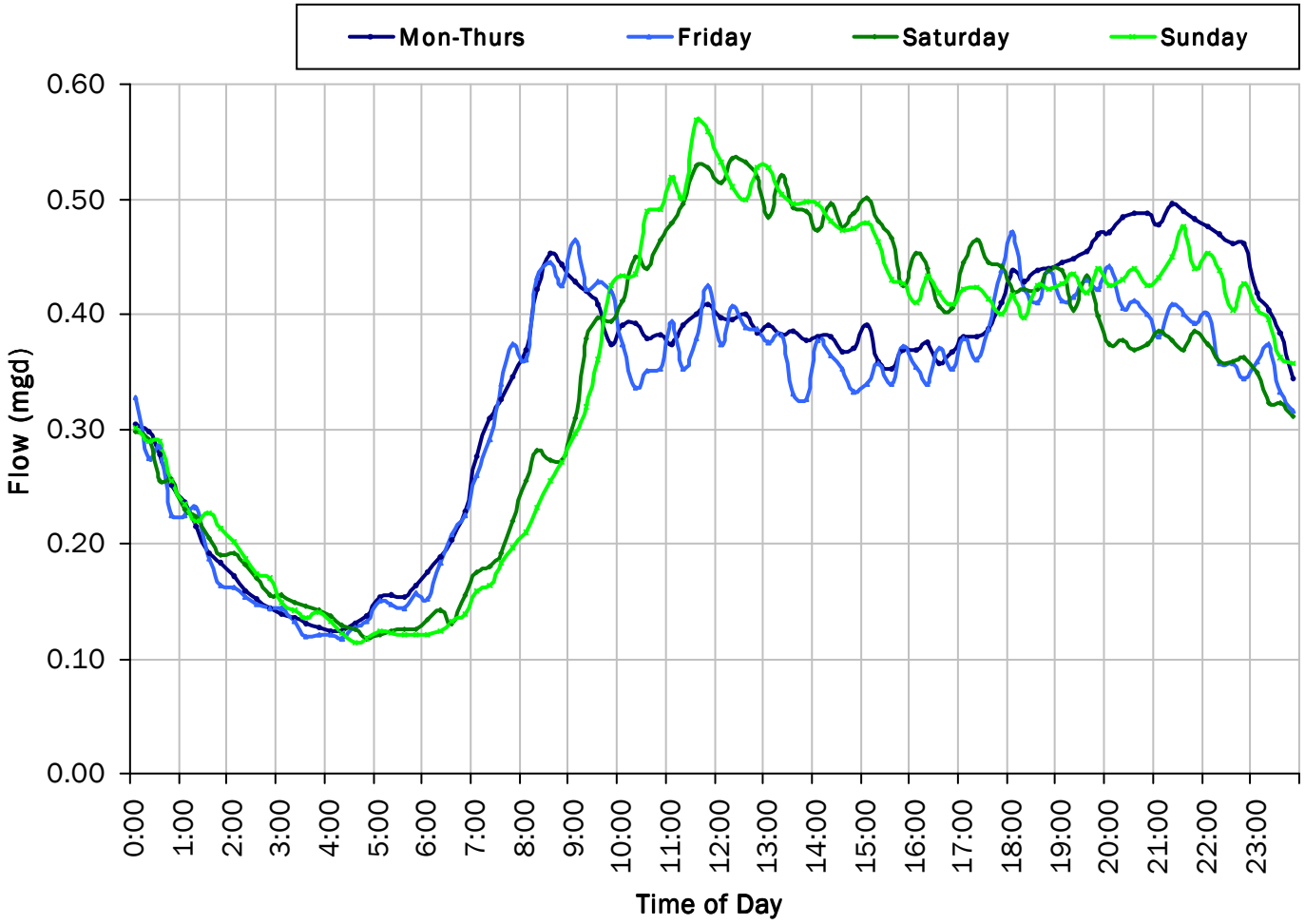
Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 3.68 inches **Avg Flow: 0.360 mgd** **Peak Flow: 1.067 mgd** **Min Flow: 0.099 mgd**



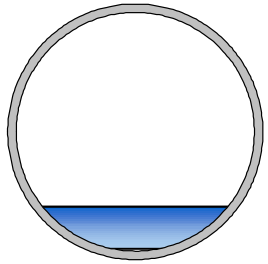


SMH 0640138
Average Dry Weather Flow Hydrographs



ADWF:

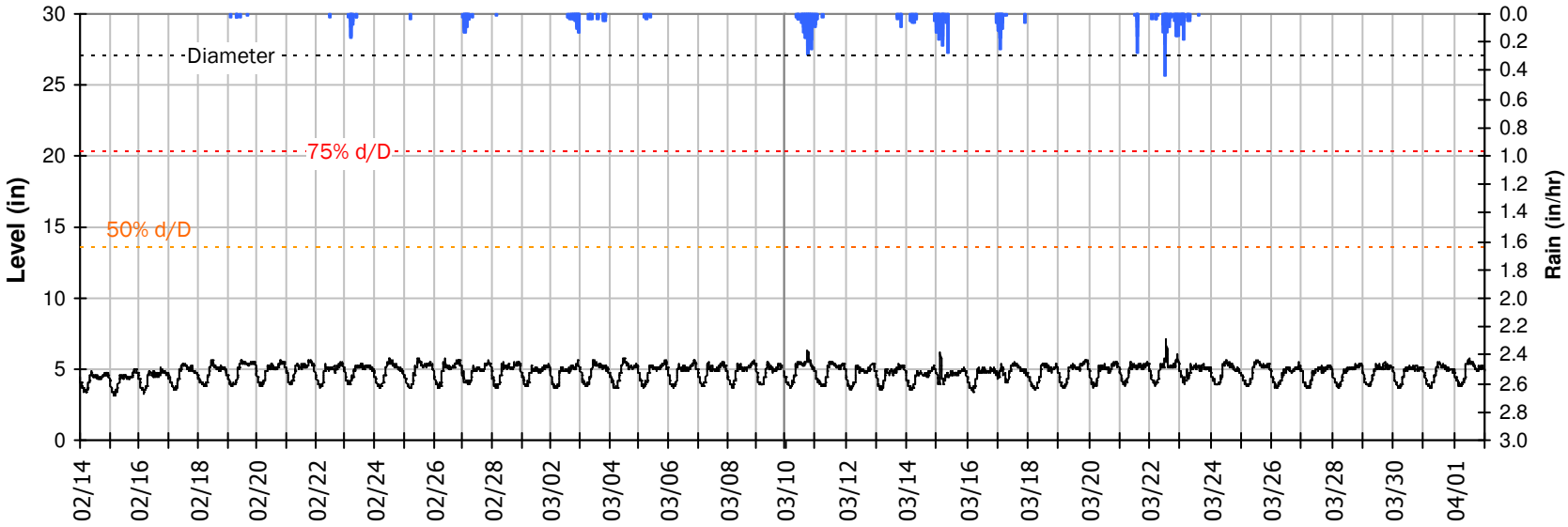
0.338 *mgd*

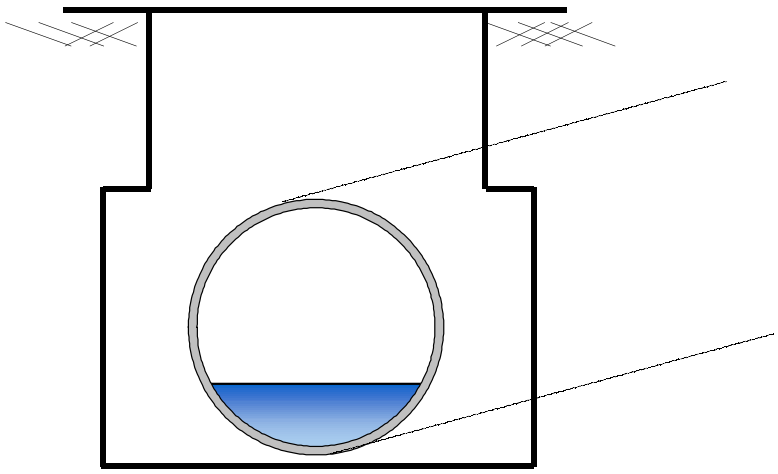


SMH 0640138

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

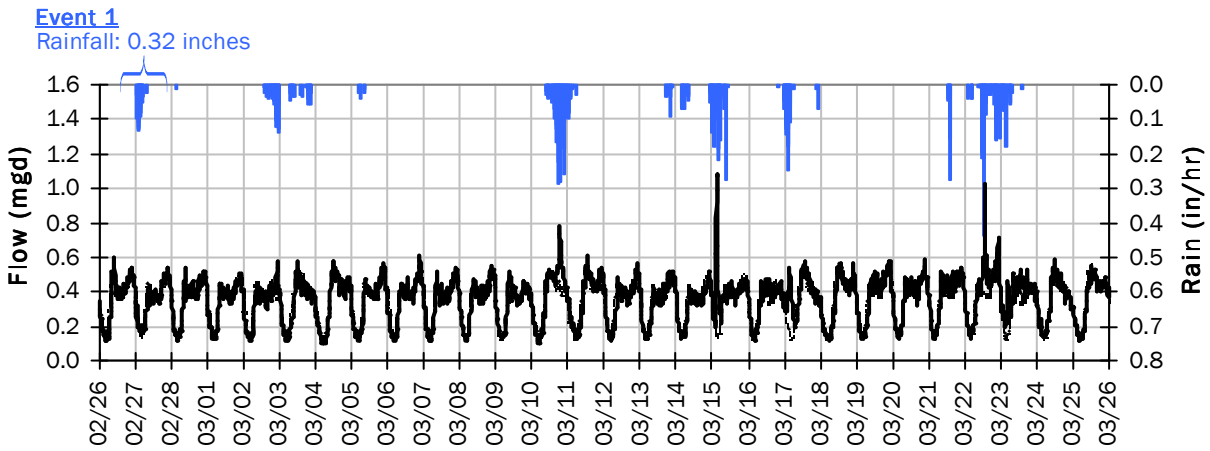




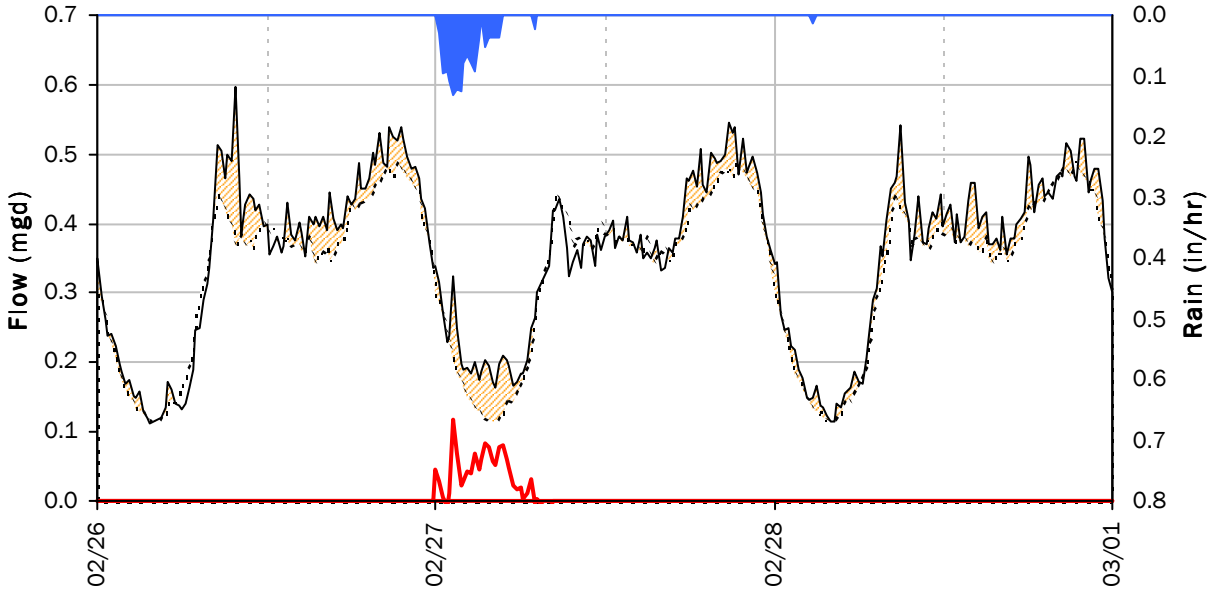
Pipe Diameter:	27	*inches*
Peak Measured Level:	7.04	*inches*
Peak d/D Ratio:	0.26	

SMH 0640138
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

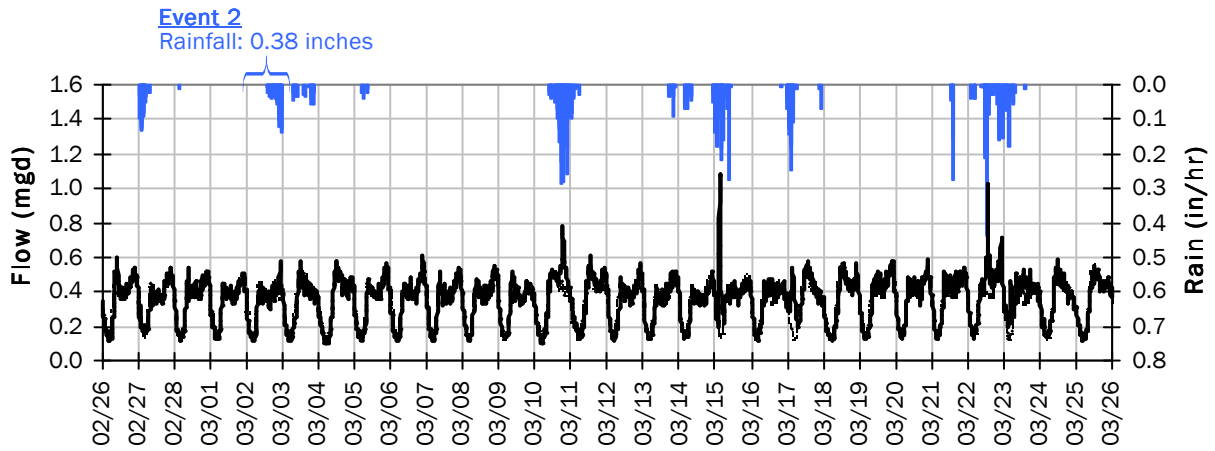


Storm Event I/I Analysis (Rain = 0.32 inches)

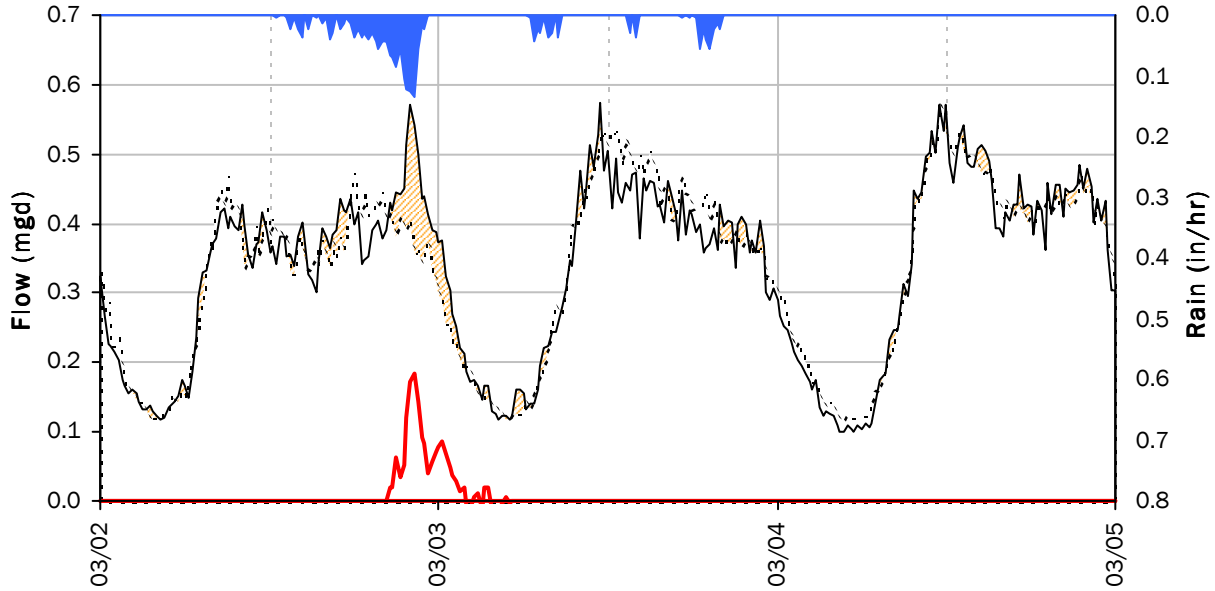
Capacity		Inflow / Infiltration	
Peak Flow:	0.34 *mgd*	**Peak I/I Rate:**	0.12 *mgd*
PF:	1.01	**Total I/I:**	12,000 *gallons*
Peak Level:	4.85 *in*		
d/D Ratio:	0.18		

SMH 0640138
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

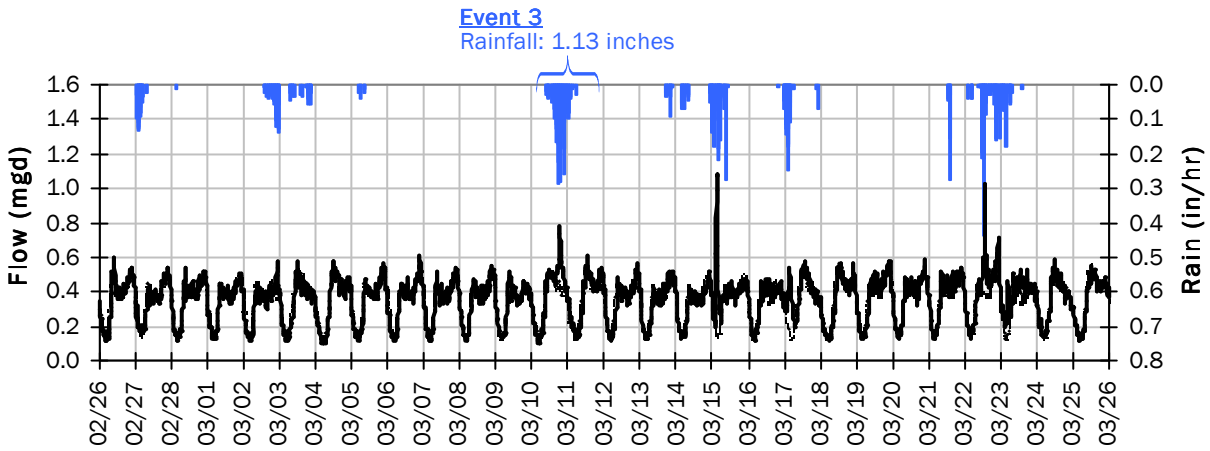


Storm Event I/I Analysis (Rain = 0.38 inches)

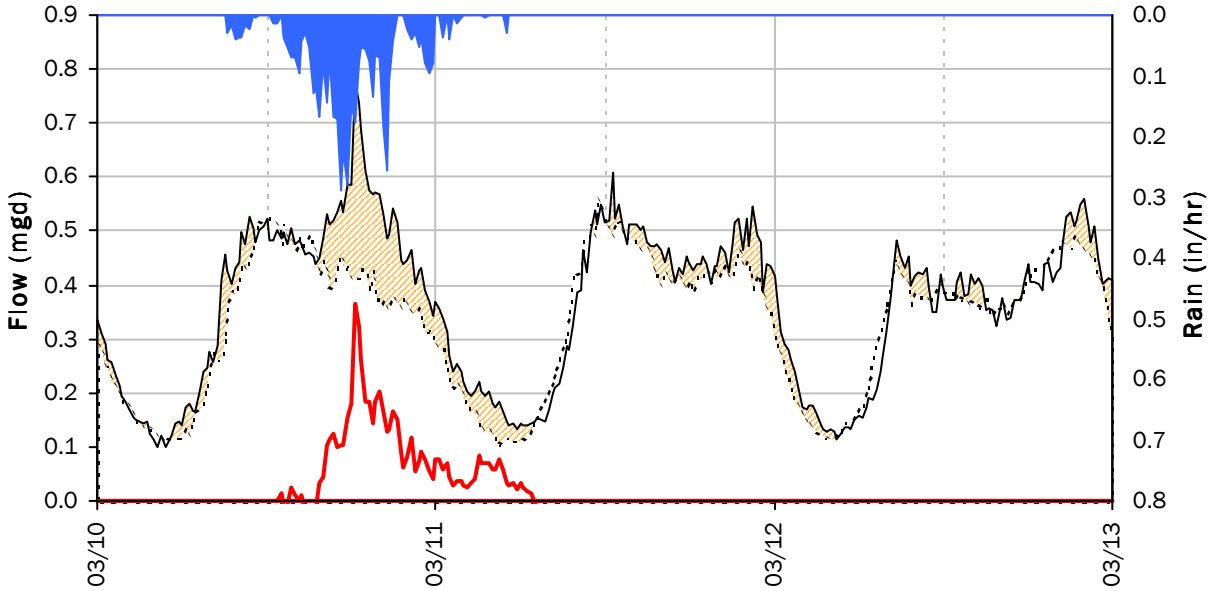
Capacity		Inflow / Infiltration	
Peak Flow:	0.57 *mgd*	**Peak I/I Rate:**	0.18 *mgd*
PF:	1.69	**Total I/I:**	16,000 *gallons*
Peak Level:	5.72 *in*		
d/D Ratio:	0.21		

SMH 0640138
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

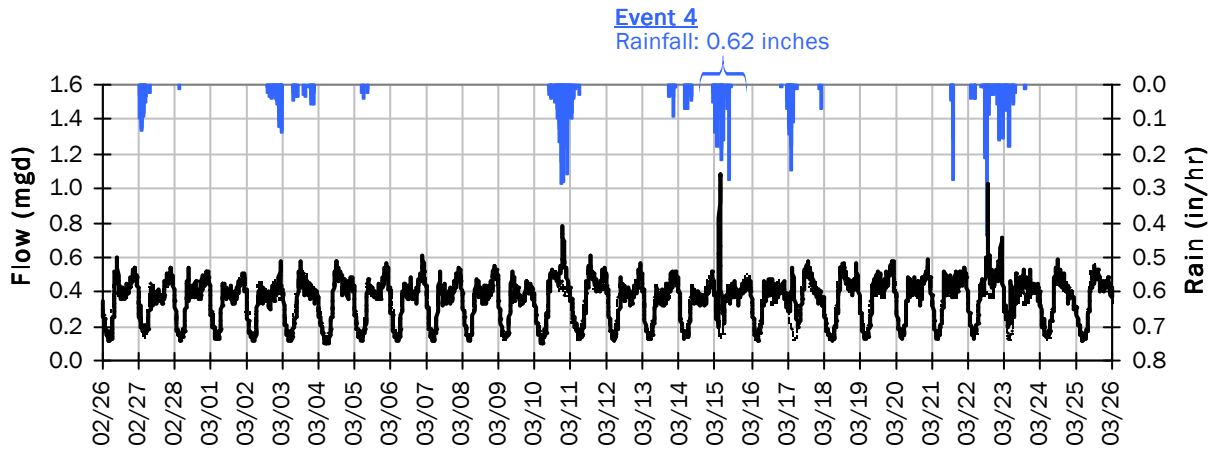


Storm Event I/I Analysis (Rain = 1.13 inches)

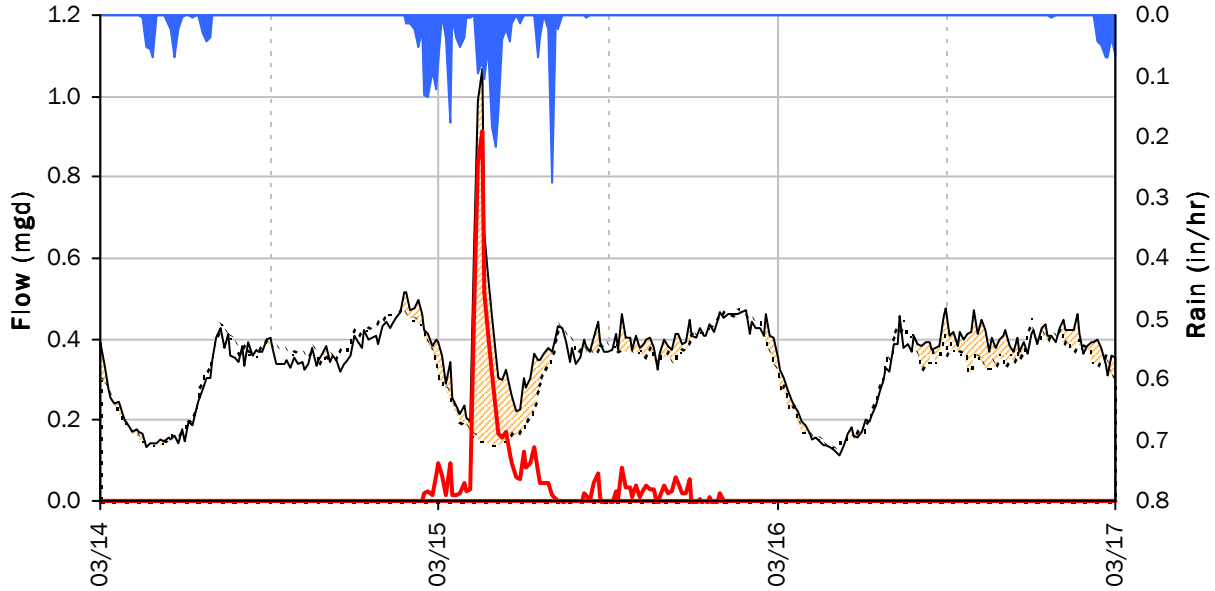
Capacity		Inflow / Infiltration	
Peak Flow:	0.78 *mgd*	**Peak I/I Rate:**	0.37 *mgd*
PF:	2.30	**Total I/I:**	59,000 *gallons*
Peak Level:	6.35 *in*		
d/D Ratio:	0.24		

SMH 0640138
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

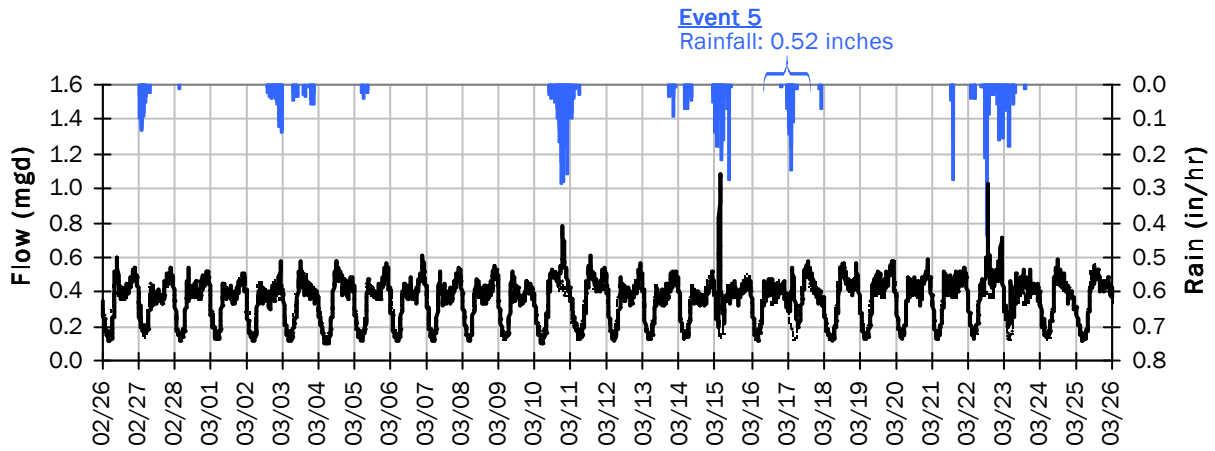


Storm Event I/I Analysis (Rain = 0.62 inches)

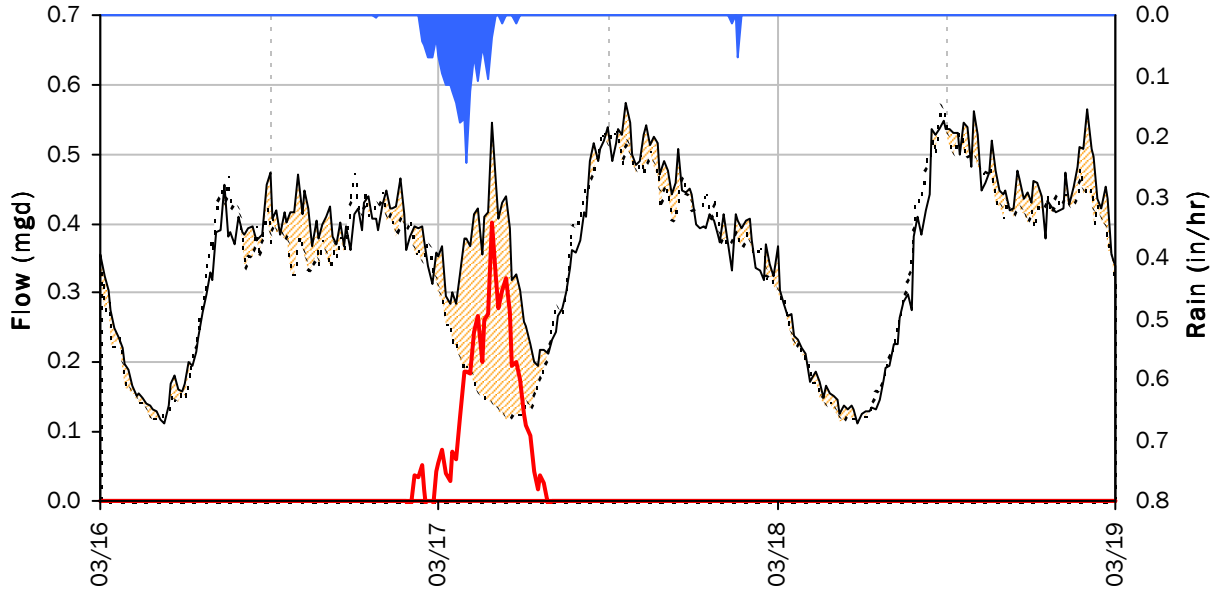
Capacity		Inflow / Infiltration	
Peak Flow:	1.07 *mgd*	**Peak I/I Rate:**	0.92 *mgd*
PF:	3.15	**Total I/I:**	66,000 *gallons*
Peak Level:	6.15 *in*		
d/D Ratio:	0.23		

SMH 0640138
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

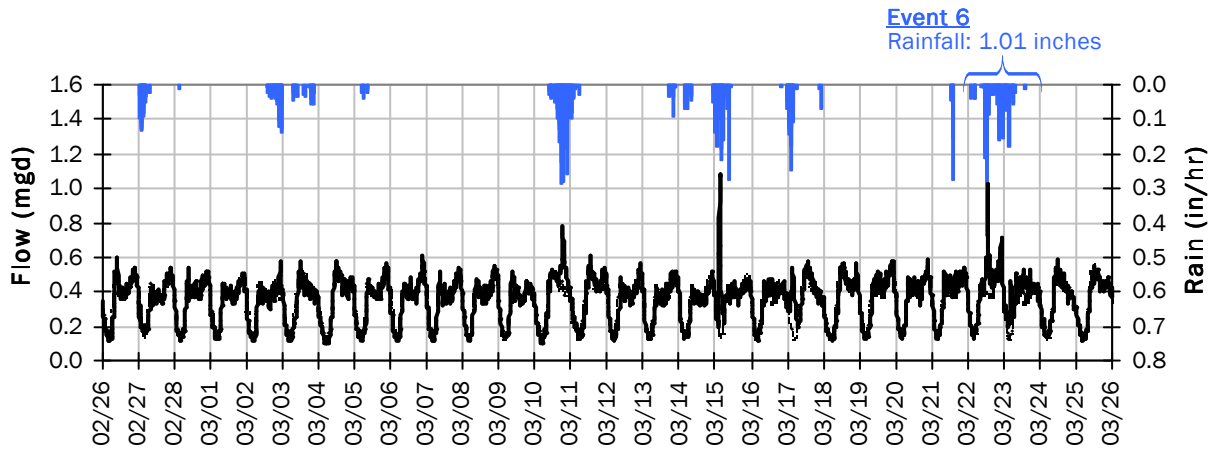


Storm Event I/I Analysis (Rain = 0.52 inches)

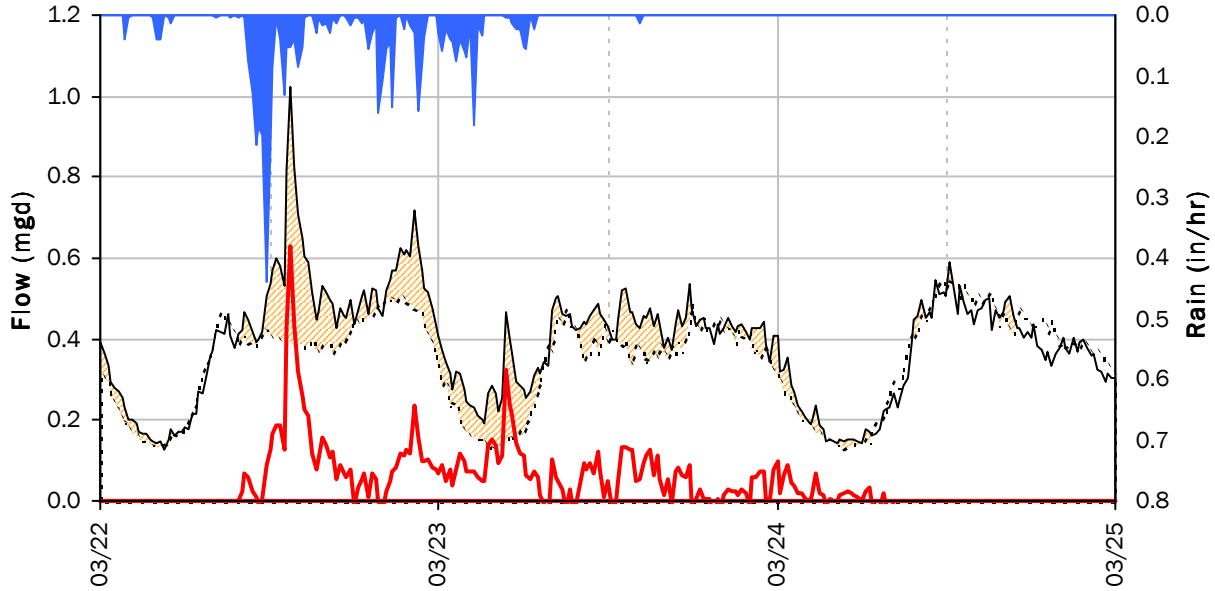
Capacity		Inflow / Infiltration	
Peak Flow:	0.54 *mgd*	**Peak I/I Rate:**	0.40 *mgd*
PF:	1.61	**Total I/I:**	55,000 *gallons*
Peak Level:	5.43 *in*		
d/D Ratio:	0.20		

SMH 0640138
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



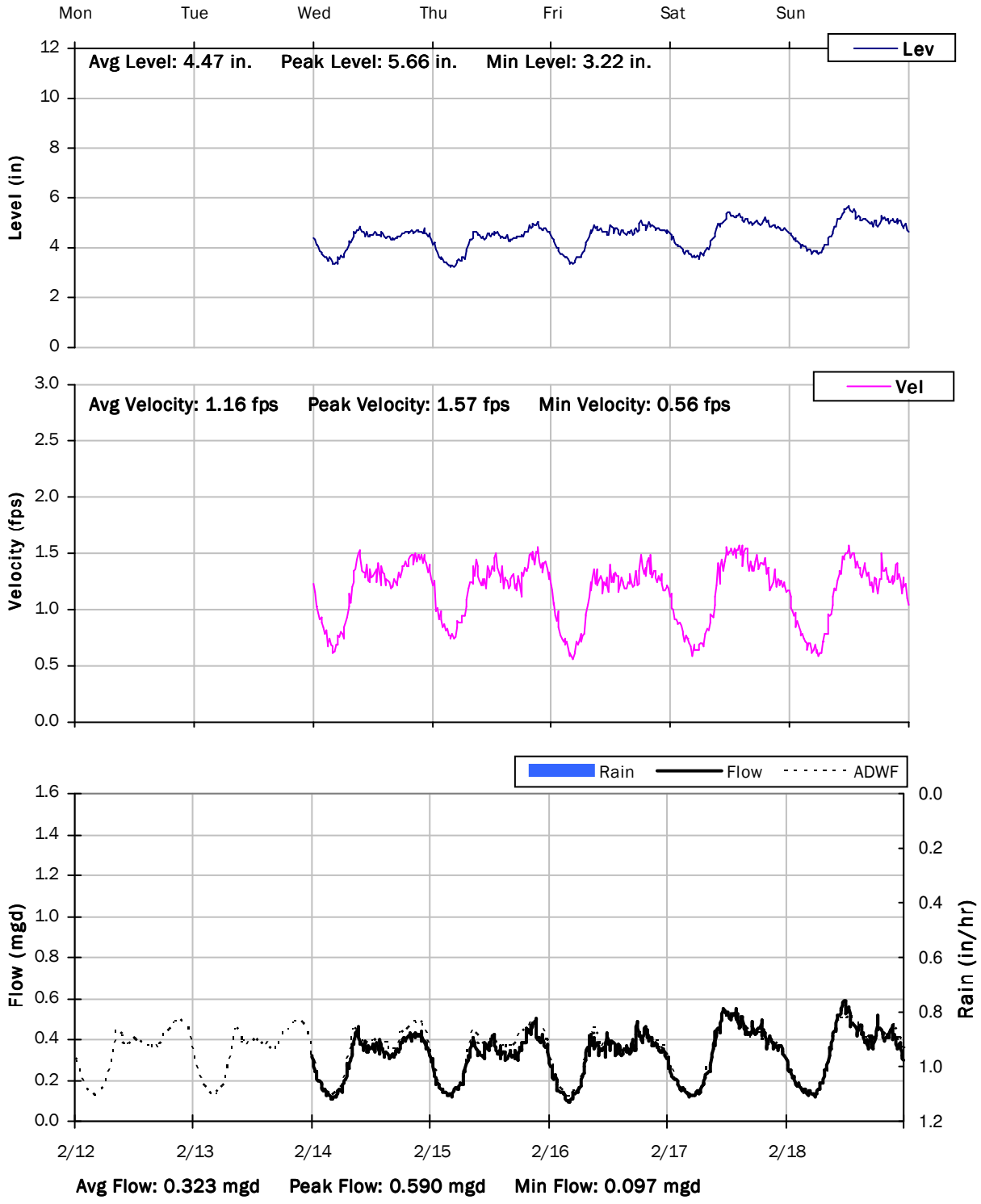
Storm Event I/I Analysis (Rain = 1.01 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	1.02 *mgd*	**Peak I/I Rate:**	0.63 *mgd*
PF:	3.03	**Total I/I:**	137,000 *gallons*
Peak Level:	7.04 *in*		
d/D Ratio:	0.26		

SMH 0640138

Weekly Level, Velocity and Flow Hydrographs

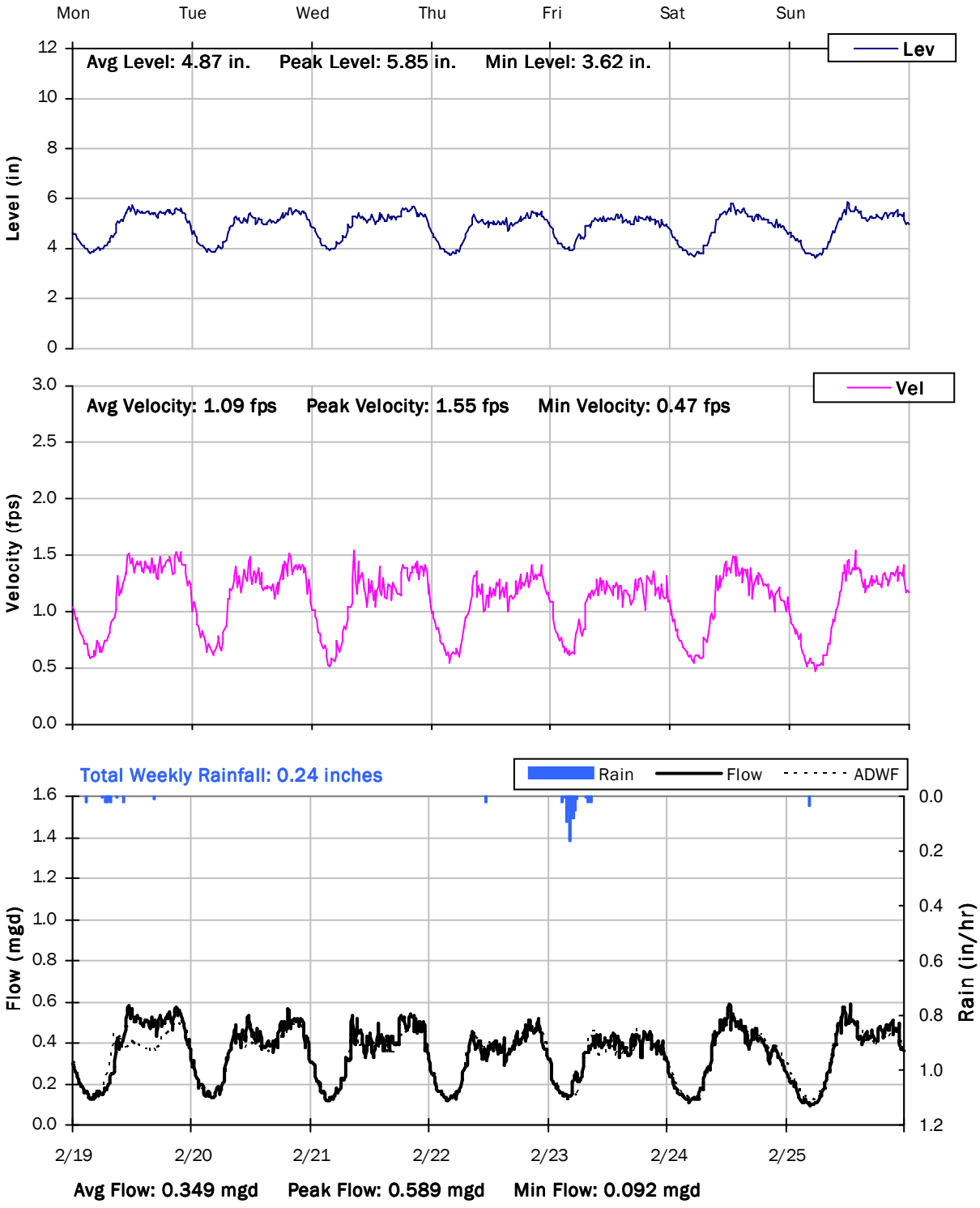
2/12/2018 to 2/19/2018



SMH 0640138

Weekly Level, Velocity and Flow Hydrographs

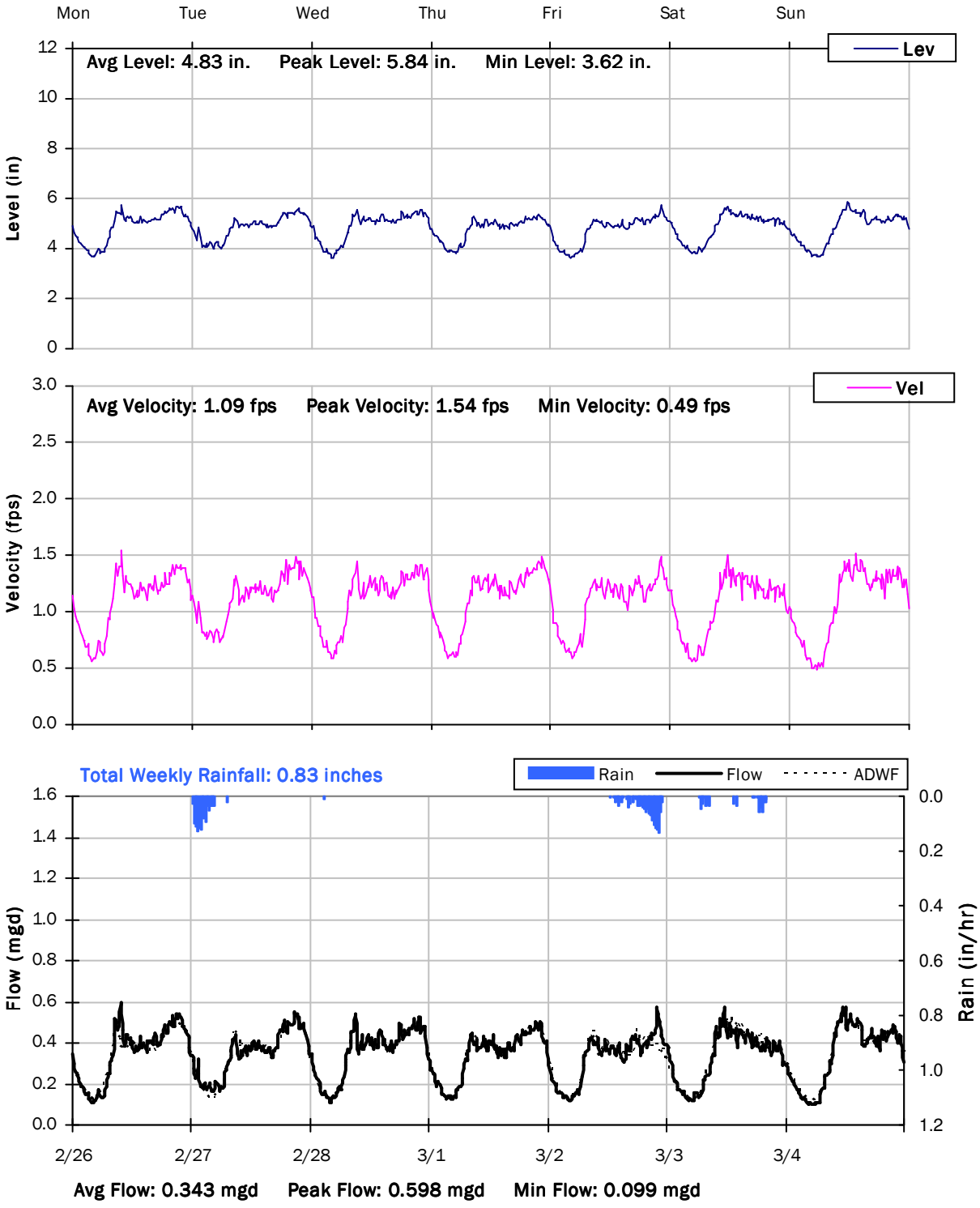
2/19/2018 to 2/26/2018



SMH 0640138

Weekly Level, Velocity and Flow Hydrographs

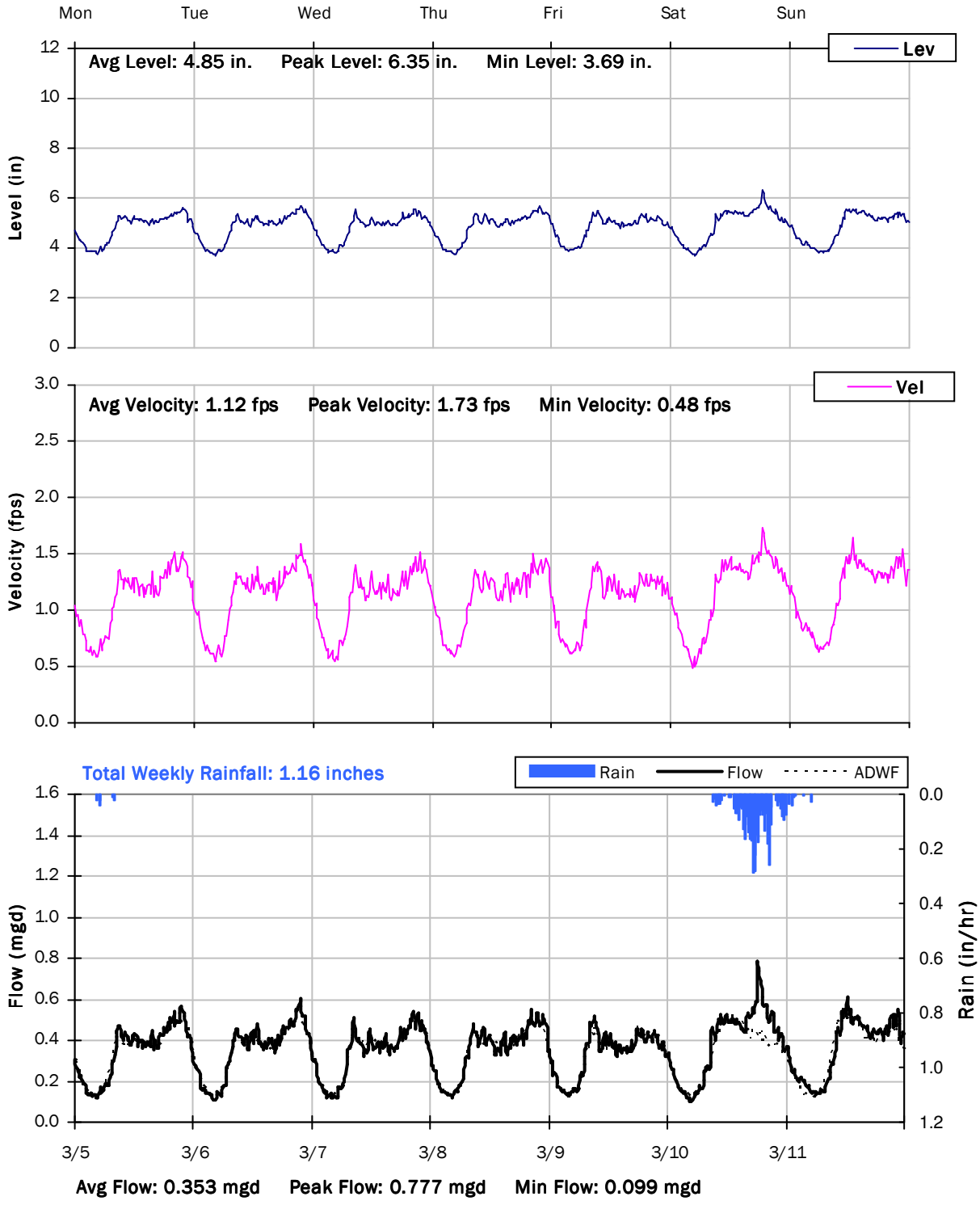
2/26/2018 to 3/5/2018



SMH 0640138

Weekly Level, Velocity and Flow Hydrographs

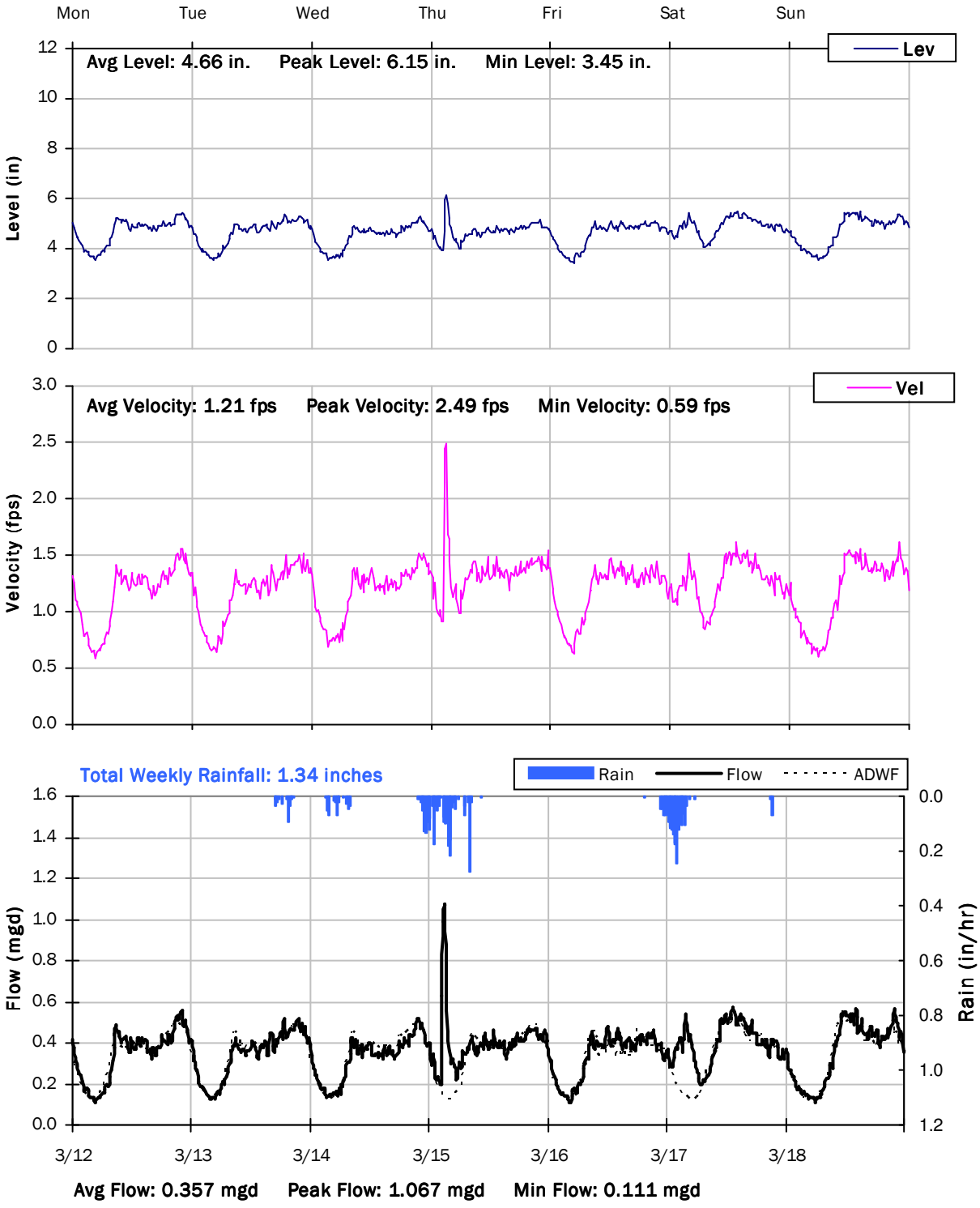
3/5/2018 to 3/12/2018



SMH 0640138

Weekly Level, Velocity and Flow Hydrographs

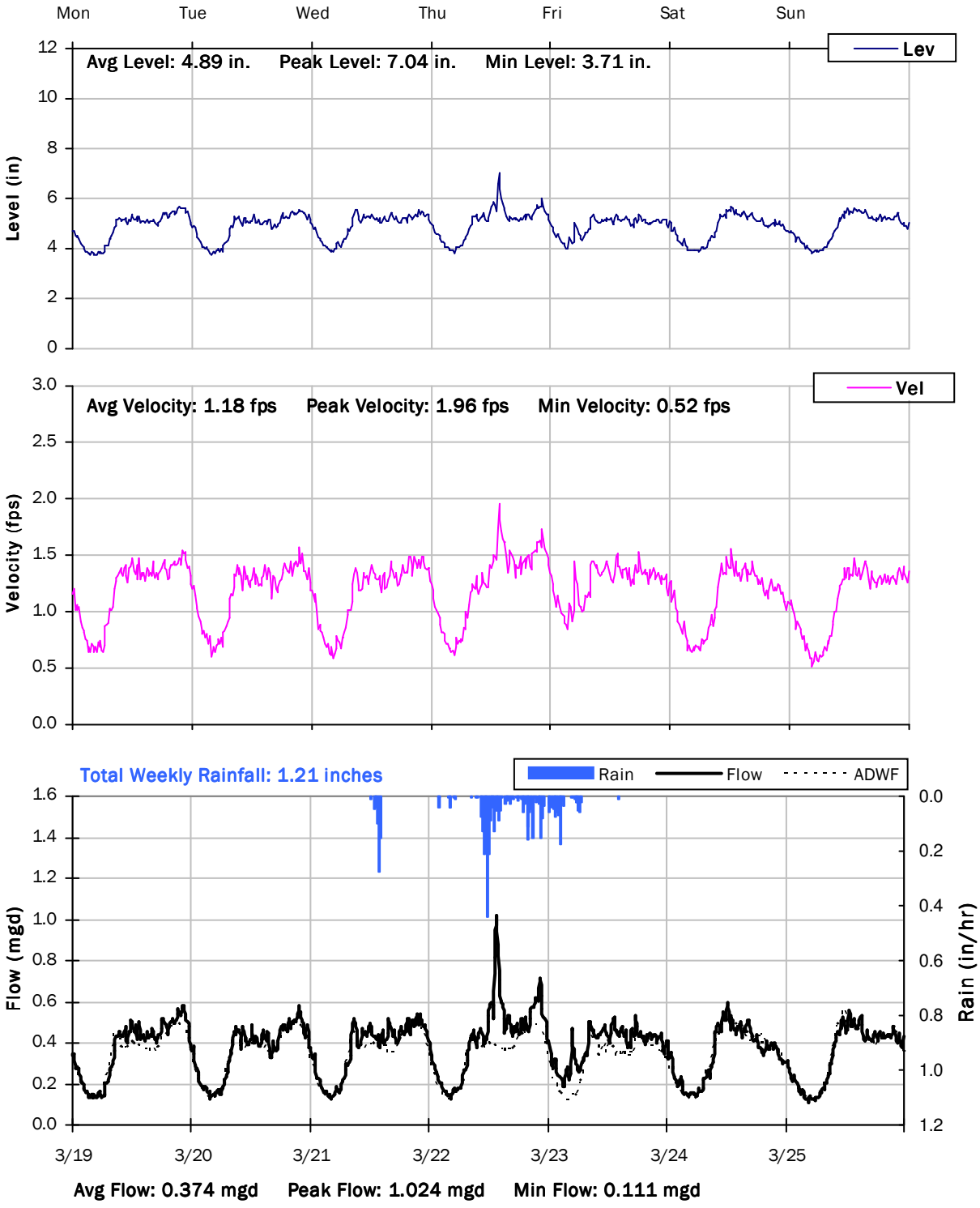
3/12/2018 to 3/19/2018



SMH 0640138

Weekly Level, Velocity and Flow Hydrographs

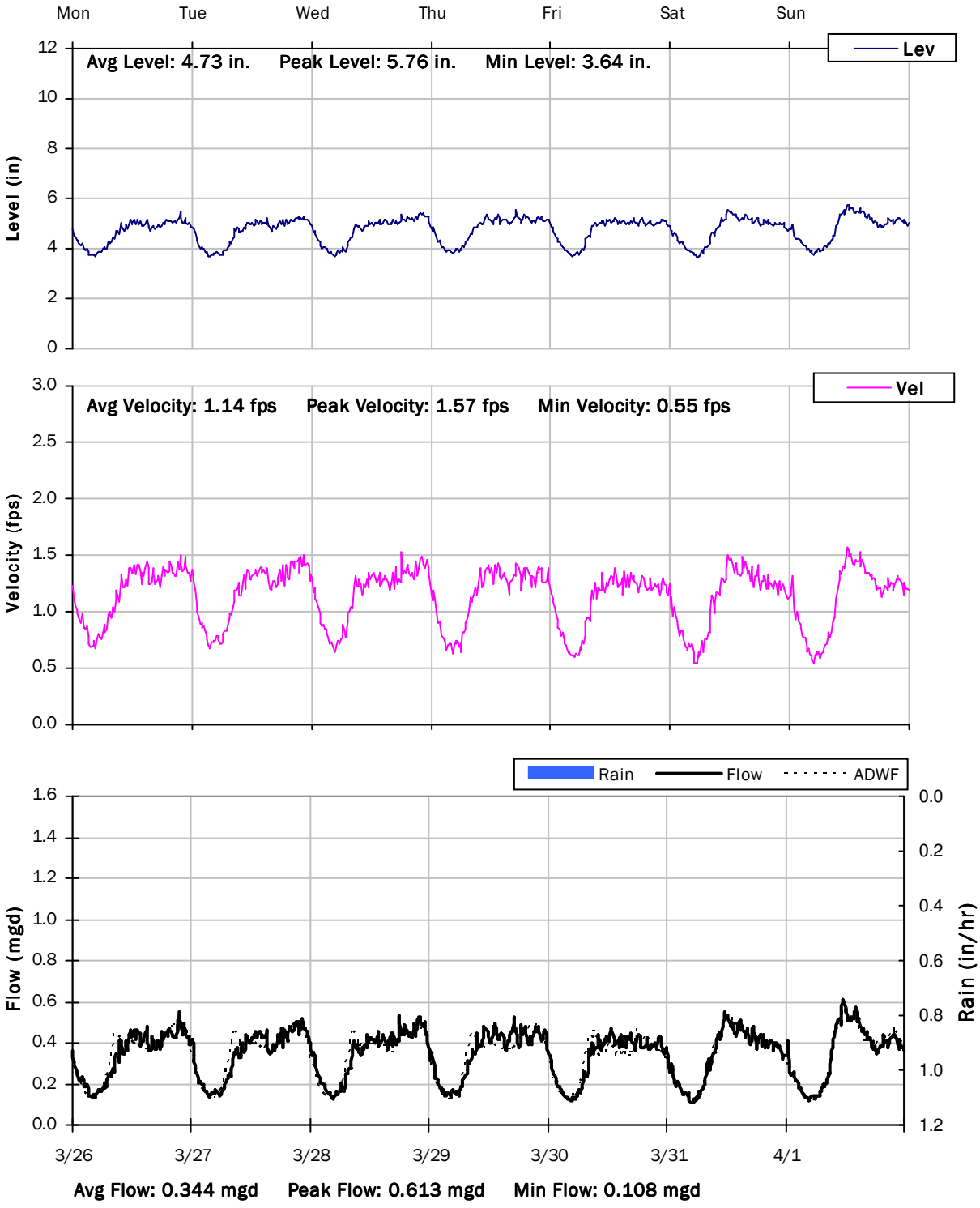
3/19/2018 to 3/26/2018



SMH 0640138

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

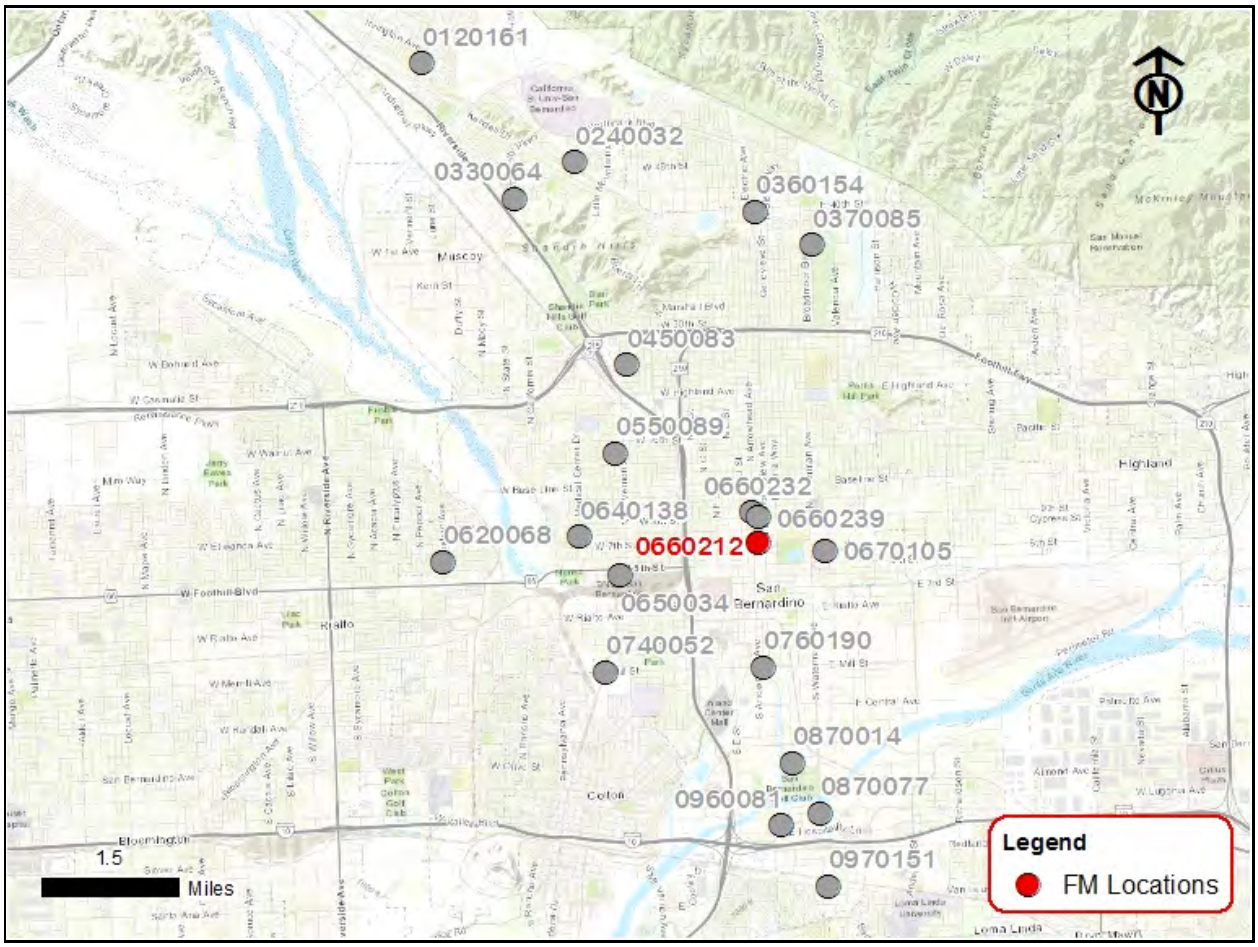
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0660212

Location: W 7th Street and N Pershing Avenue

Data Summary Report



Vicinity Map: SMH 0660212

SMH 0660212

Site Information

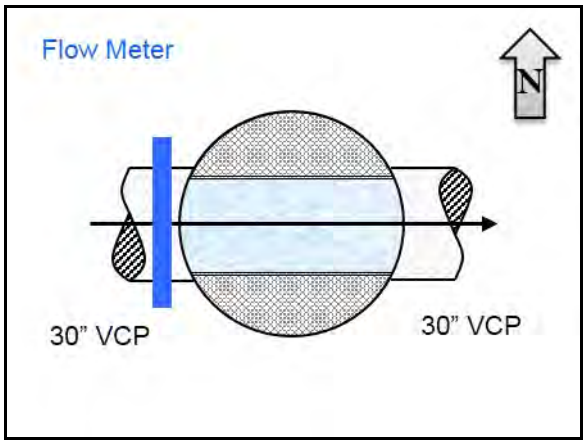
Location:	W 7th Street and N Pershing Avenue
Coordinates:	117.2885° W, 34.1121° N
Rim Elevation (Earth):	1063 feet
Pipe Diameter:	30 inches
ADWF:	1.350 mgd
Peak Measured Flow:	2.420 mgd



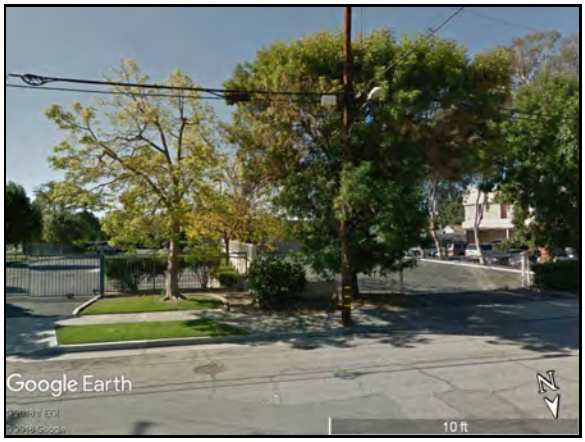
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0660212

Additional Site Photos

Effluent Pipe



Influent Pipe

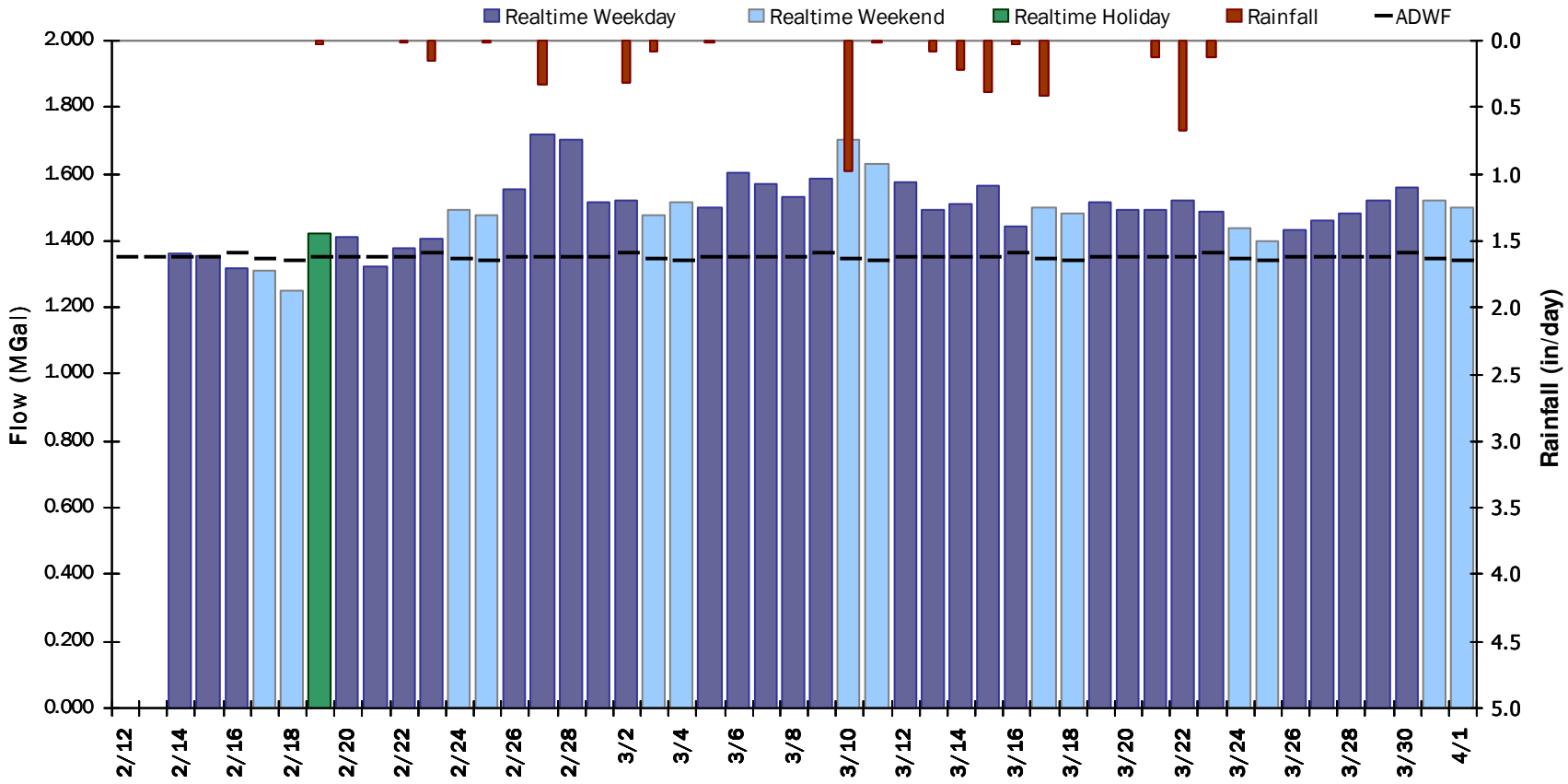


SMH 0660212

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 1.490 MGal Peak Daily Flow: 1.721 MGal Min Daily Flow: 1.249 MGal

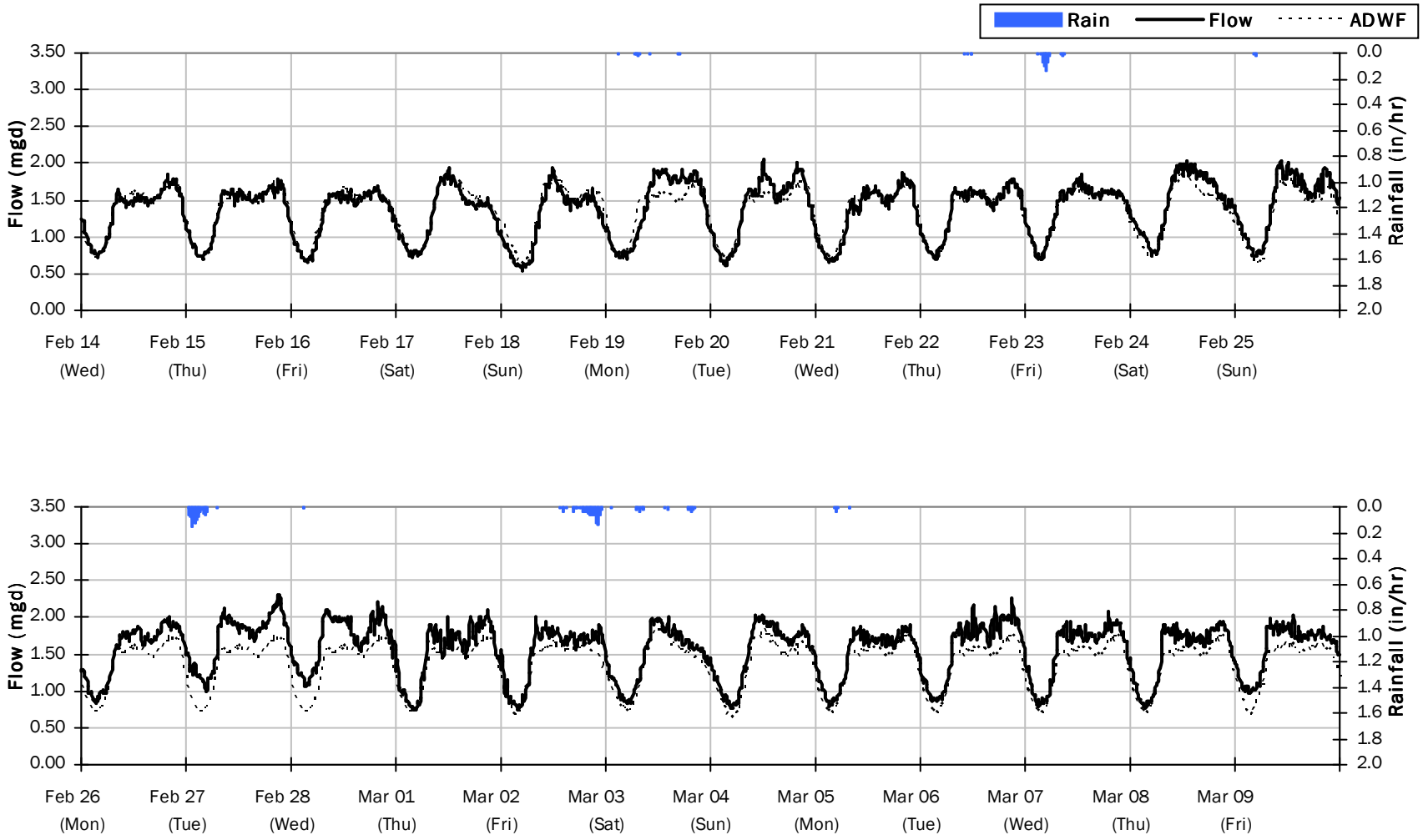
Total Period Rainfall: 4.01 inches



SMH 0660212

Flow Summary: 2/14/2018 to 3/9/2018

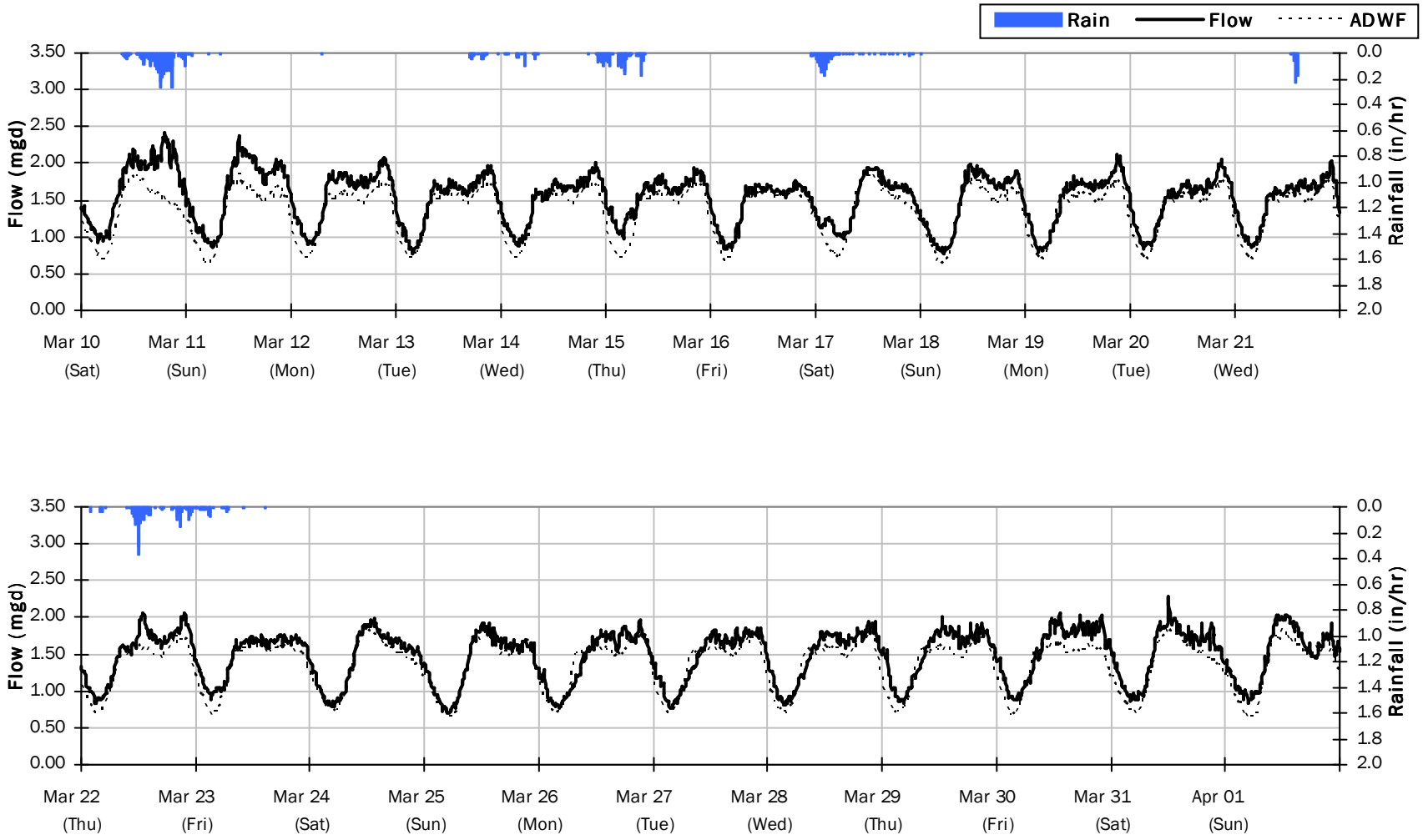
Total Period Rainfall: 0.95 inches **Avg Flow: 1.471 mgd** **Peak Flow: 2.305 mgd** **Min Flow: 0.539 mgd**



SMH 0660212

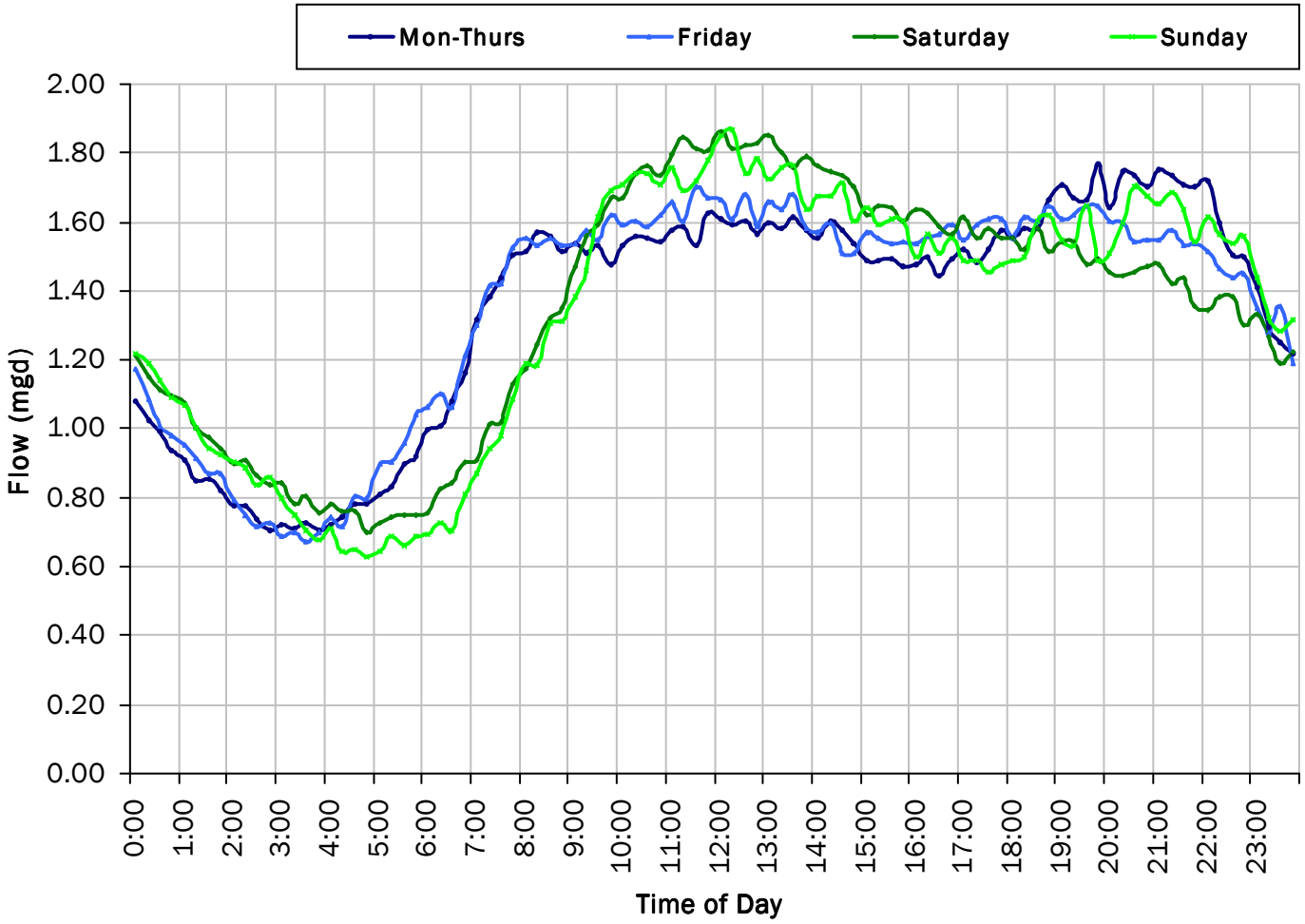
Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 3.06 inches **Avg Flow: 1.510 mgd** **Peak Flow: 2.420 mgd** **Min Flow: 0.697 mgd**



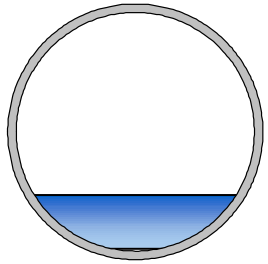
SMH 0660212

Average Dry Weather Flow Hydrographs



ADWF:

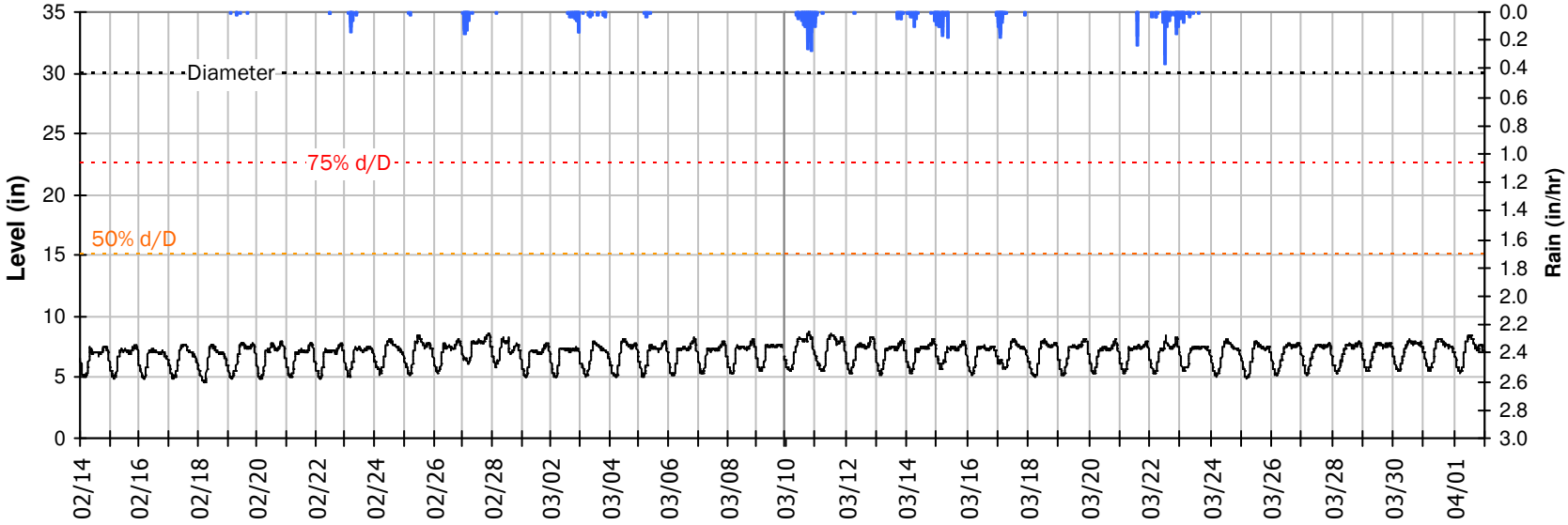
1.350 *mgd*

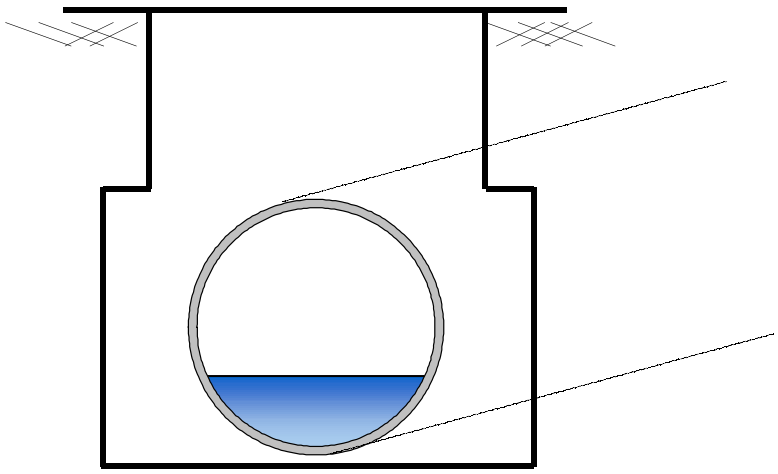


SMH 0660212

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



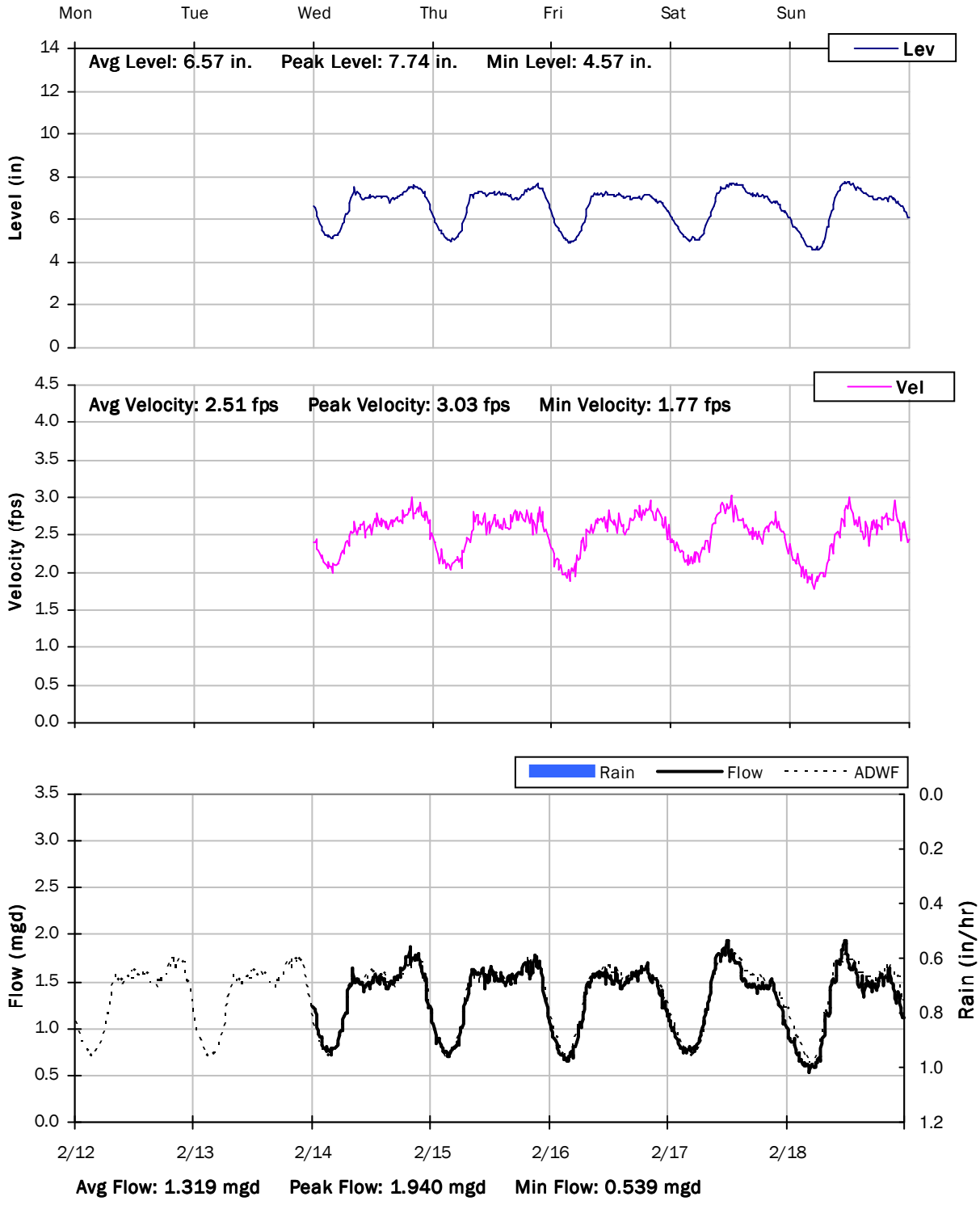


Pipe Diameter:	30	*inches*
Peak Measured Level:	8.76	*inches*
Peak d/D Ratio:	0.29	

SMH 0660212

Weekly Level, Velocity and Flow Hydrographs

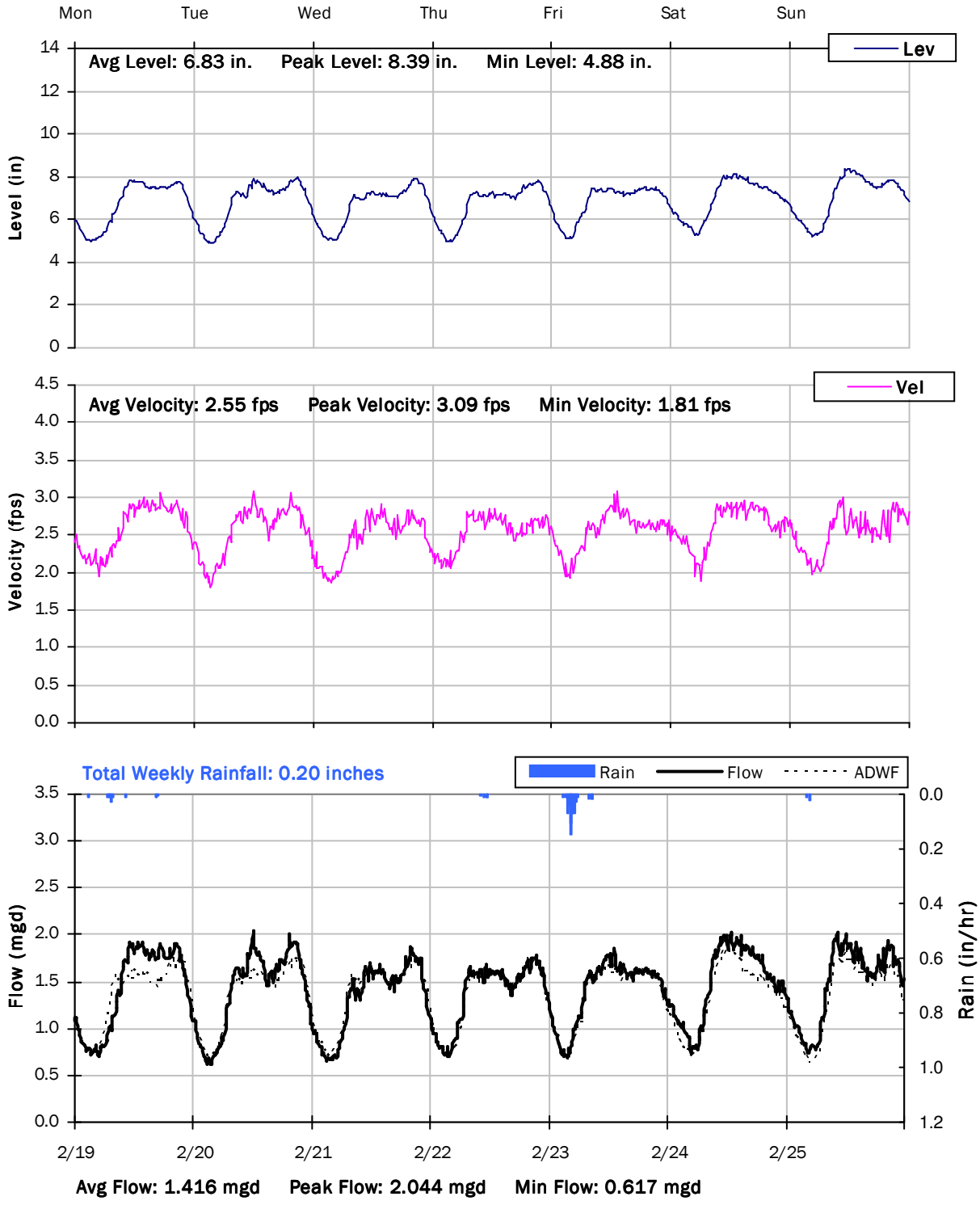
2/12/2018 to 2/19/2018



SMH 0660212

Weekly Level, Velocity and Flow Hydrographs

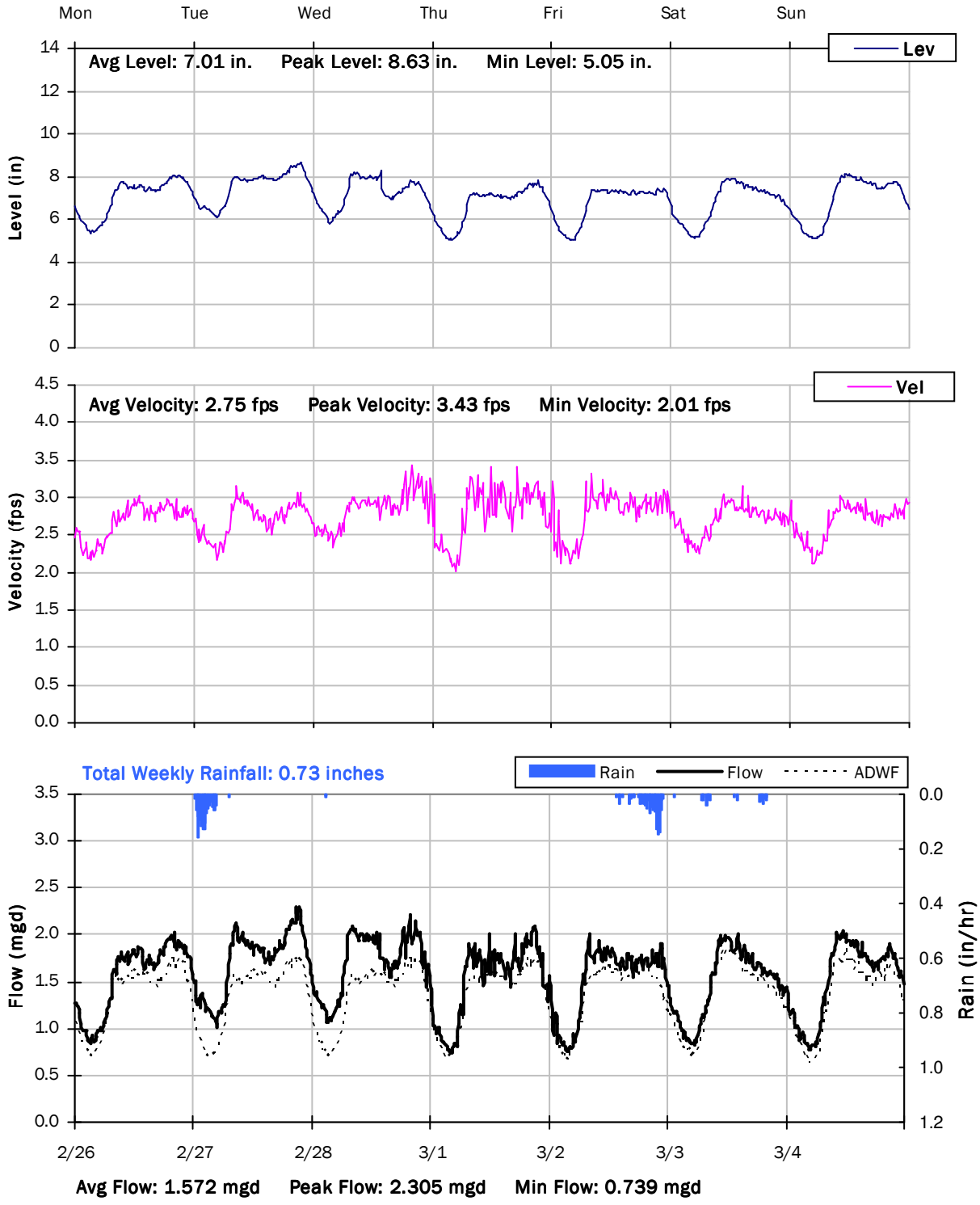
2/19/2018 to 2/26/2018



SMH 0660212

Weekly Level, Velocity and Flow Hydrographs

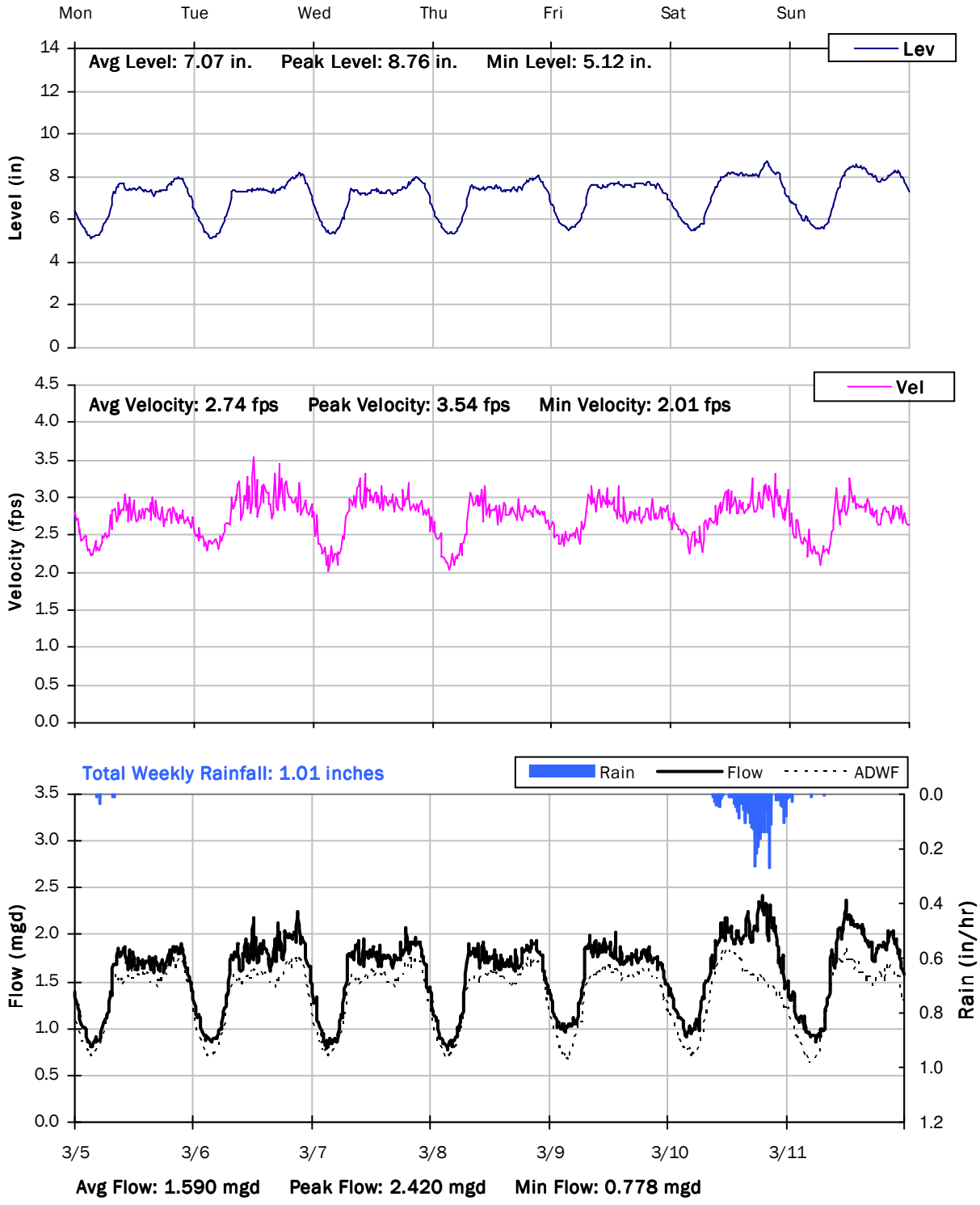
2/26/2018 to 3/5/2018



SMH 0660212

Weekly Level, Velocity and Flow Hydrographs

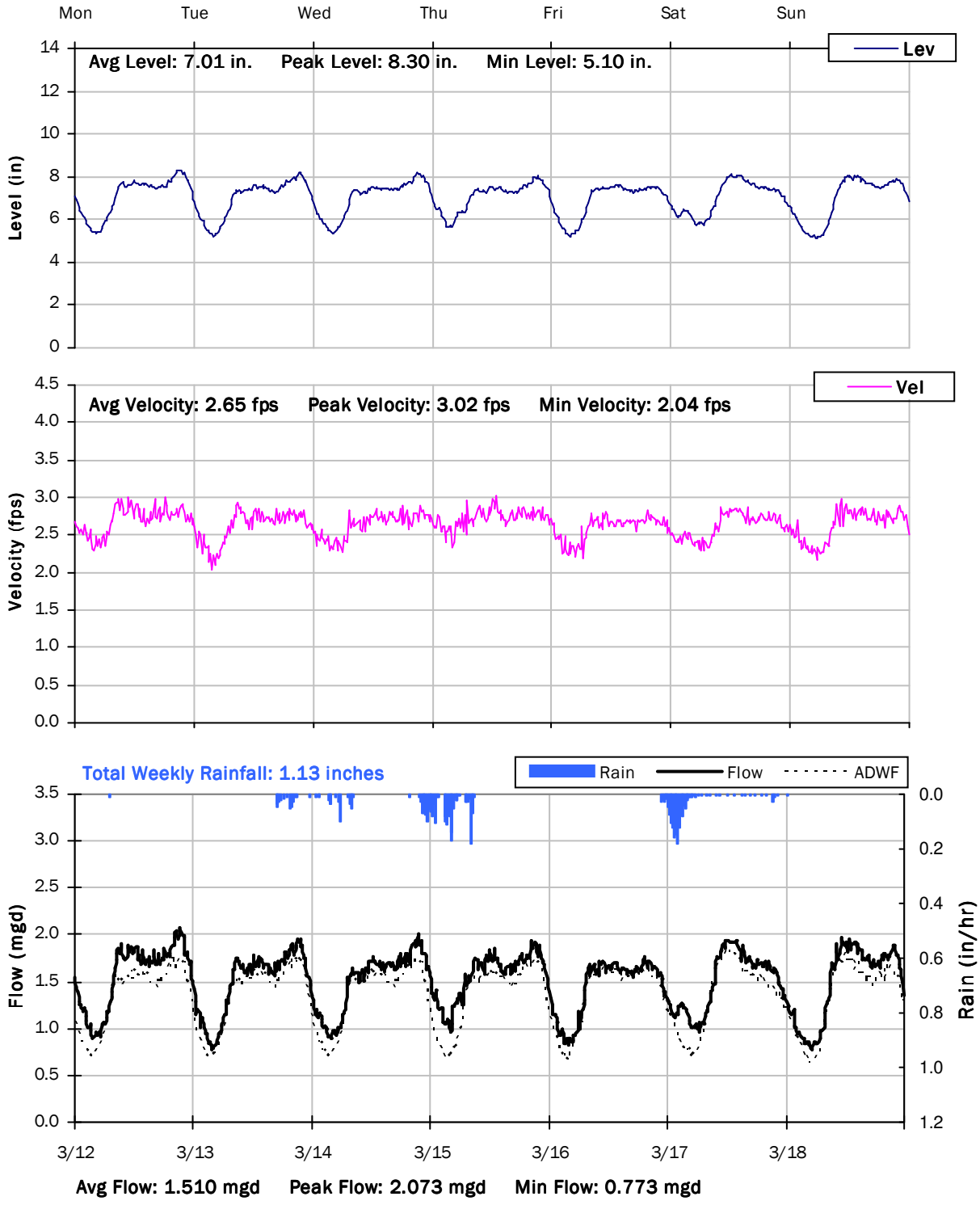
3/5/2018 to 3/12/2018



SMH 0660212

Weekly Level, Velocity and Flow Hydrographs

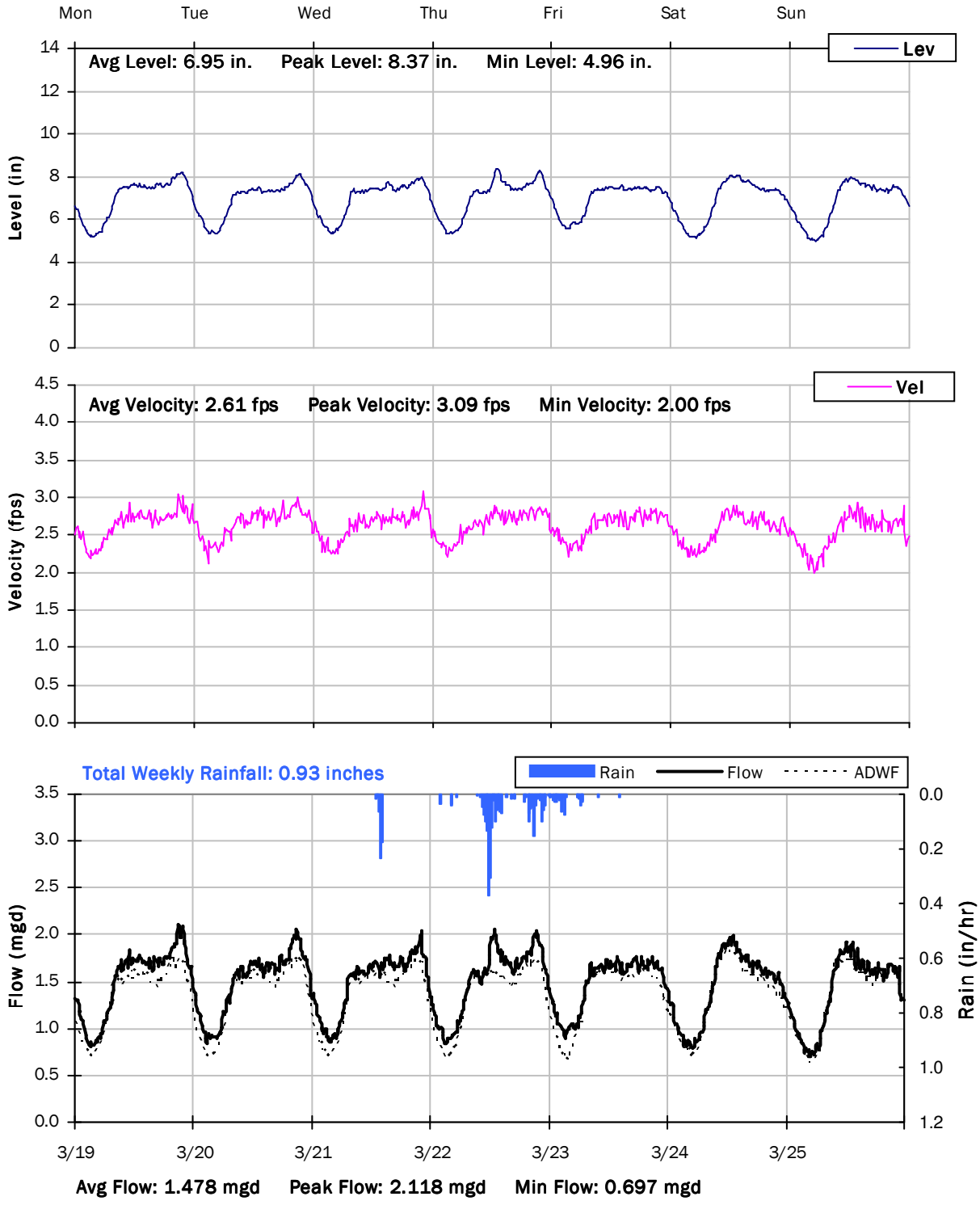
3/12/2018 to 3/19/2018



SMH 0660212

Weekly Level, Velocity and Flow Hydrographs

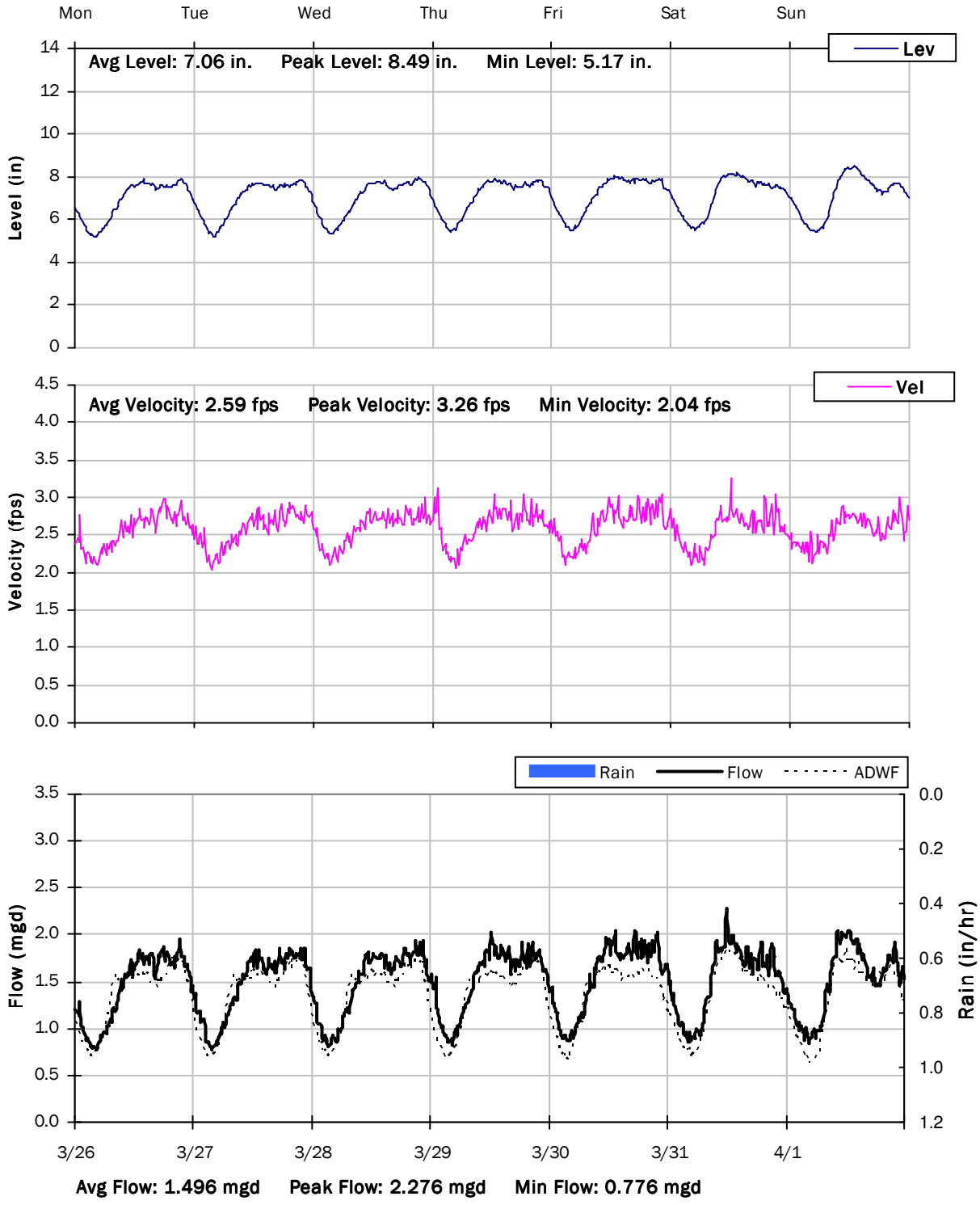
3/19/2018 to 3/26/2018



SMH 0660212

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

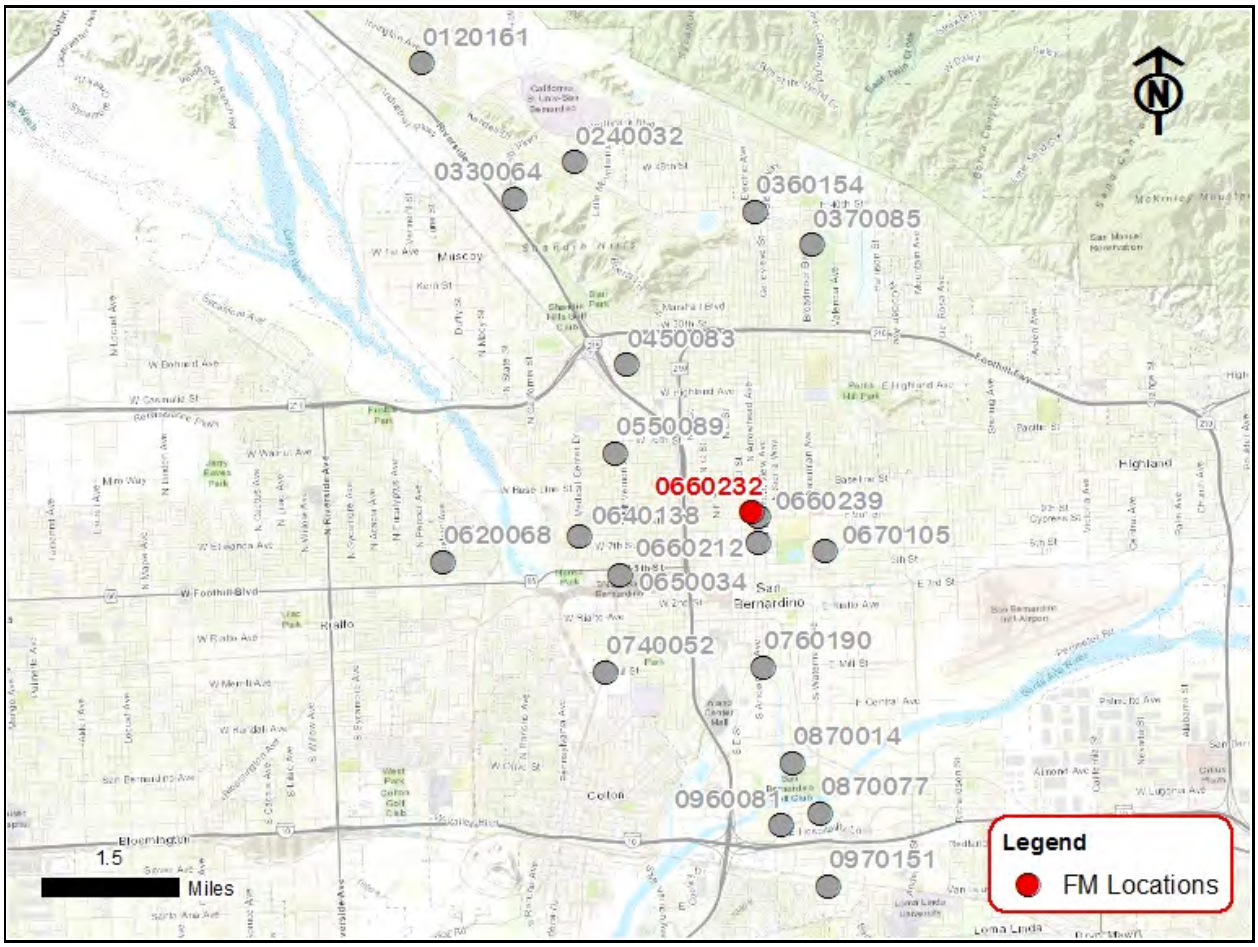
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0660232

Location: N Arrowhead Avenue north of W 9th Street

Data Summary Report



Vicinity Map: SMH 0660232

SMH 0660232

Site Information

Location: N Arrowhead Avenue north of W 9th Street

Coordinates: 117.2897° W, 34.1166° N

Rim Elevation (Earth): 1080 feet

Pipe Diameter: 24 inches

ADWF: 1.867 mgd

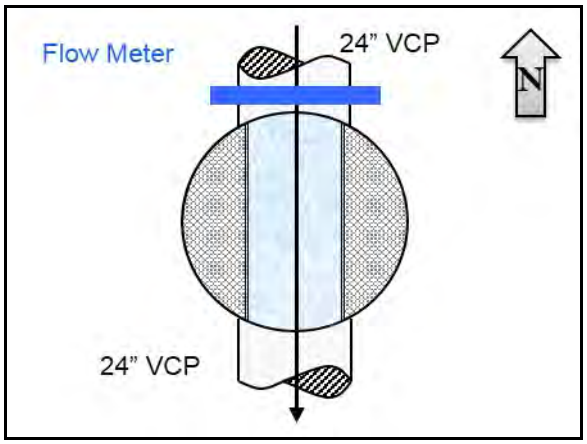
Peak Measured Flow: 3.087 mgd



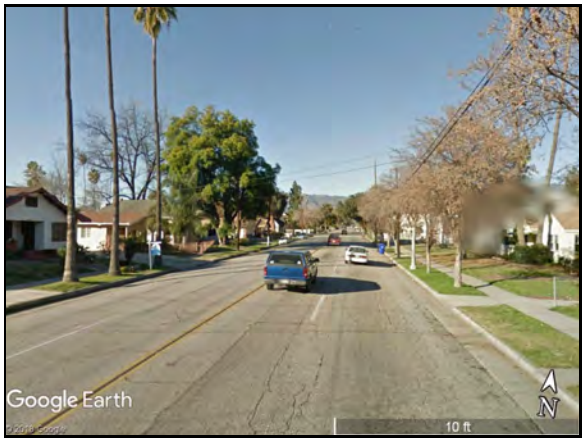
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0660232

Additional Site Photos

Effluent Pipe



Influent Pipe

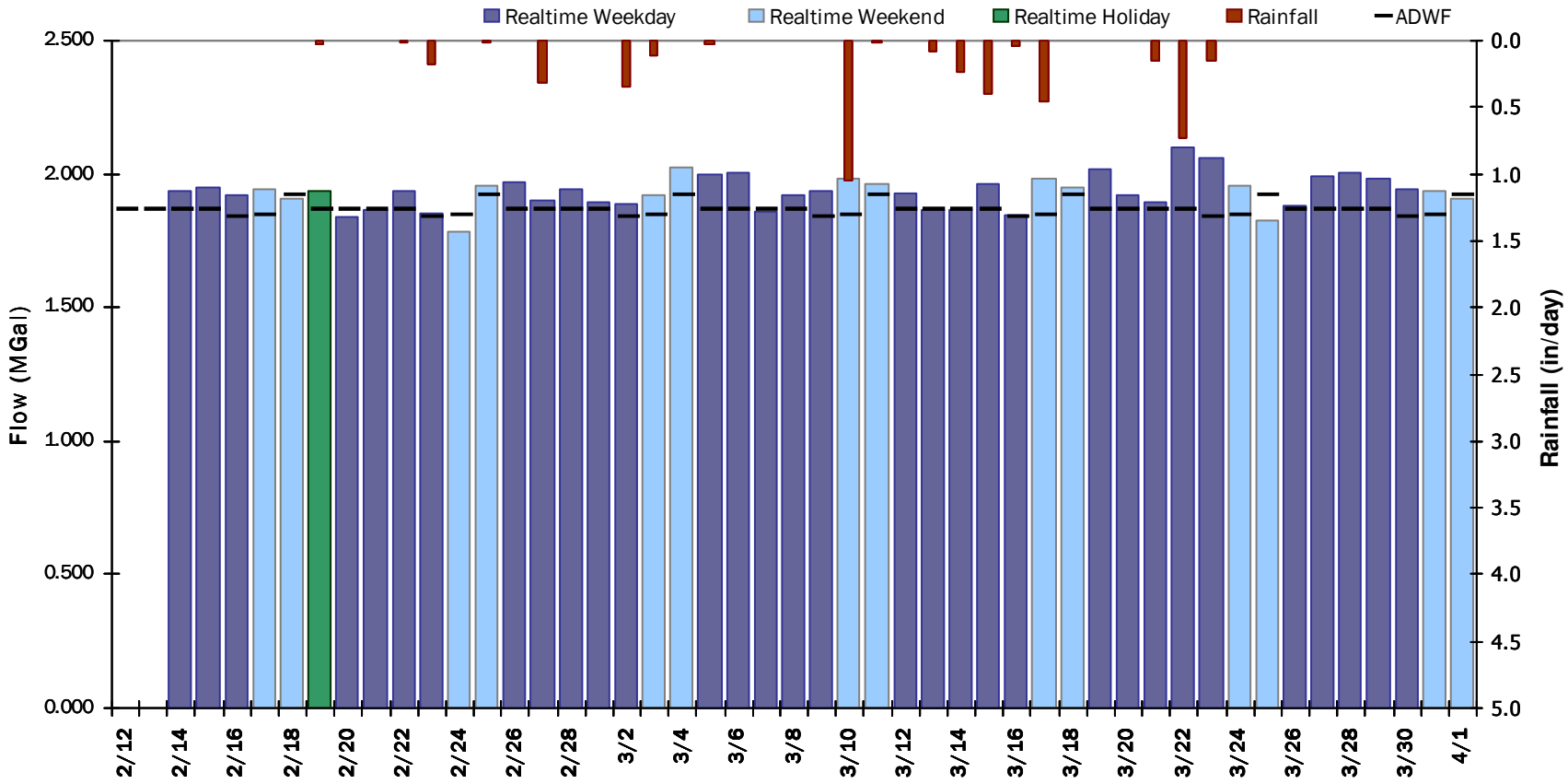


SMH 0660232

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 1.933 MGal Peak Daily Flow: 2.098 MGal Min Daily Flow: 1.781 MGal

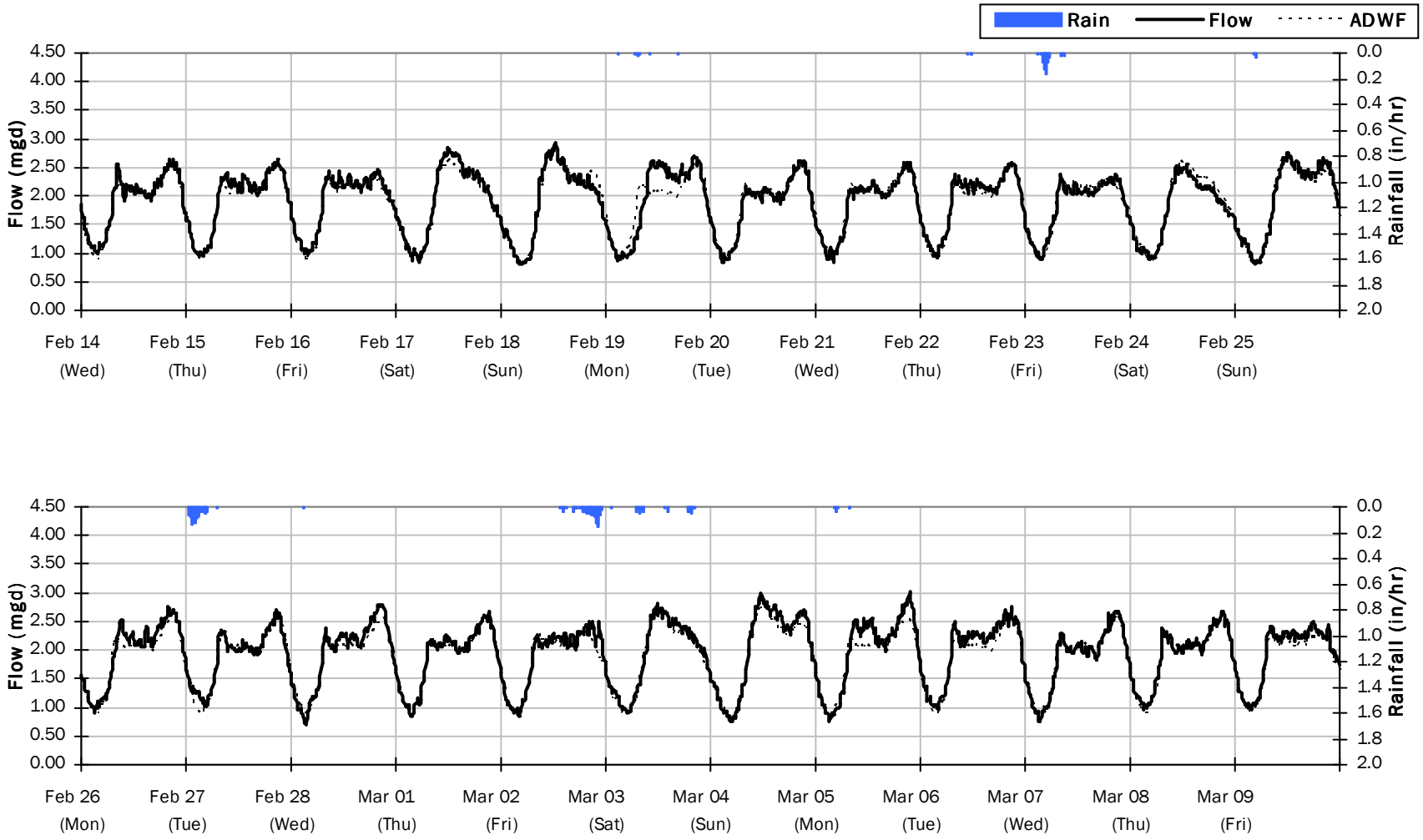
Total Period Rainfall: 4.32 inches



SMH 0660232

Flow Summary: 2/14/2018 to 3/9/2018

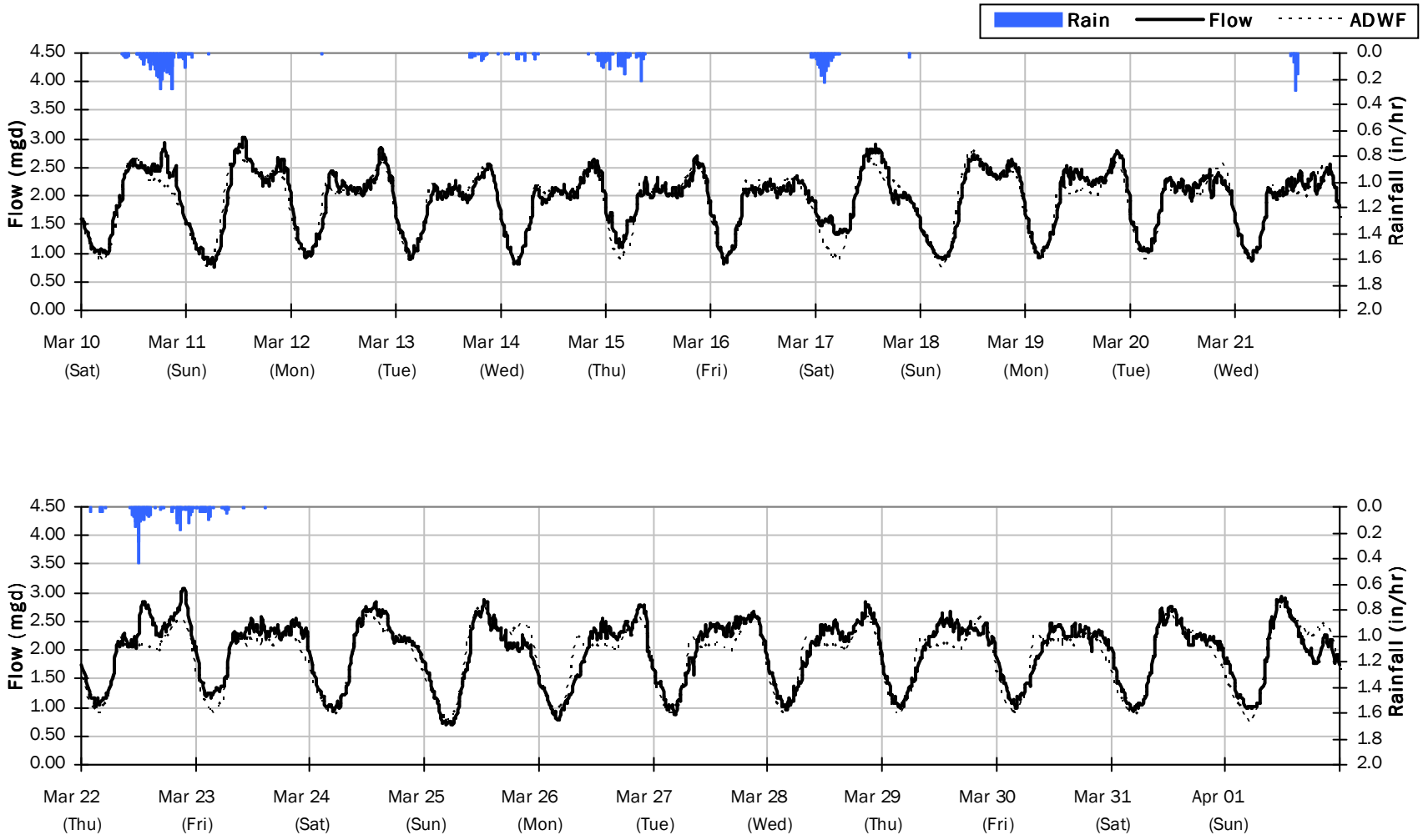
Total Period Rainfall: 1.02 inches **Avg Flow: 1.920 mgd** **Peak Flow: 3.022 mgd** **Min Flow: 0.698 mgd**



SMH 0660232

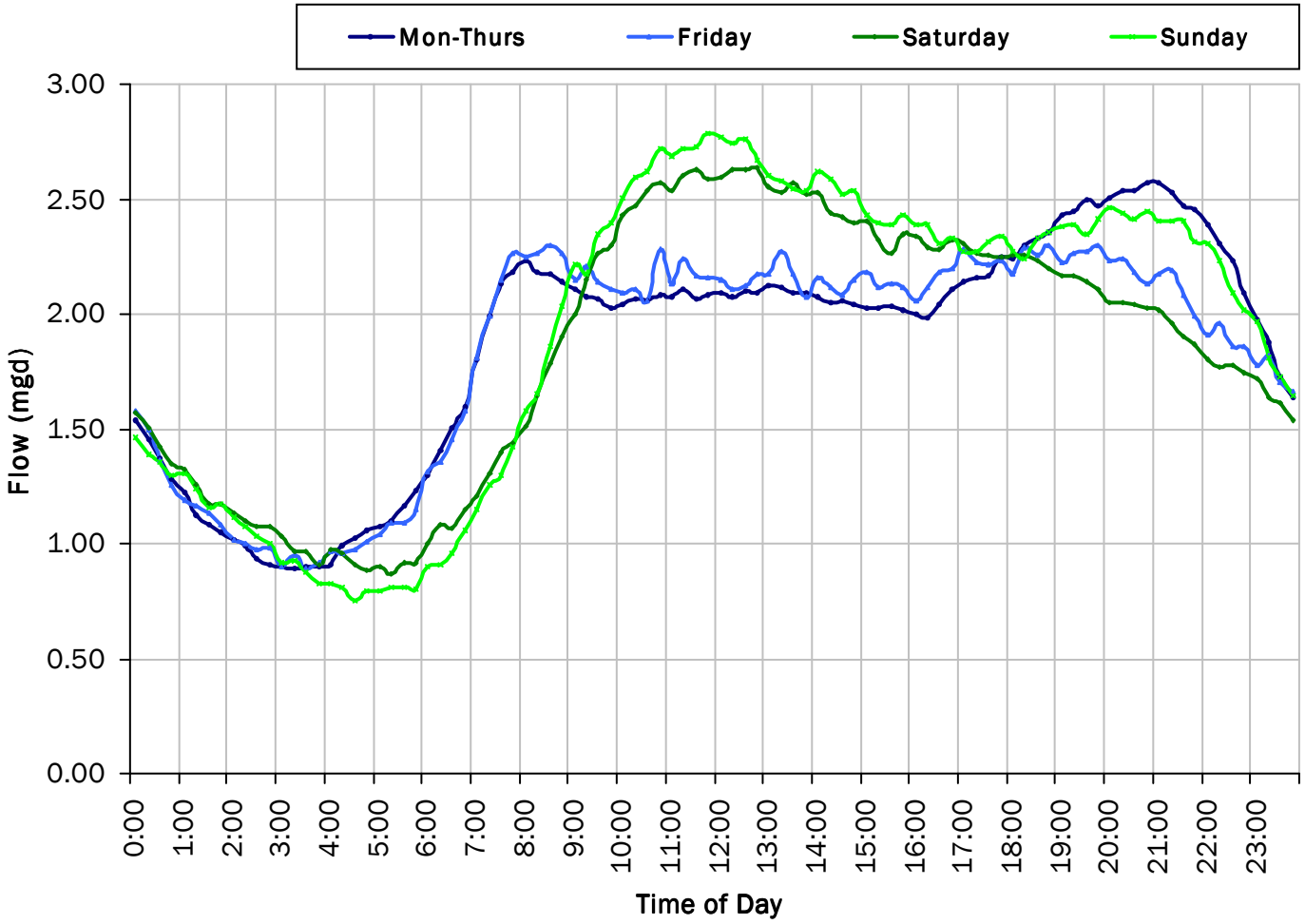
Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 3.29 inches **Avg Flow: 1.946 mgd** **Peak Flow: 3.087 mgd** **Min Flow: 0.693 mgd**



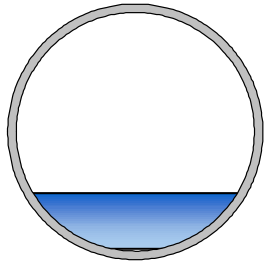
SMH 0660232

Average Dry Weather Flow Hydrographs



ADWF:

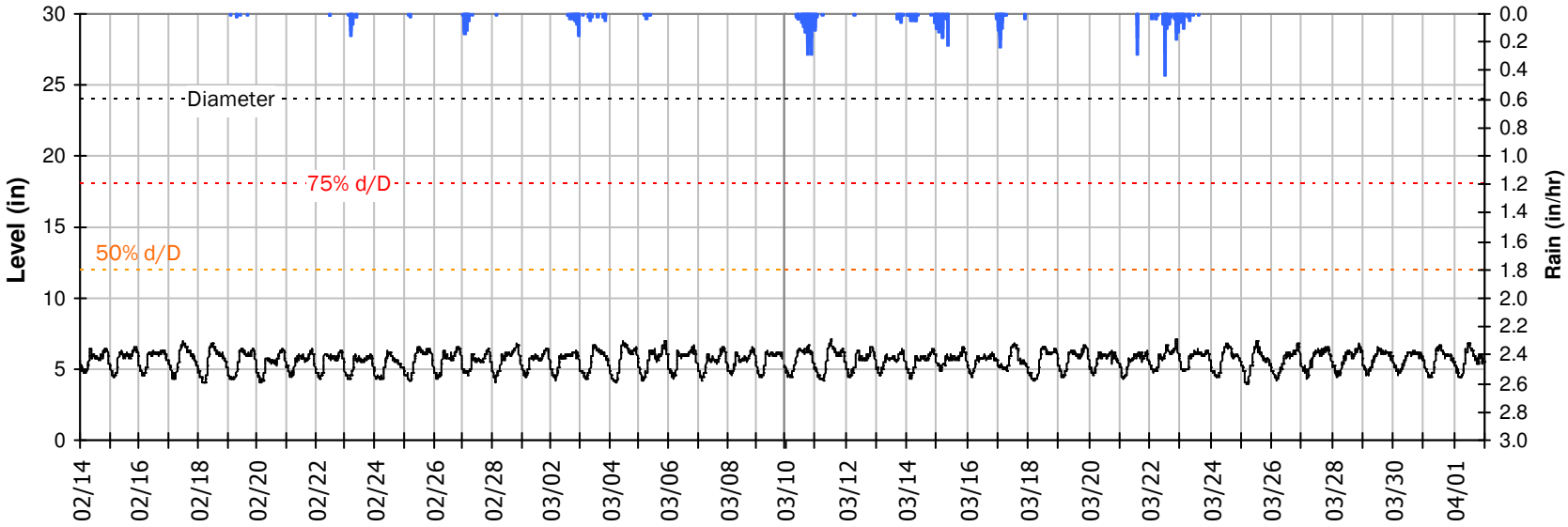
1.867 *mgd*

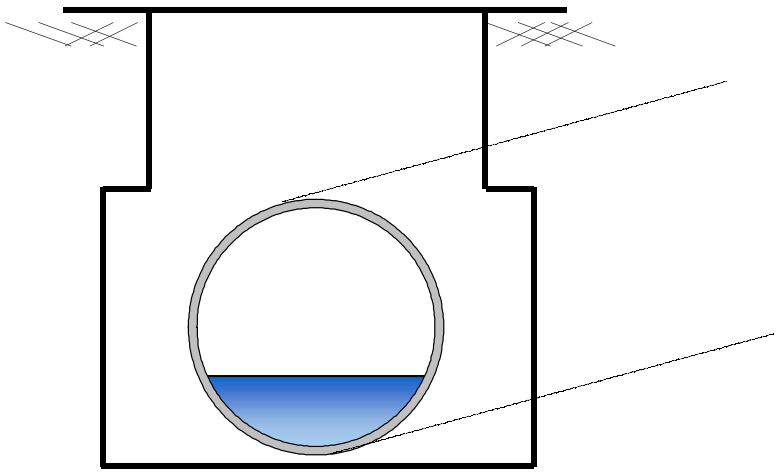


SMH 0660232

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

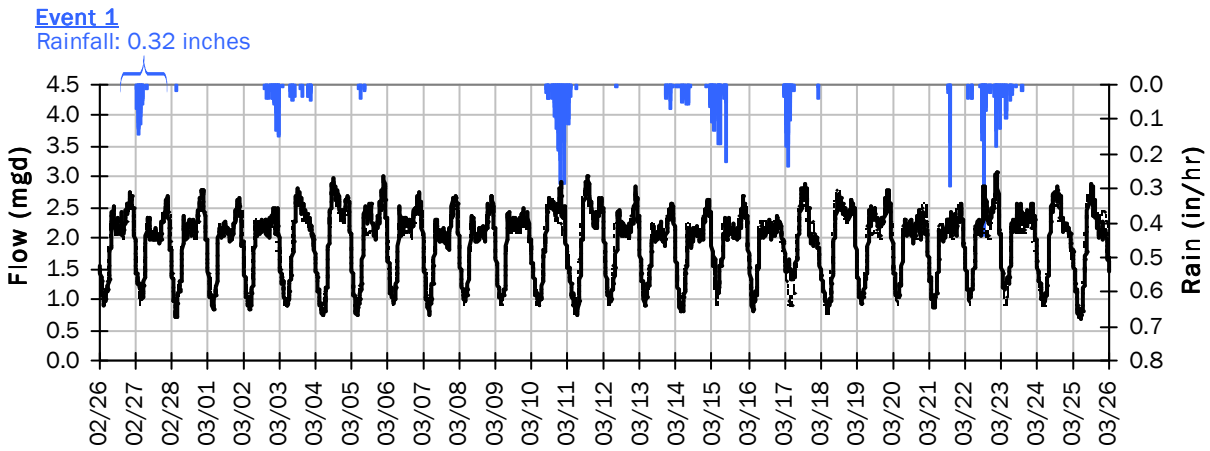




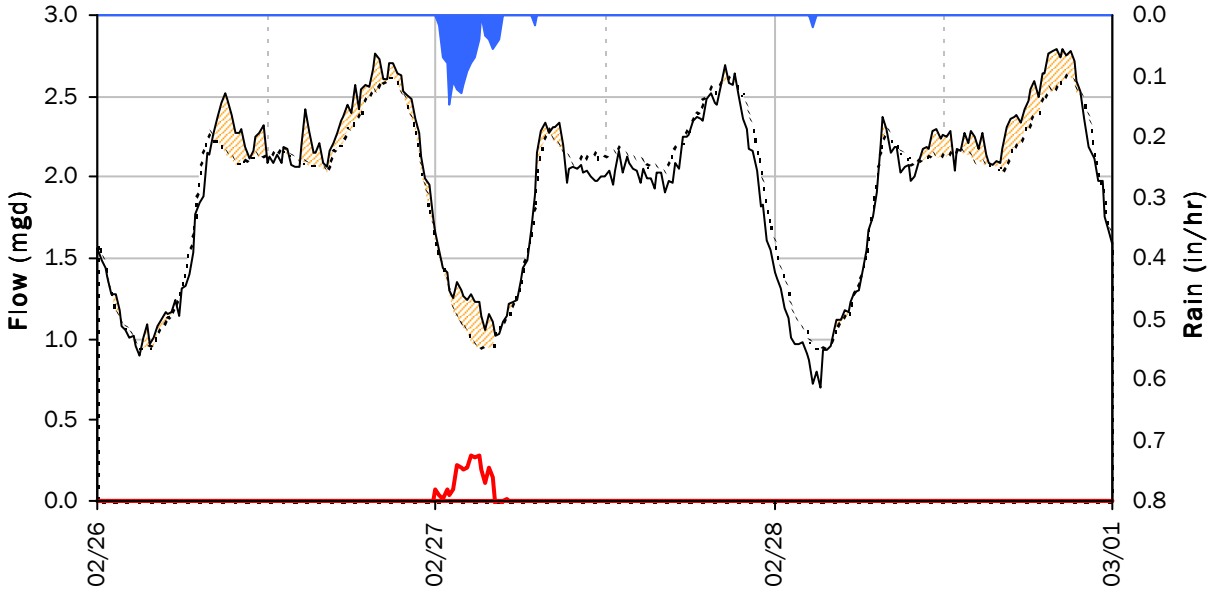
Pipe Diameter:	24	*inches*
Peak Measured Level:	7.06	*inches*
Peak d/D Ratio:	0.29	

SMH 0660232
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

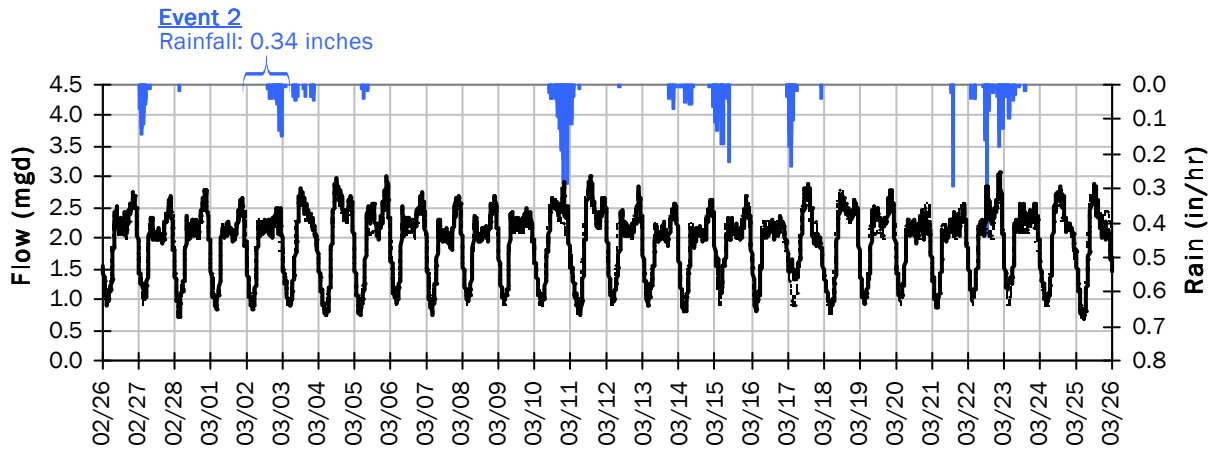


Storm Event I/I Analysis (Rain = 0.32 inches)

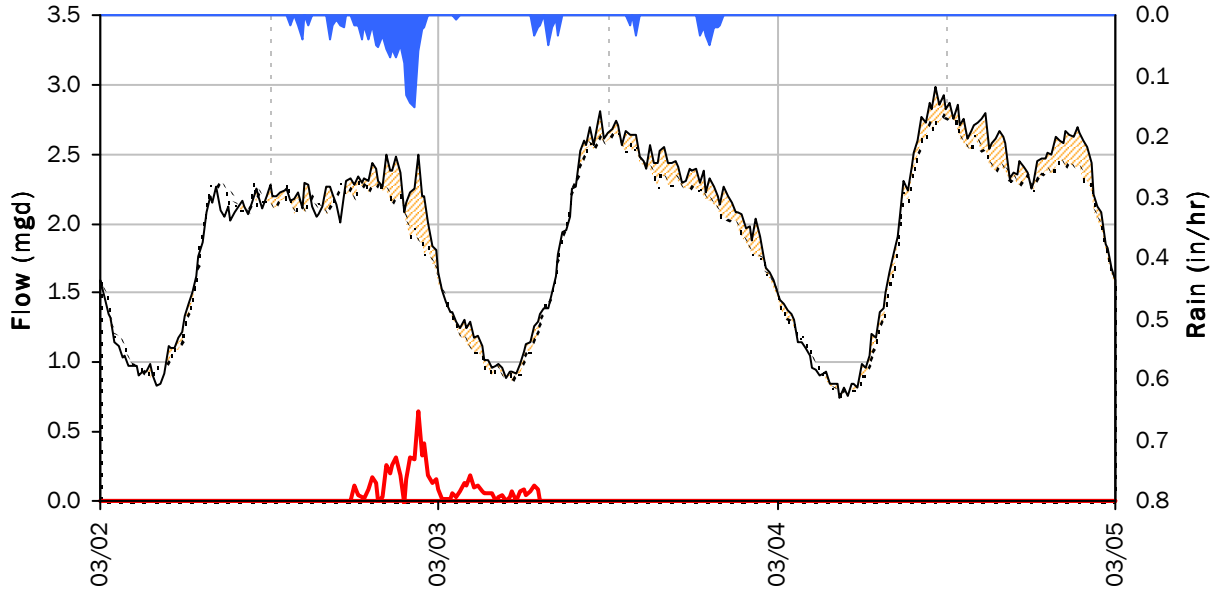
Capacity		Inflow / Infiltration	
Peak Flow:	1.67 *mgd*	**Peak I/I Rate:**	0.29 *mgd*
PF:	0.89	**Total I/I:**	27,000 *gallons*
Peak Level:	5.23 *in*		
d/D Ratio:	0.22		

SMH 0660232
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

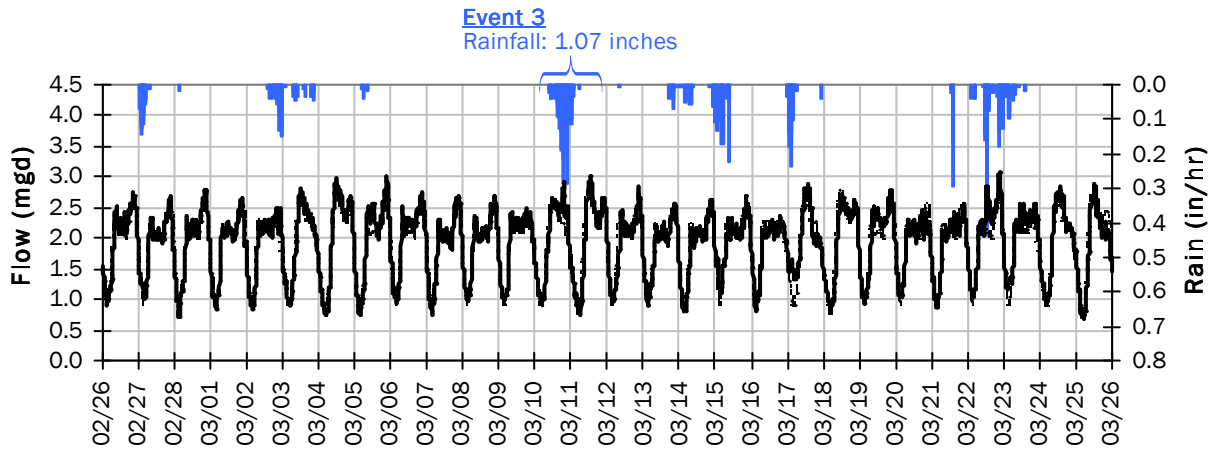


Storm Event I/I Analysis (Rain = 0.34 inches)

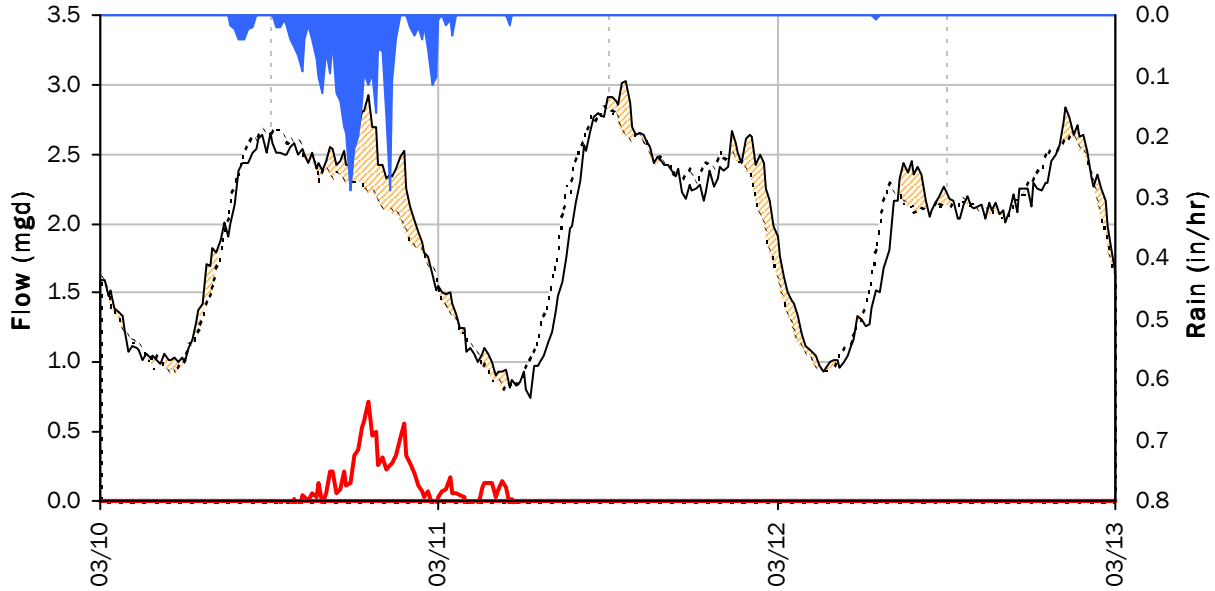
Capacity		Inflow / Infiltration	
Peak Flow:	2.50 *mgd*	**Peak I/I Rate:**	0.64 *mgd*
PF:	1.34	**Total I/I:**	65,000 *gallons*
Peak Level:	6.36 *in*		
d/D Ratio:	0.27		

SMH 0660232
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

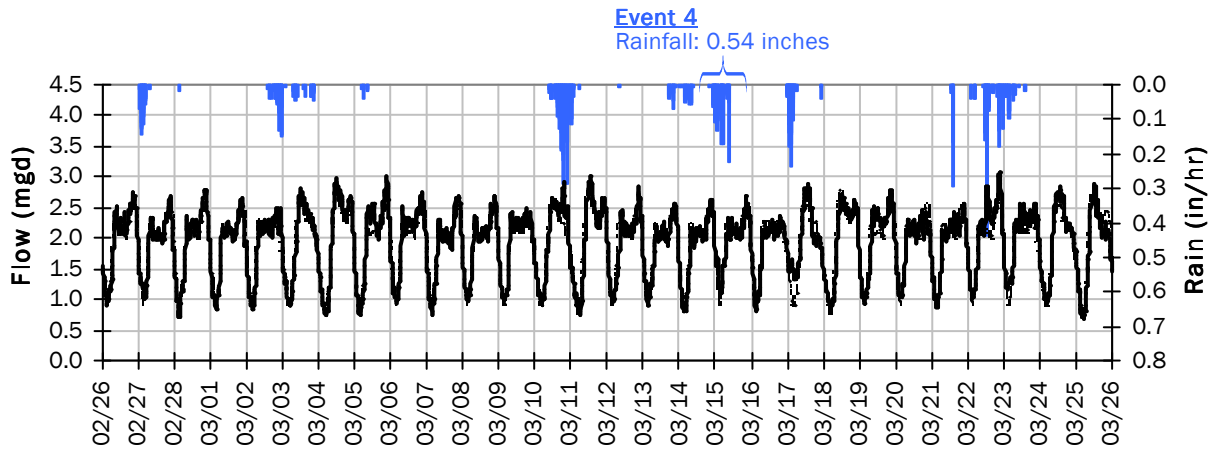


Storm Event I/I Analysis (Rain = 1.07 inches)

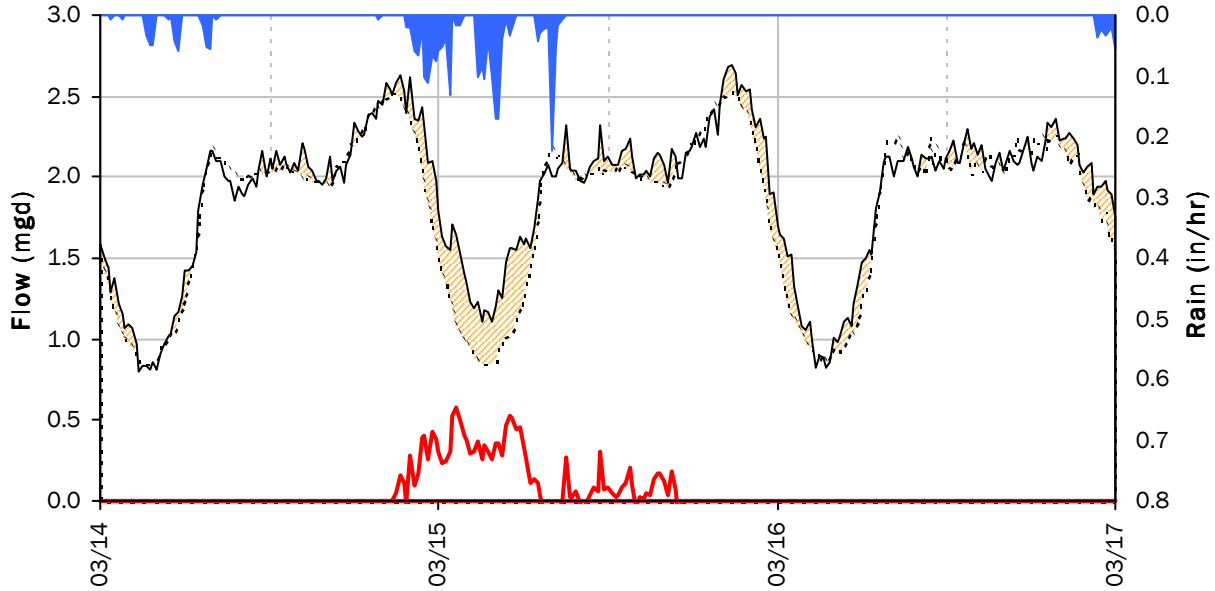
Capacity		Inflow / Infiltration	
Peak Flow:	2.92 *mgd*	**Peak I/I Rate:**	0.71 *mgd*
PF:	1.57	**Total I/I:**	97,000 *gallons*
Peak Level:	6.77 *in*		
d/D Ratio:	0.28		

SMH 0660232
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

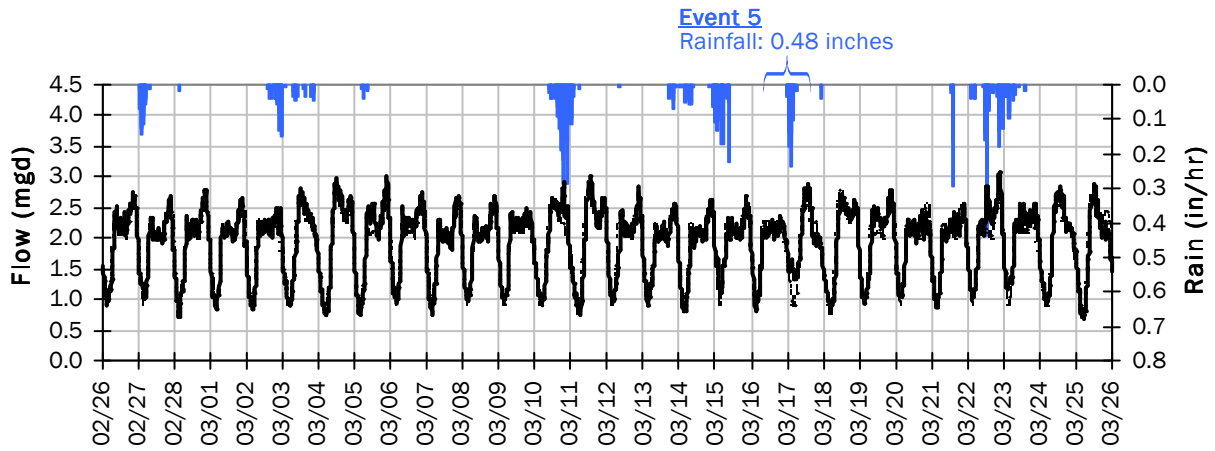


Storm Event I/I Analysis (Rain = 0.54 inches)

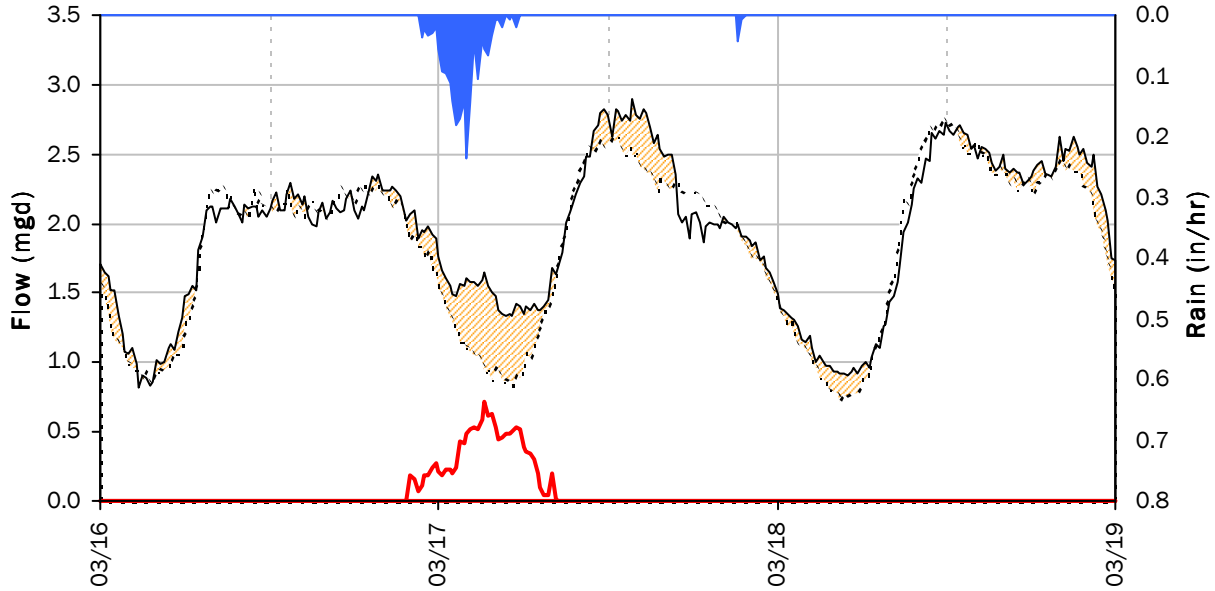
Capacity		Inflow / Infiltration	
Peak Flow:	2.63 *mgd*	**Peak I/I Rate:**	0.58 *mgd*
PF:	1.41	**Total I/I:**	153,000 *gallons*
Peak Level:	6.42 *in*		
d/D Ratio:	0.27		

SMH 0660232
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

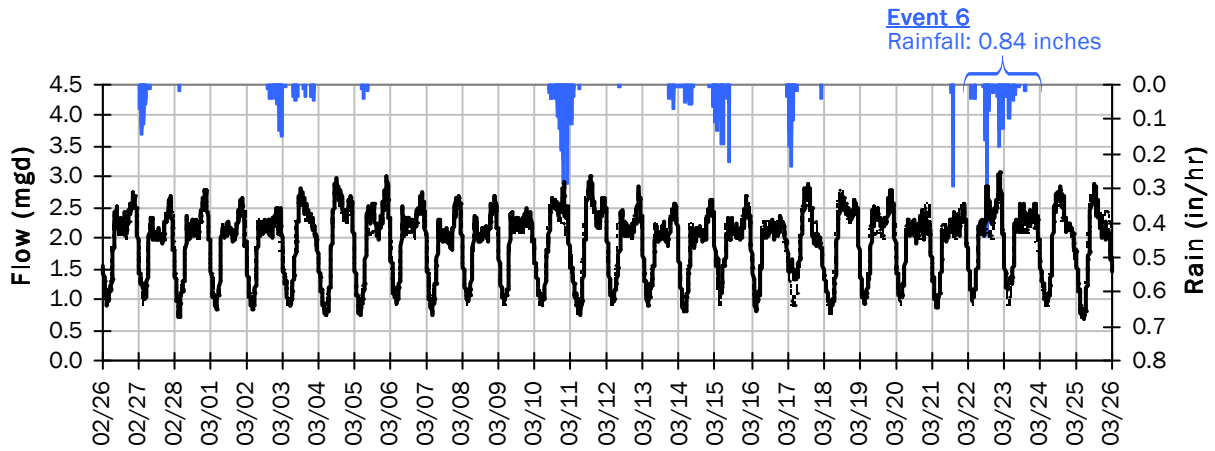


Storm Event I/I Analysis (Rain = 0.48 inches)

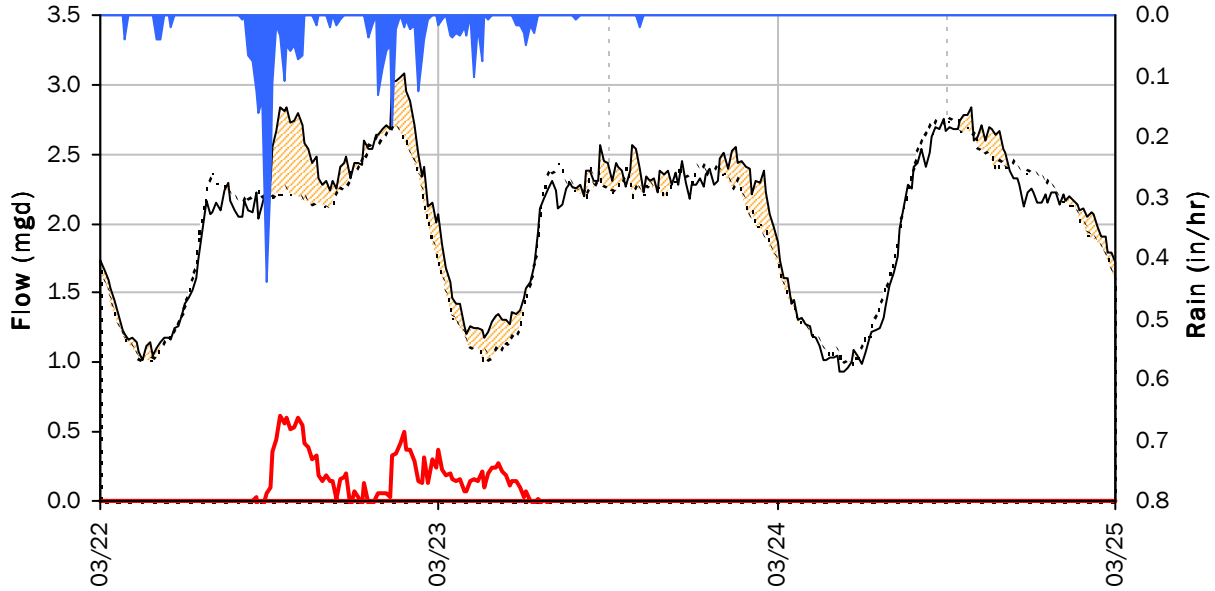
Capacity		Inflow / Infiltration	
Peak Flow:	2.09 *mgd*	**Peak I/I Rate:**	0.71 *mgd*
PF:	1.12	**Total I/I:**	147,000 *gallons*
Peak Level:	5.79 *in*		
d/D Ratio:	0.24		

SMH 0660232
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



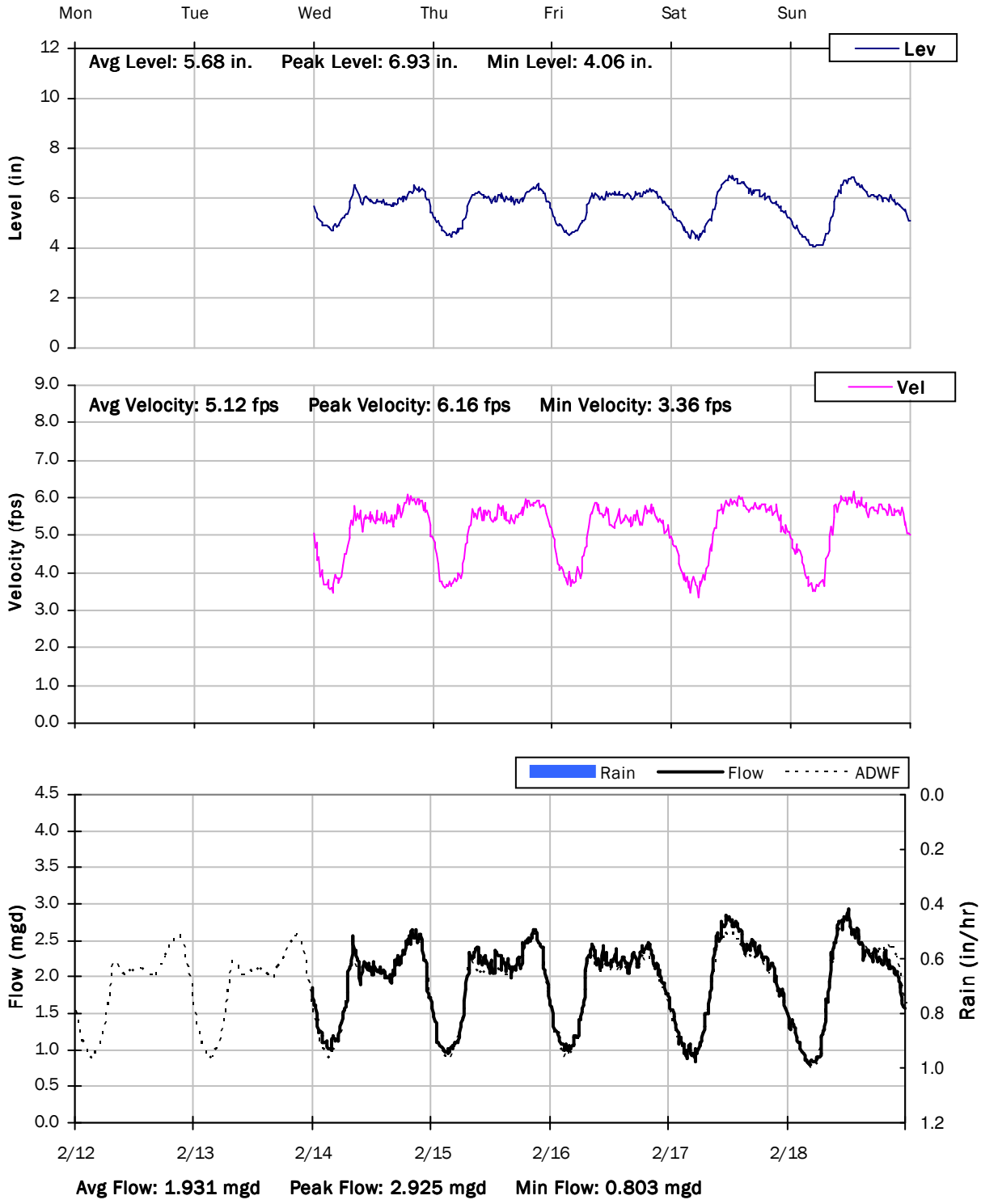
Storm Event I/I Analysis (Rain = 0.84 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	3.09 *mgd*	**Peak I/I Rate:**	0.62 *mgd*
PF:	1.65	**Total I/I:**	166,000 *gallons*
Peak Level:	7.06 *in*		
d/D Ratio:	0.29		

SMH 0660232

Weekly Level, Velocity and Flow Hydrographs

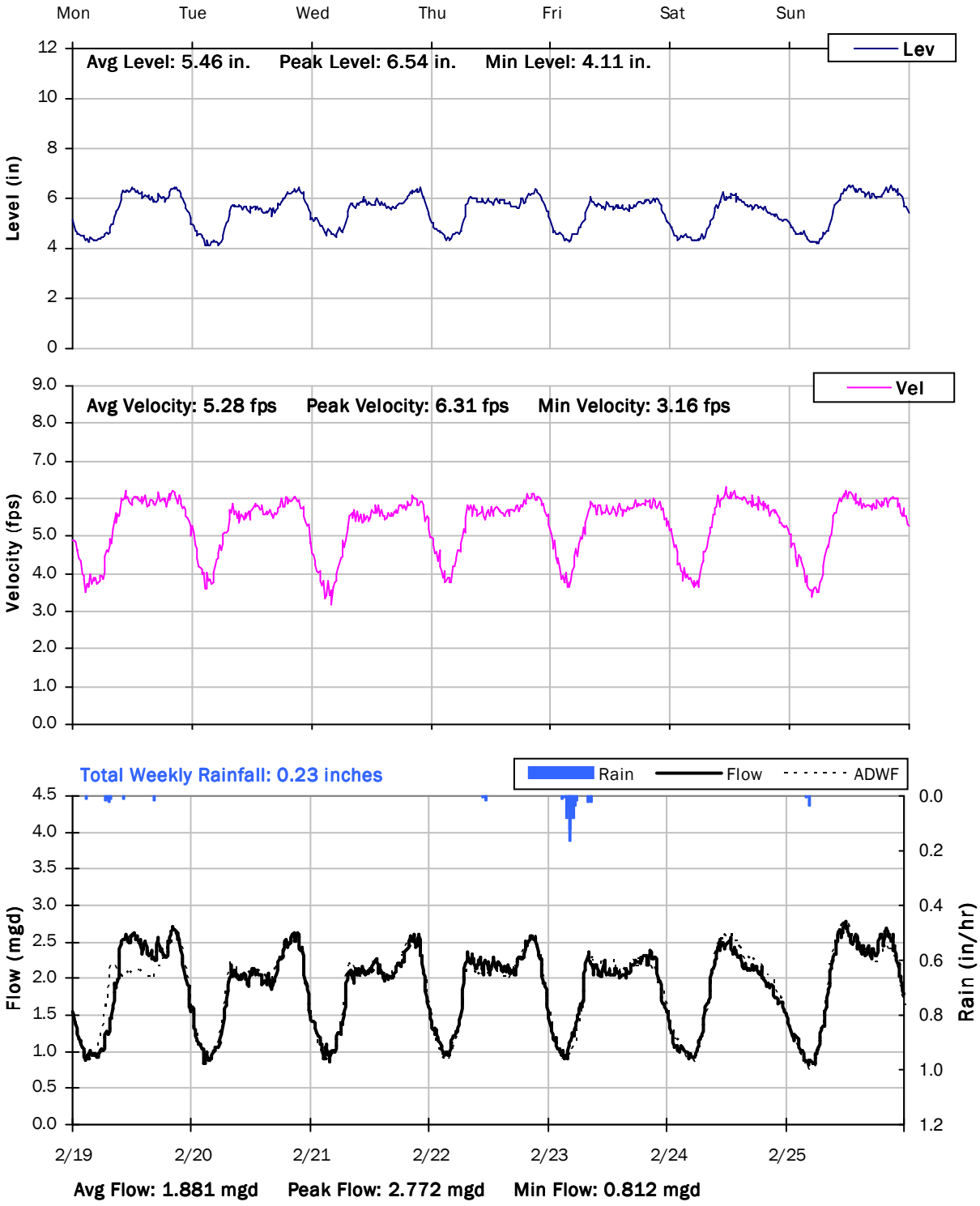
2/12/2018 to 2/19/2018



SMH 0660232

Weekly Level, Velocity and Flow Hydrographs

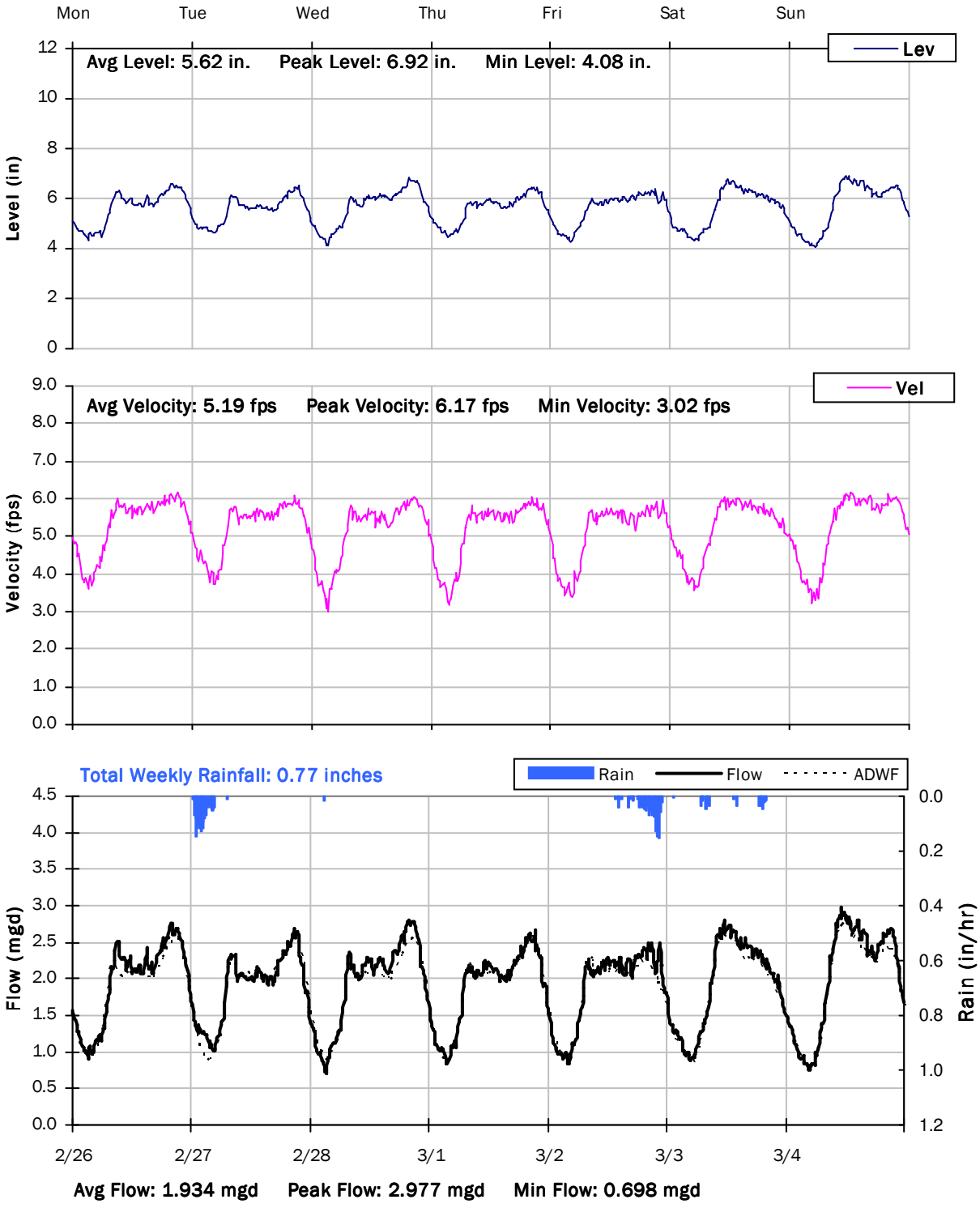
2/19/2018 to 2/26/2018



SMH 0660232

Weekly Level, Velocity and Flow Hydrographs

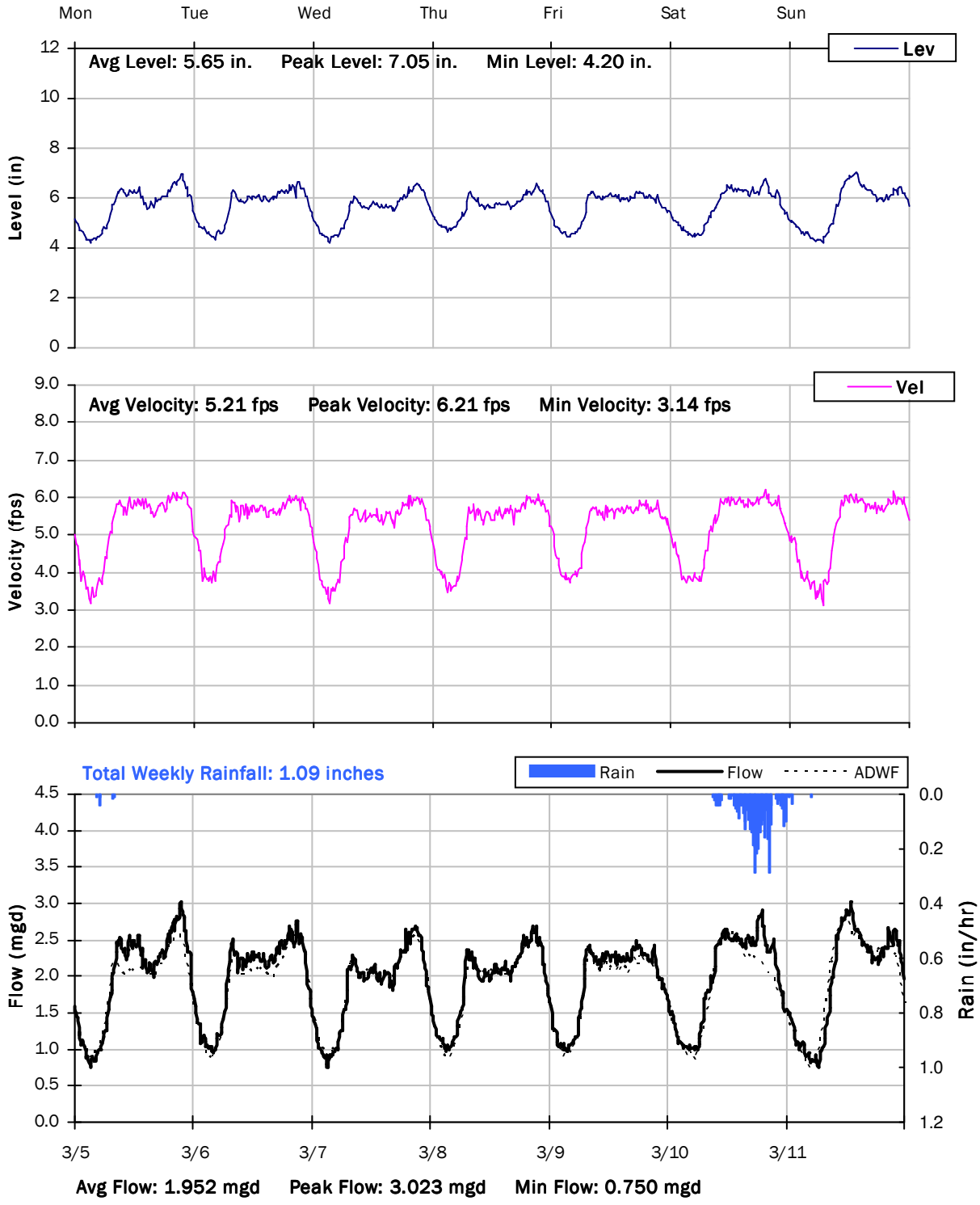
2/26/2018 to 3/5/2018



SMH 0660232

Weekly Level, Velocity and Flow Hydrographs

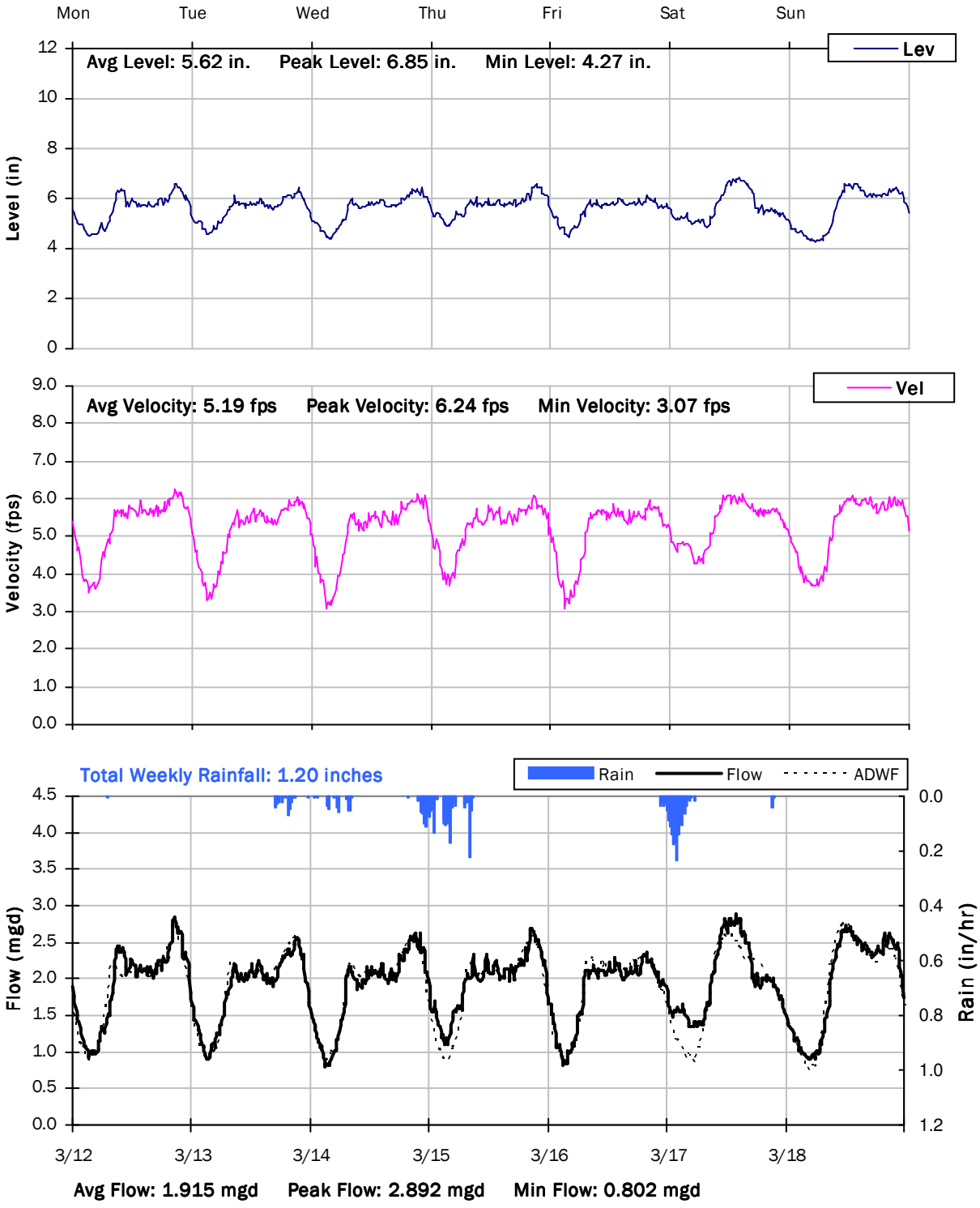
3/5/2018 to 3/12/2018



SMH 0660232

Weekly Level, Velocity and Flow Hydrographs

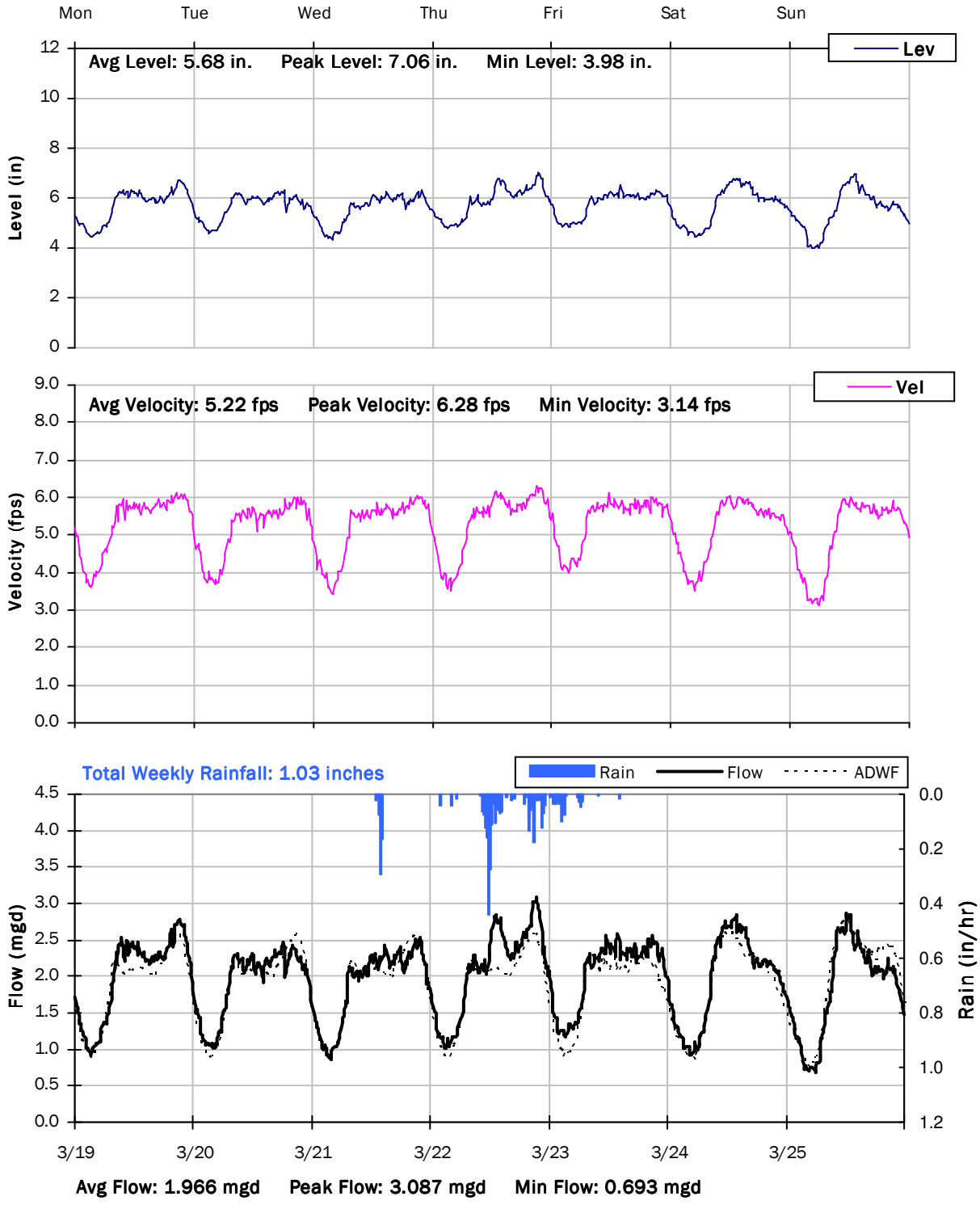
3/12/2018 to 3/19/2018



SMH 0660232

Weekly Level, Velocity and Flow Hydrographs

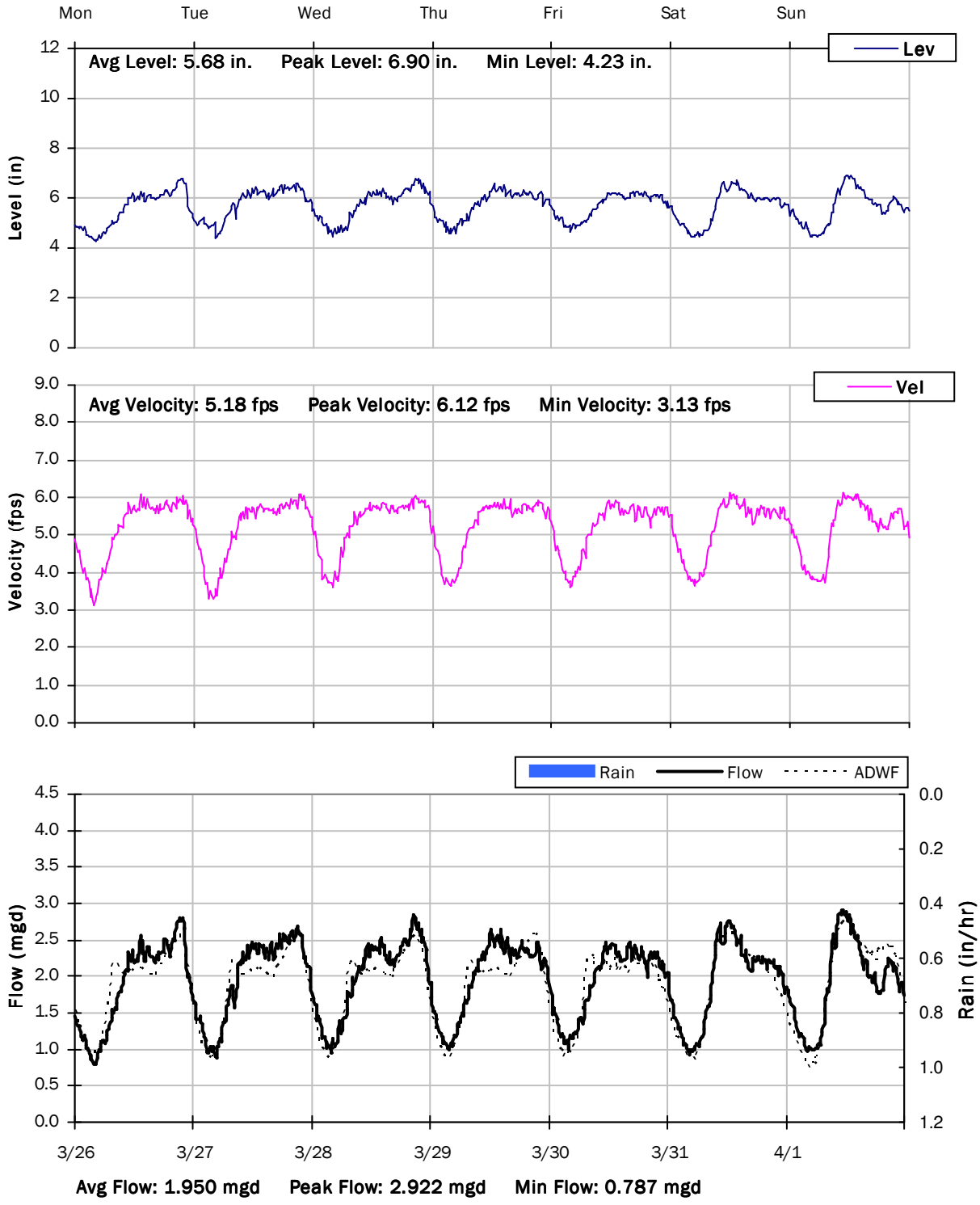
3/19/2018 to 3/26/2018



SMH 0660232

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

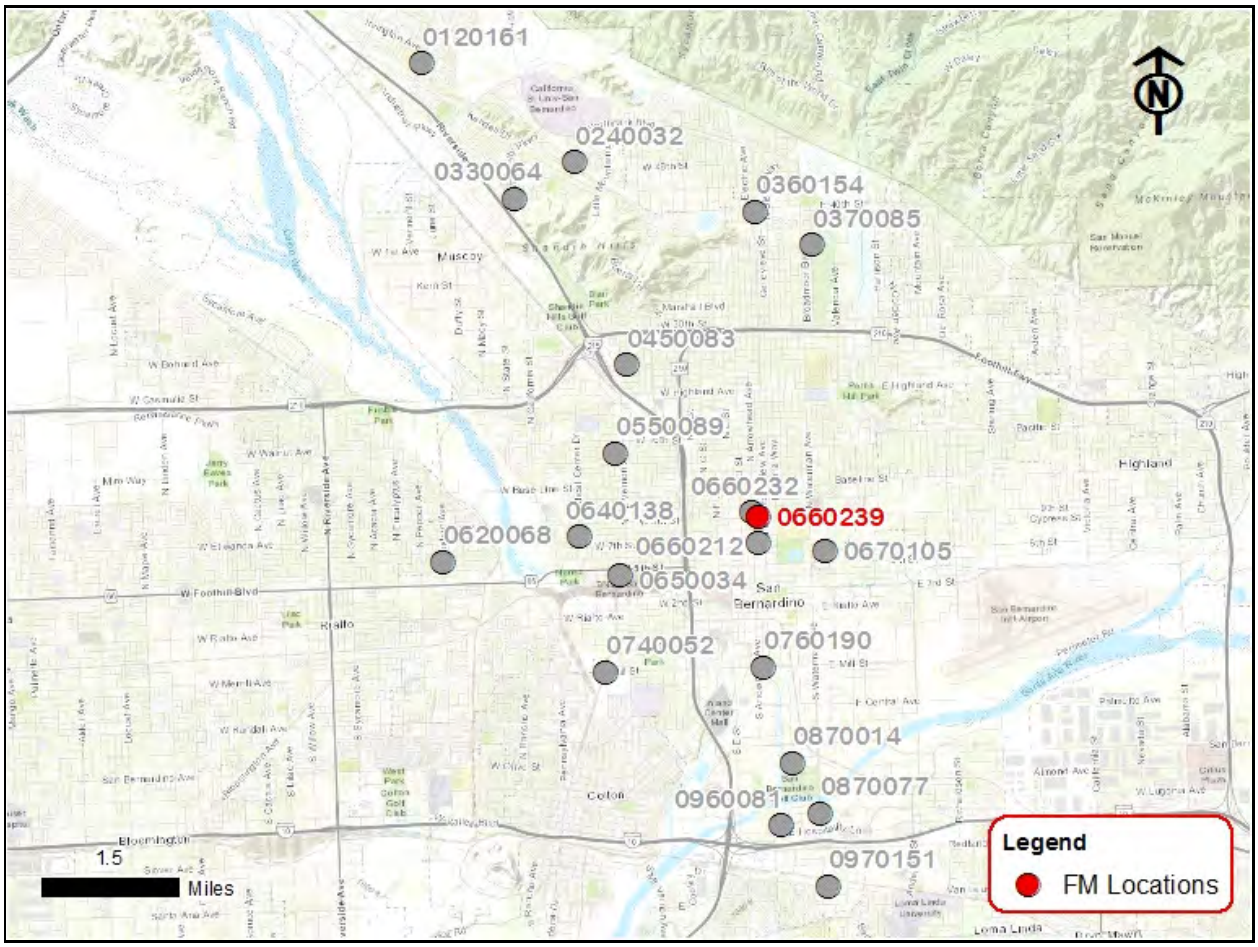
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0660239

Location: 248 W 9th Street

Data Summary Report



Vicinity Map: SMH 0660239

SMH 0660239

Site Information

Location: 248 W 9th Street

Coordinates: 117.2884° W, 34.1158° N

Rim Elevation (Earth): 1076 feet

Pipe Diameter: 21 inches

ADWF: 1.338 mgd

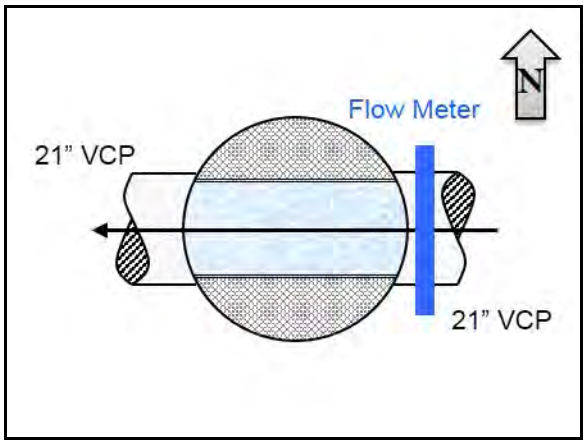
Peak Measured Flow: 2.477 mgd



Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0660239

Additional Site Photos

Effluent Pipe



Influent Pipe

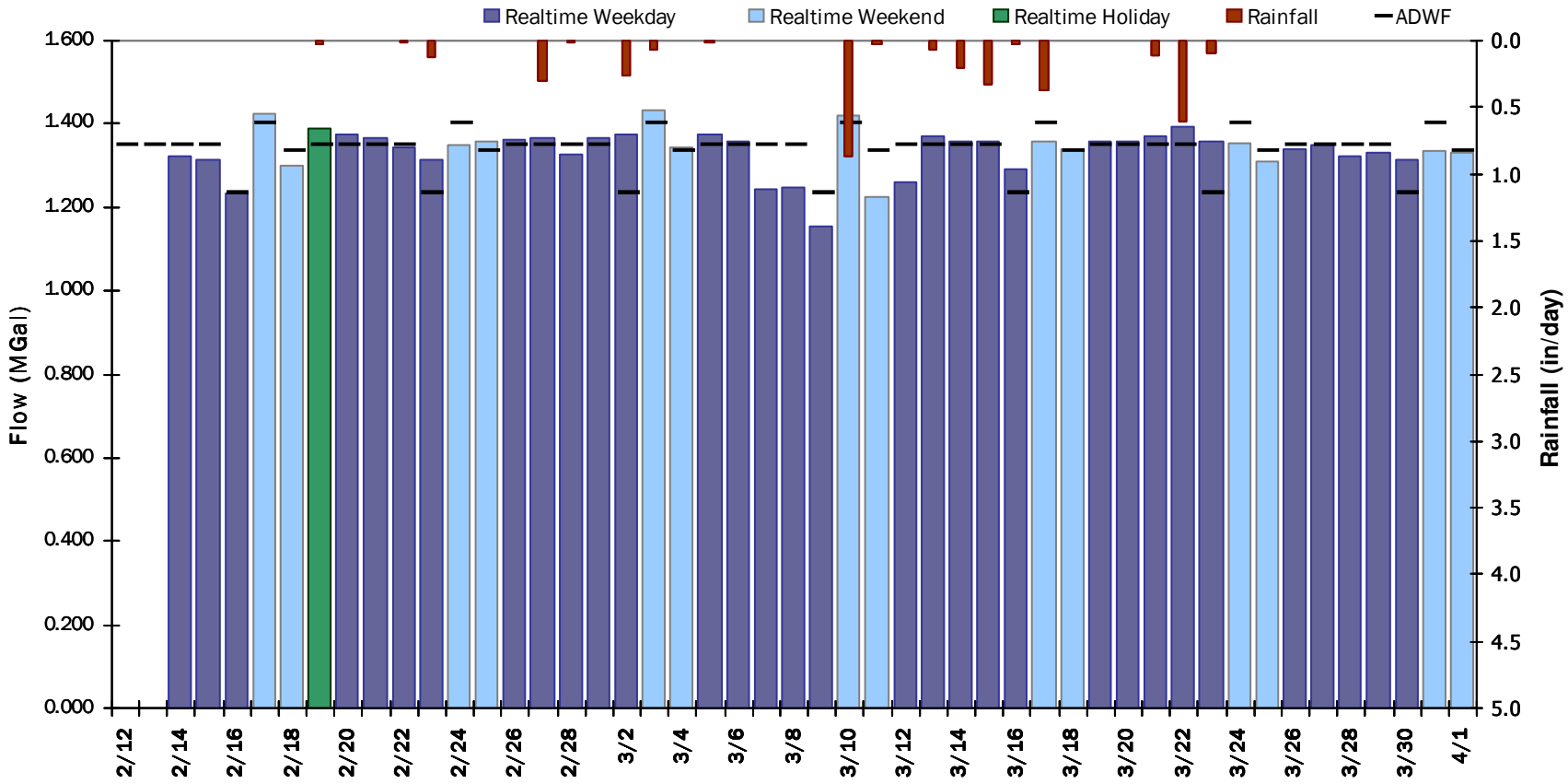


SMH 0660239

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 1.337 MGal Peak Daily Flow: 1.431 MGal Min Daily Flow: 1.156 MGal

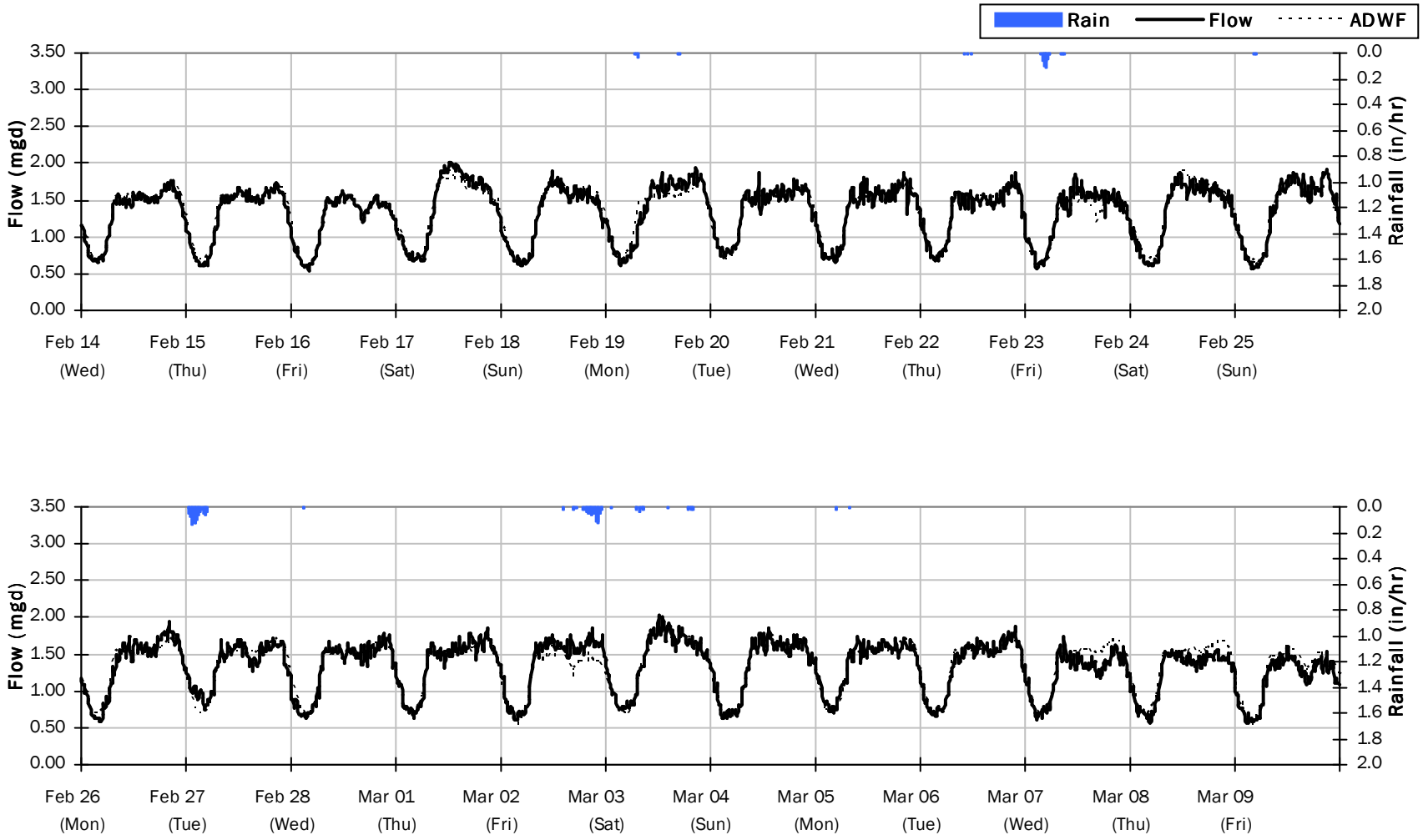
Total Period Rainfall: 3.53 inches



SMH 0660239

Flow Summary: 2/14/2018 to 3/9/2018

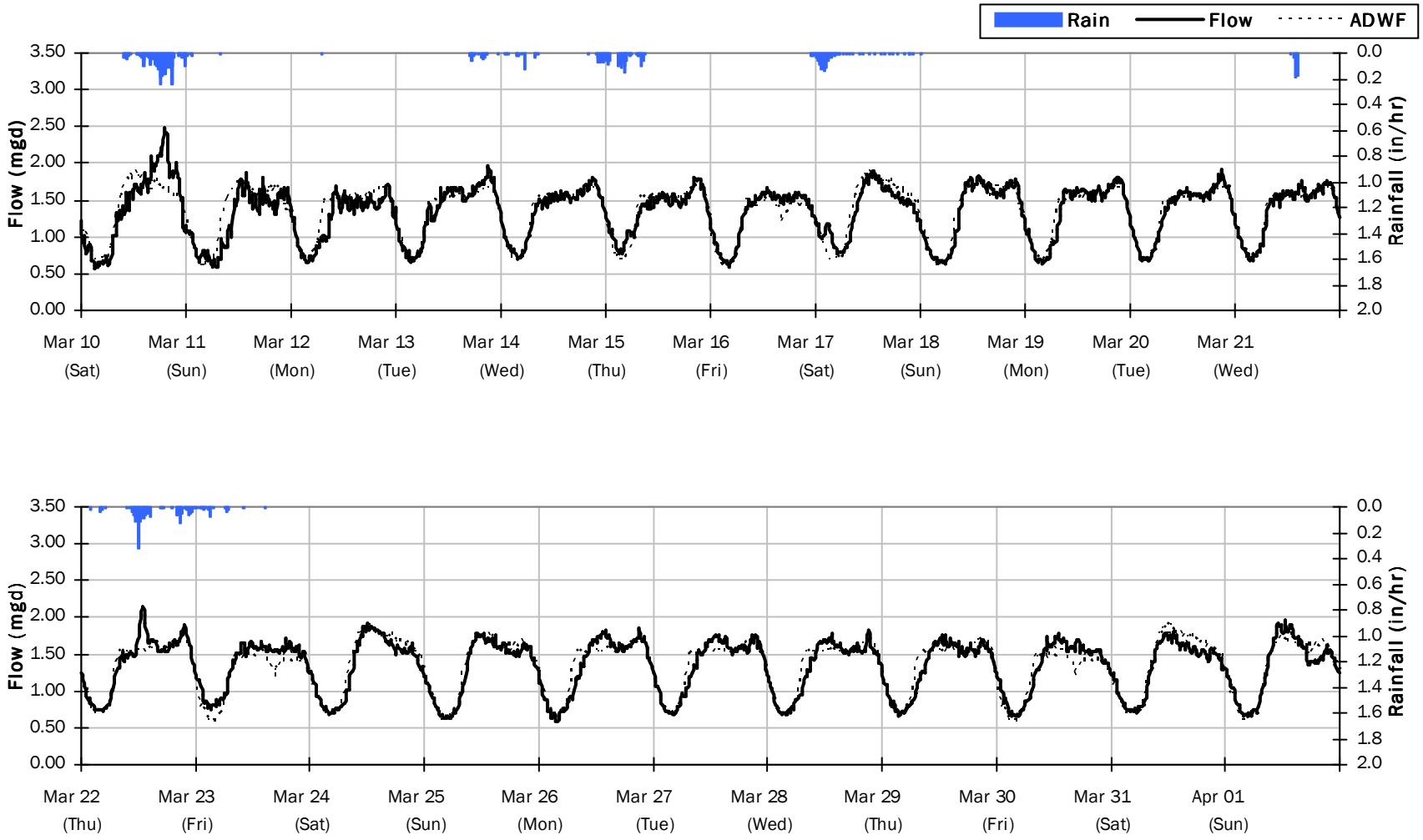
Total Period Rainfall: 0.83 inches **Avg Flow: 1.335 mgd** **Peak Flow: 2.028 mgd** **Min Flow: 0.551 mgd**



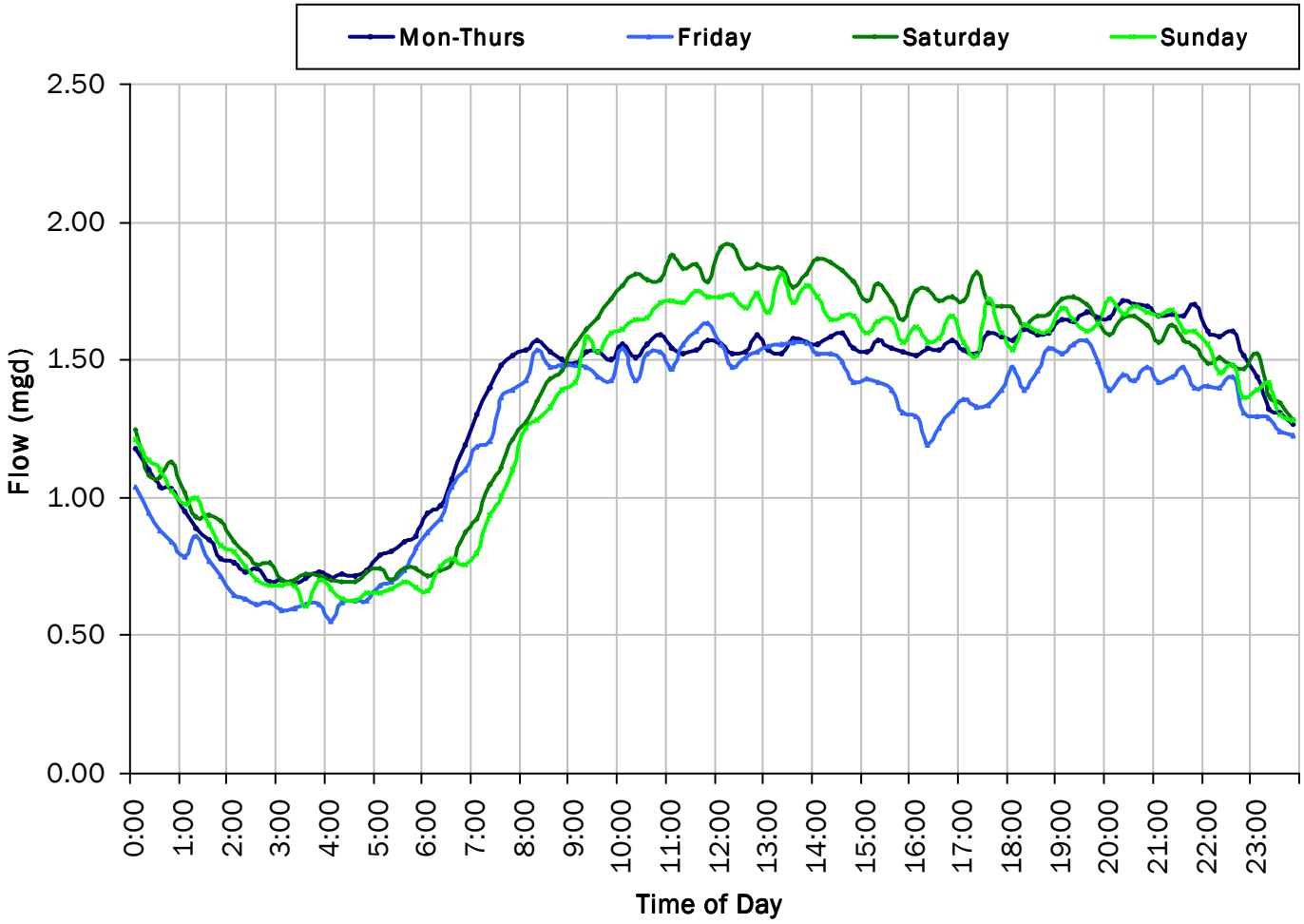
SMH 0660239

Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 2.70 inches **Avg Flow: 1.339 mgd** **Peak Flow: 2.477 mgd** **Min Flow: 0.557 mgd**

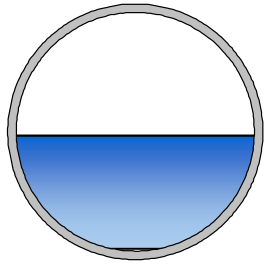


SMH 0660239
Average Dry Weather Flow Hydrographs



ADWF:

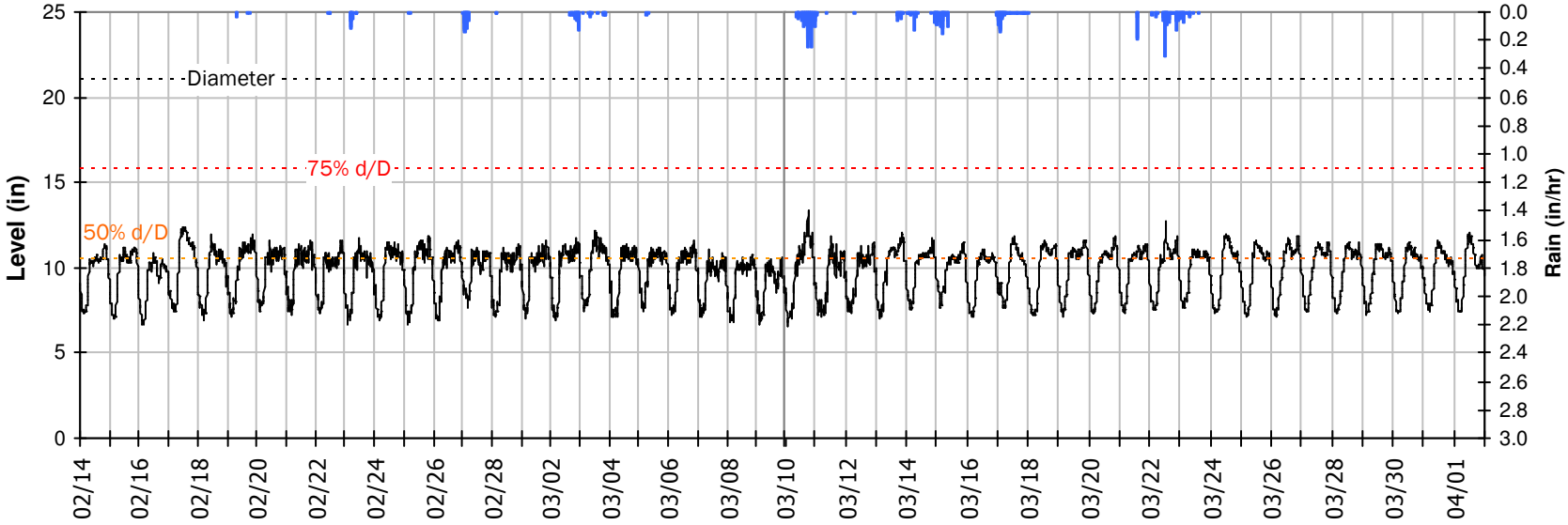
1.338 *mgd*

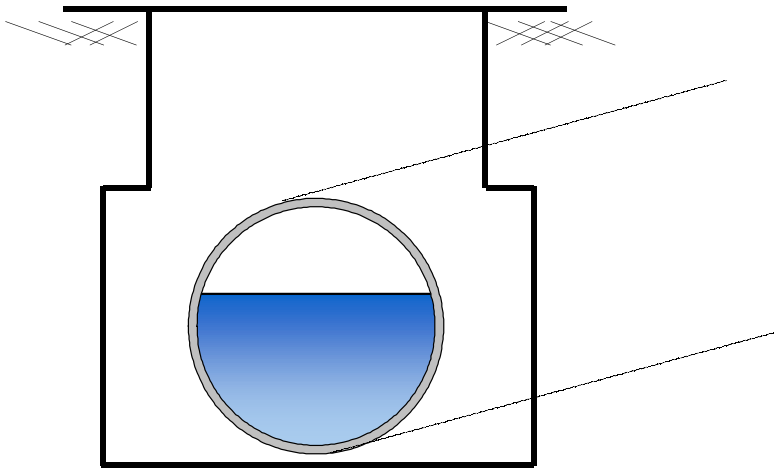


SMH 0660239

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

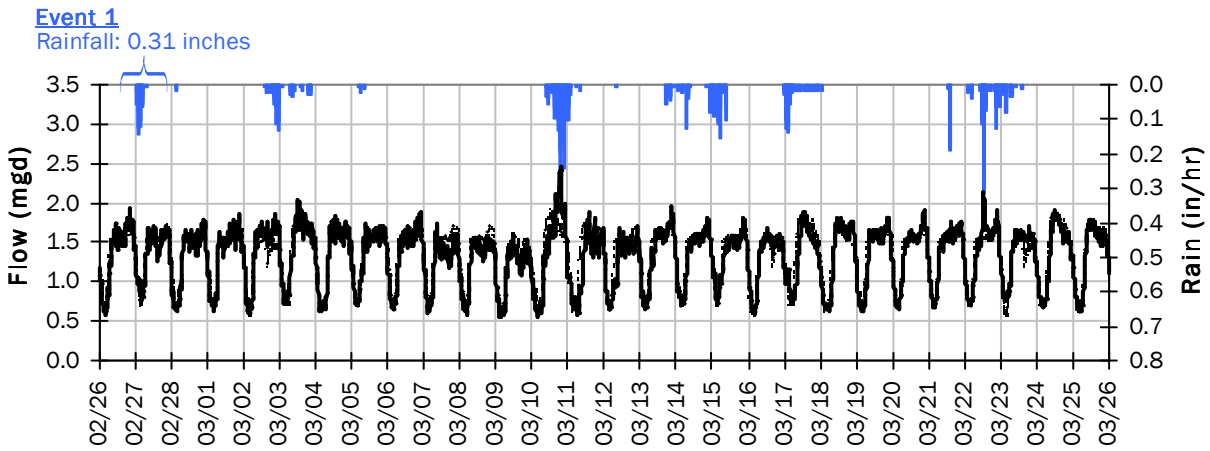




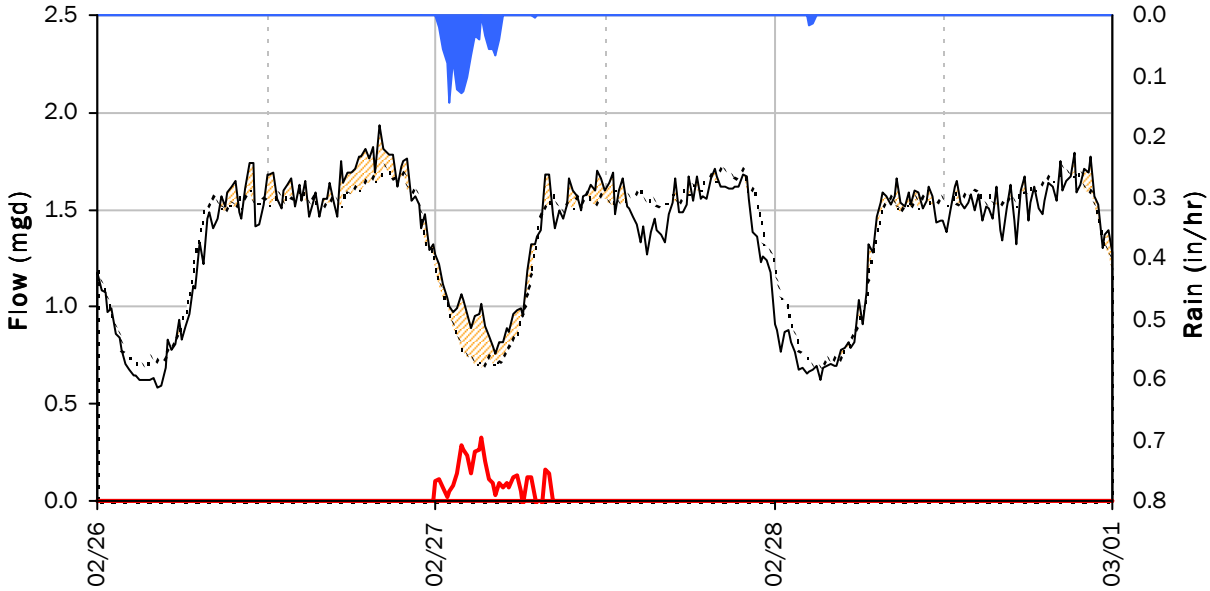
Pipe Diameter:	21	*inches*
Peak Measured Level:	13.3	*inches*
Peak d/D Ratio:	0.64	

SMH 0660239
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

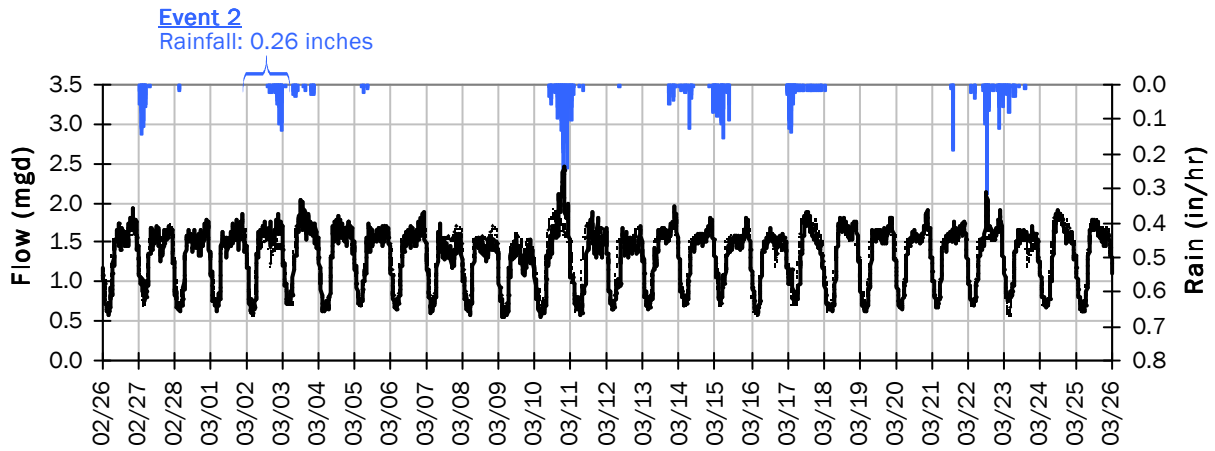


Storm Event I/I Analysis (Rain = 0.31 inches)

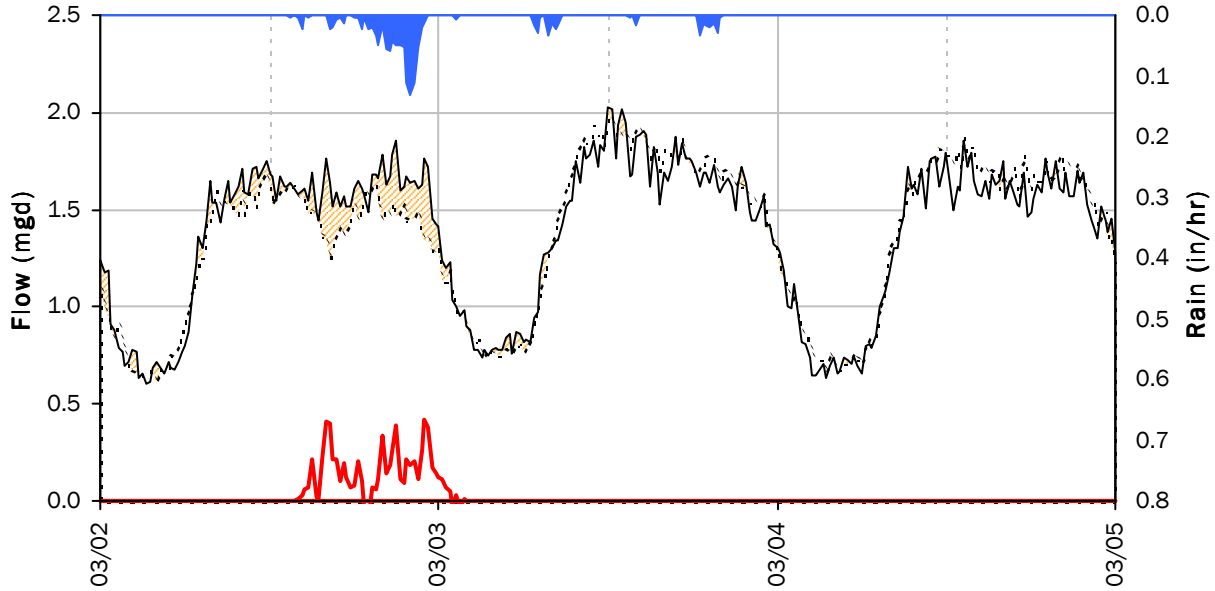
Capacity		Inflow / Infiltration	
Peak Flow:	1.68 *mgd*	**Peak I/I Rate:**	0.33 *mgd*
PF:	1.26	**Total I/I:**	40,000 *gallons*
Peak Level:	11.04 *in*		
d/D Ratio:	0.53		

SMH 0660239
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

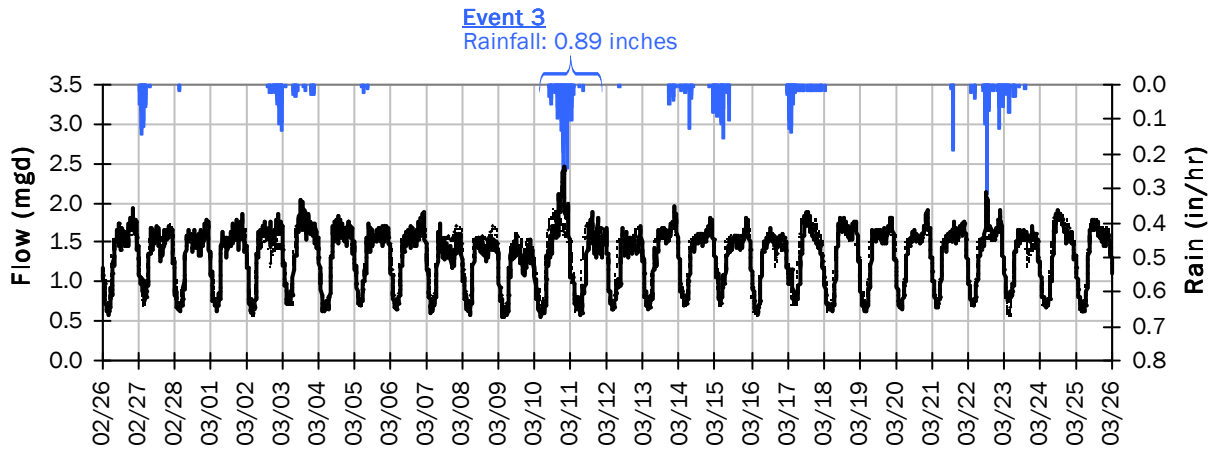


Storm Event I/I Analysis (Rain = 0.26 inches)

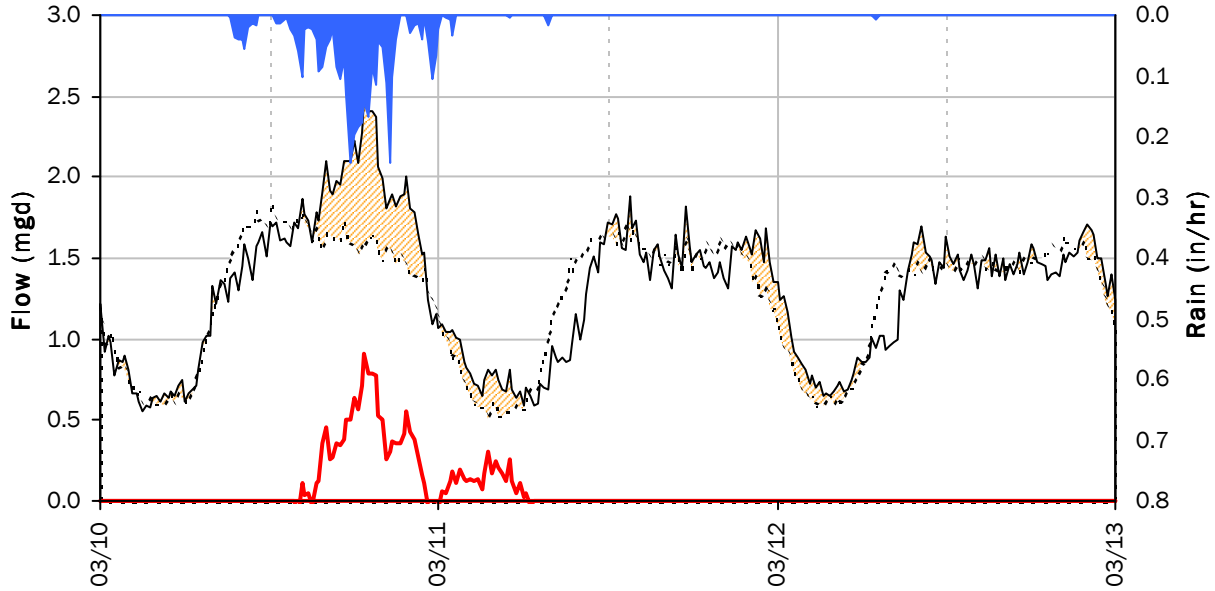
Capacity		Inflow / Infiltration	
Peak Flow:	1.86 *mgd*	**Peak I/I Rate:**	0.42 *mgd*
PF:	1.39	**Total I/I:**	72,000 *gallons*
Peak Level:	11.73 *in*		
d/D Ratio:	0.56		

SMH 0660239
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

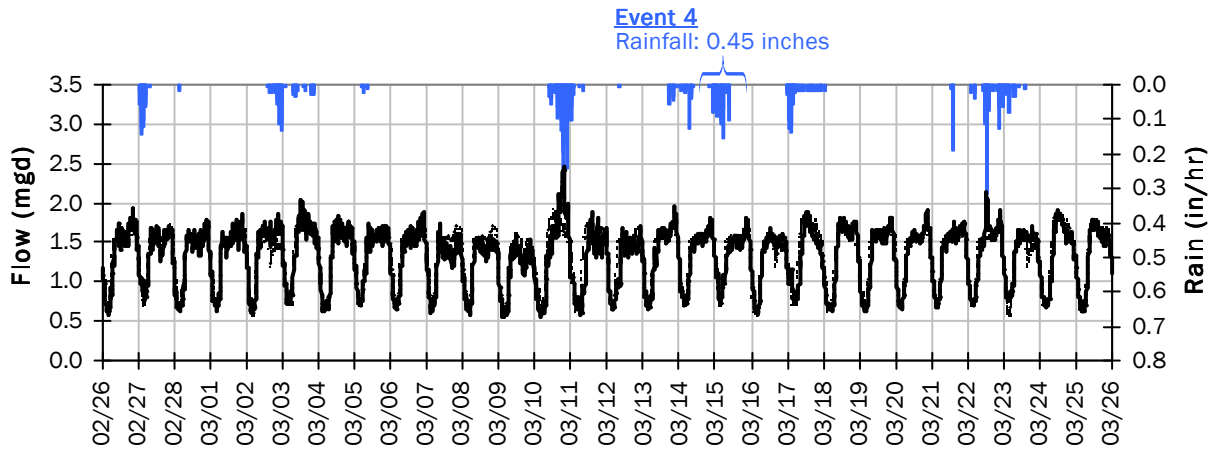


Storm Event I/I Analysis (Rain = 0.89 inches)

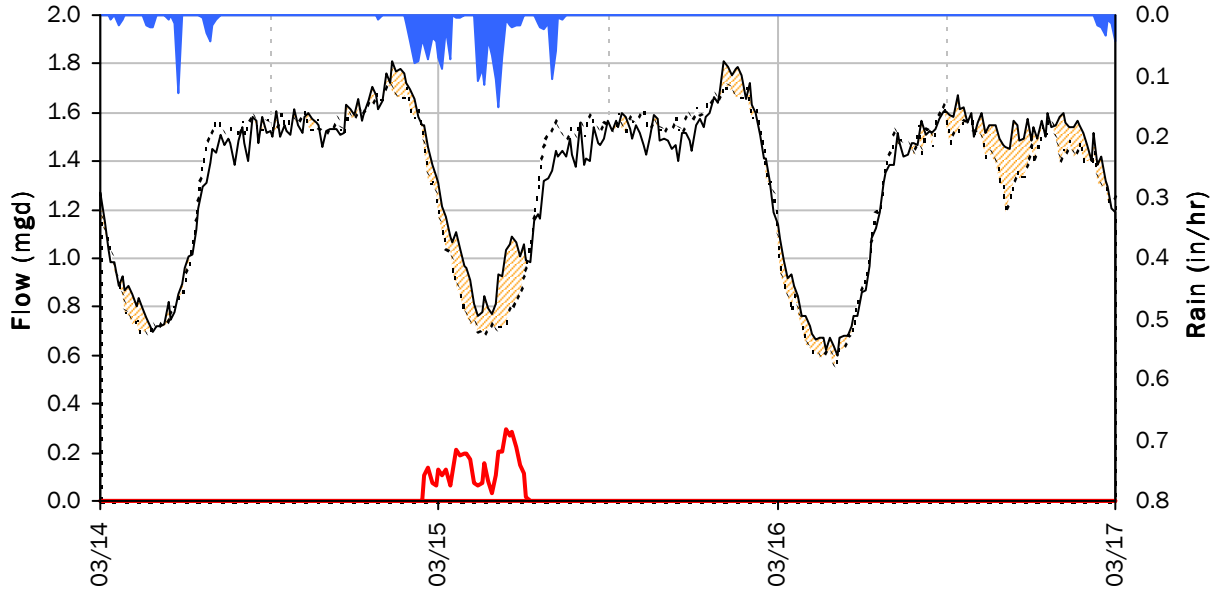
Capacity		Inflow / Infiltration	
Peak Flow:	2.48 *mgd*	**Peak I/I Rate:**	0.91 *mgd*
PF:	1.85	**Total I/I:**	177,000 *gallons*
Peak Level:	13.34 *in*		
d/D Ratio:	0.64		

SMH 0660239
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

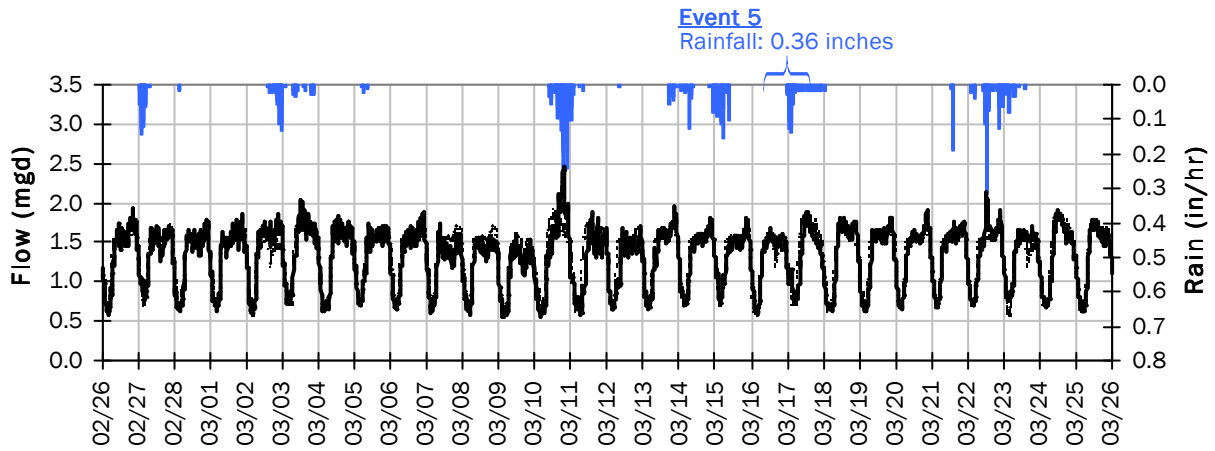


Storm Event I/I Analysis (Rain = 0.45 inches)

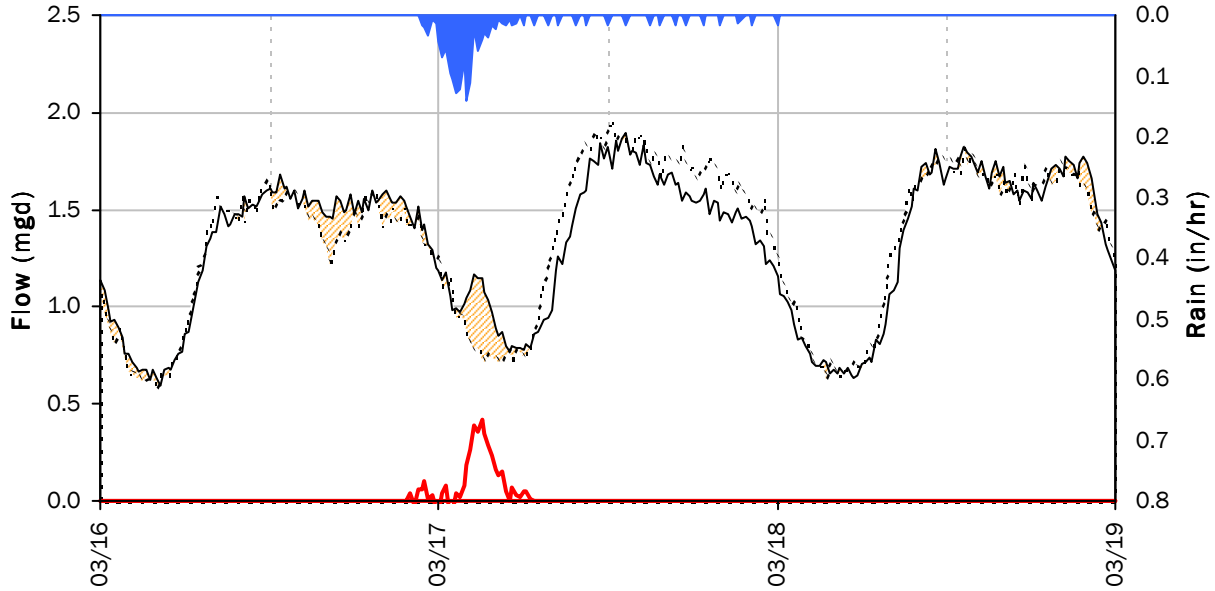
Capacity		Inflow / Infiltration	
Peak Flow:	1.55 *mgd*	**Peak I/I Rate:**	0.30 *mgd*
PF:	1.16	**Total I/I:**	44,000 *gallons*
Peak Level:	10.50 *in*		
d/D Ratio:	0.50		

SMH 0660239
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

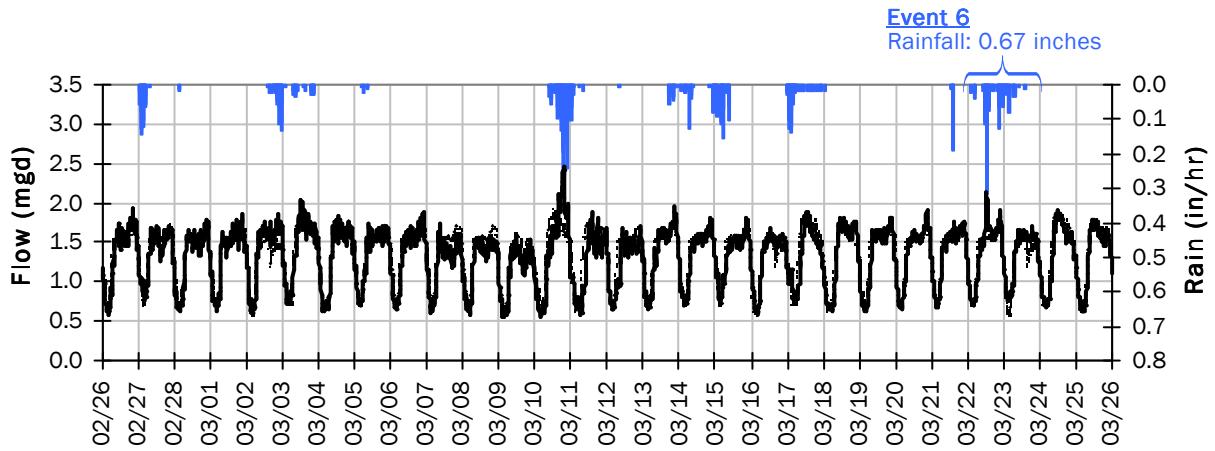


Storm Event I/I Analysis (Rain = 0.36 inches)

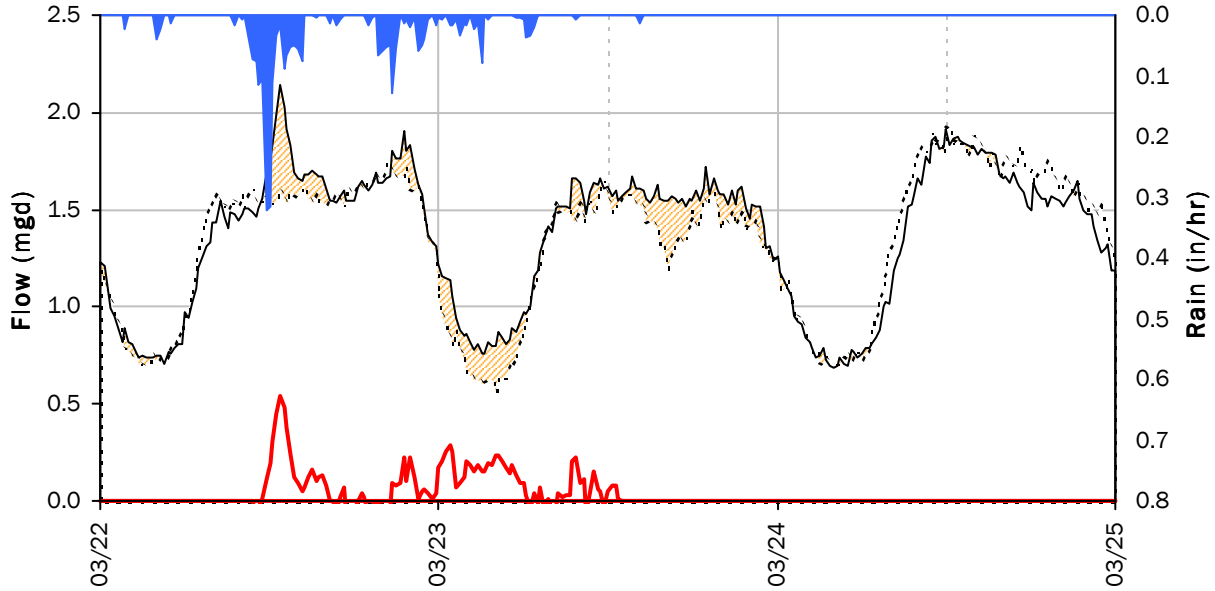
Capacity		Inflow / Infiltration	
Peak Flow:	1.52 *mgd*	**Peak I/I Rate:**	0.42 *mgd*
PF:	1.13	**Total I/I:**	37,000 *gallons*
Peak Level:	10.30 *in*		
d/D Ratio:	0.49		

SMH 0660239
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



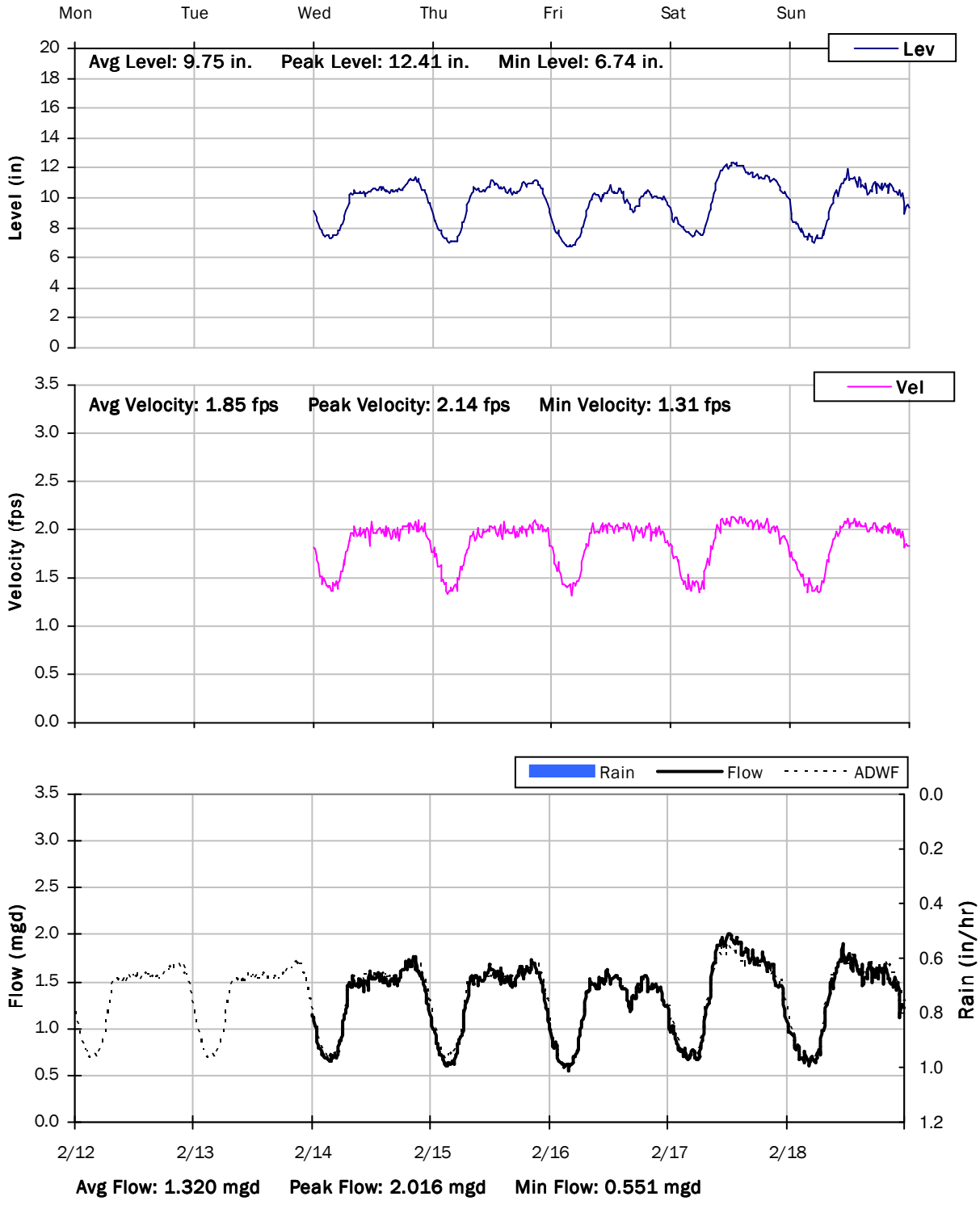
Storm Event I/I Analysis (Rain = 0.67 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	2.14 *mgd*	**Peak I/I Rate:**	0.54 *mgd*
PF:	1.60	**Total I/I:**	105,000 *gallons*
Peak Level:	12.73 *in*		
d/D Ratio:	0.61		

SMH 0660239

Weekly Level, Velocity and Flow Hydrographs

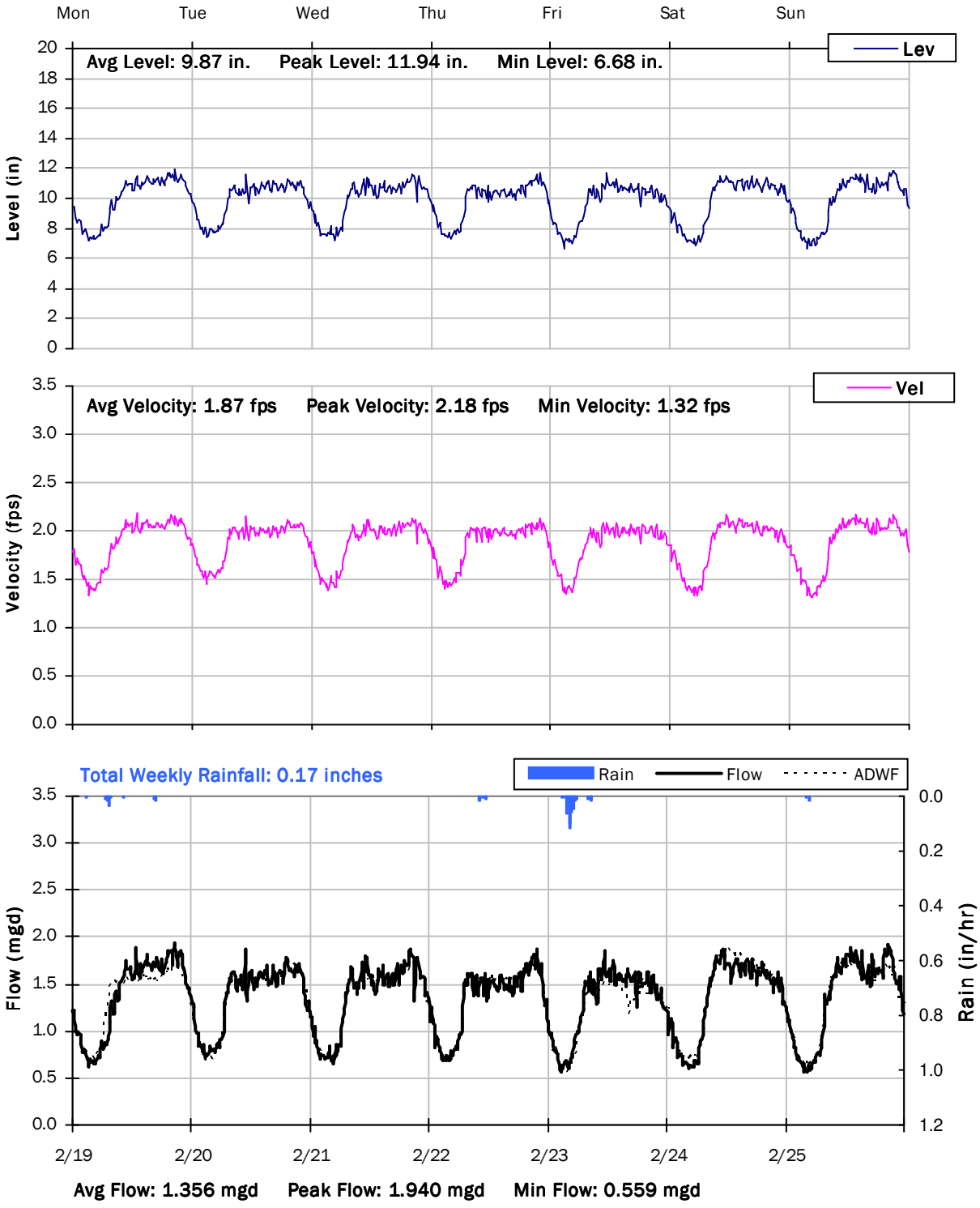
2/12/2018 to 2/19/2018



SMH 0660239

Weekly Level, Velocity and Flow Hydrographs

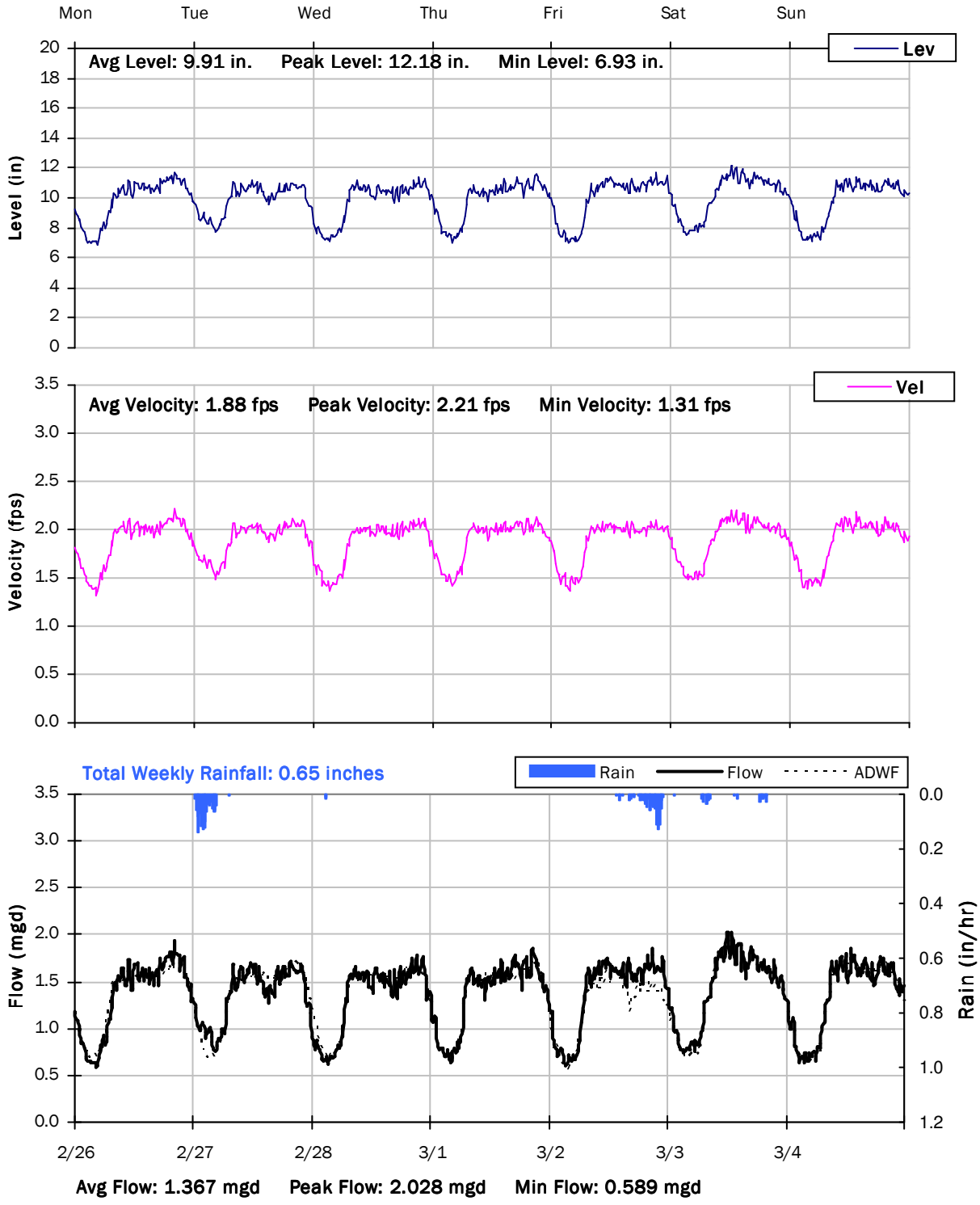
2/19/2018 to 2/26/2018



SMH 0660239

Weekly Level, Velocity and Flow Hydrographs

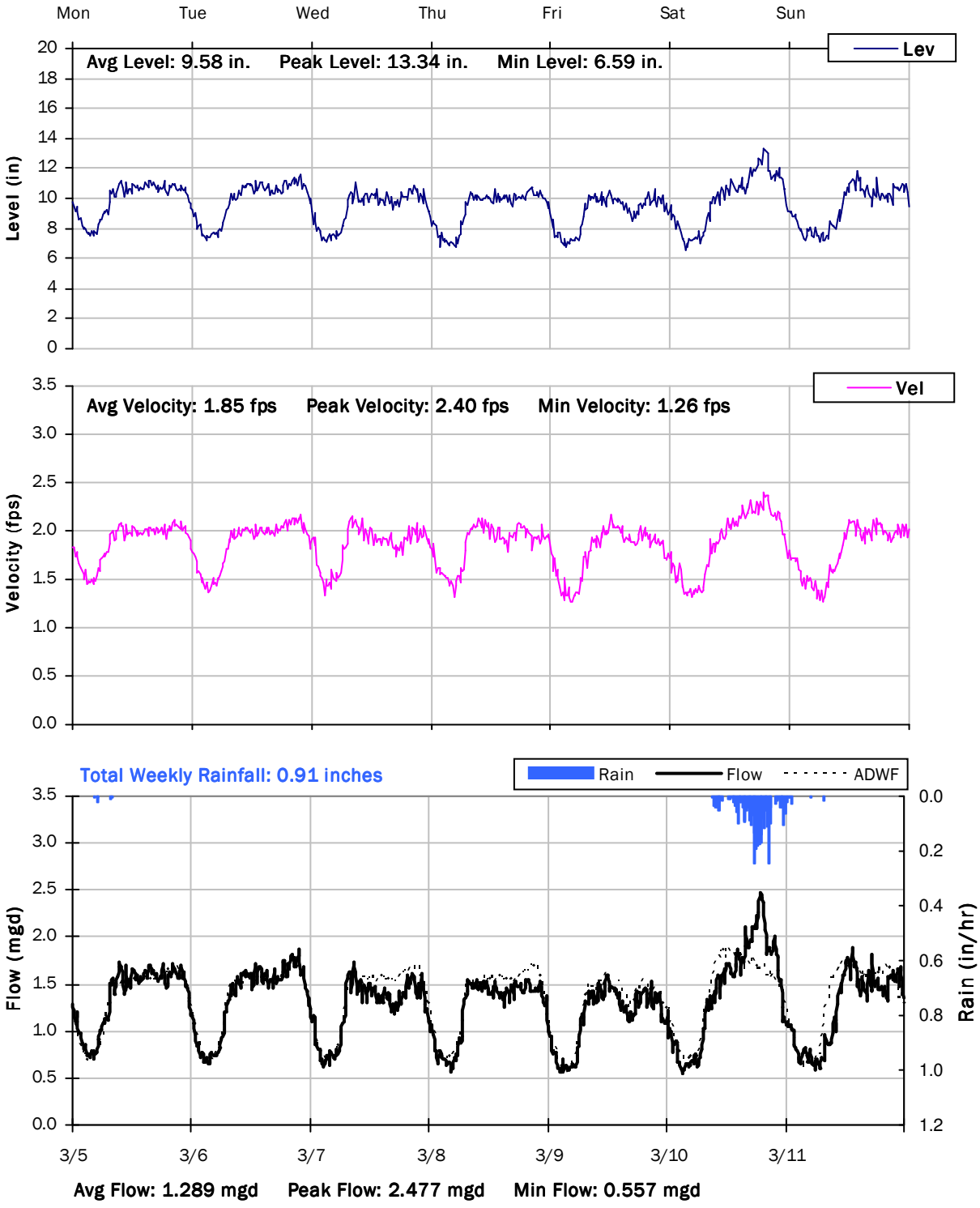
2/26/2018 to 3/5/2018



SMH 0660239

Weekly Level, Velocity and Flow Hydrographs

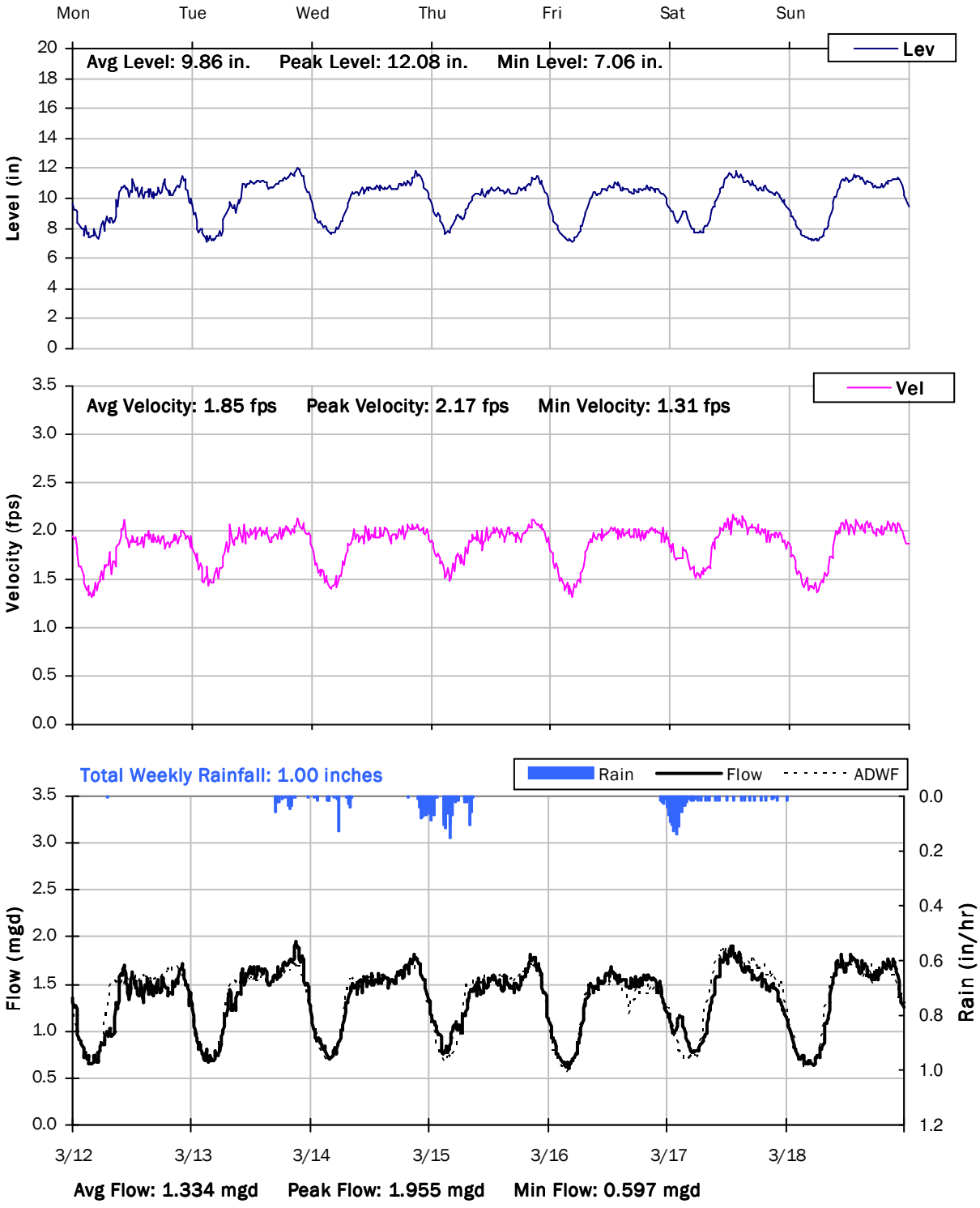
3/5/2018 to 3/12/2018



SMH 0660239

Weekly Level, Velocity and Flow Hydrographs

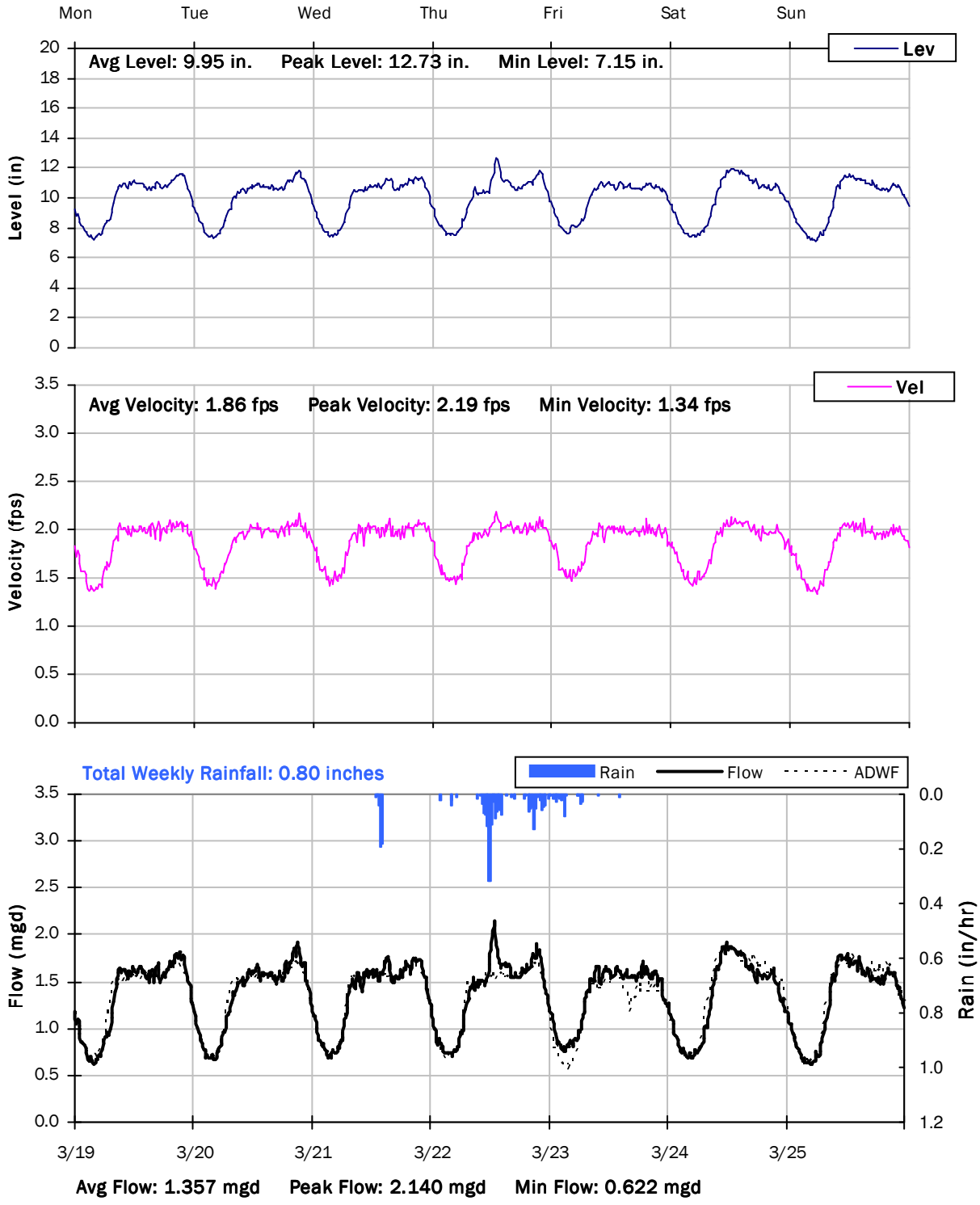
3/12/2018 to 3/19/2018



SMH 0660239

Weekly Level, Velocity and Flow Hydrographs

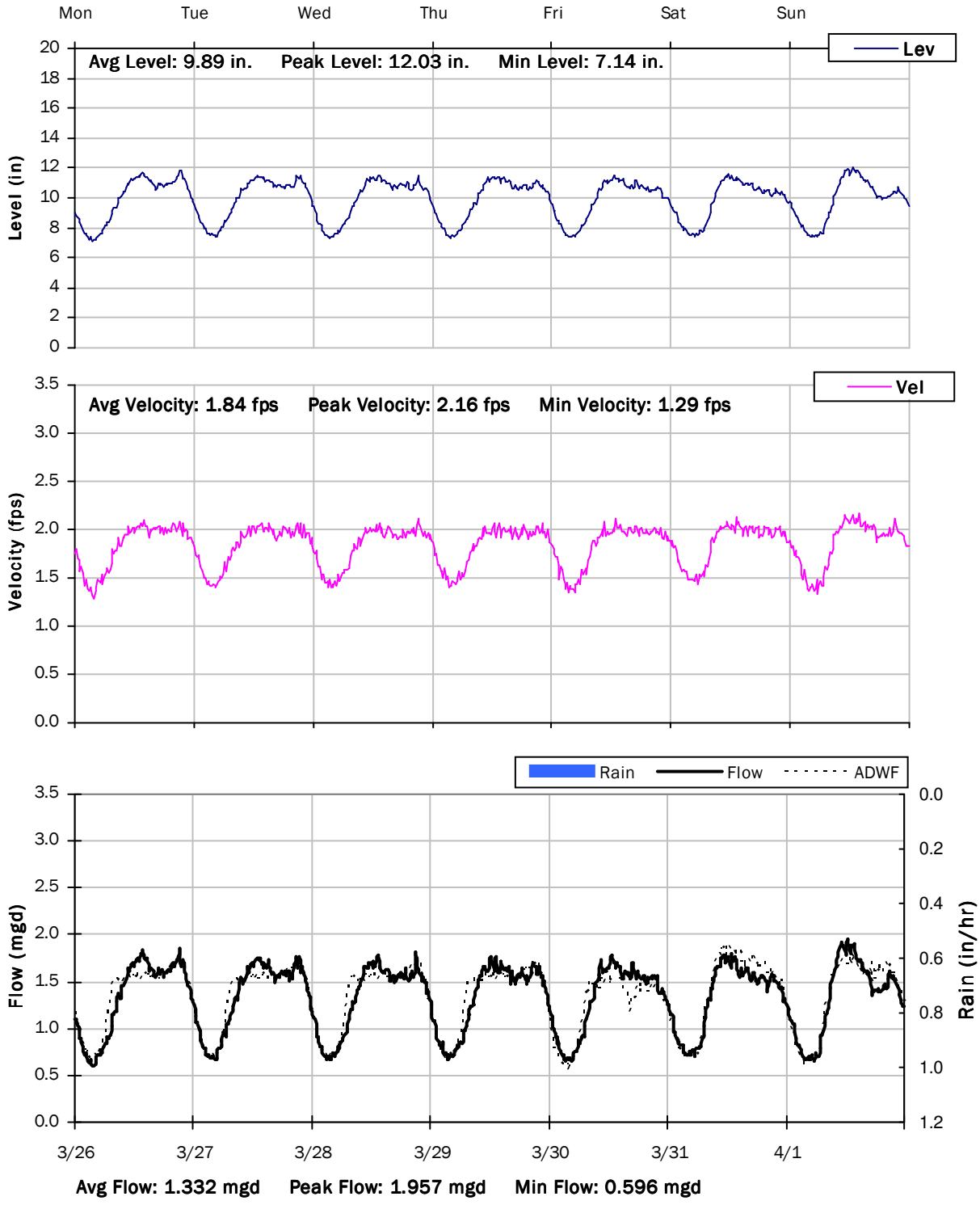
3/19/2018 to 3/26/2018



SMH 0660239

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

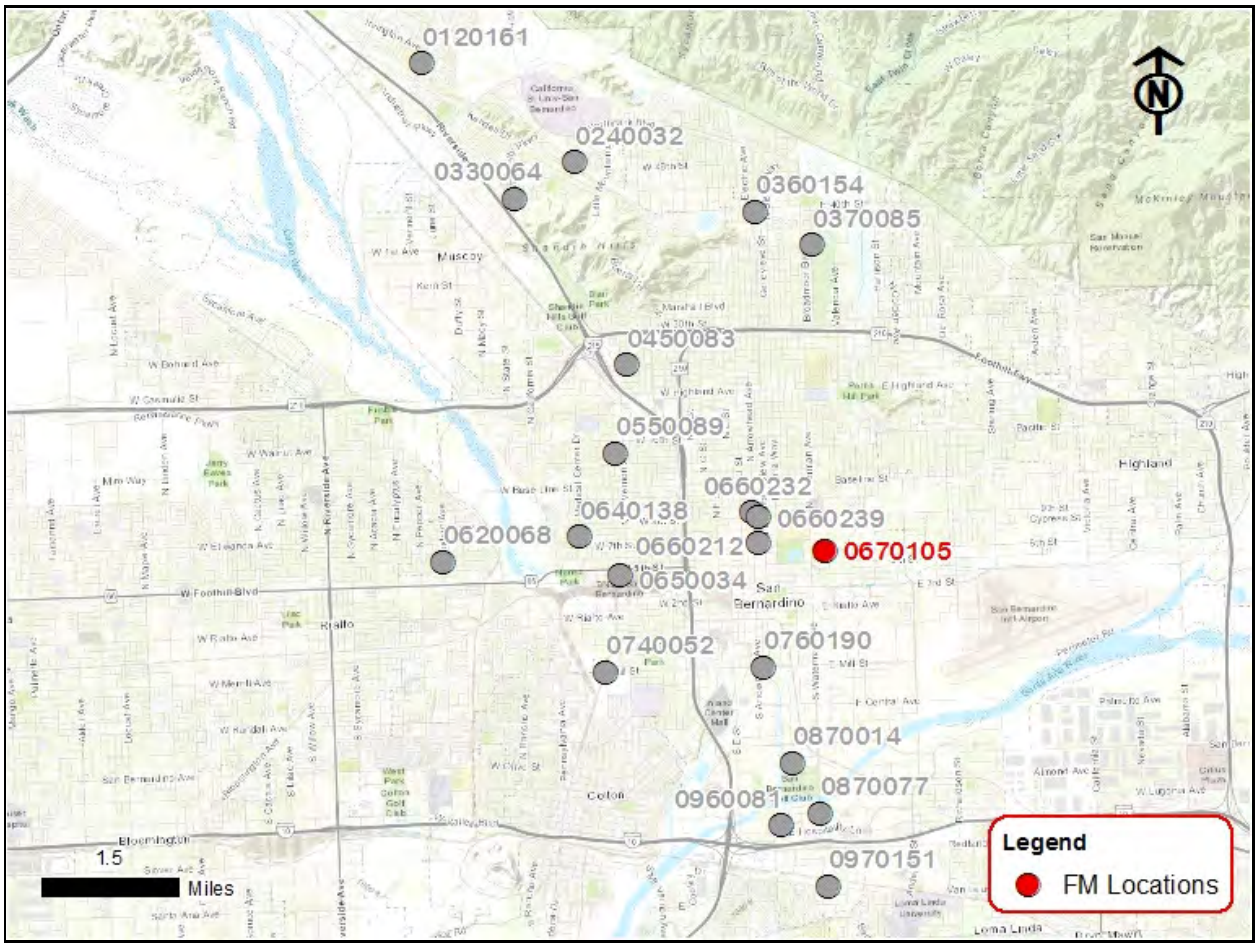
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0670105

Location: 6th Street west of Cooley Street

Data Summary Report



Vicinity Map: SMH 0670105

SMH 0670105

Site Information

Location: 6th Street west of Cooley Street

Coordinates: 117.2759° W, 34.1102° N

Rim Elevation (Earth): 1044 feet

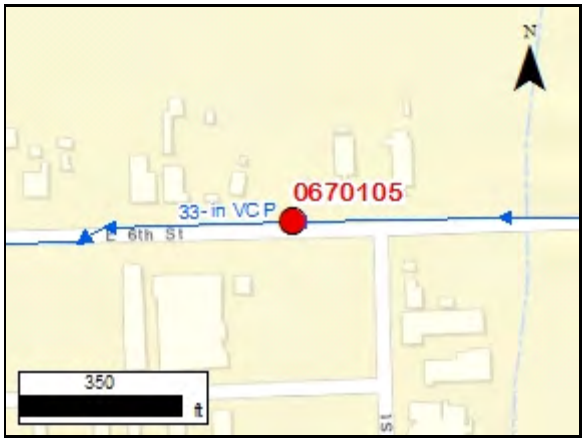
Pipe Diameter: 33 inches

ADWF: 5.115 mgd

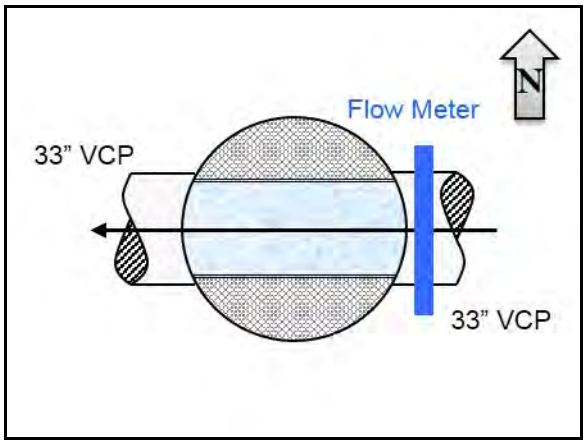
Peak Measured Flow: 8.292 mgd



Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

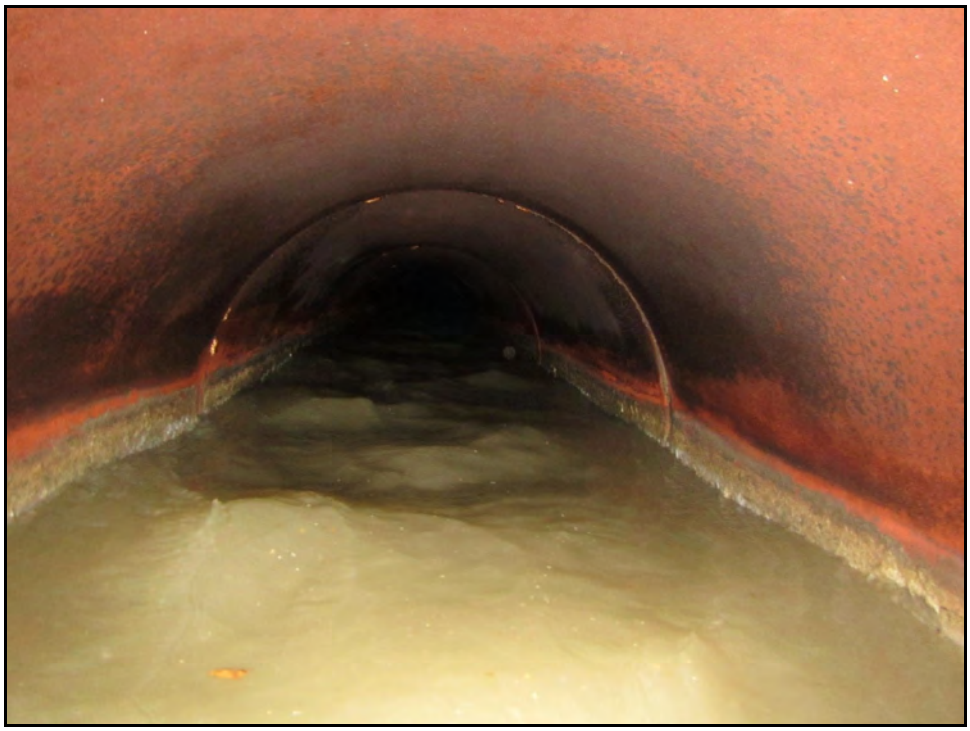
SMH 0670105

Additional Site Photos

Effluent Pipe



Influent Pipe

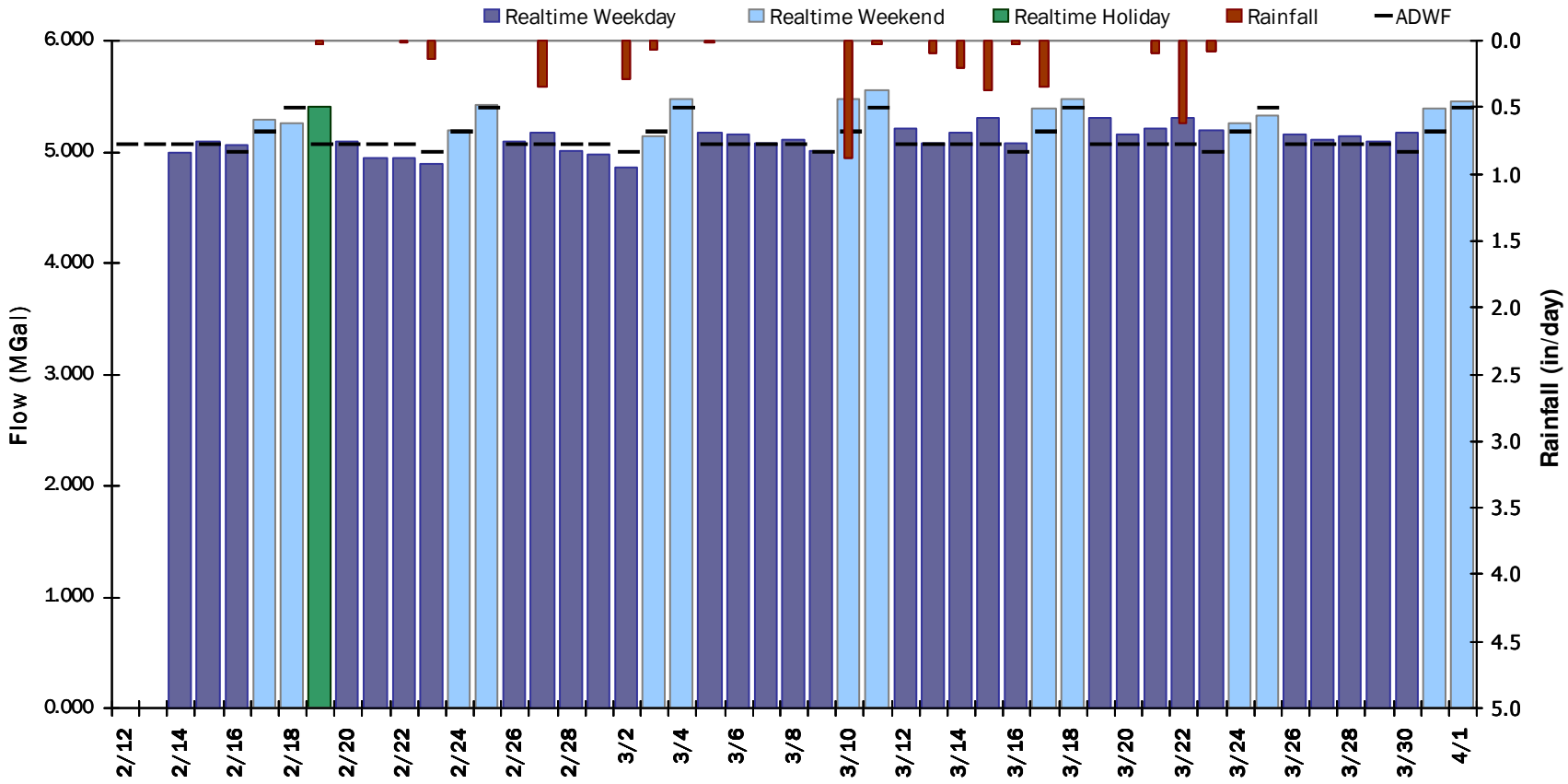


SMH 0670105

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 5.188 MGal **Peak Daily Flow: 5.558 MGal** **Min Daily Flow: 4.865 MGal**

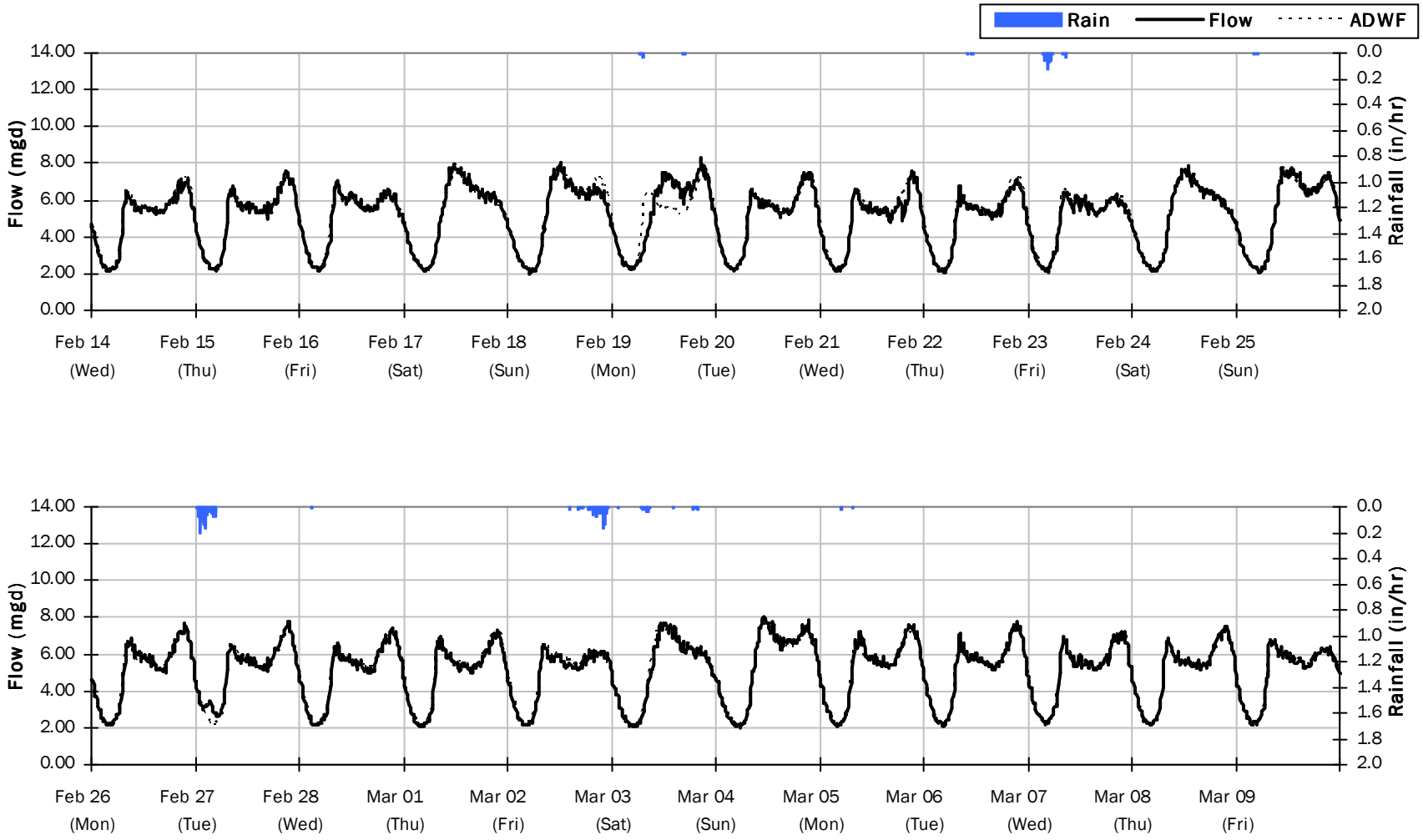
Total Period Rainfall: 3.65 inches



SMH 0670105

Flow Summary: 2/14/2018 to 3/9/2018

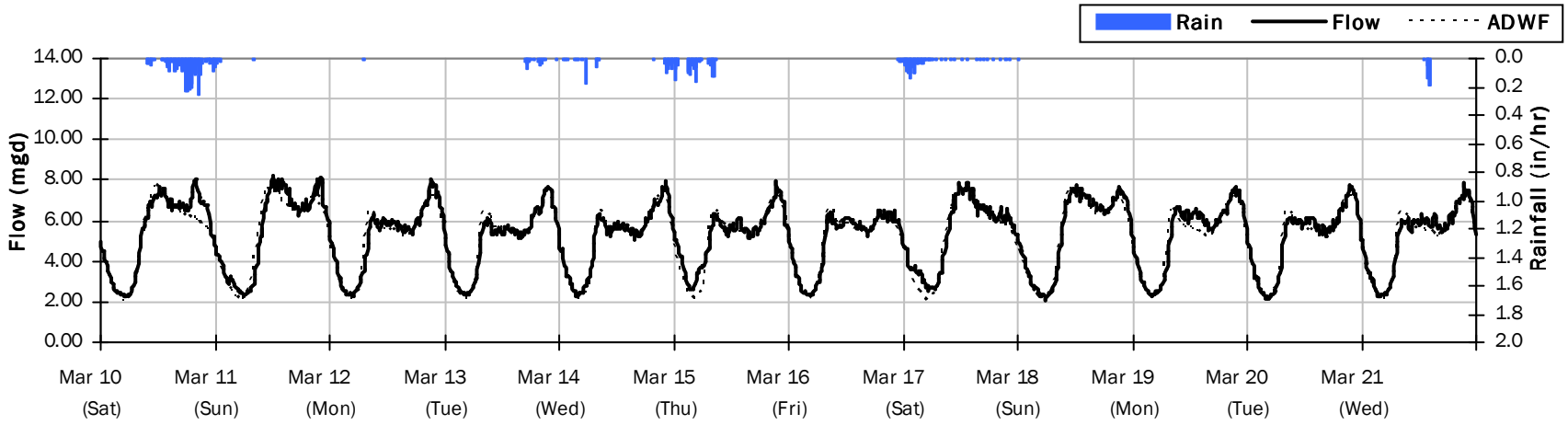
Total Period Rainfall: 0.89 inches **Avg Flow: 5.117 mgd** **Peak Flow: 8.292 mgd** **Min Flow: 2.002 mgd**

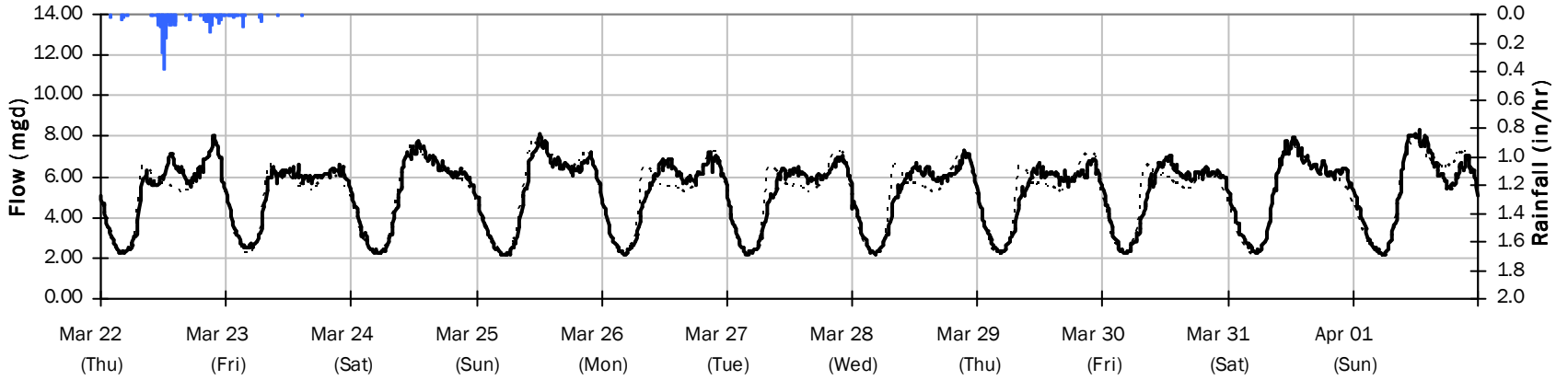


SMH 0670105

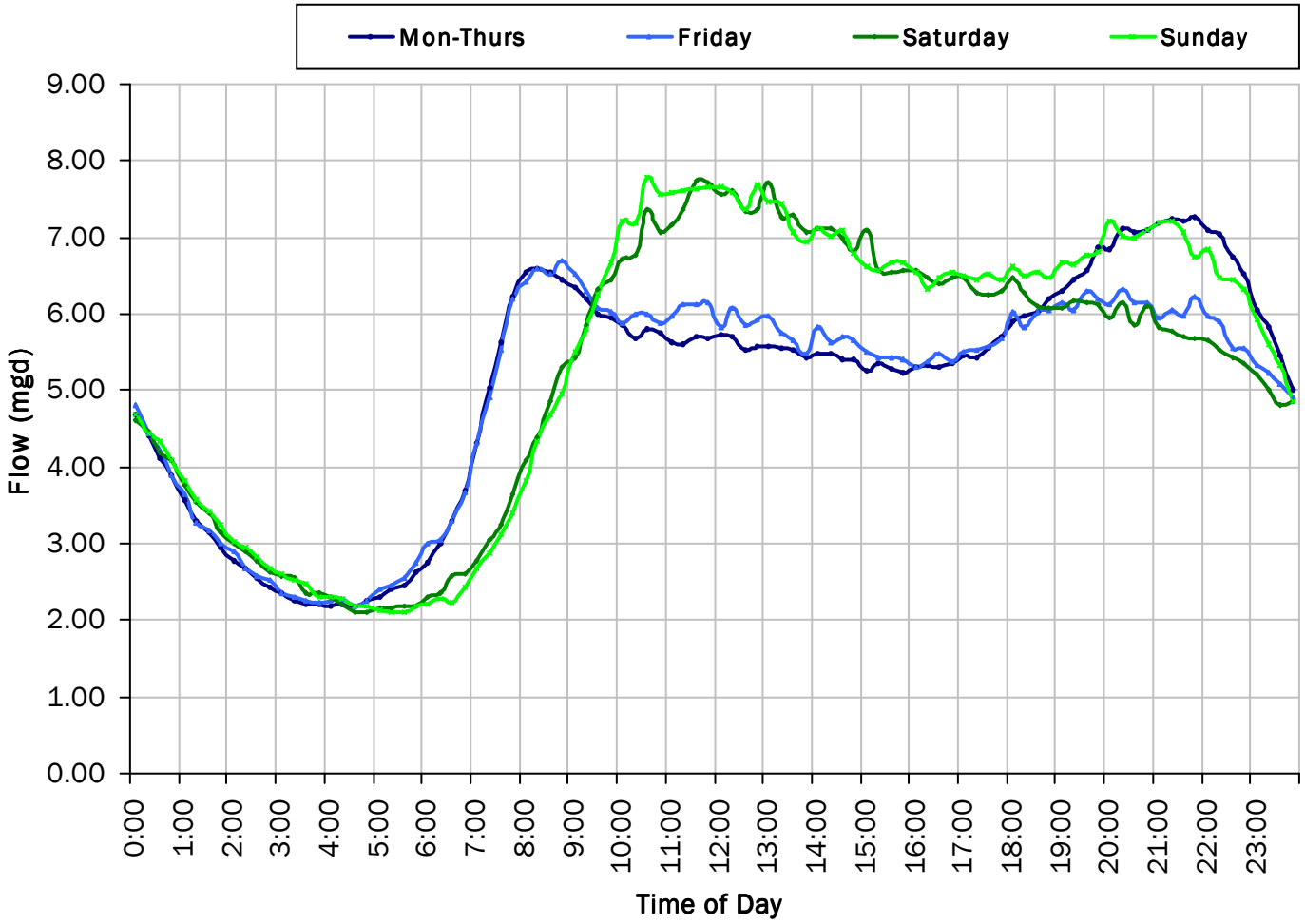
Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 2.76 inches **Avg Flow: 5.262 mgd** **Peak Flow: 8.267 mgd** **Min Flow: 2.100 mgd**



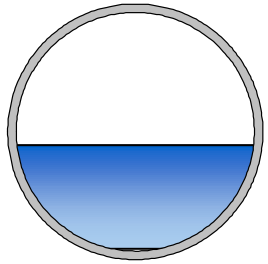


SMH 0670105
Average Dry Weather Flow Hydrographs



ADWF:

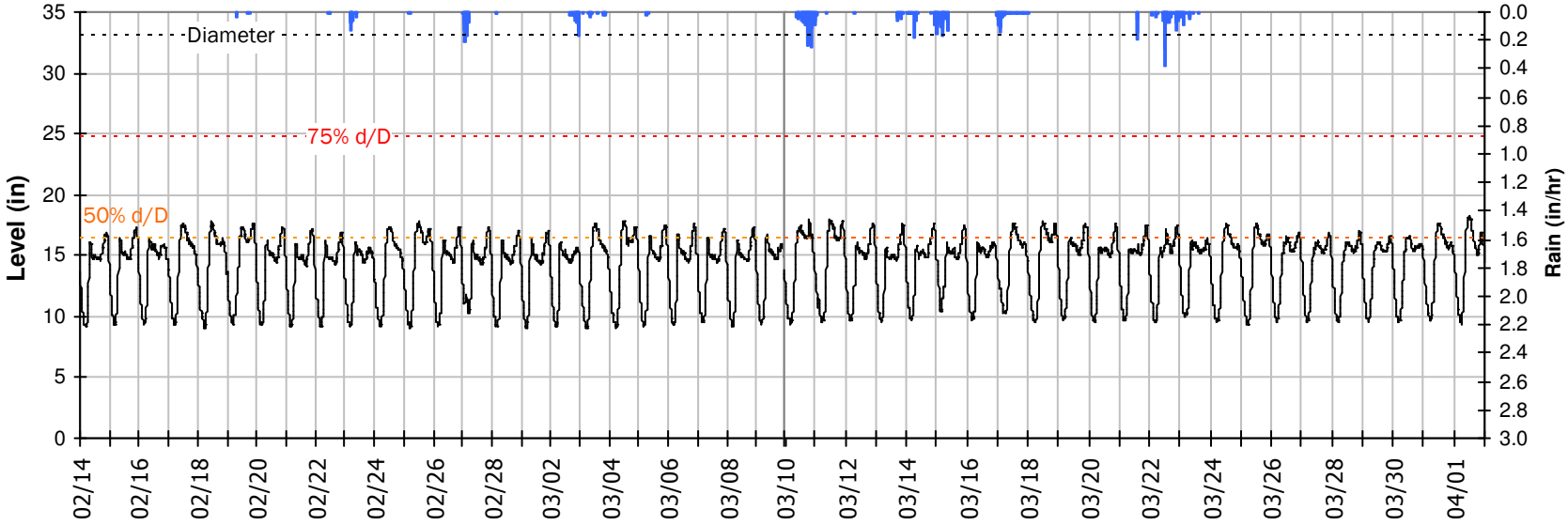
5.115 *mgd*

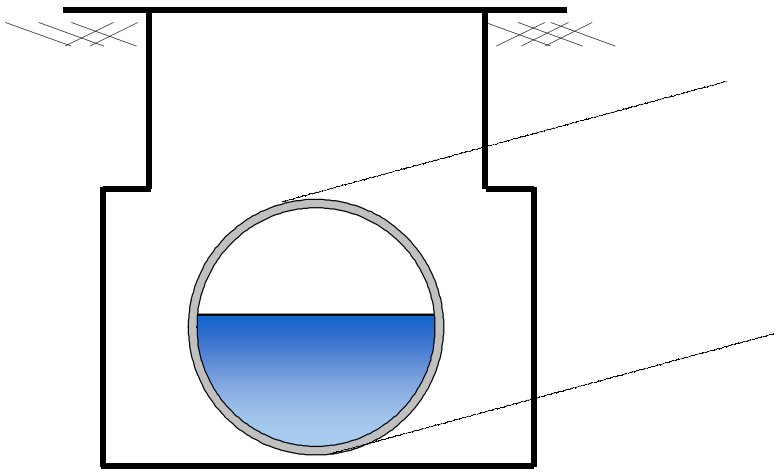


SMH 0670105

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

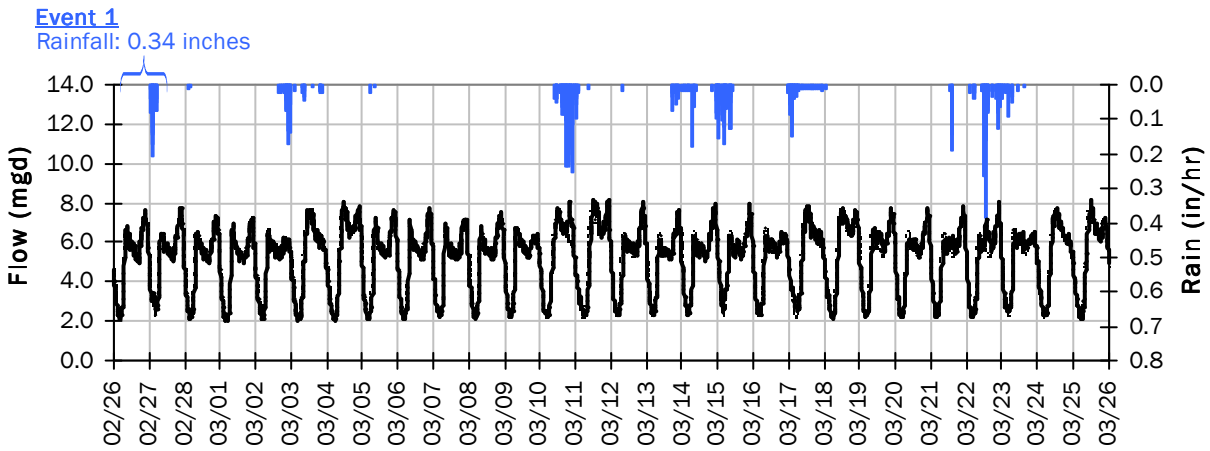




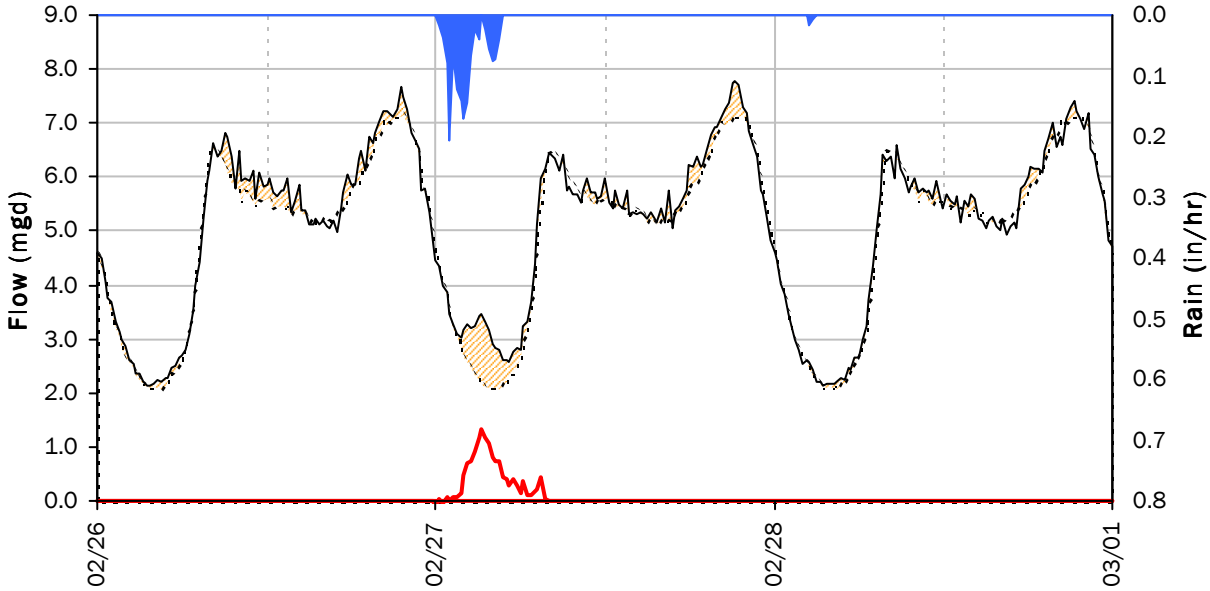
Pipe Diameter:	33	*inches*
Peak Measured Level:	18.3	*inches*
Peak d/D Ratio:	0.55	

SMH 0670105
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

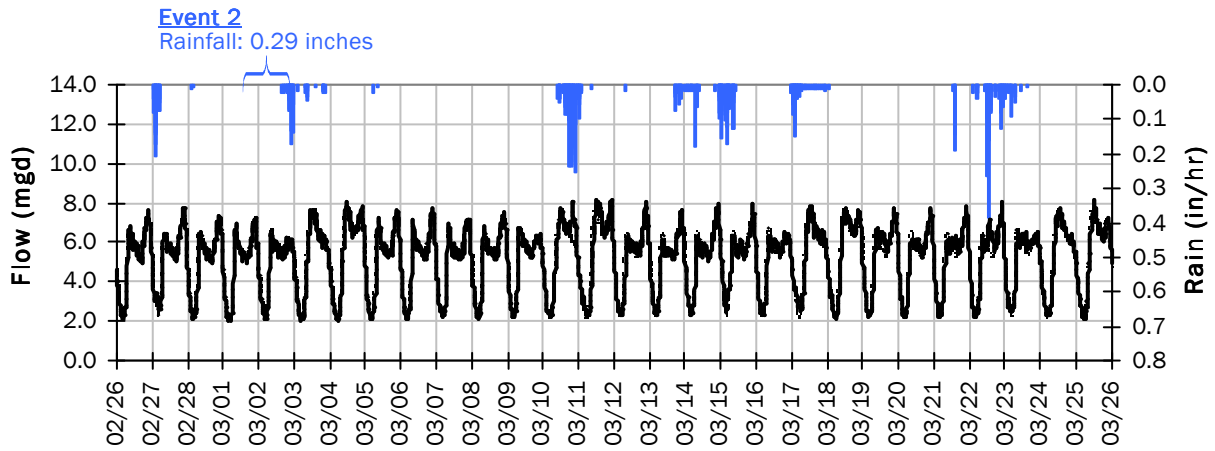


Storm Event I/I Analysis (Rain = 0.34 inches)

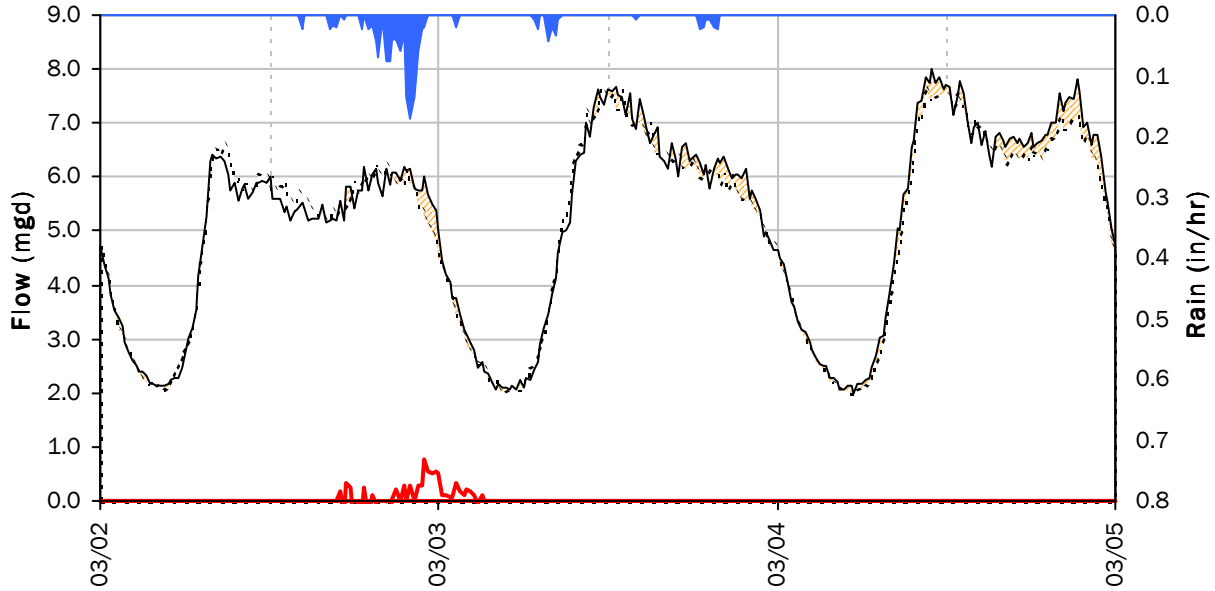
Capacity		Inflow / Infiltration	
Peak Flow:	6.46 *mgd*	**Peak I/I Rate:**	1.31 *mgd*
PF:	1.26	**Total I/I:**	142,000 *gallons*
Peak Level:	16.08 *in*		
d/D Ratio:	0.49		

SMH 0670105
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

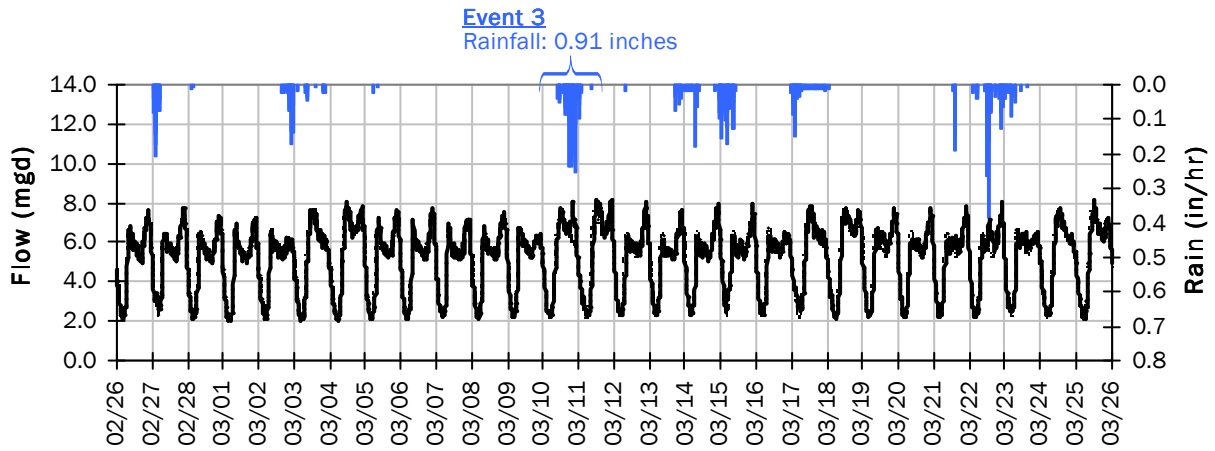


Storm Event I/I Analysis (Rain = 0.29 inches)

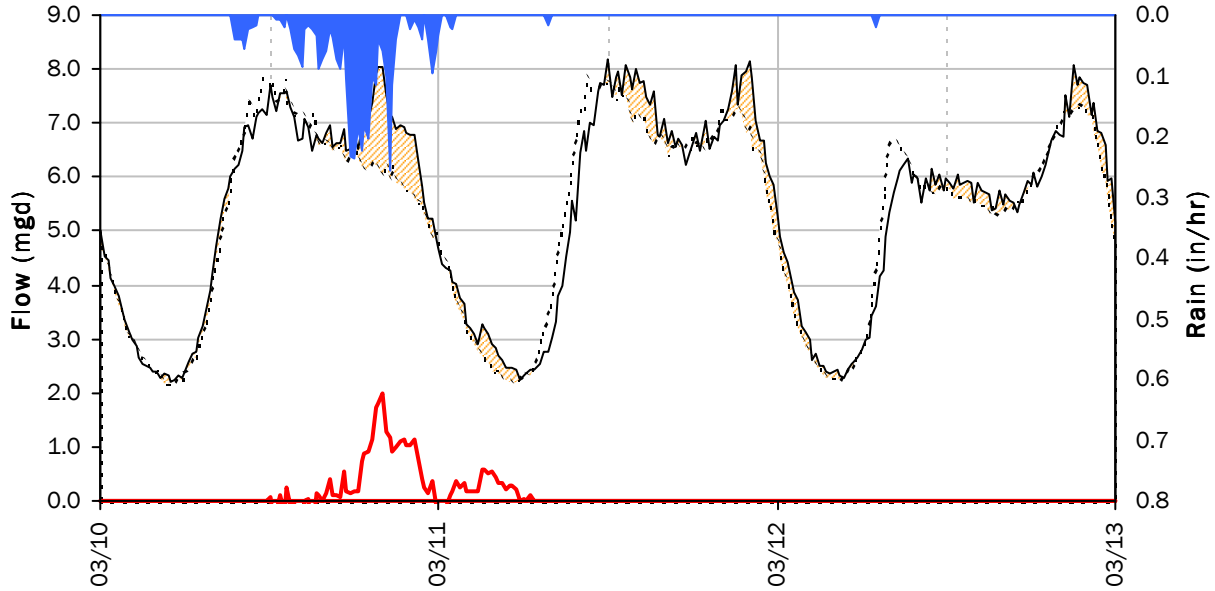
Capacity		Inflow / Infiltration	
Peak Flow:	6.21 *mgd*	**Peak I/I Rate:**	0.77 *mgd*
PF:	1.21	**Total I/I:**	53,000 *gallons*
Peak Level:	15.69 *in*		
d/D Ratio:	0.48		

SMH 0670105
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

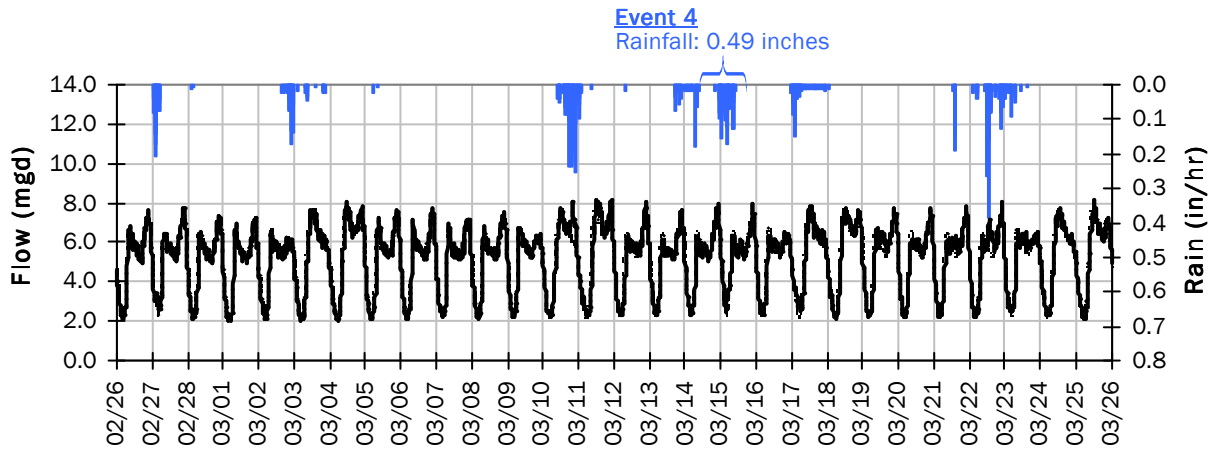


Storm Event I/I Analysis (Rain = 0.91 inches)

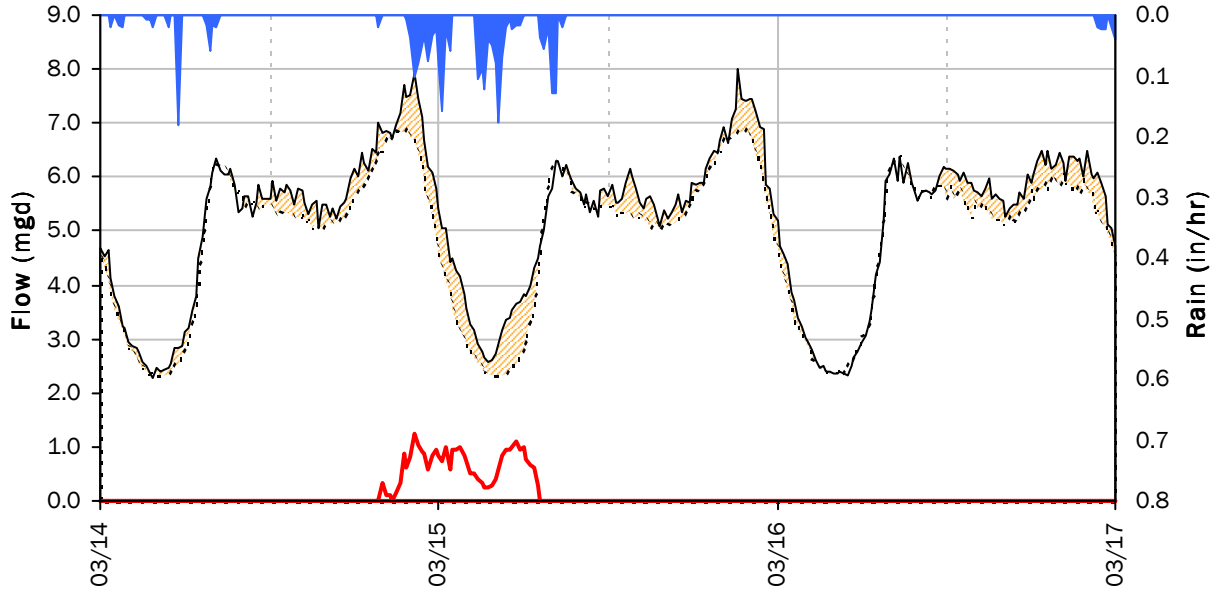
Capacity		Inflow / Infiltration	
Peak Flow:	8.03 *mgd*	**Peak I/I Rate:**	2.00 *mgd*
PF:	1.57	**Total I/I:**	287,000 *gallons*
Peak Level:	17.92 *in*		
d/D Ratio:	0.54		

SMH 0670105
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

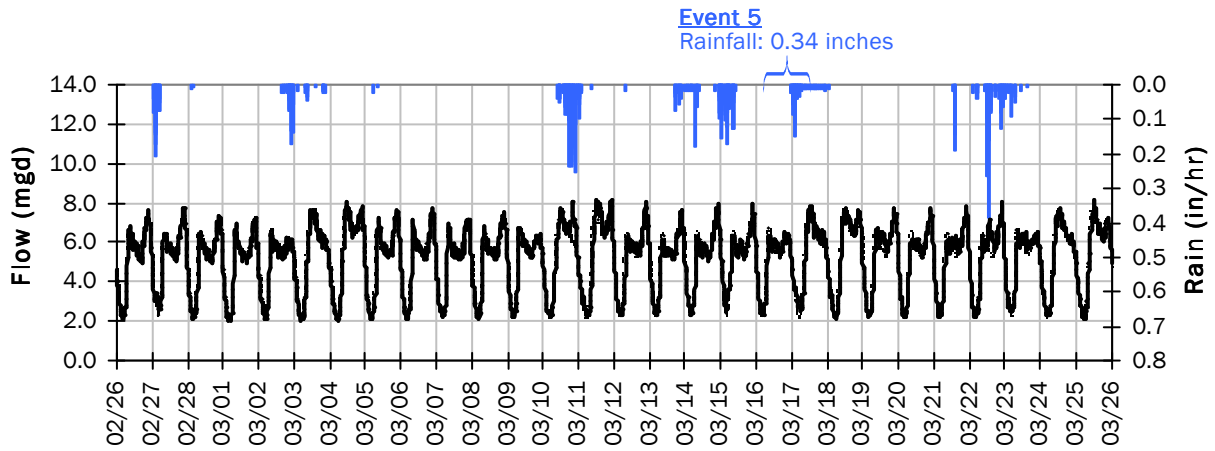


Storm Event I/I Analysis (Rain = 0.49 inches)

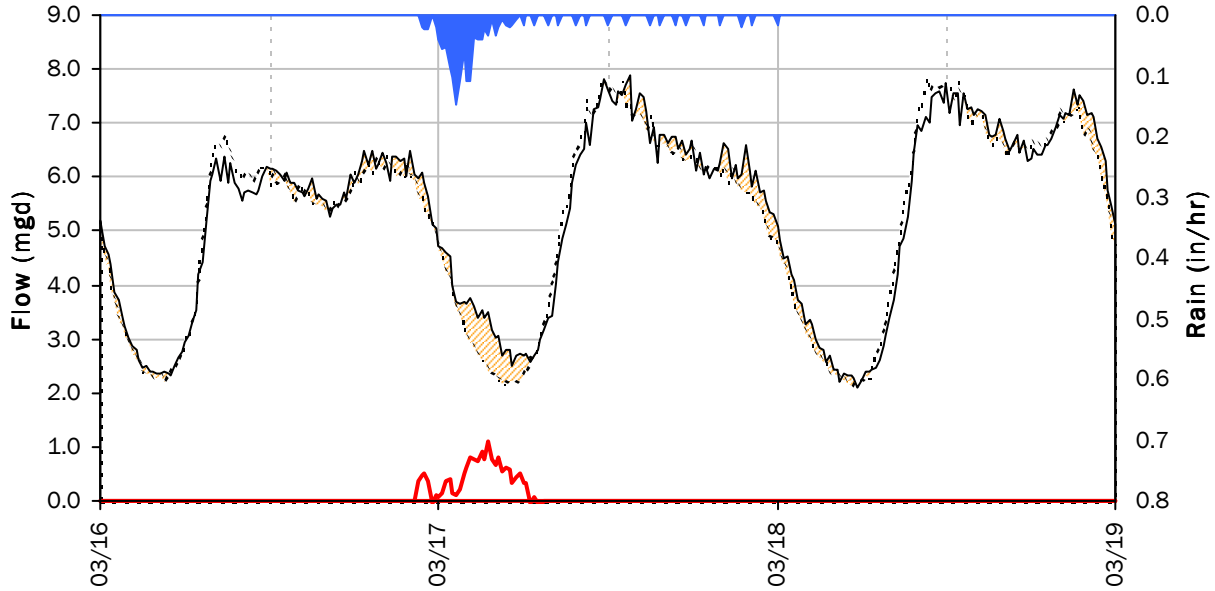
Capacity		Inflow / Infiltration	
Peak Flow:	7.92 *mgd*	**Peak I/I Rate:**	1.24 *mgd*
PF:	1.55	**Total I/I:**	315,000 *gallons*
Peak Level:	17.70 *in*		
d/D Ratio:	0.54		

SMH 0670105
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

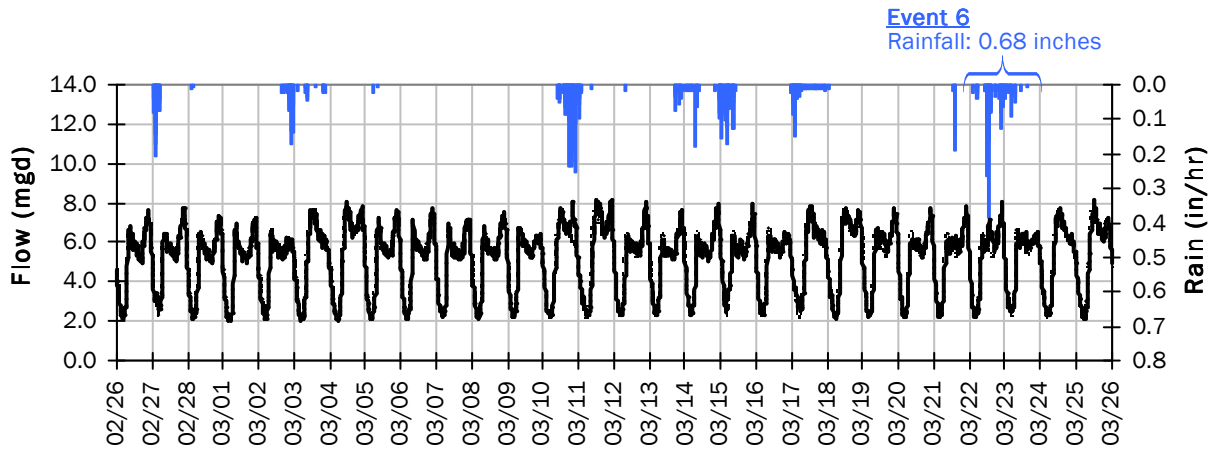


Storm Event I/I Analysis (Rain = 0.34 inches)

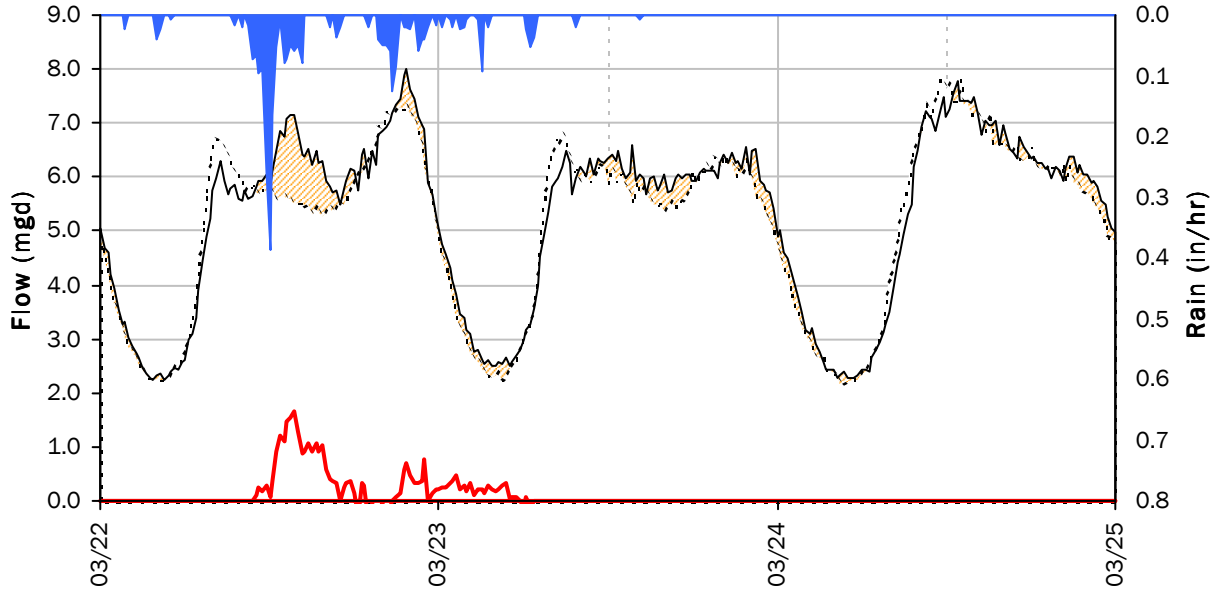
Capacity		Inflow / Infiltration	
Peak Flow:	6.07 *mgd*	**Peak I/I Rate:**	1.09 *mgd*
PF:	1.19	**Total I/I:**	160,000 *gallons*
Peak Level:	15.55 *in*		
d/D Ratio:	0.47		

SMH 0670105
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



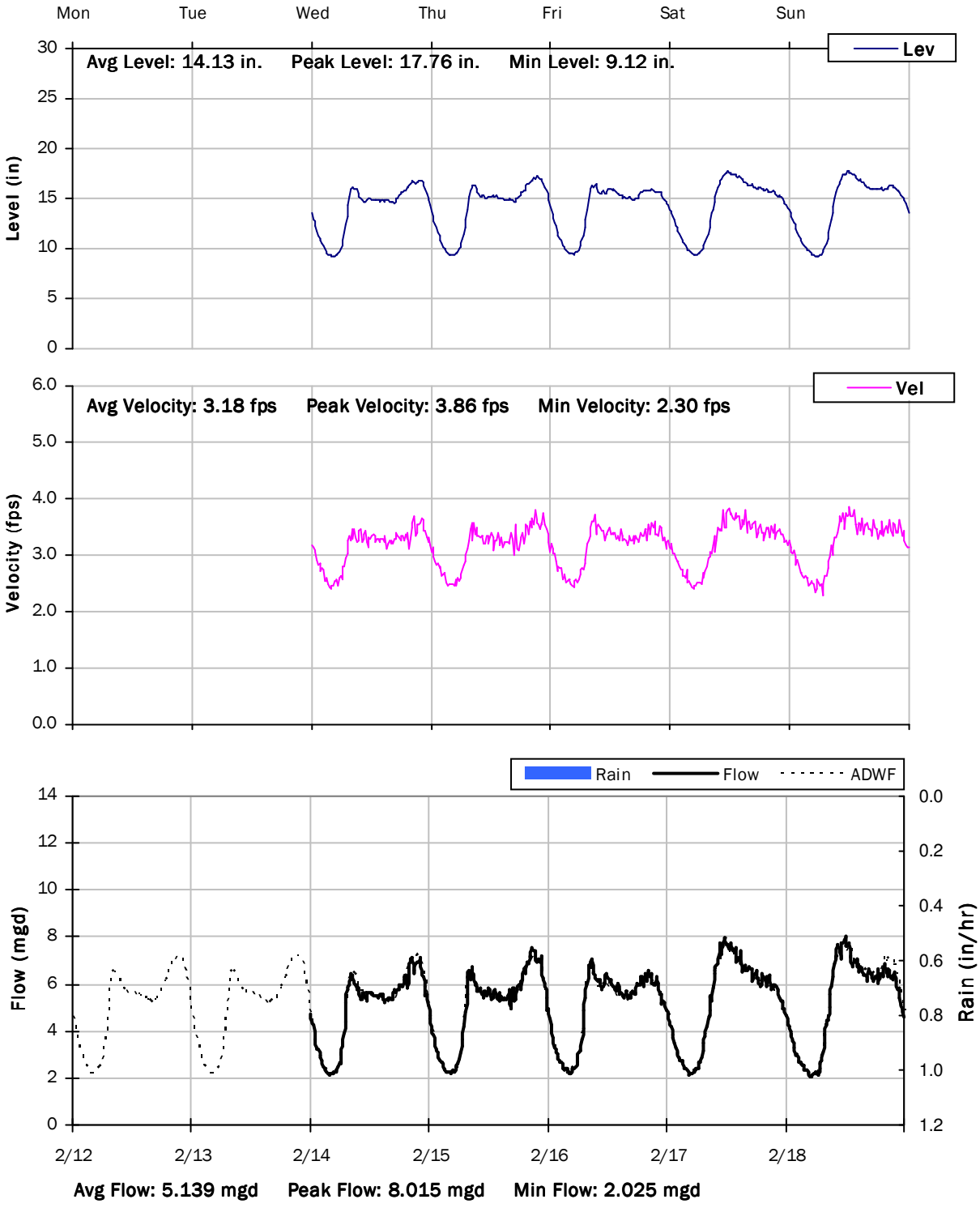
Storm Event I/I Analysis (Rain = 0.68 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	8.02 *mgd*	**Peak I/I Rate:**	1.64 *mgd*
PF:	1.57	**Total I/I:**	297,000 *gallons*
Peak Level:	17.55 *in*		
d/D Ratio:	0.53		

SMH 0670105

Weekly Level, Velocity and Flow Hydrographs

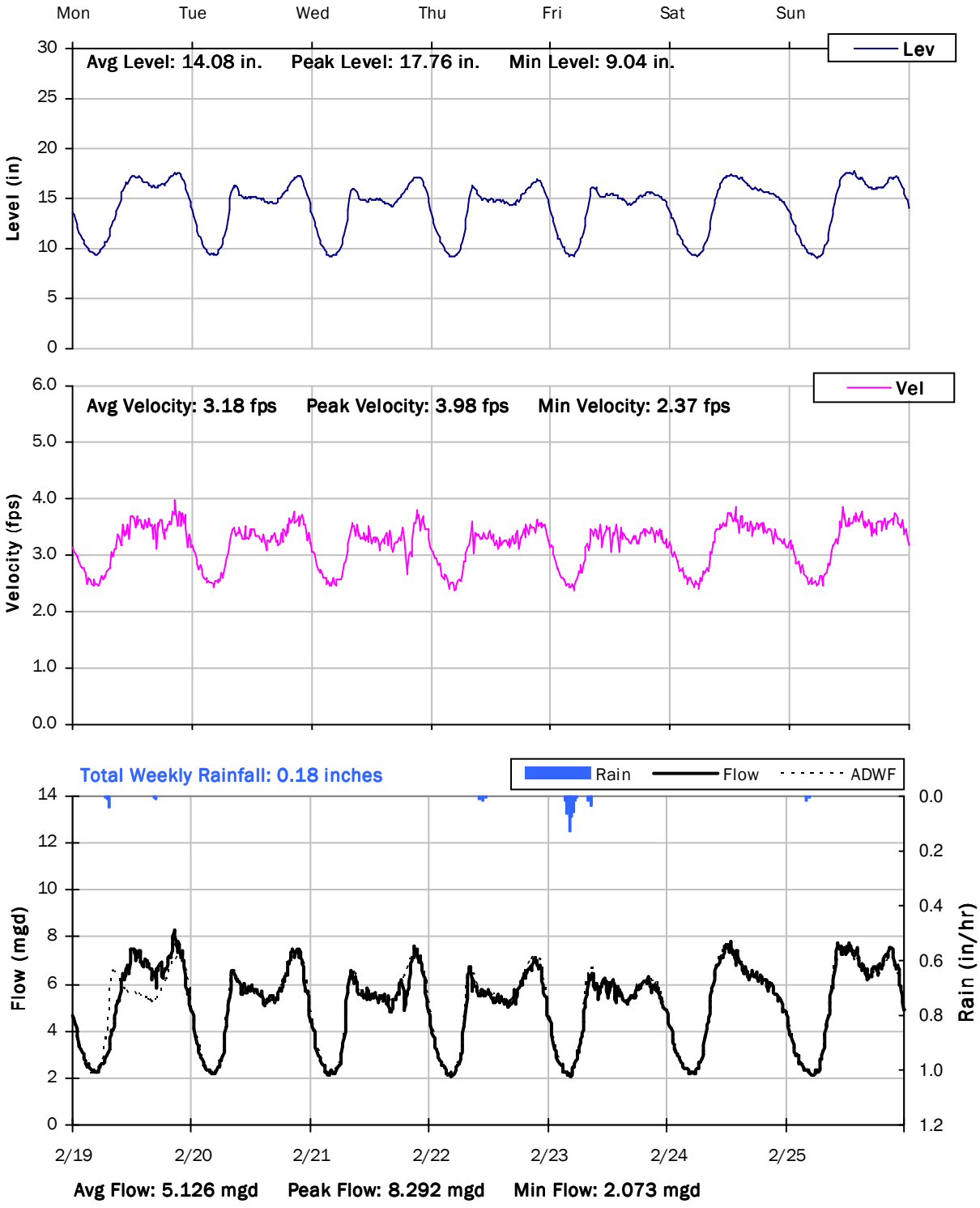
2/12/2018 to 2/19/2018



SMH 0670105

Weekly Level, Velocity and Flow Hydrographs

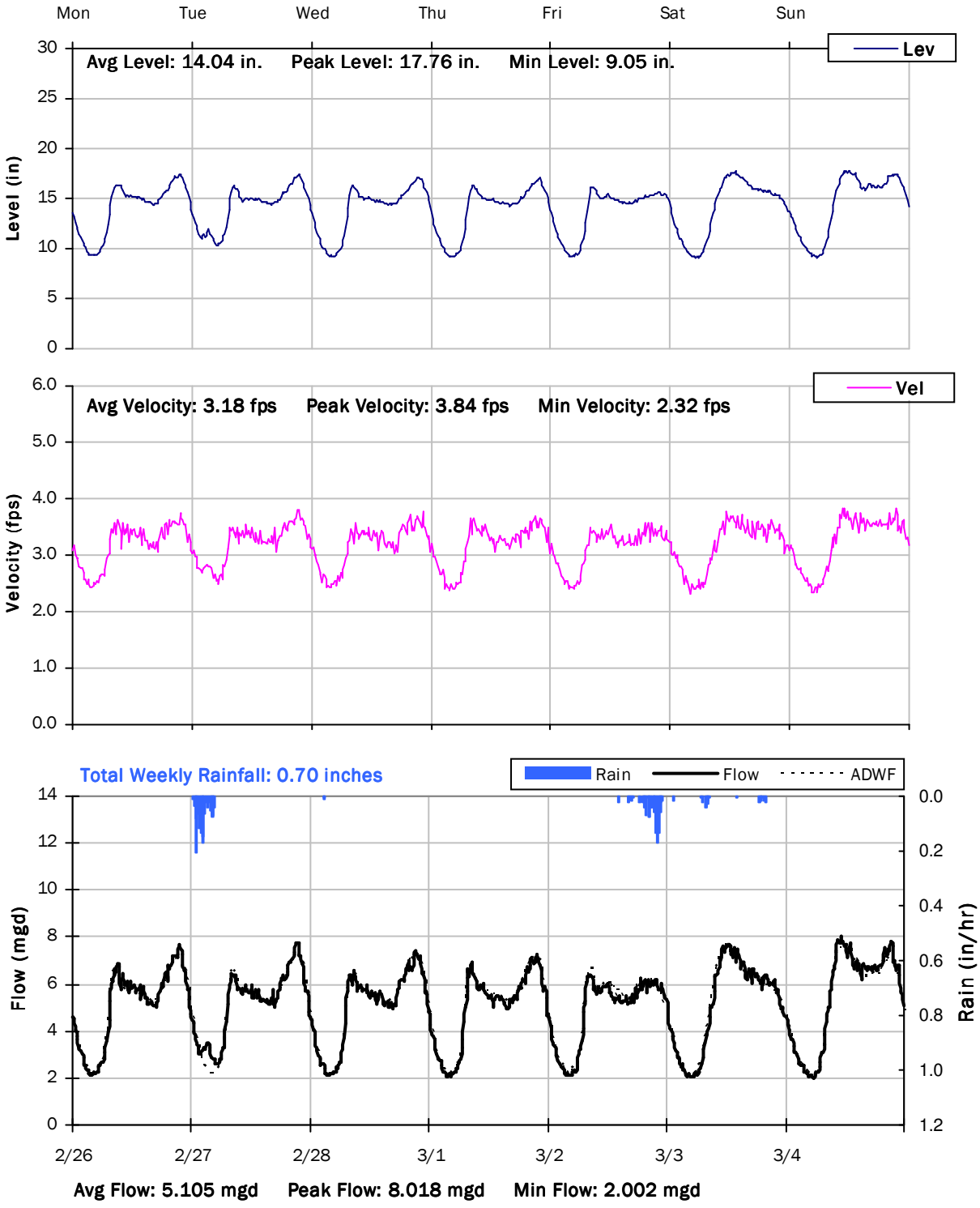
2/19/2018 to 2/26/2018



SMH 0670105

Weekly Level, Velocity and Flow Hydrographs

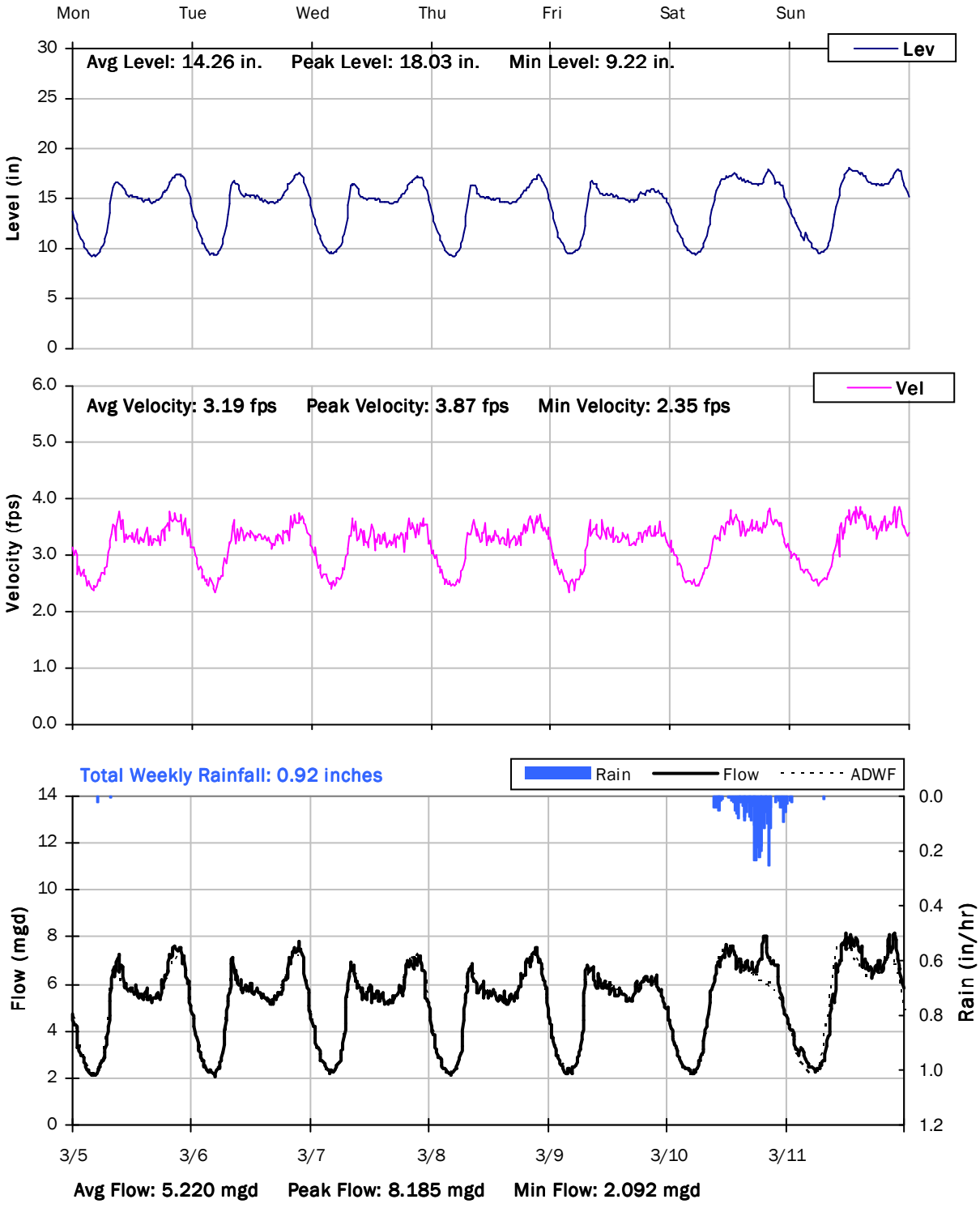
2/26/2018 to 3/5/2018



SMH 0670105

Weekly Level, Velocity and Flow Hydrographs

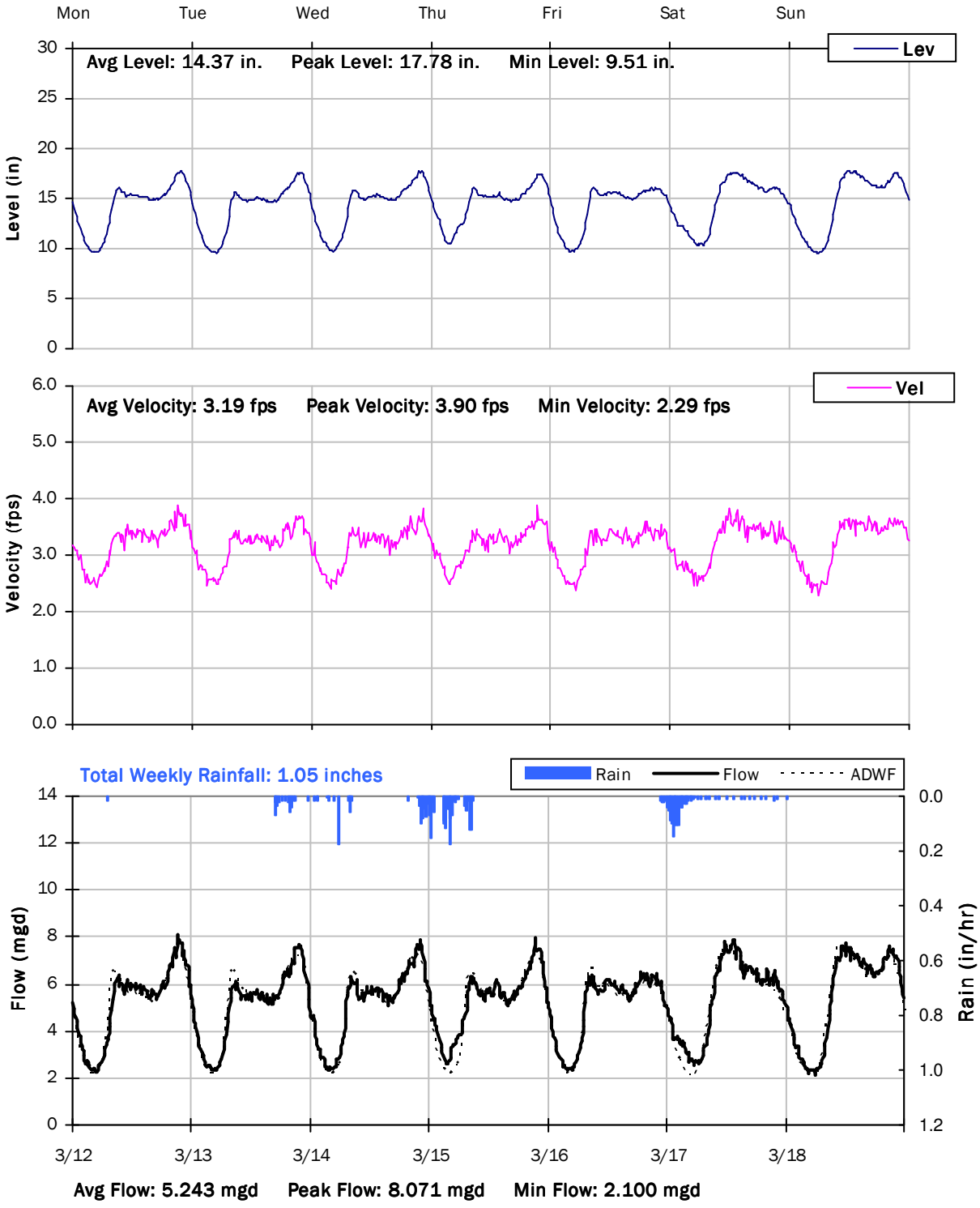
3/5/2018 to 3/12/2018



SMH 0670105

Weekly Level, Velocity and Flow Hydrographs

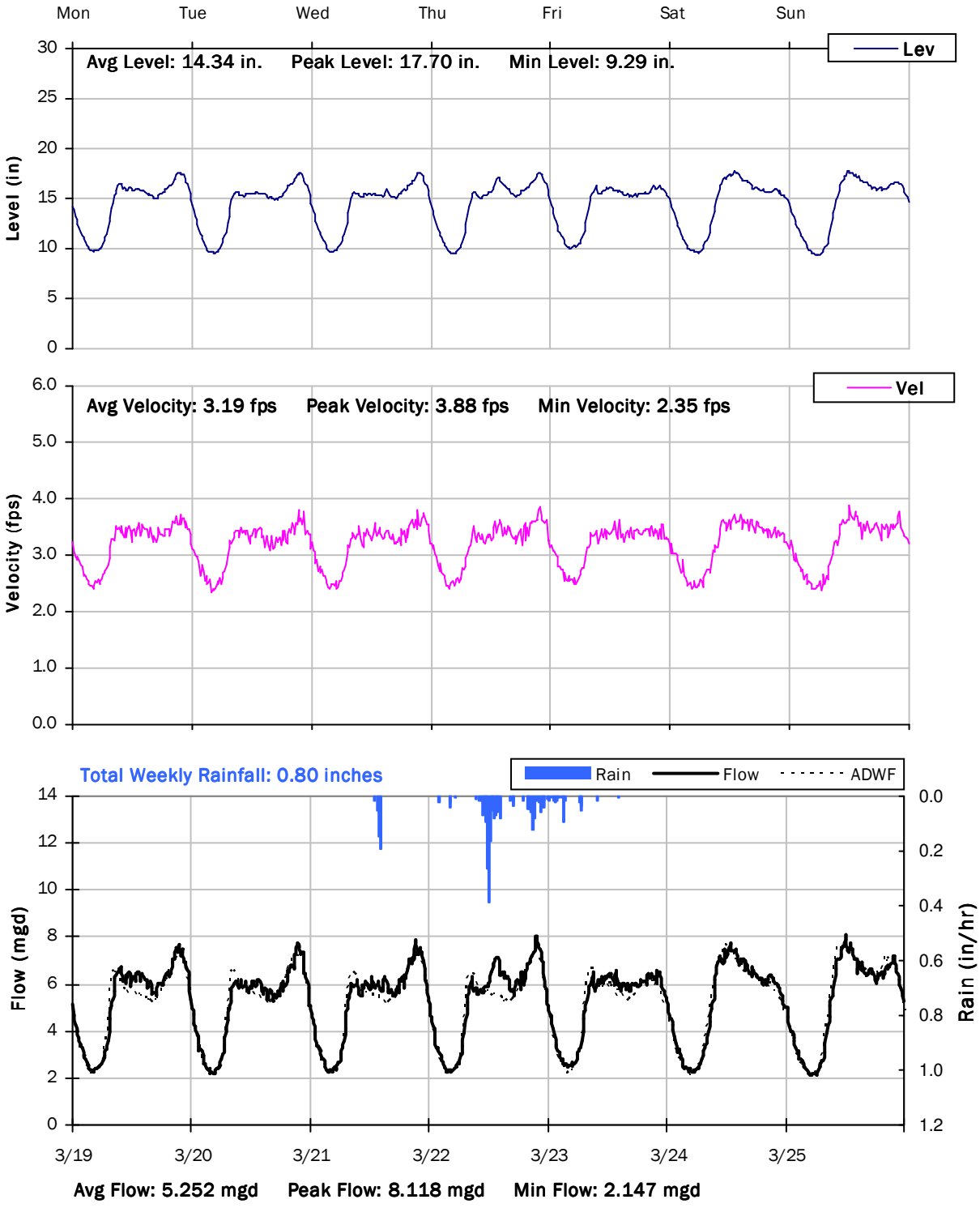
3/12/2018 to 3/19/2018



SMH 0670105

Weekly Level, Velocity and Flow Hydrographs

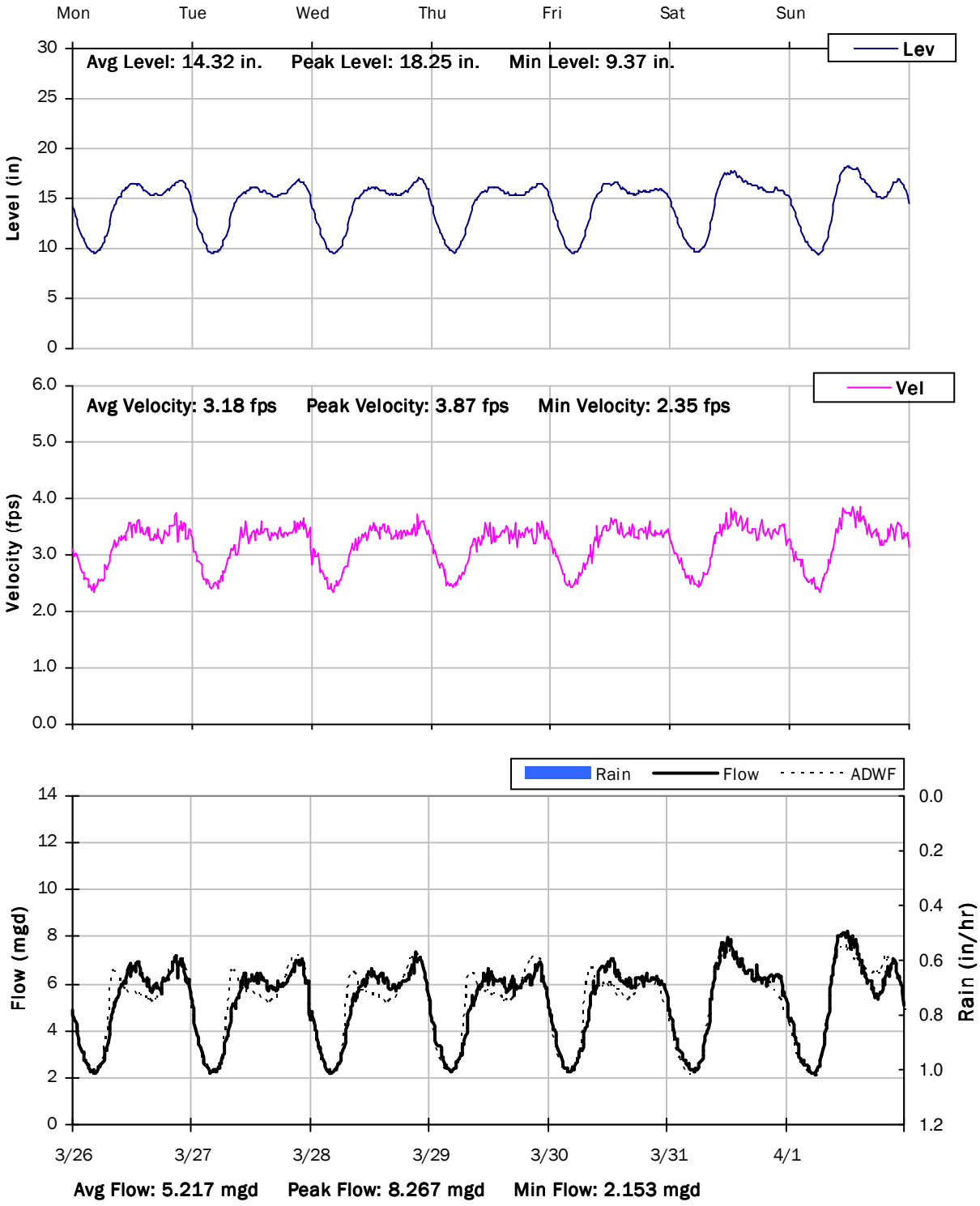
3/19/2018 to 3/26/2018



SMH 0670105

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

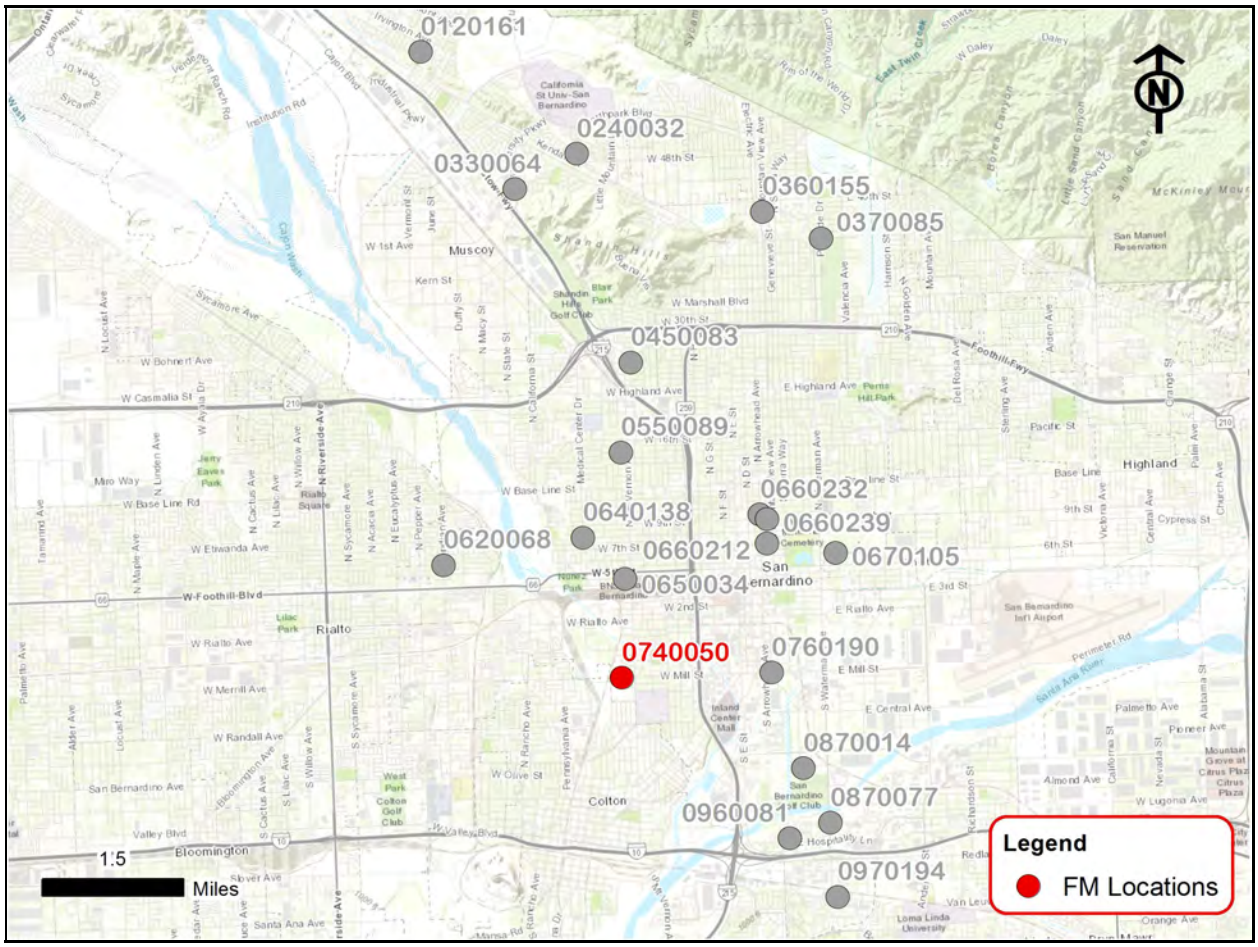
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0740050

Location: W Mill Street west of S Grape Street

Data Summary Report



Vicinity Map: SMH 0740050

SMH 0740050

Site Information

Location: W Mill Street west of S Grape Street

Coordinates: 117.3162° W, 34.0922° N

Rim Elevation (Earth): 1068 feet

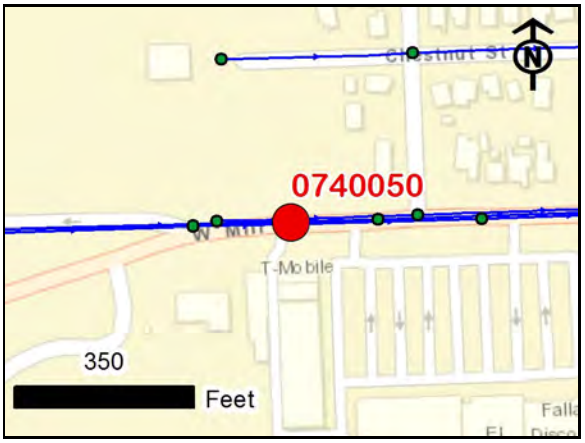
Pipe Diameter: 12 inches

ADWF: 0.052 mgd

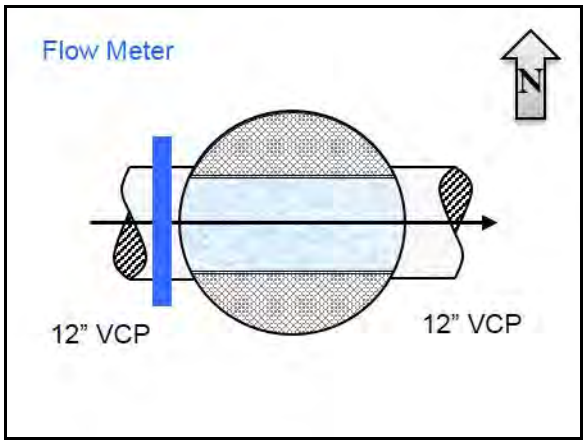
Peak Measured Flow: 0.336 mgd



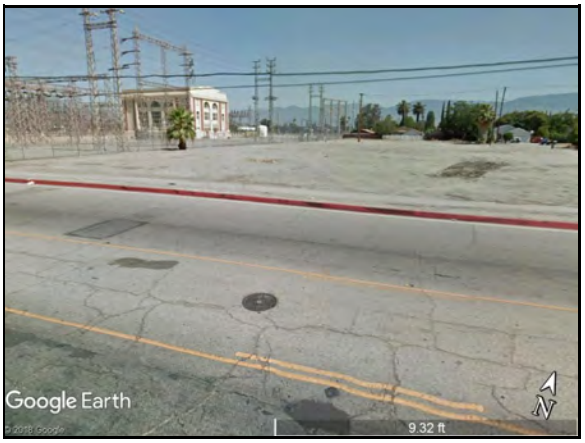
Satellite Map



Sewer Map



Flow Sketch



Street View

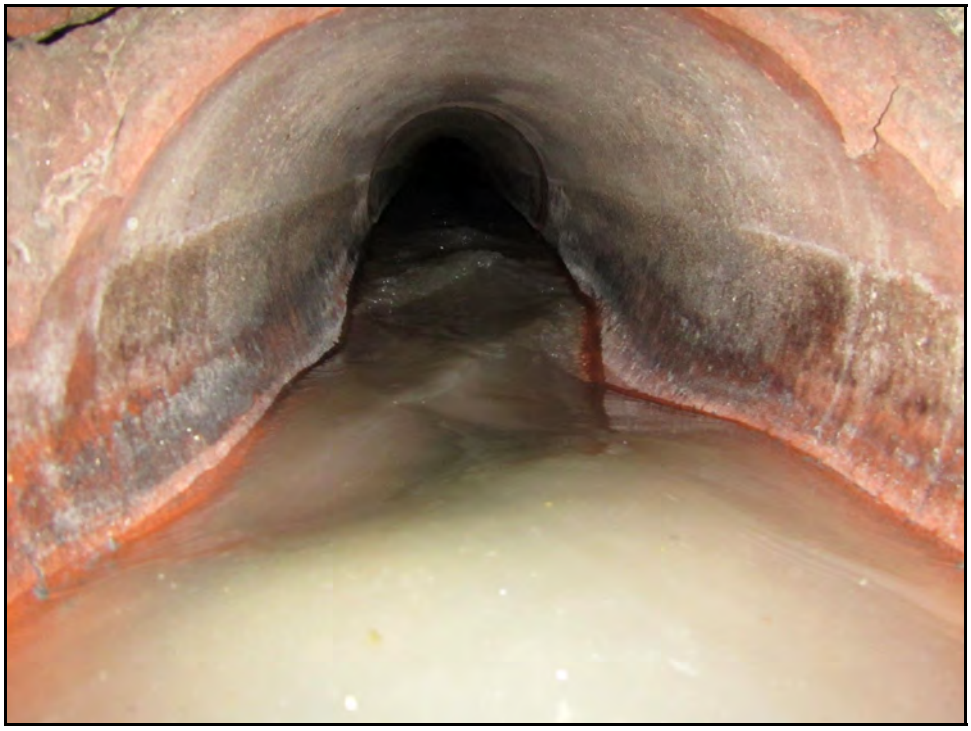


Plan View

SMH 0740050

Additional Site Photos

Effluent Pipe



Influent Pipe

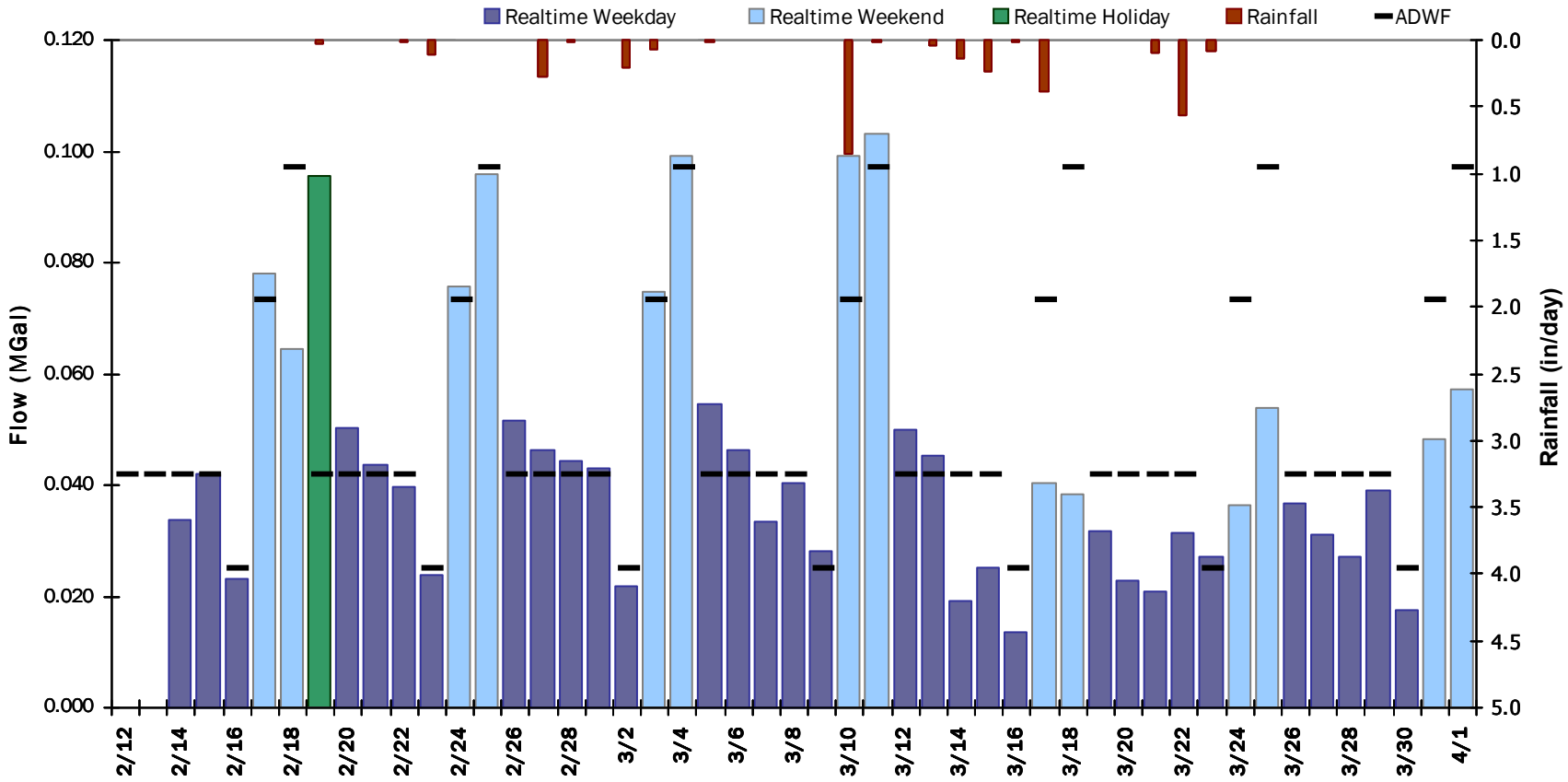


SMH 0740050

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.046 MGal Peak Daily Flow: 0.103 MGal Min Daily Flow: 0.014 MGal

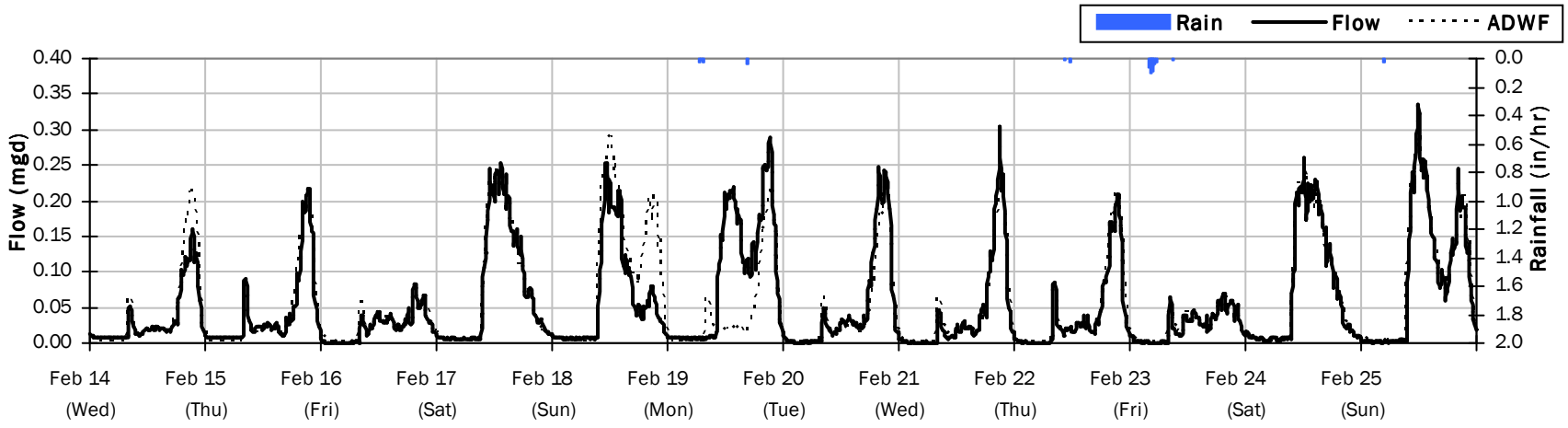
Total Period Rainfall: 3.14 inches

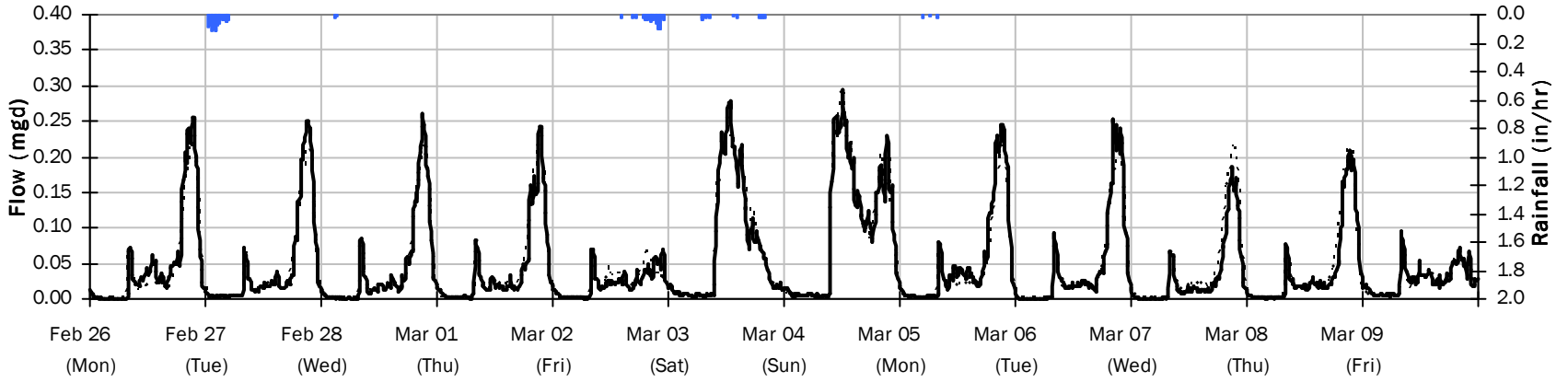


SMH 0740050

Flow Summary: 2/14/2018 to 3/9/2018

Total Period Rainfall: 0.72 inches Avg Flow: 0.052 mgd Peak Flow: 0.336 mgd Min Flow: 0.000 mgd

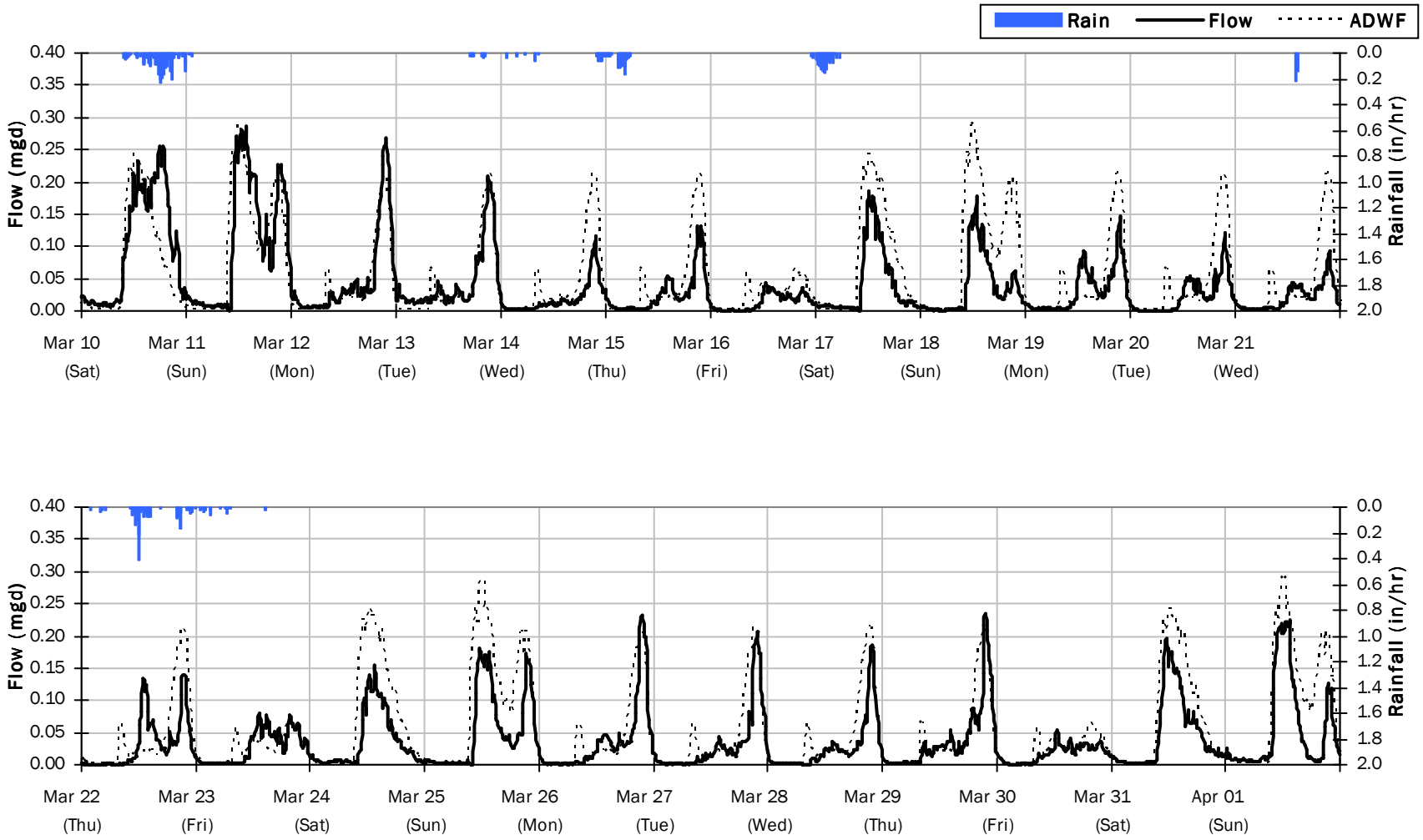




SMH 0740050

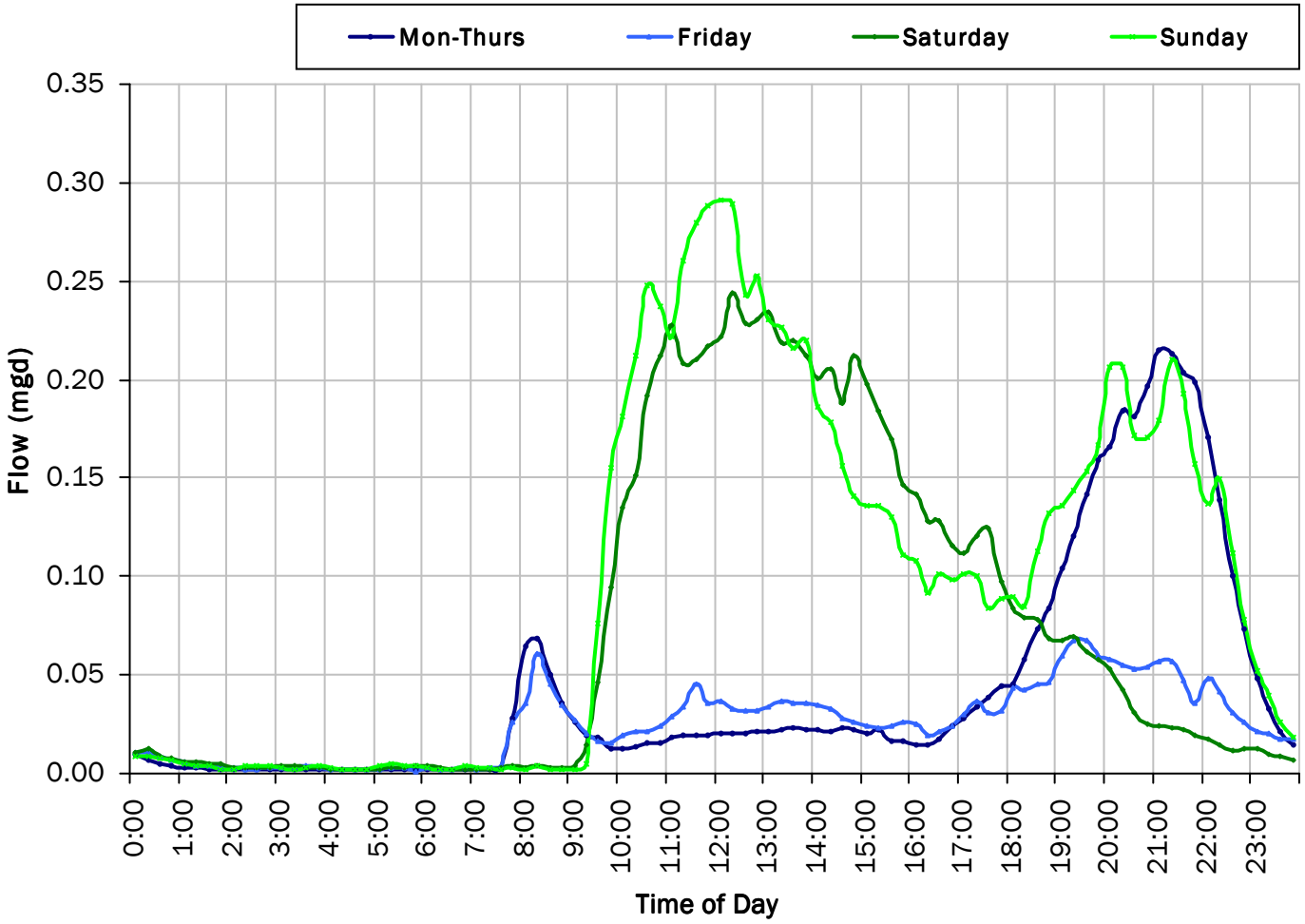
Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 2.42 inches Avg Flow: 0.040 mgd Peak Flow: 0.286 mgd Min Flow: 0.000 mgd



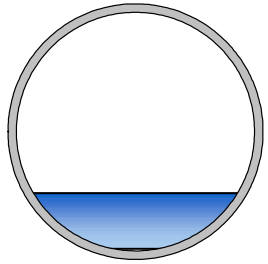
SMH 0740050

Average Dry Weather Flow Hydrographs



ADWF:

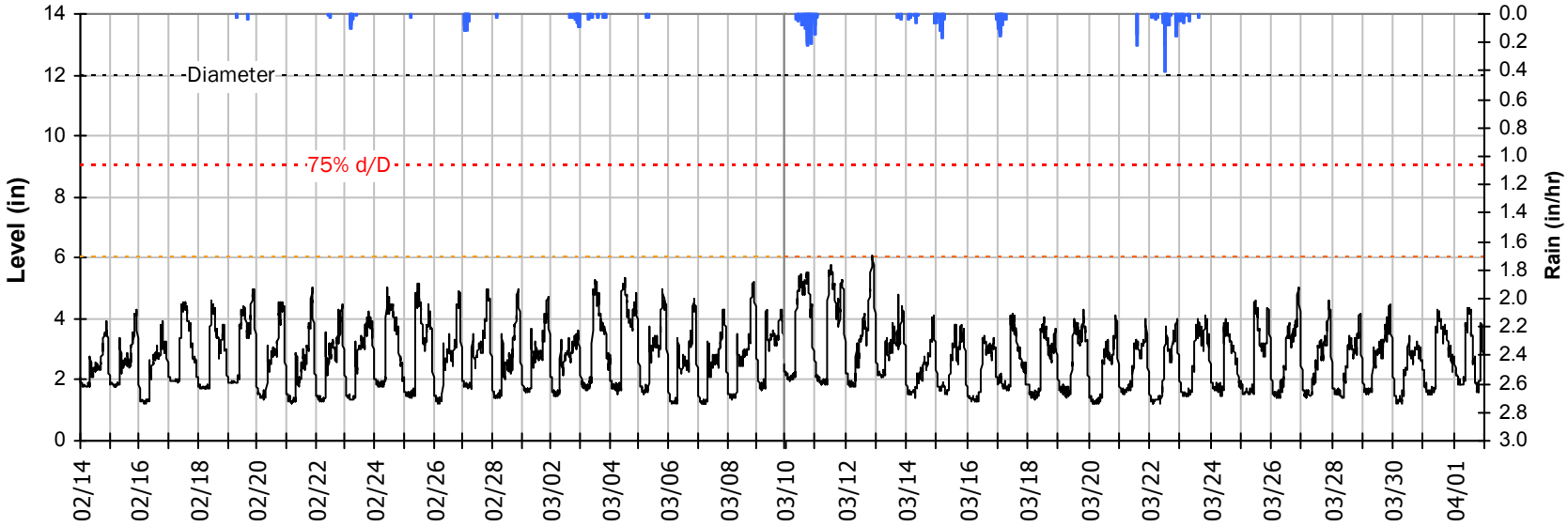
0.052 *mgd*

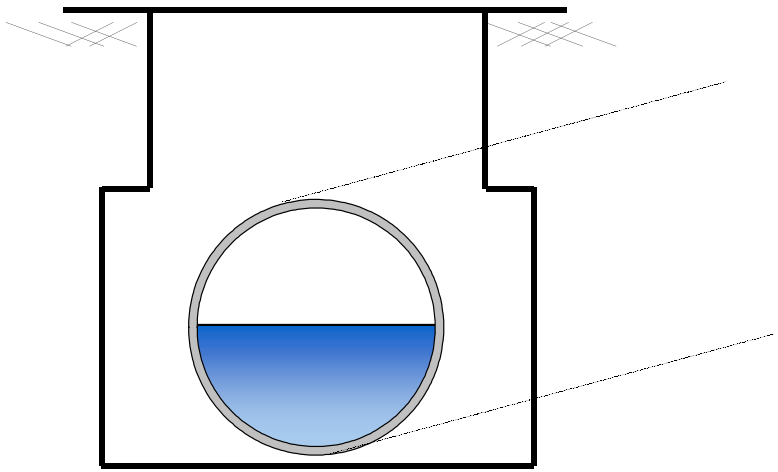


SMH 0740050

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

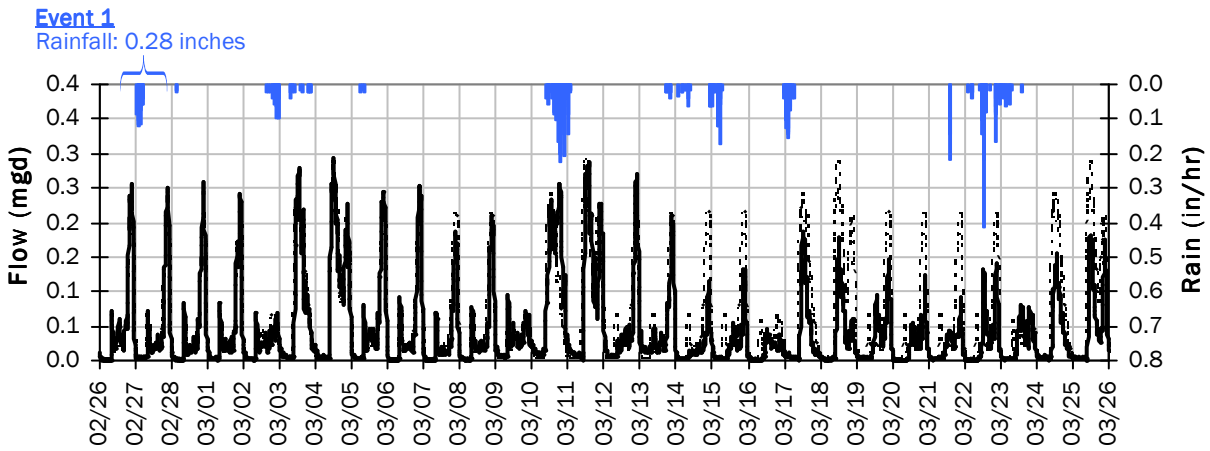




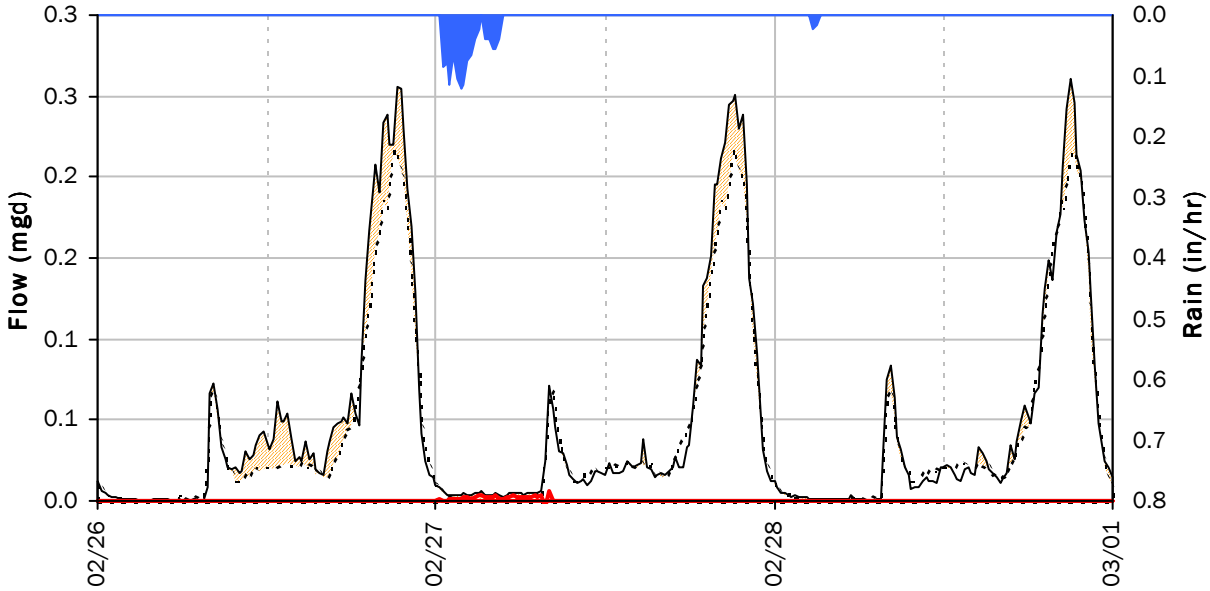
Pipe Diameter:	12	*inches*
Peak Measured Level:	6.06	*inches*
Peak d/D Ratio:	0.51	

SMH 0740050
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

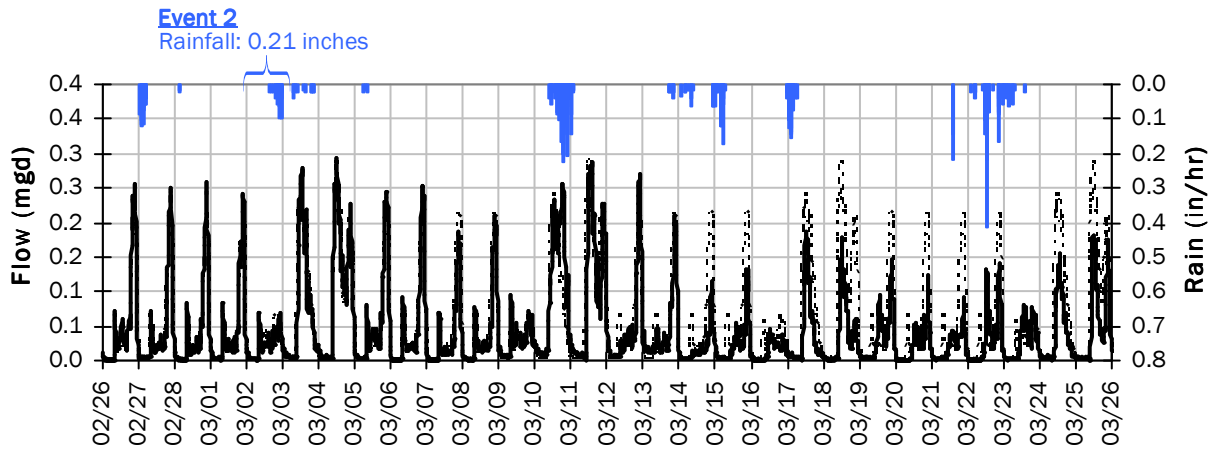


Storm Event I/I Analysis (Rain = 0.28 inches)

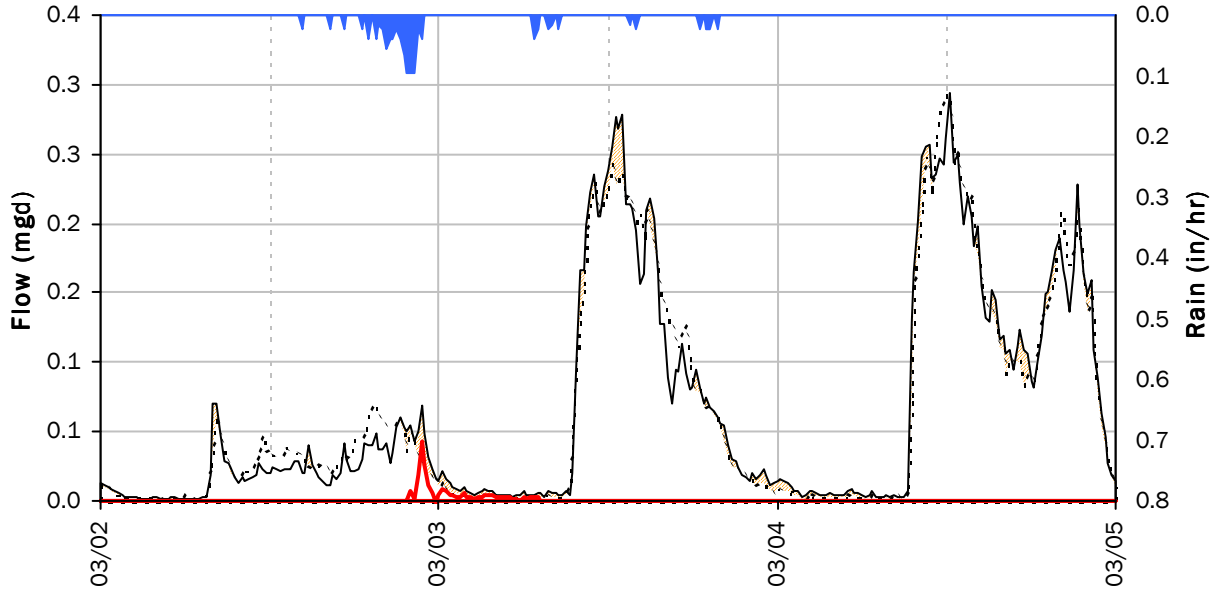
Capacity		Inflow / Infiltration	
Peak Flow:	0.07 *mgd*	**Peak I/I Rate:**	0.01 *mgd*
PF:	1.37	**Total I/I:**	1,000 *gallons*
Peak Level:	3.47 *in*		
d/D Ratio:	0.29		

SMH 0740050
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

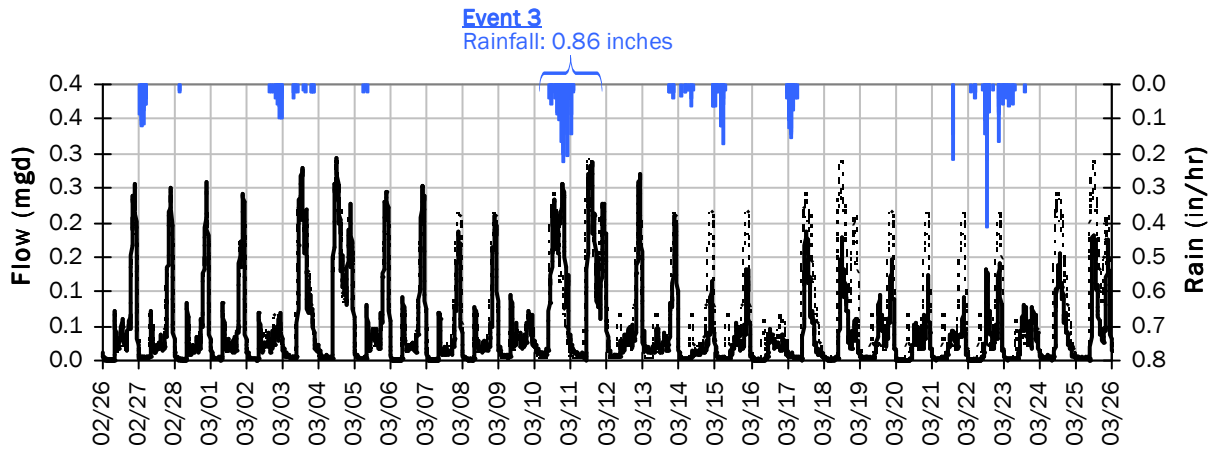


Storm Event I/I Analysis (Rain = 0.21 inches)

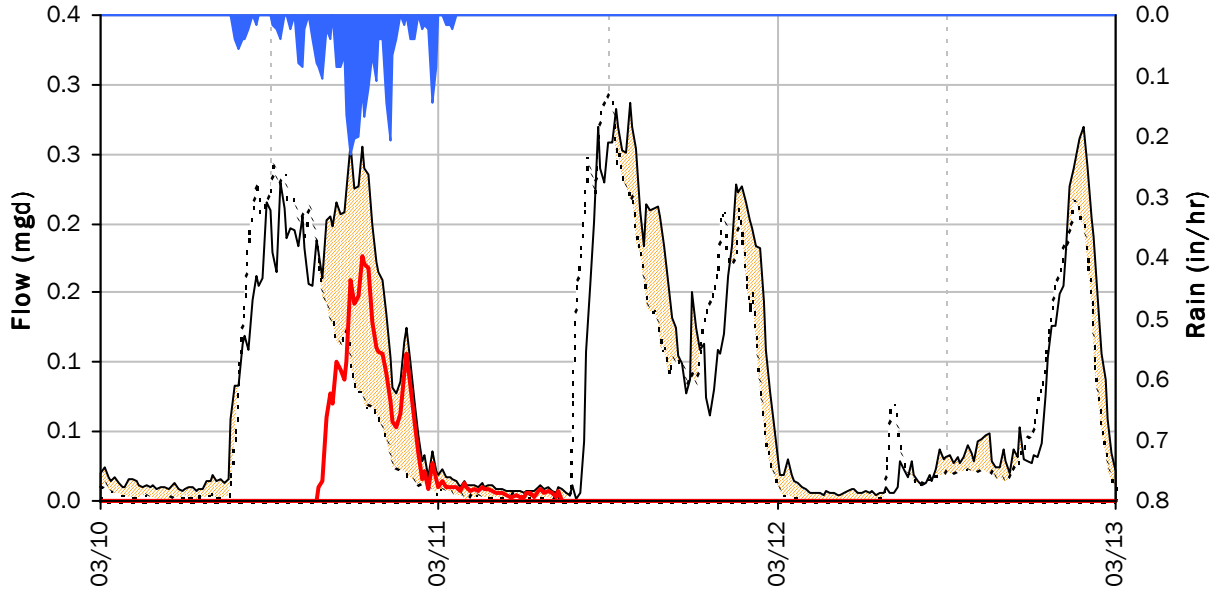
Capacity		Inflow / Infiltration	
Peak Flow:	0.07 *mgd*	**Peak I/I Rate:**	0.04 *mgd*
PF:	1.33	**Total I/I:**	2,000 *gallons*
Peak Level:	3.65 *in*		
d/D Ratio:	0.30		

SMH 0740050
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

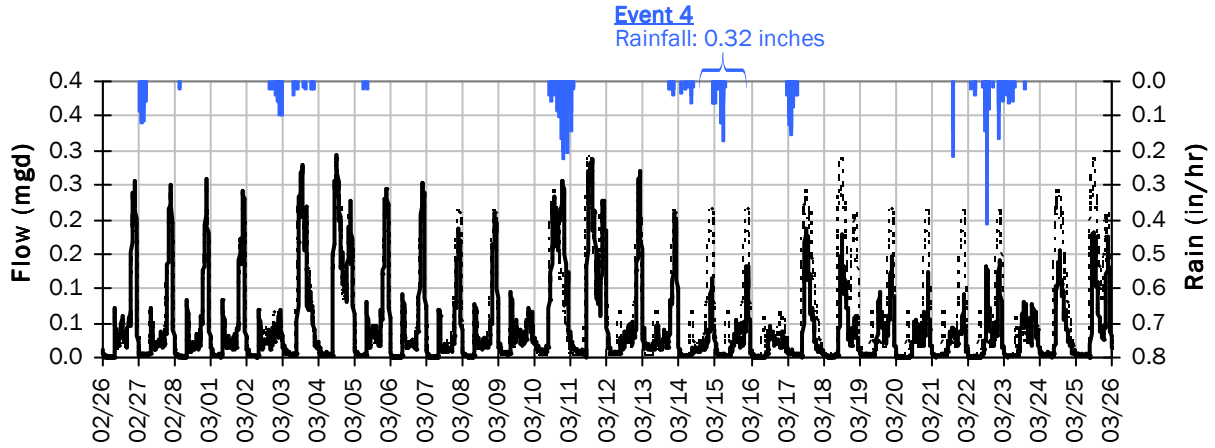


Storm Event I/I Analysis (Rain = 0.86 inches)

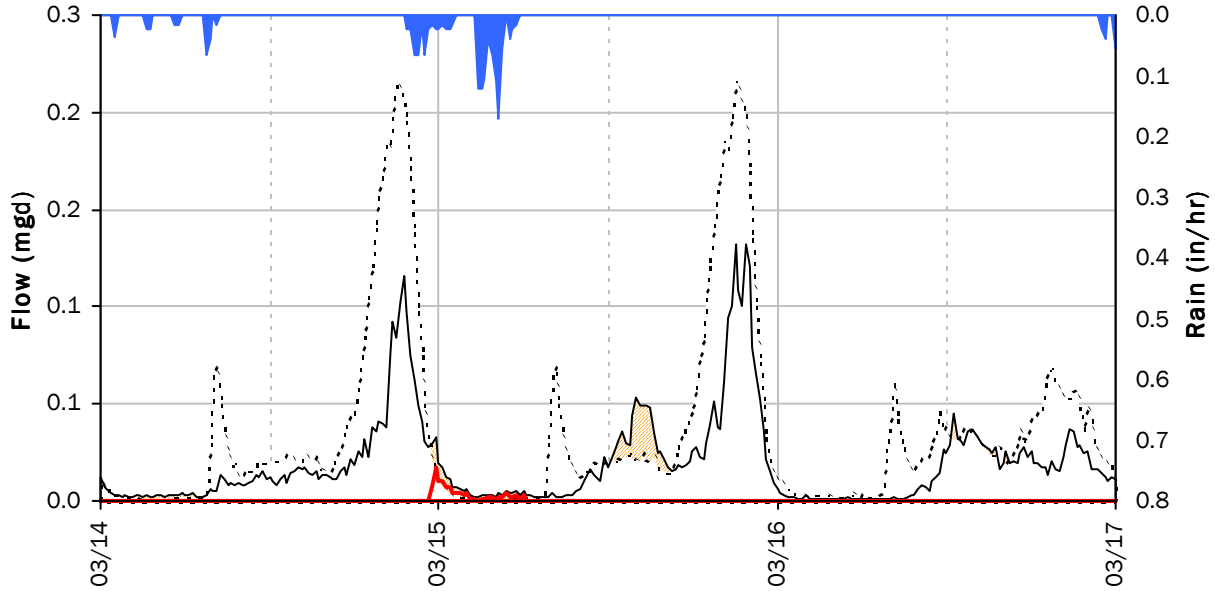
Capacity		Inflow / Infiltration	
Peak Flow:	0.26 *mgd*	**Peak I/I Rate:**	0.18 *mgd*
PF:	4.94	**Total I/I:**	32,000 *gallons*
Peak Level:	5.54 *in*		
d/D Ratio:	0.46		

SMH 0740050
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

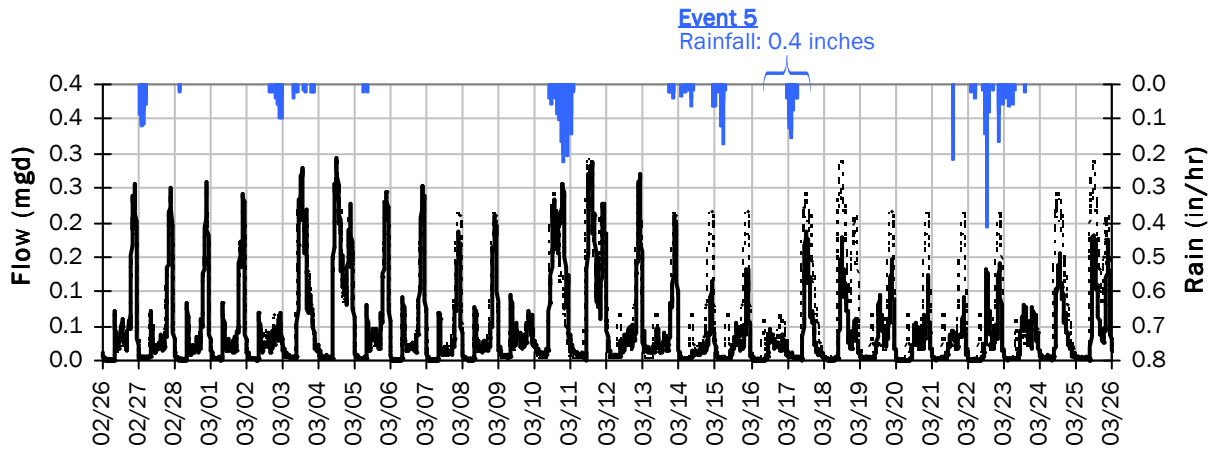


Storm Event I/I Analysis (Rain = 0.32 inches)

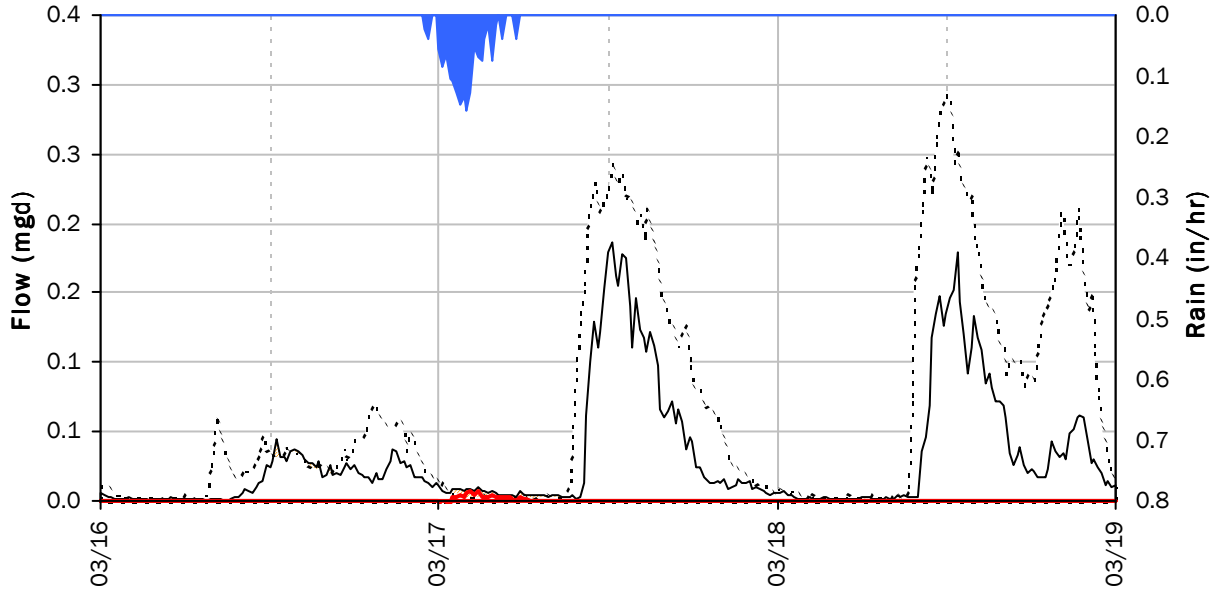
Capacity		Inflow / Infiltration	
Peak Flow:	0.03 *mgd*	**Peak I/I Rate:**	0.02 *mgd*
PF:	0.62	**Total I/I:**	1,000 *gallons*
Peak Level:	2.95 *in*		
d/D Ratio:	0.25		

SMH 0740050
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

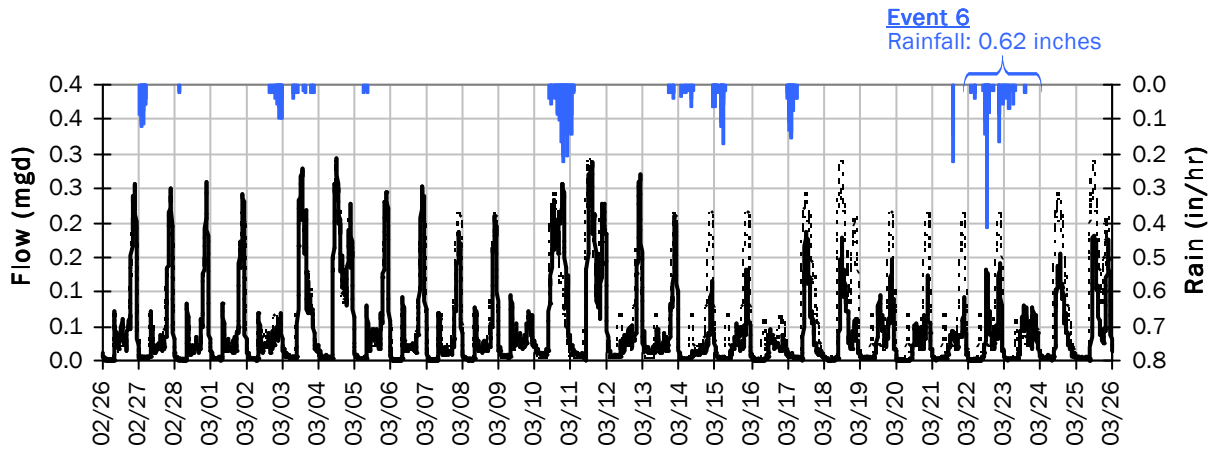


Storm Event I/I Analysis (Rain = 0.40 inches)

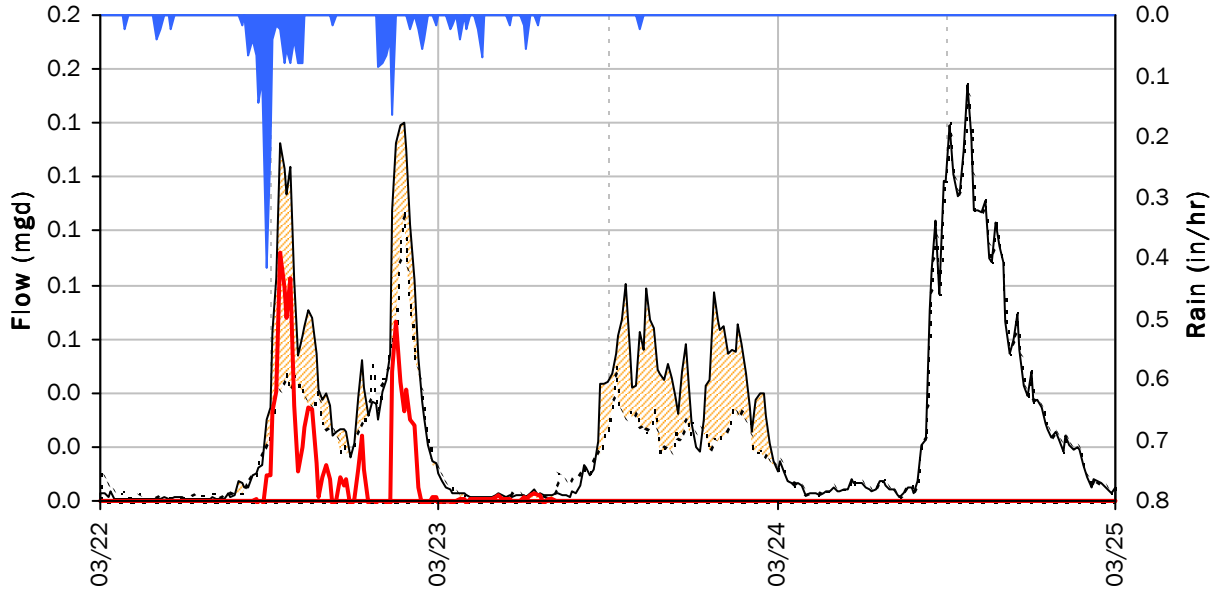
Capacity		Inflow / Infiltration	
Peak Flow:	0.01 *mgd*	**Peak I/I Rate:**	0.01 *mgd*
PF:	0.21	**Total I/I:**	1,000 *gallons*
Peak Level:	2.23 *in*		
d/D Ratio:	0.19		

SMH 0740050
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



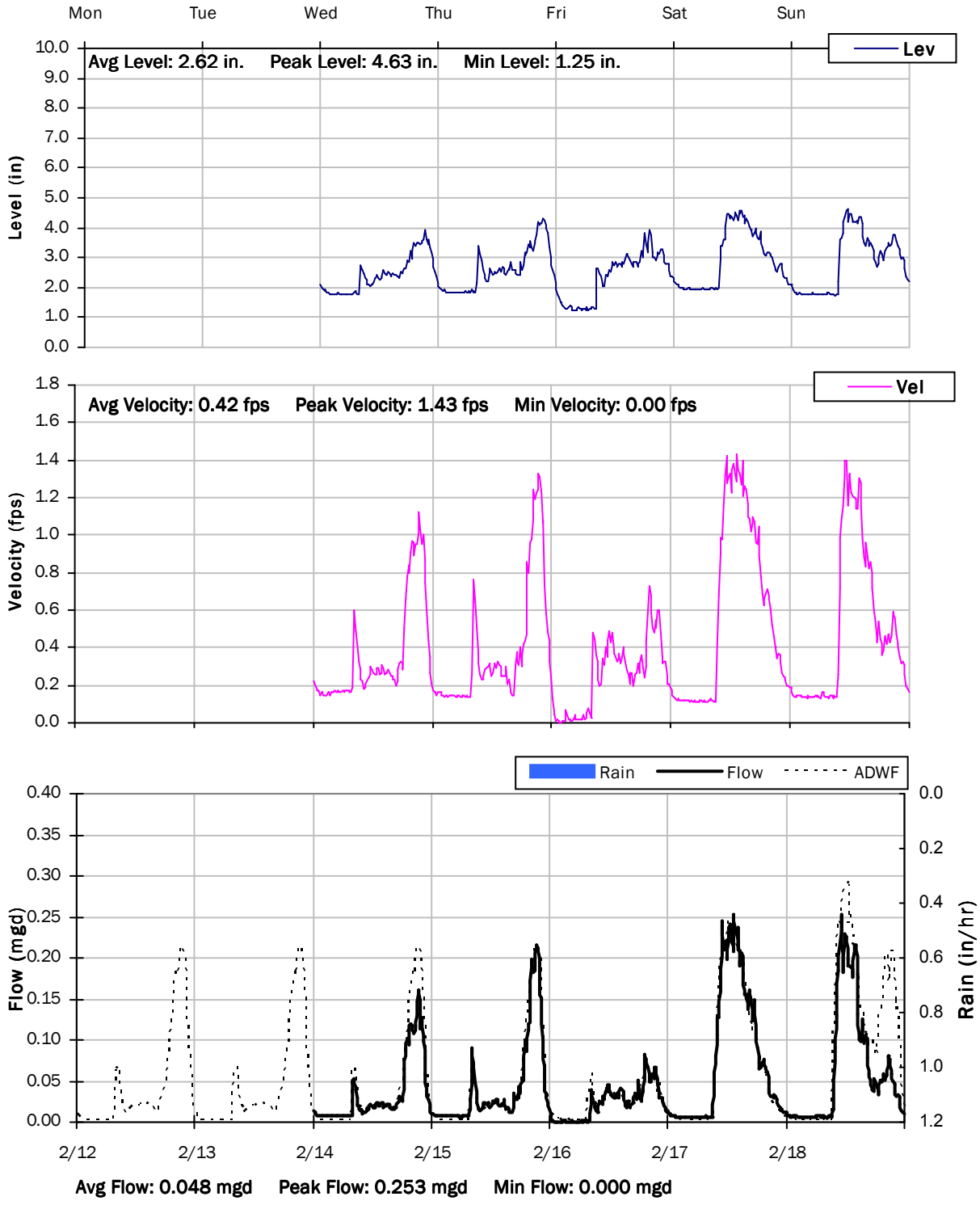
Storm Event I/I Analysis (Rain = 0.62 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	0.14 *mgd*	**Peak I/I Rate:**	0.09 *mgd*
PF:	2.70	**Total I/I:**	10,000 *gallons*
Peak Level:	3.99 *in*		
d/D Ratio:	0.33		

SMH 0740050

Weekly Level, Velocity and Flow Hydrographs

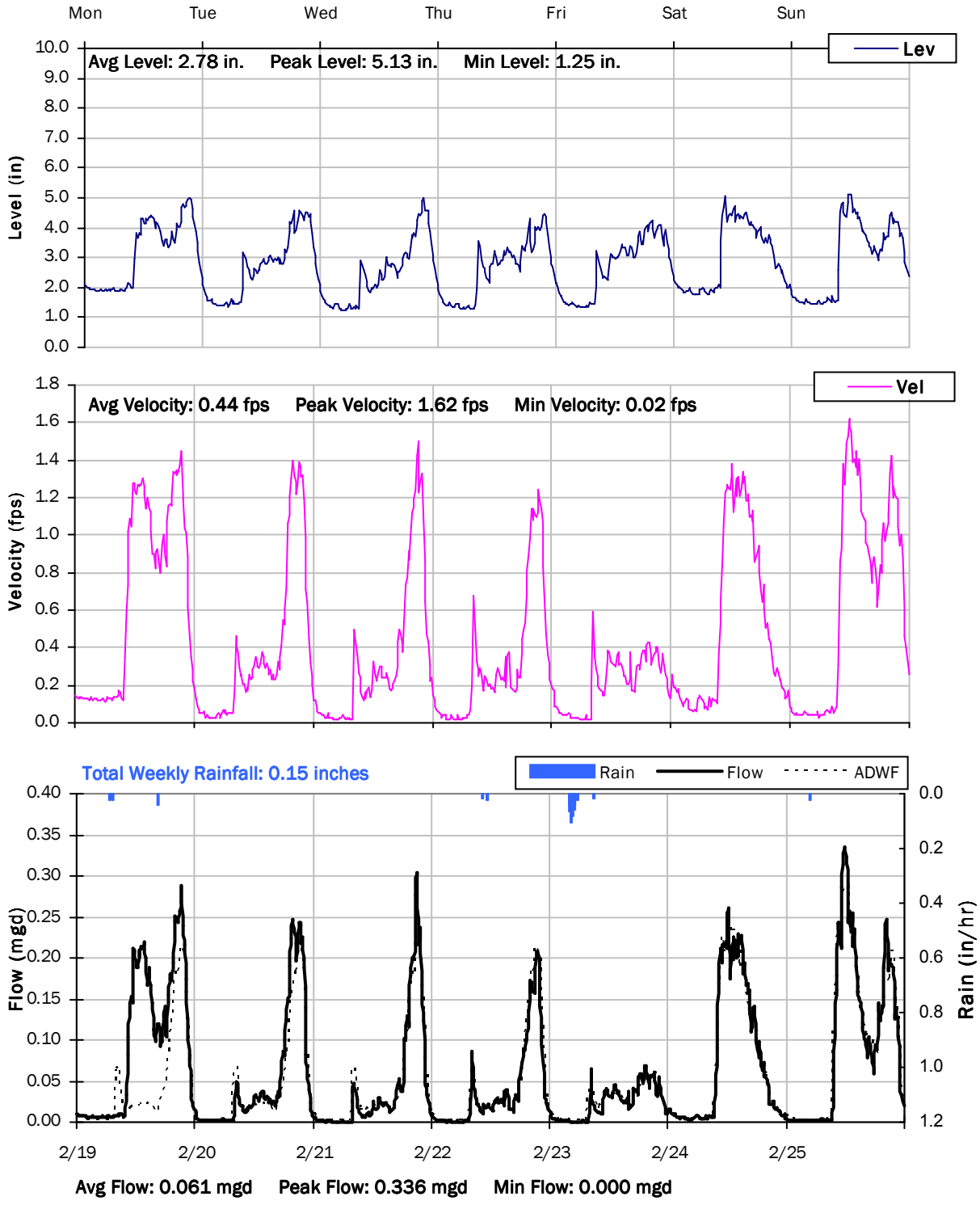
2/12/2018 to 2/19/2018



SMH 0740050

Weekly Level, Velocity and Flow Hydrographs

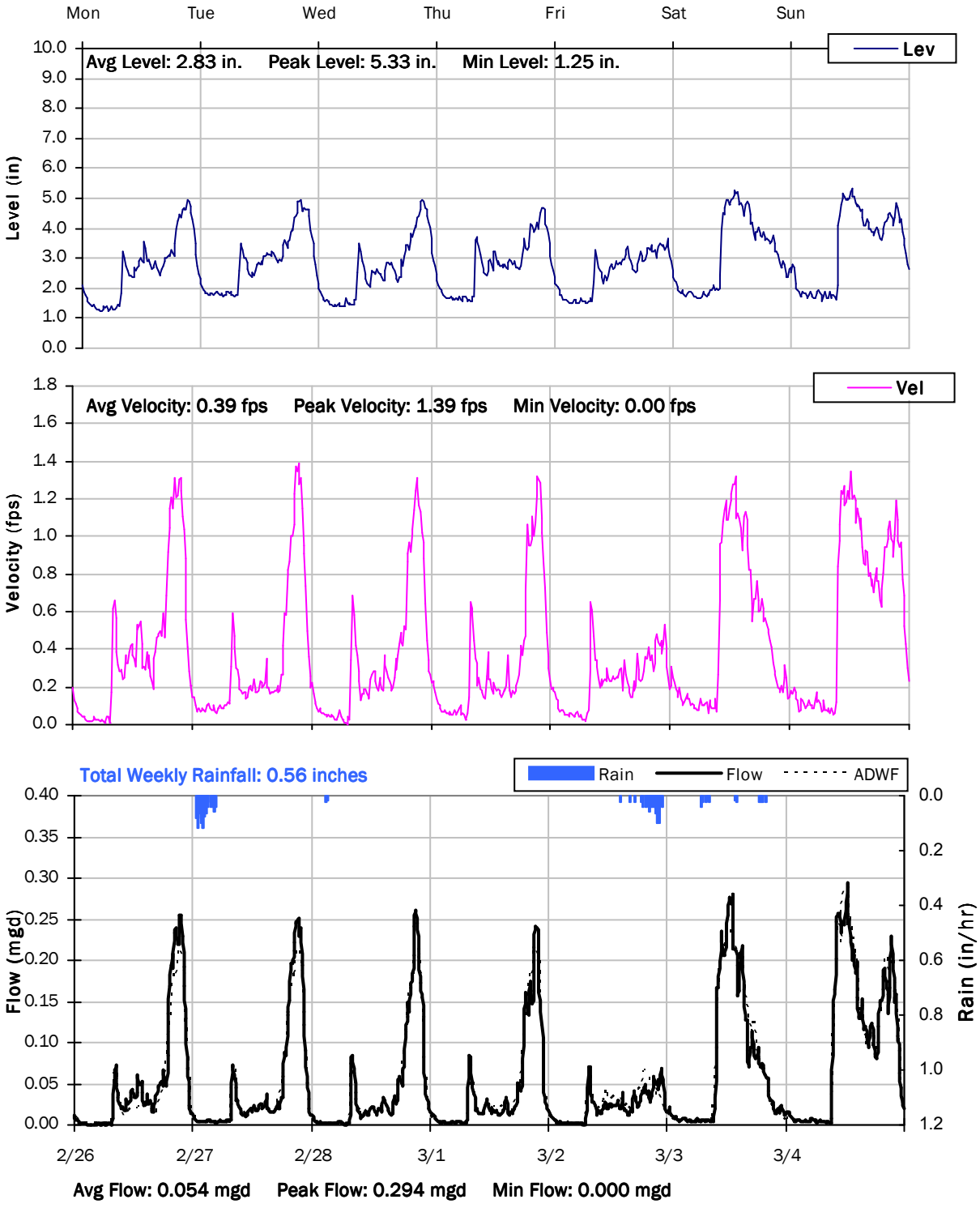
2/19/2018 to 2/26/2018



SMH 0740050

Weekly Level, Velocity and Flow Hydrographs

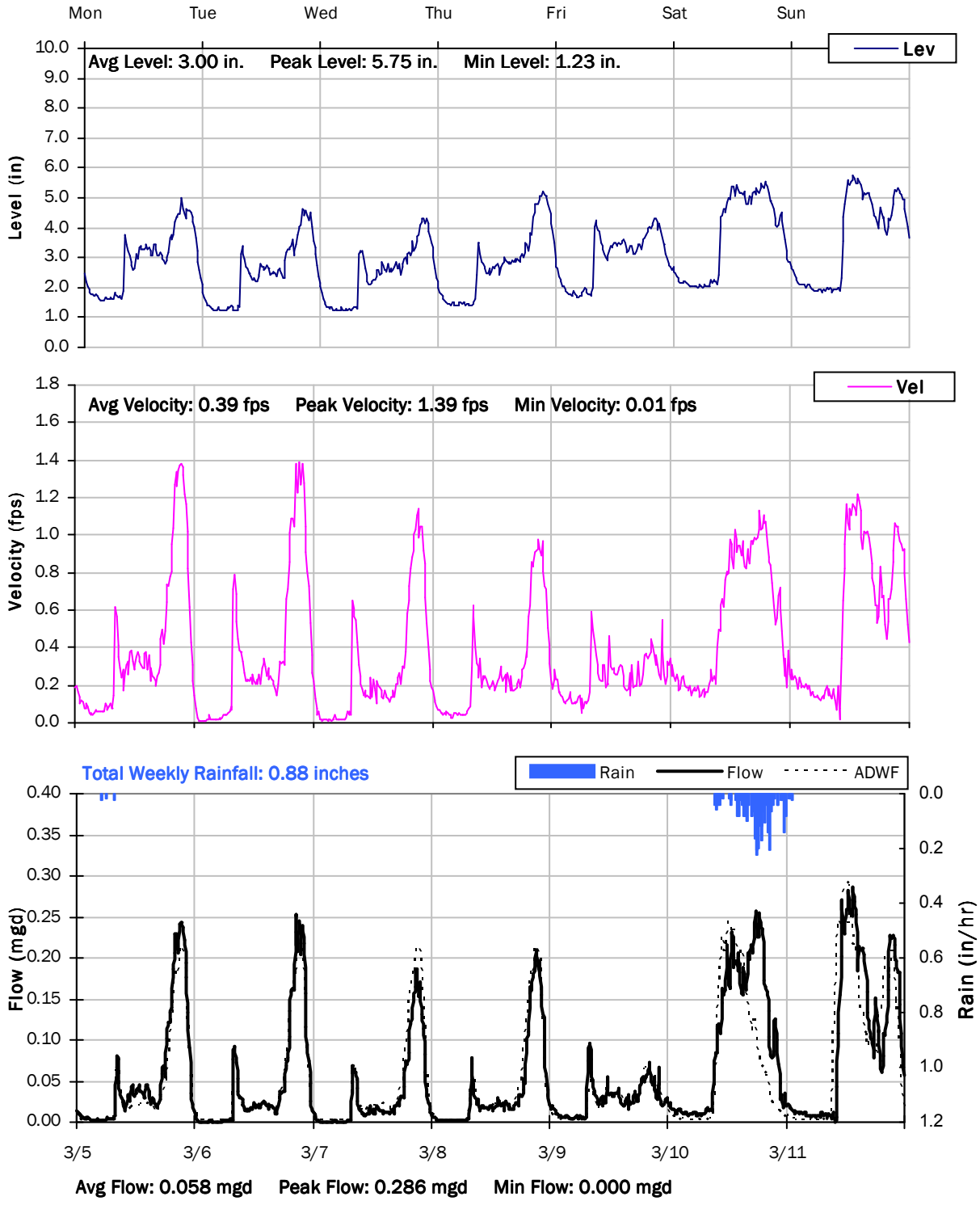
2/26/2018 to 3/5/2018



SMH 0740050

Weekly Level, Velocity and Flow Hydrographs

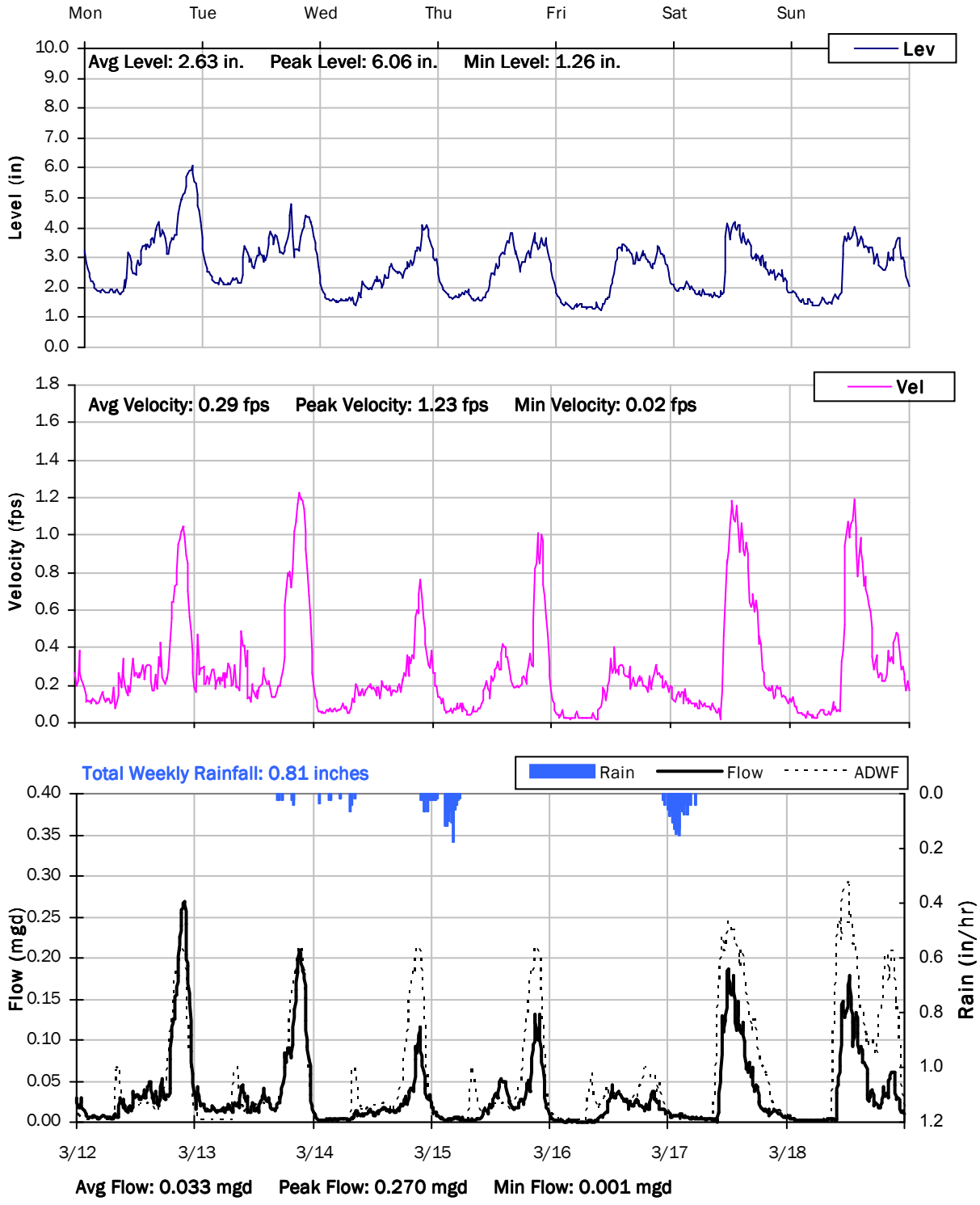
3/5/2018 to 3/12/2018



SMH 0740050

Weekly Level, Velocity and Flow Hydrographs

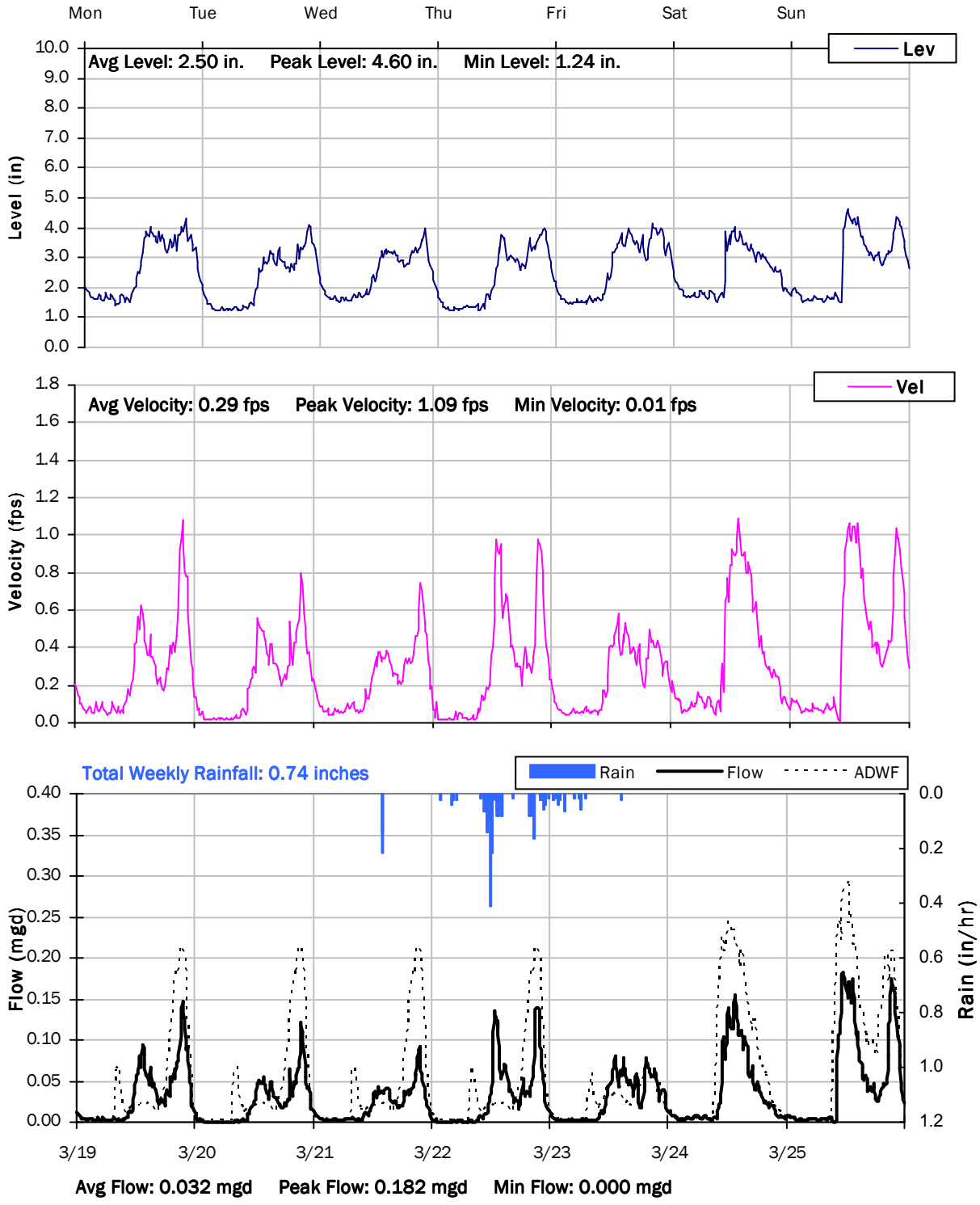
3/12/2018 to 3/19/2018



SMH 0740050

Weekly Level, Velocity and Flow Hydrographs

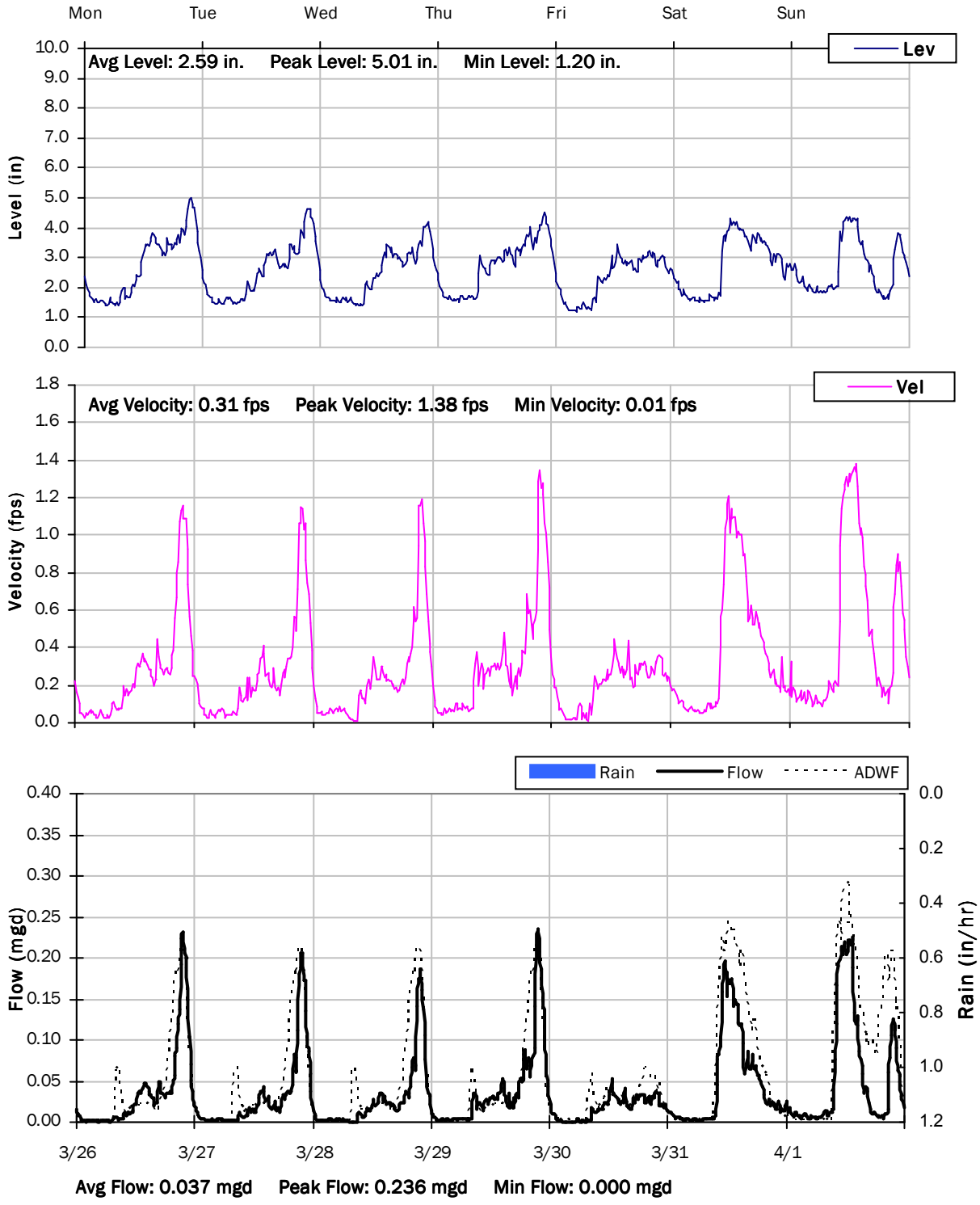
3/19/2018 to 3/26/2018



SMH 0740050

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



San Bernardino Municipal Water District

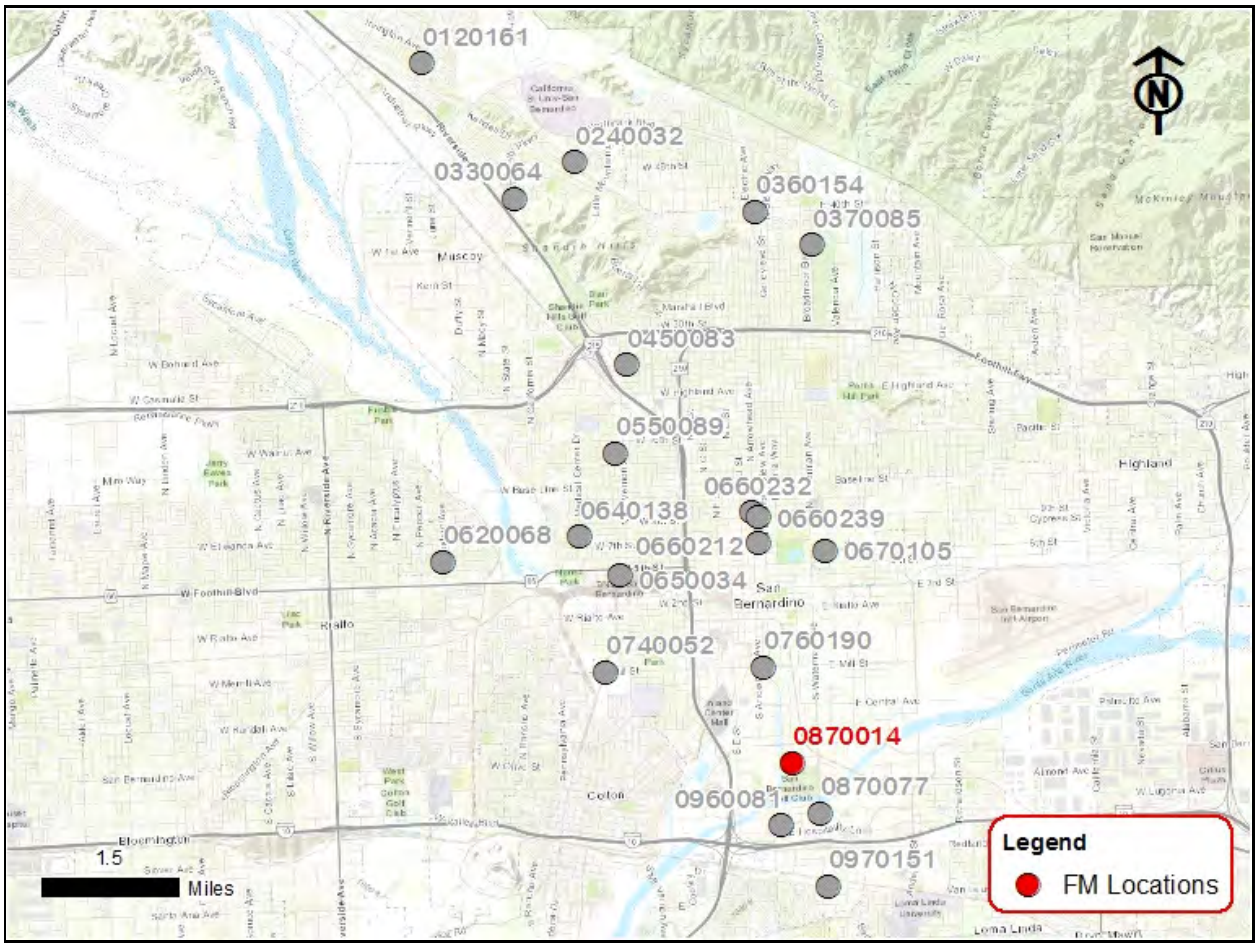
Sanitary Sewer Flow Monitoring

Phase 1: February 14 - April 1, 2018

Monitoring Site: SMH 0870014

Location: E Dumas Street east of S Washington Avenue

Data Summary Report



Vicinity Map: SMH 0870014

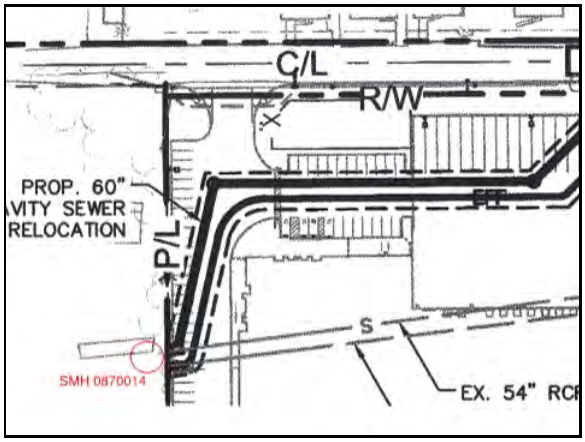
SMH 0870014

Site Information

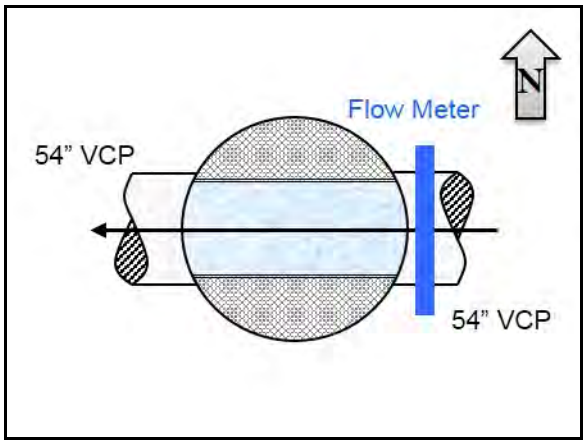
Location:	E Dumas Street east of S Washington Avenue
Coordinates:	117.2832° W, 34.0773° N
Rim Elevation (Earth):	1009 feet
Pipe Diameter:	54 inches
ADWF:	10.675 mgd
Peak Measured Flow:	18.760 mgd



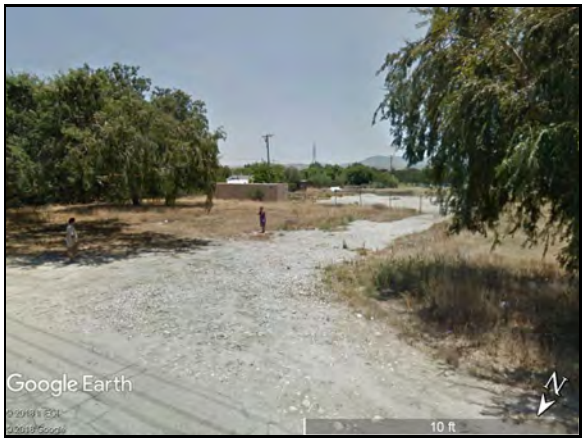
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0870014

Additional Site Photos

Effluent Pipe



Influent Pipe

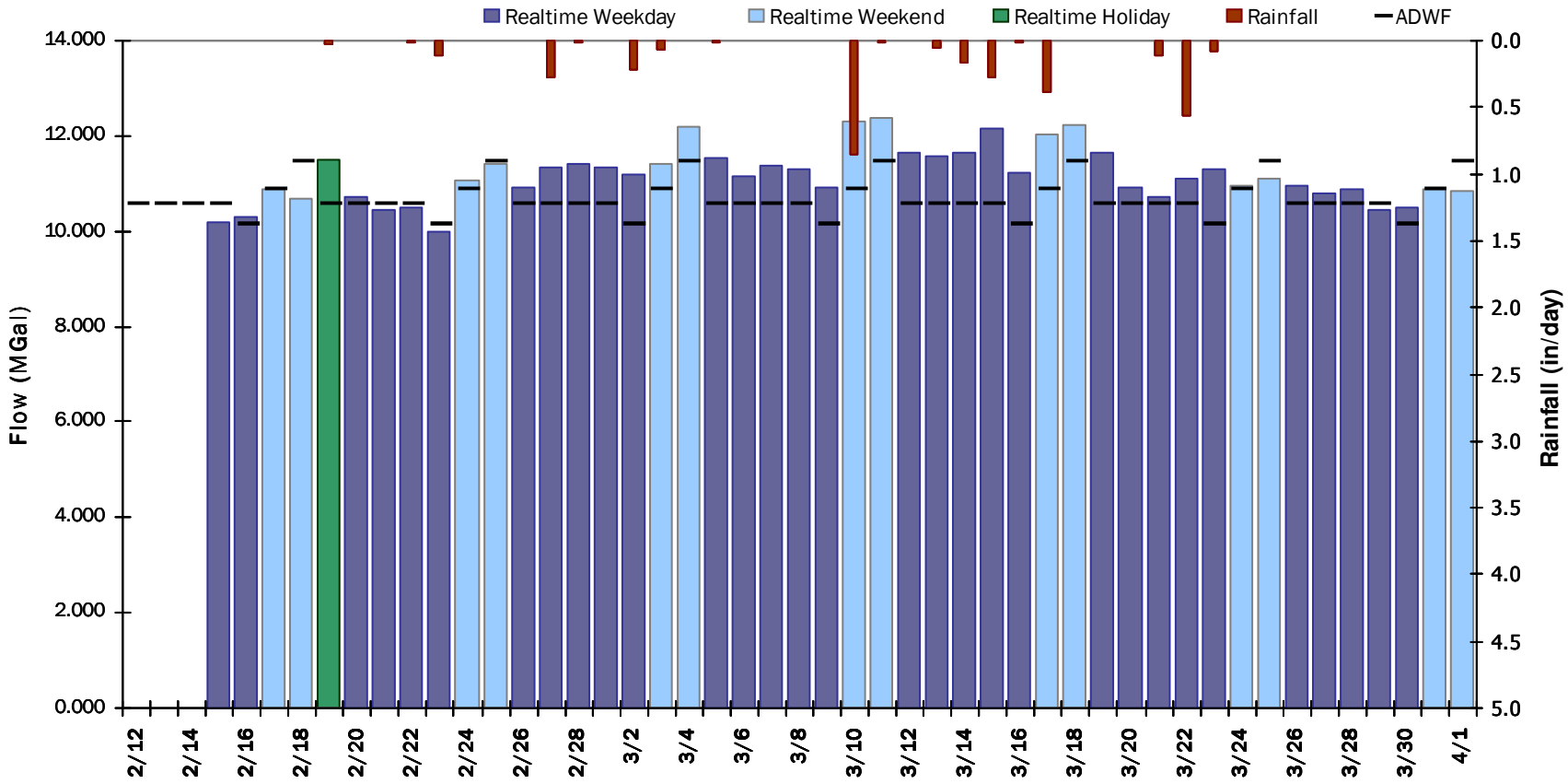


SMH 0870014

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 11.176 MGal **Peak Daily Flow: 12.378 MGal** **Min Daily Flow: 9.984 MGal**

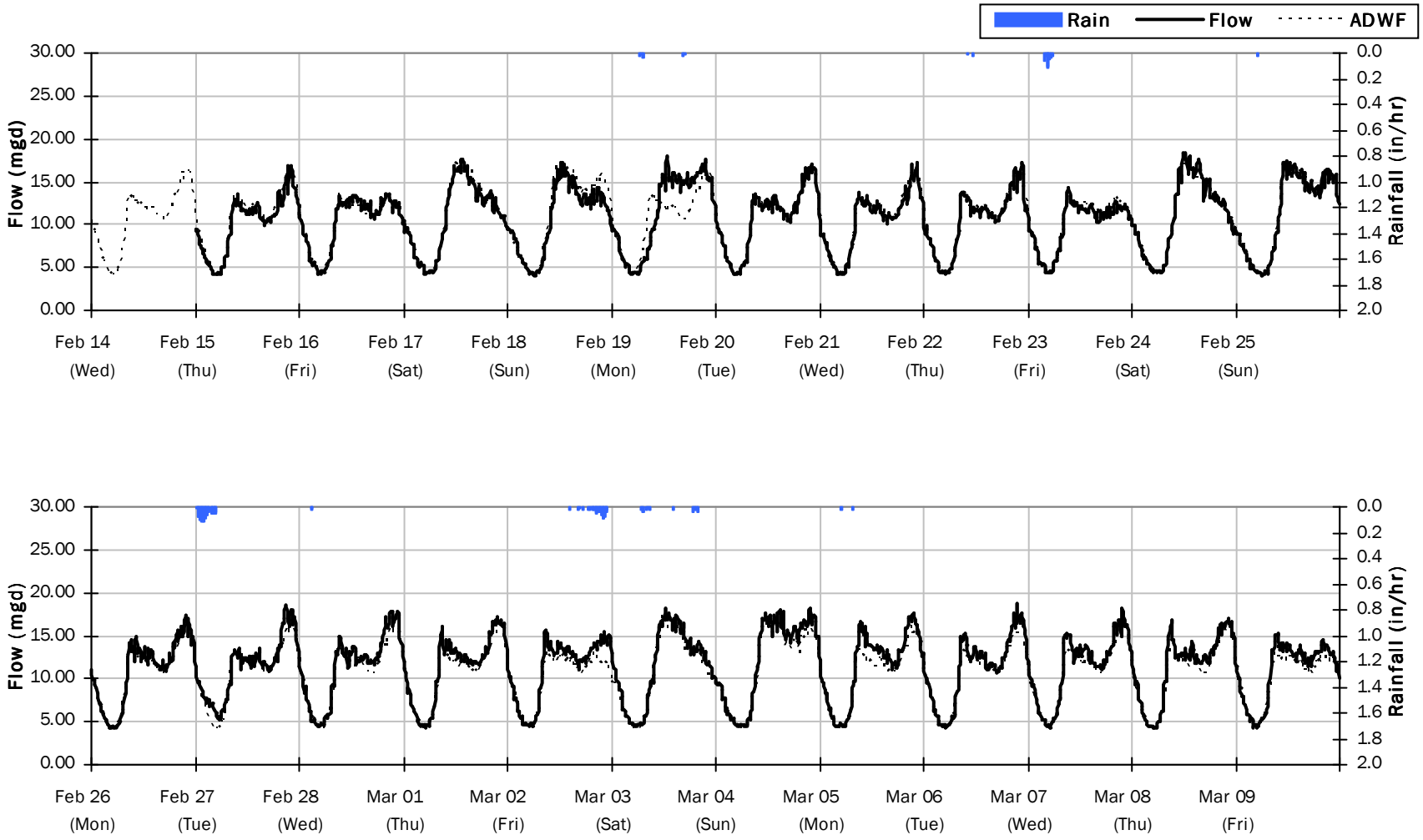
Total Period Rainfall: 3.28 inches



SMH 0870014

Flow Summary: 2/14/2018 to 3/9/2018

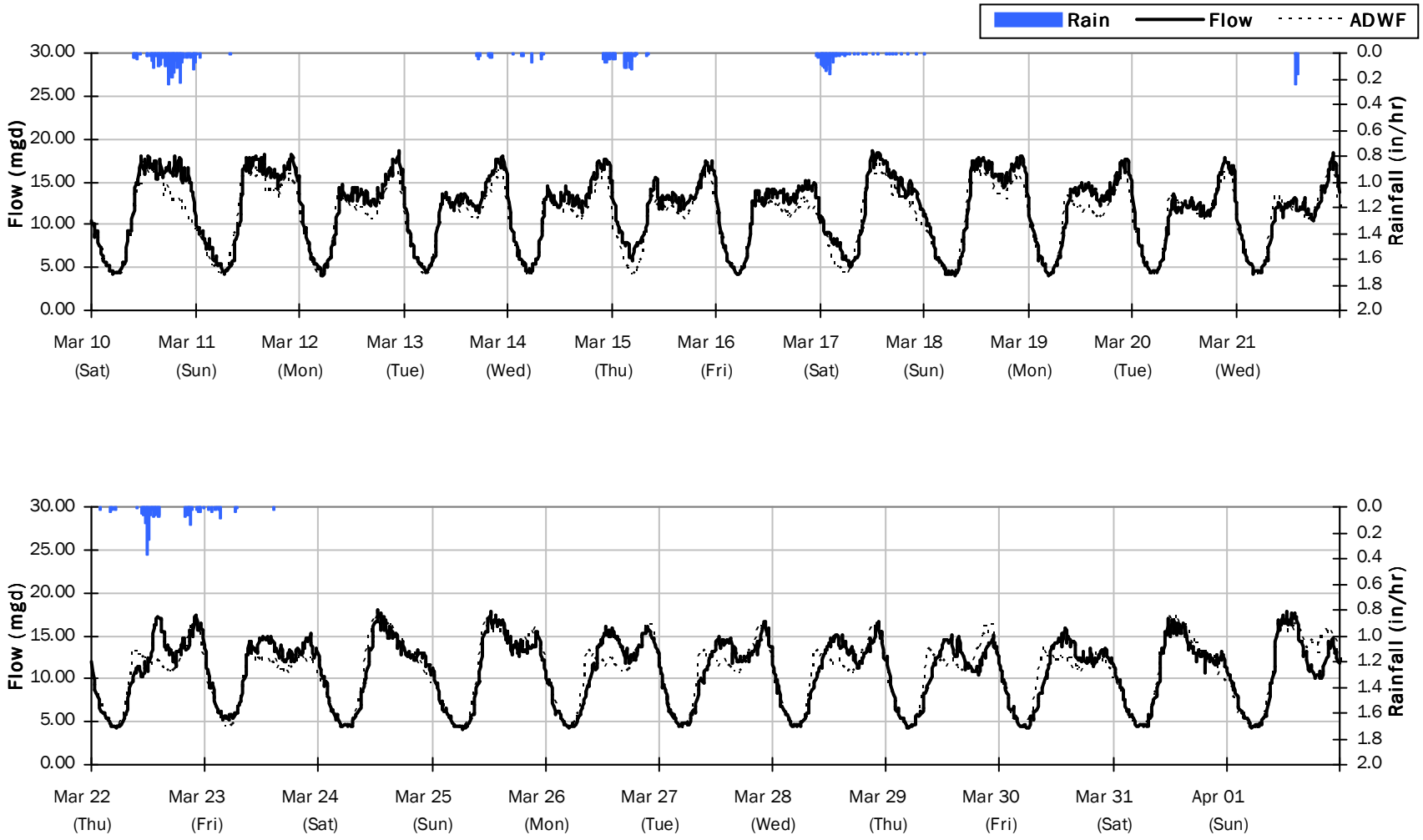
Total Period Rainfall: 0.74 inches Avg Flow: 11.036 mgd Peak Flow: 18.760 mgd Min Flow: 4.047 mgd



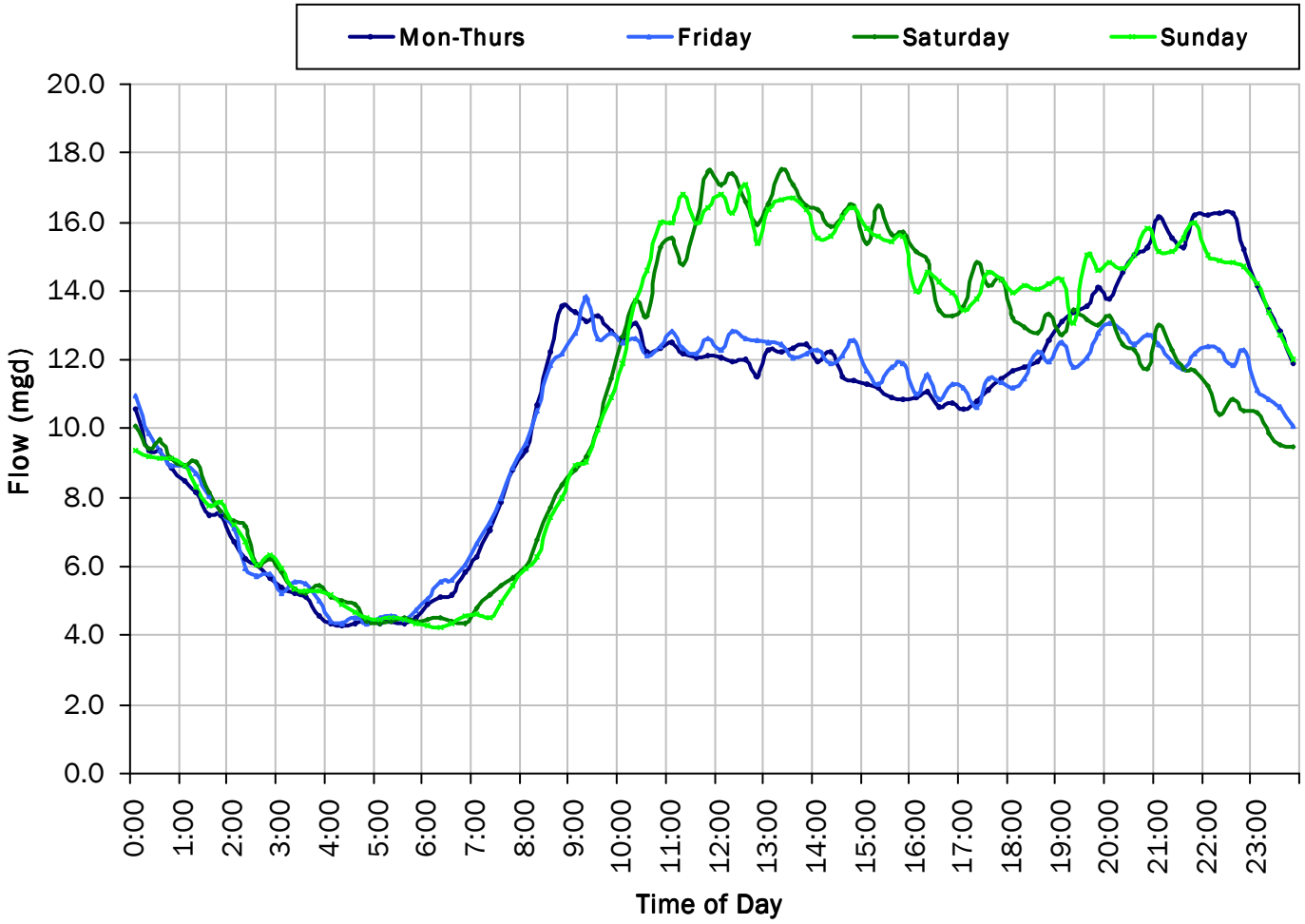
SMH 0870014

Flow Summary: 3/10/2018 to 4/1/2018

Total Period Rainfall: 2.54 inches **Avg Flow: 11.316 mgd** **Peak Flow: 18.546 mgd** **Min Flow: 4.022 mgd**

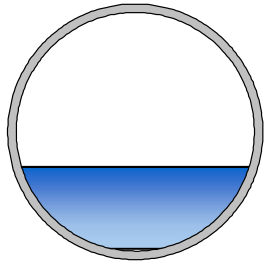


SMH 0870014
Average Dry Weather Flow Hydrographs



ADWF:

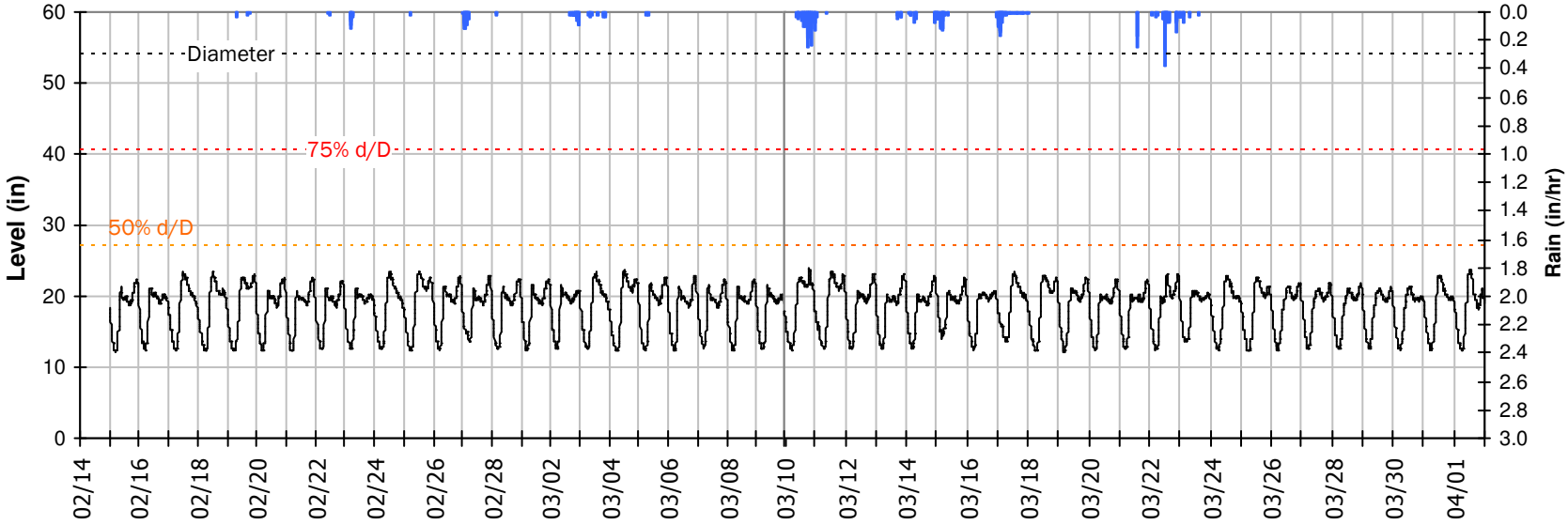
10.675 *mgd*

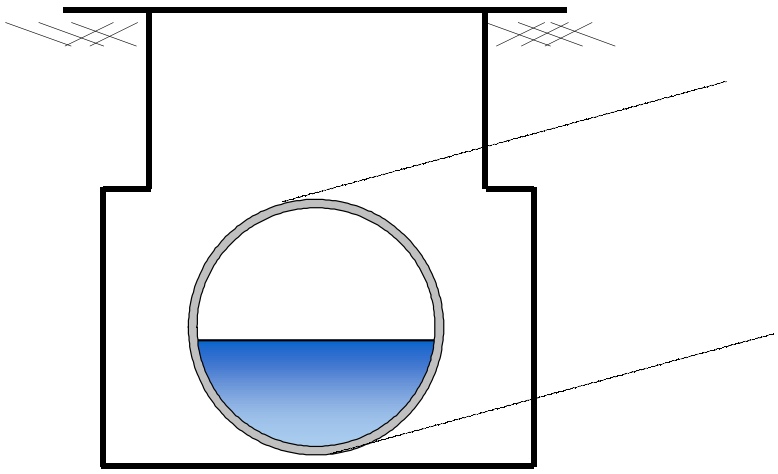


SMH 0870014

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period

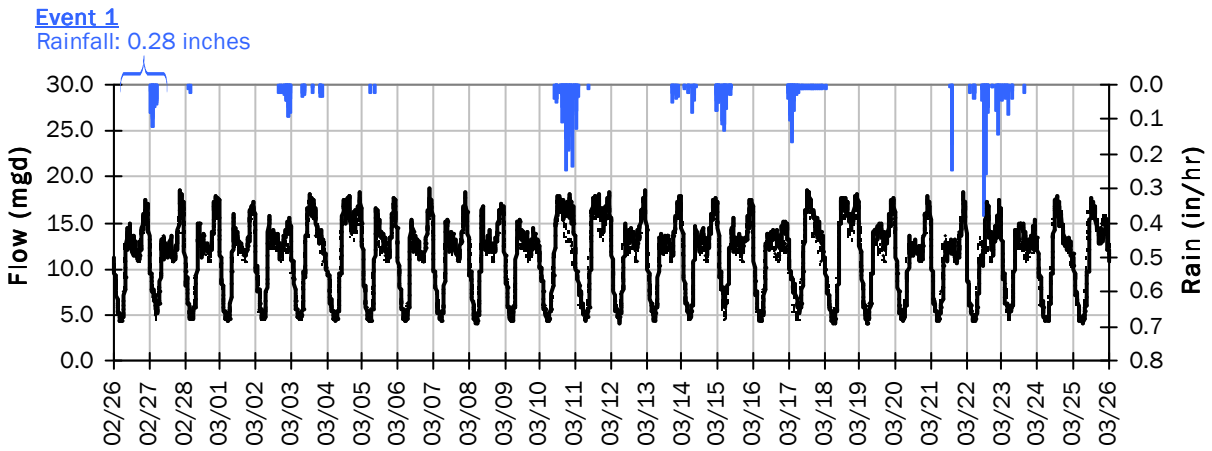




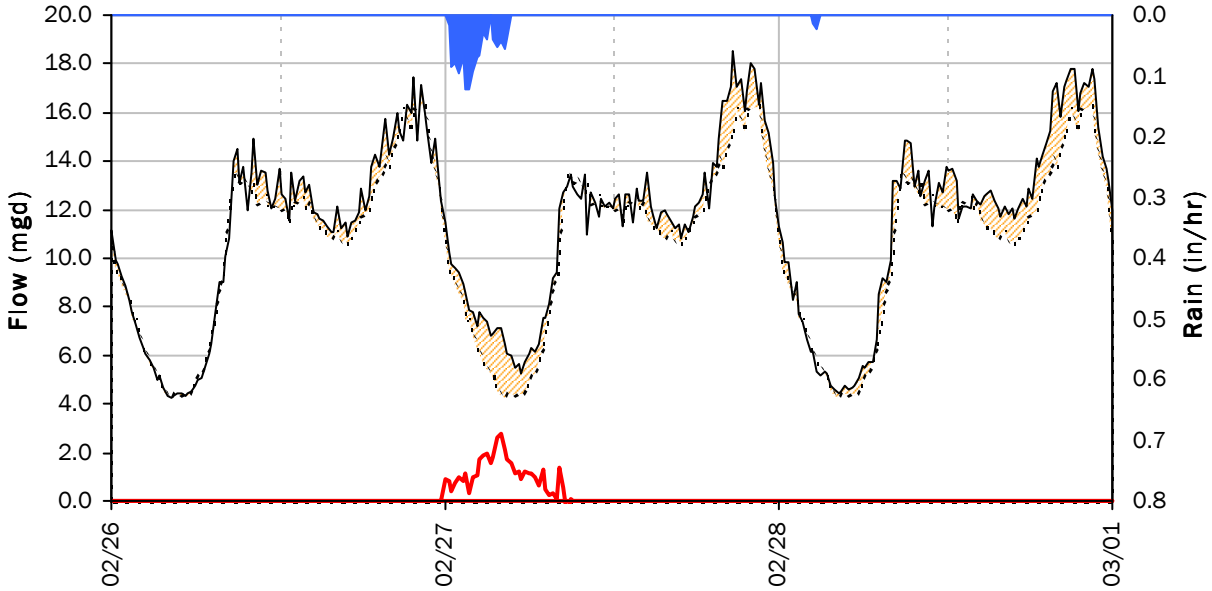
Pipe Diameter:	54	*inches*
Peak Measured Level:	23.9	*inches*
Peak d/D Ratio:	0.44	

SMH 0870014
I/I Summary: Event 1

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 1 Detail Graph

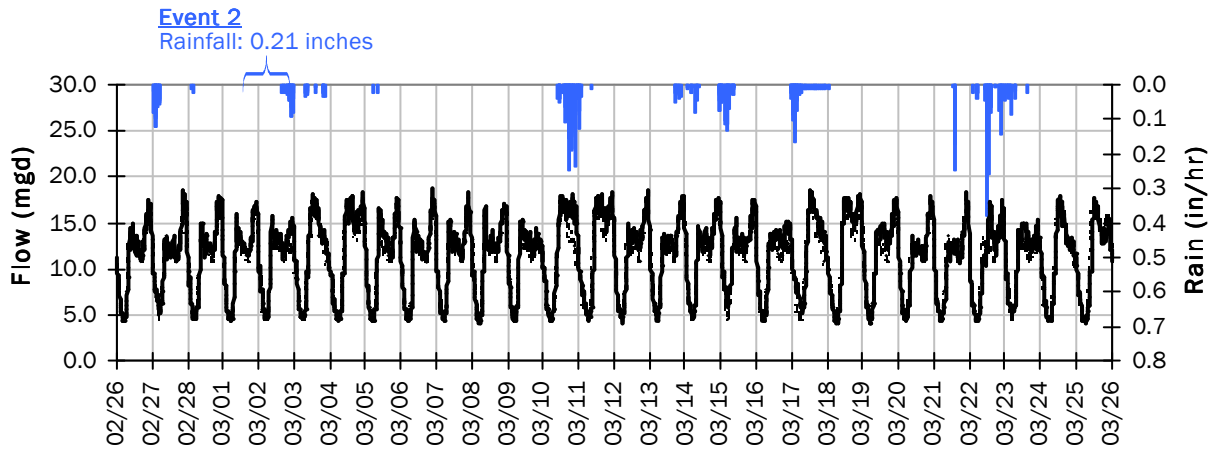


Storm Event I/I Analysis (Rain = 0.28 inches)

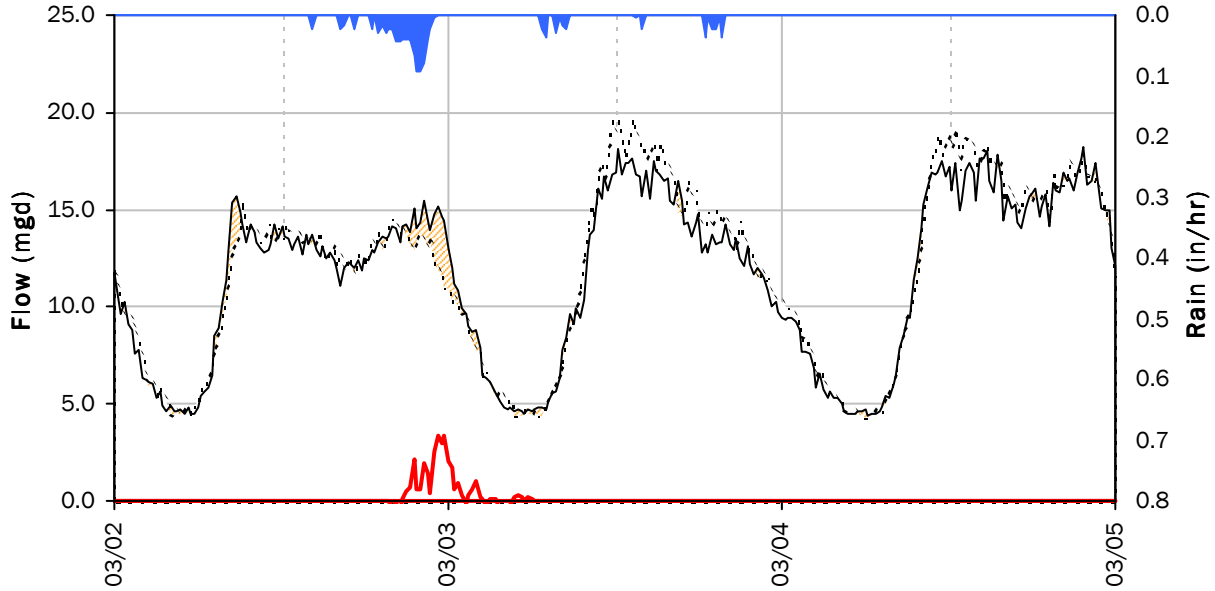
Capacity		Inflow / Infiltration	
Peak Flow:	13.45 *mgd*	**Peak I/I Rate:**	2.77 *mgd*
PF:	1.26	**Total I/I:**	419,000 *gallons*
Peak Level:	21.00 *in*		
d/D Ratio:	0.39		

SMH 0870014
I/I Summary: Event 2

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 2 Detail Graph

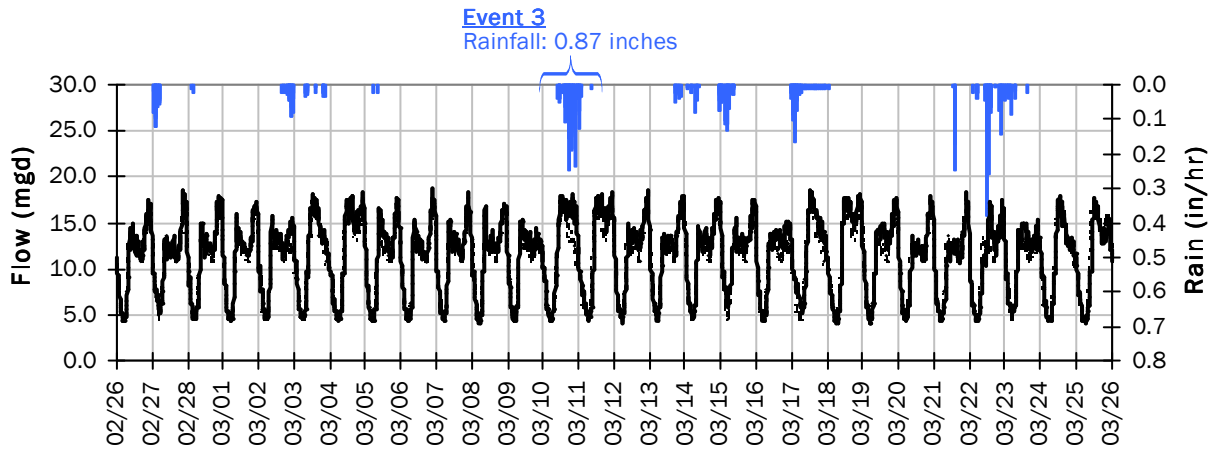


Storm Event I/I Analysis (Rain = 0.21 inches)

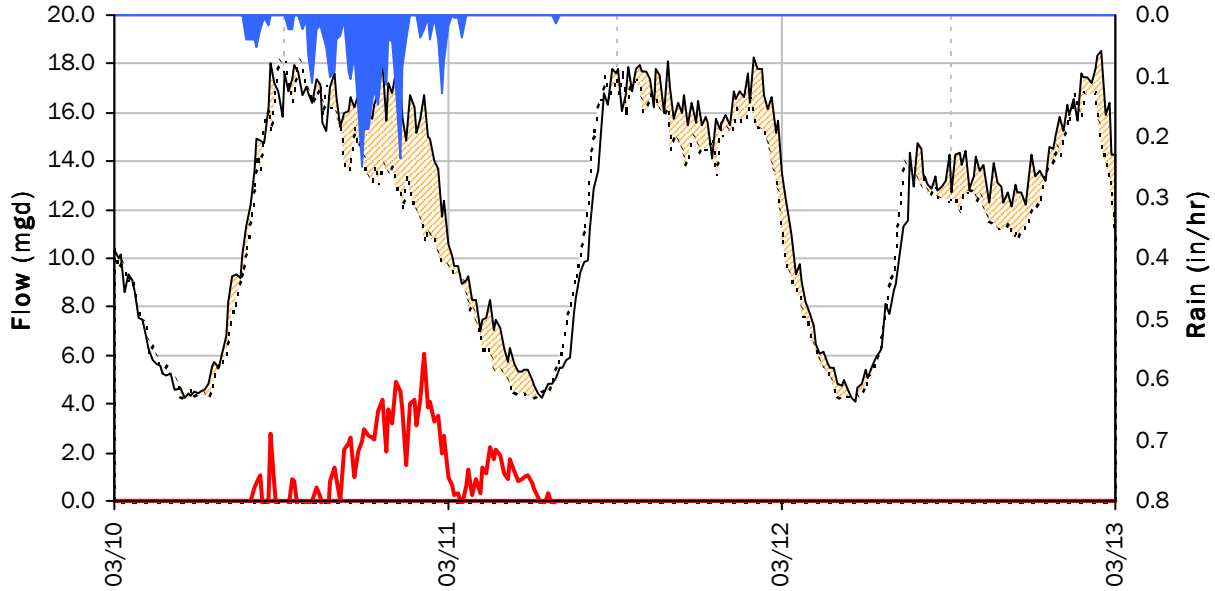
Capacity		Inflow / Infiltration	
Peak Flow:	15.48 *mgd*	**Peak I/I Rate:**	3.43 *mgd*
PF:	1.45	**Total I/I:**	285,000 *gallons*
Peak Level:	20.83 *in*		
d/D Ratio:	0.39		

SMH 0870014
I/I Summary: Event 3

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 3 Detail Graph

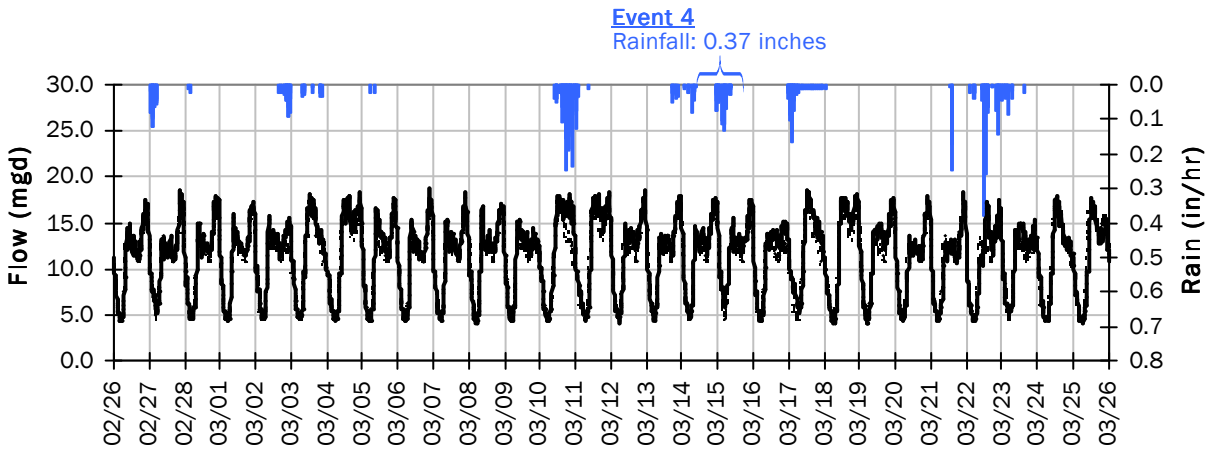


Storm Event I/I Analysis (Rain = 0.87 inches)

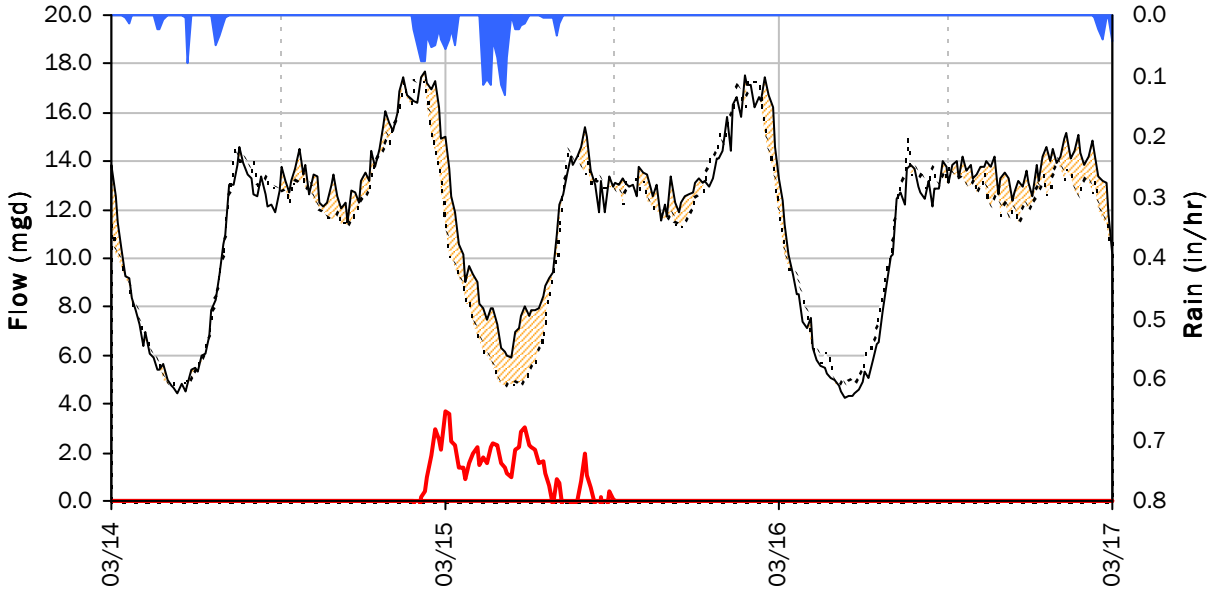
Capacity		Inflow / Infiltration	
Peak Flow:	18.06 *mgd*	**Peak I/I Rate:**	6.04 *mgd*
PF:	1.69	**Total I/I:**	1,302,000 *gallons*
Peak Level:	23.87 *in*		
d/D Ratio:	0.44		

SMH 0870014
I/I Summary: Event 4

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 4 Detail Graph

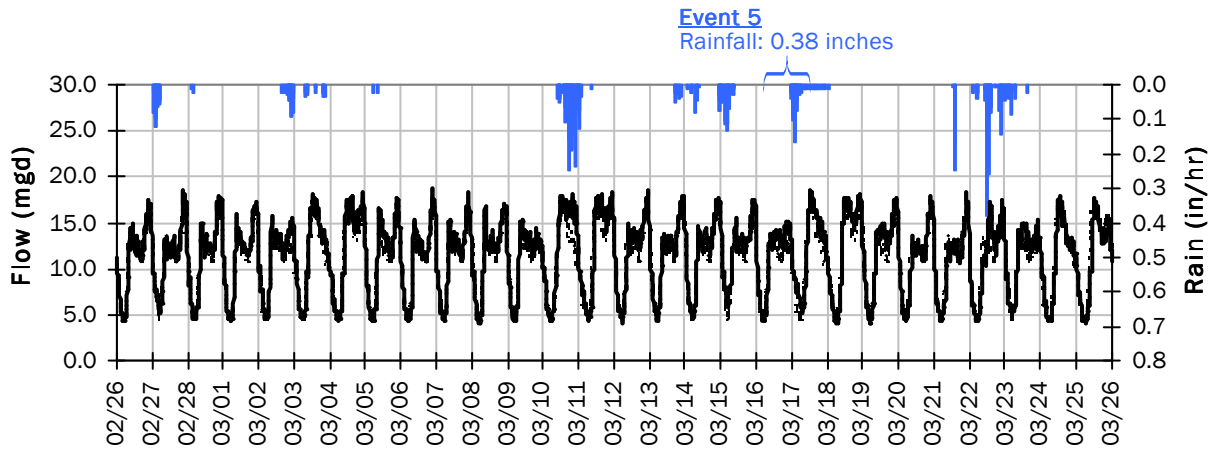


Storm Event I/I Analysis (Rain = 0.37 inches)

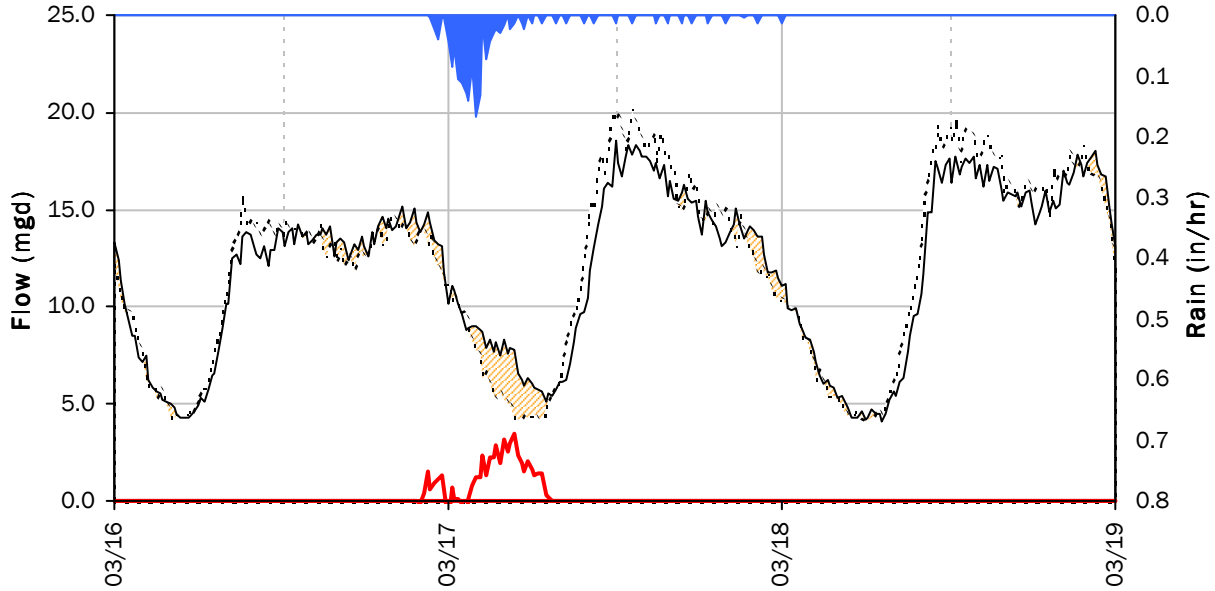
Capacity		Inflow / Infiltration	
Peak Flow:	17.69 *mgd*	**Peak I/I Rate:**	3.68 *mgd*
PF:	1.66	**Total I/I:**	751,000 *gallons*
Peak Level:	22.99 *in*		
d/D Ratio:	0.43		

SMH 0870014
I/I Summary: Event 5

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 5 Detail Graph

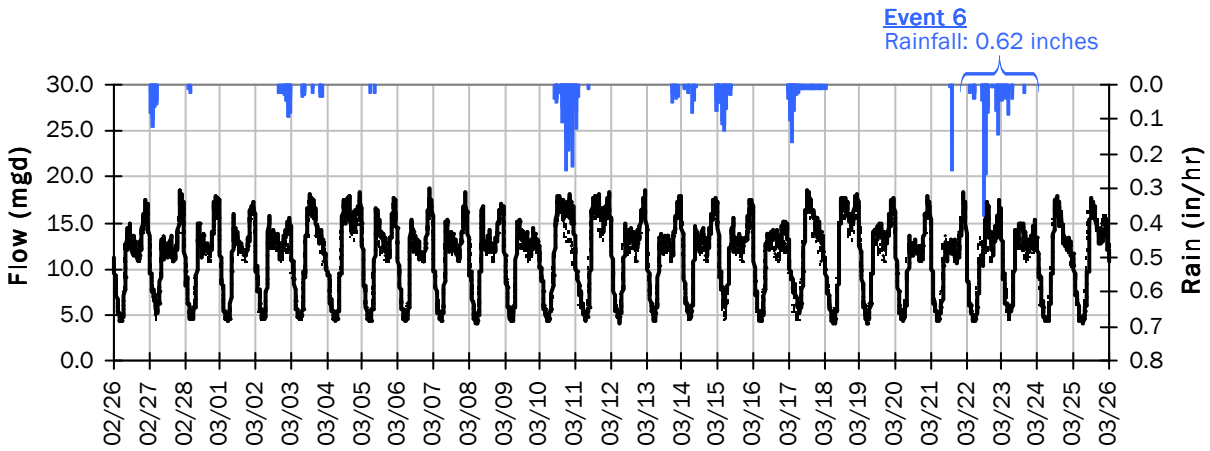


Storm Event I/I Analysis (Rain = 0.38 inches)

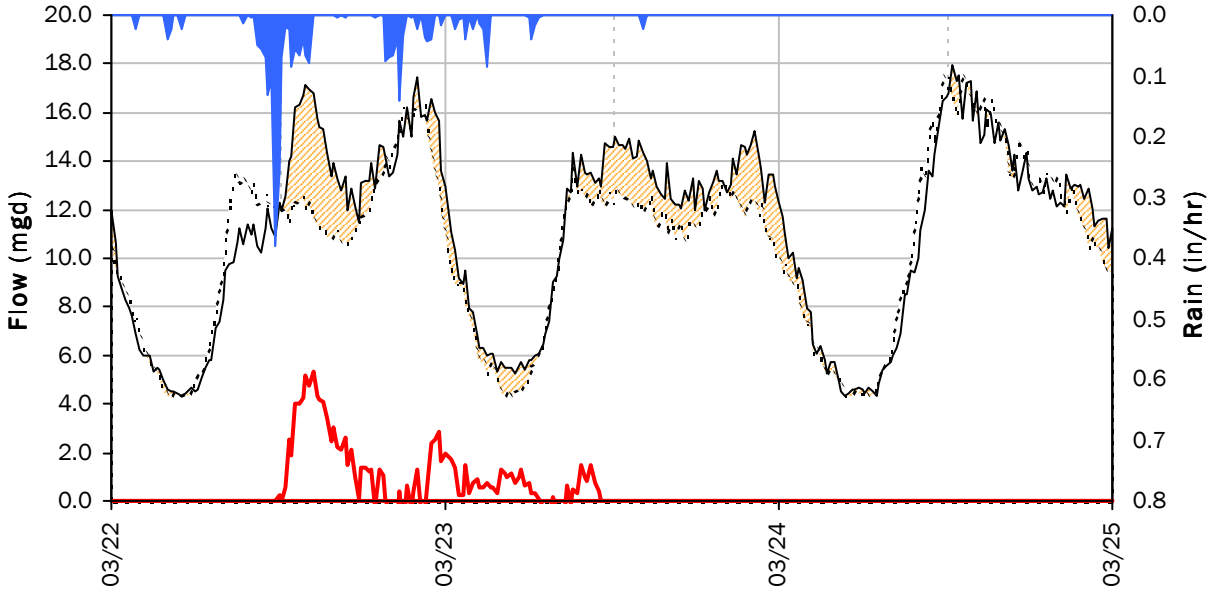
Capacity		Inflow / Infiltration	
Peak Flow:	14.81 *mgd*	**Peak I/I Rate:**	3.53 *mgd*
PF:	1.39	**Total I/I:**	503,000 *gallons*
Peak Level:	20.66 *in*		
d/D Ratio:	0.38		

SMH 0870014
I/I Summary: Event 6

Baseline and Realtime Flows with Rainfall Data over Monitoring Period



Event 6 Detail Graph



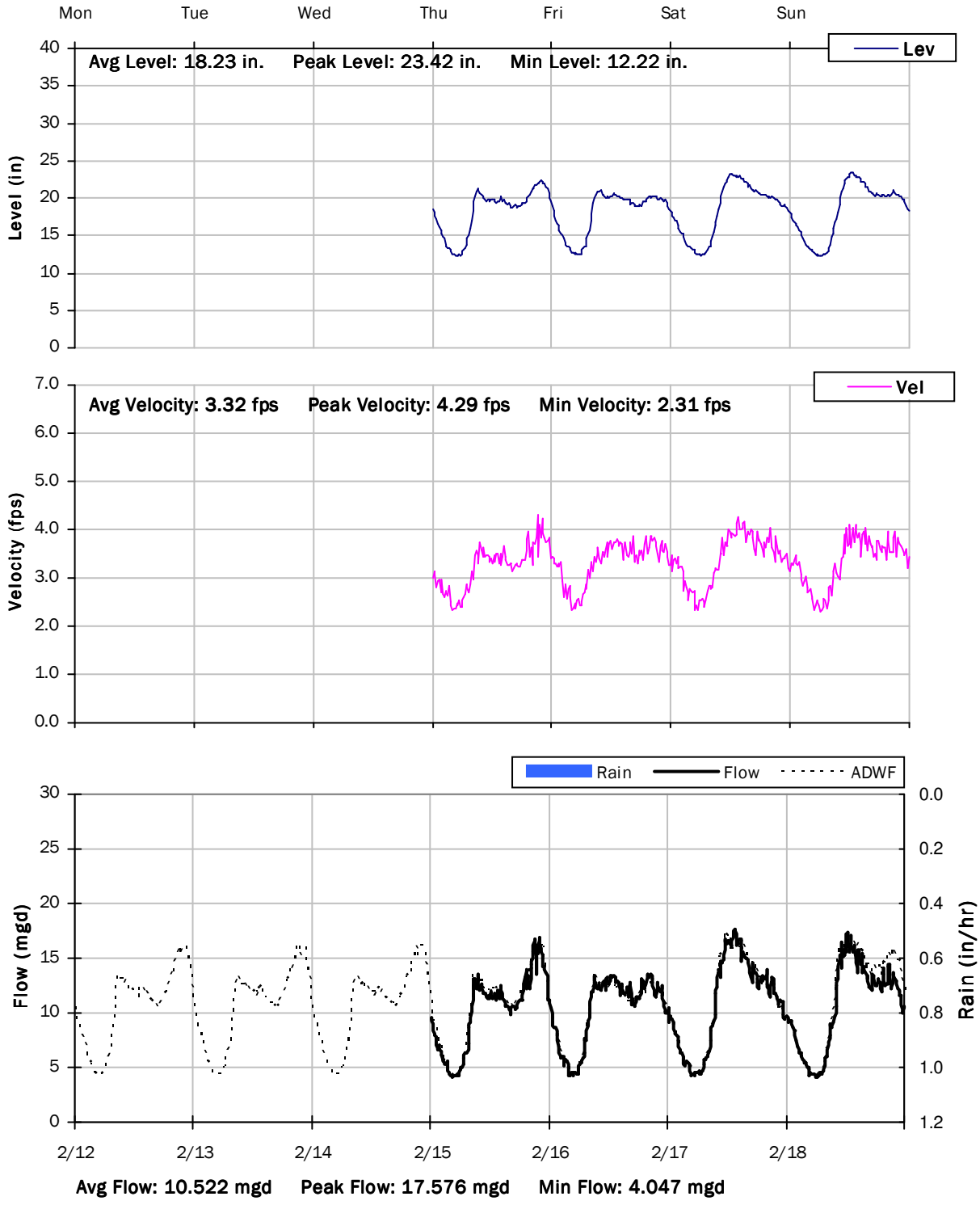
Storm Event I/I Analysis (Rain = 0.62 inches)

Capacity		Inflow / Infiltration	
Peak Flow:	17.49 *mgd*	**Peak I/I Rate:**	5.32 *mgd*
PF:	1.64	**Total I/I:**	1,147,000 *gallons*
Peak Level:	23.27 *in*		
d/D Ratio:	0.43		

SMH 0870014

Weekly Level, Velocity and Flow Hydrographs

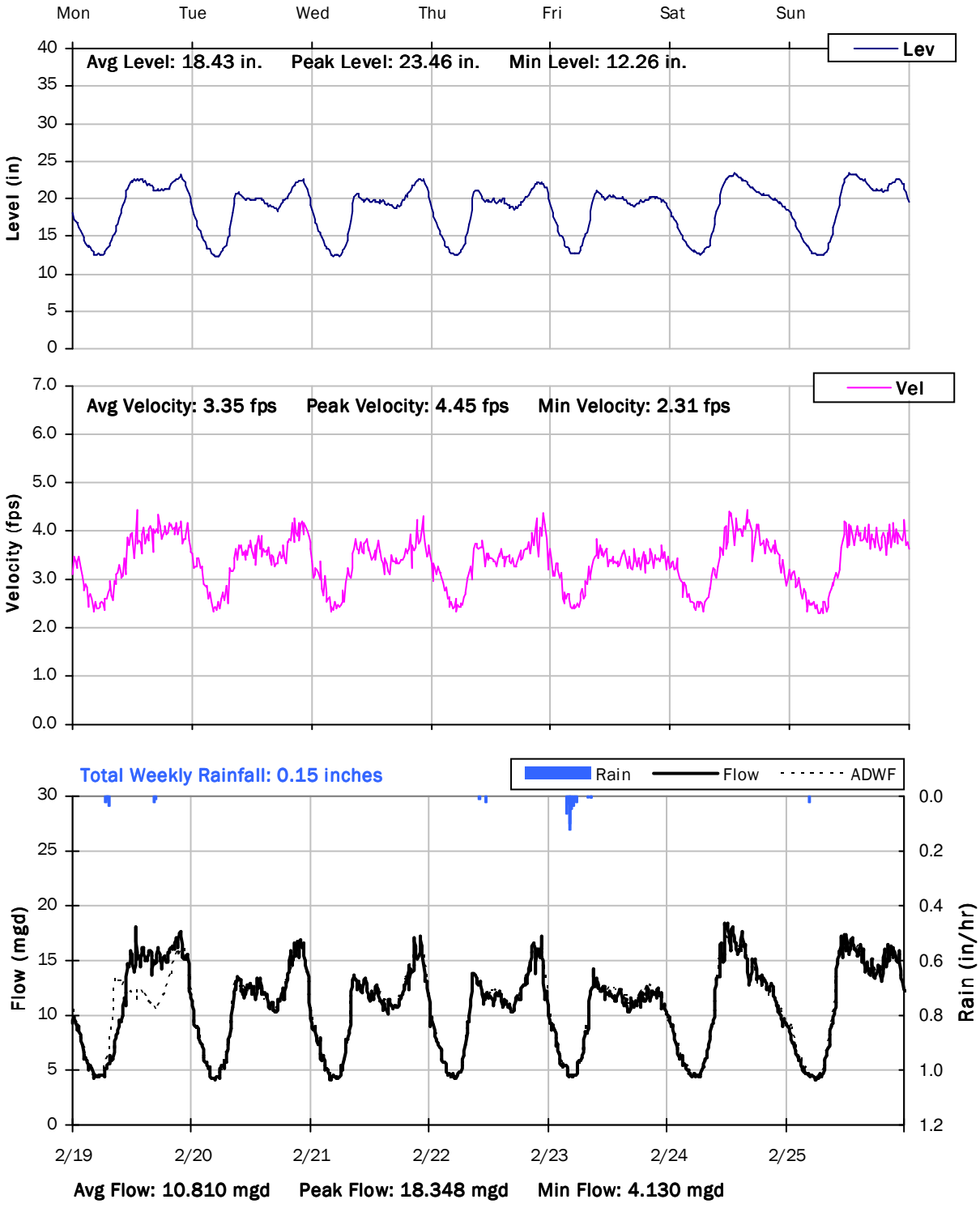
2/12/2018 to 2/19/2018



SMH 0870014

Weekly Level, Velocity and Flow Hydrographs

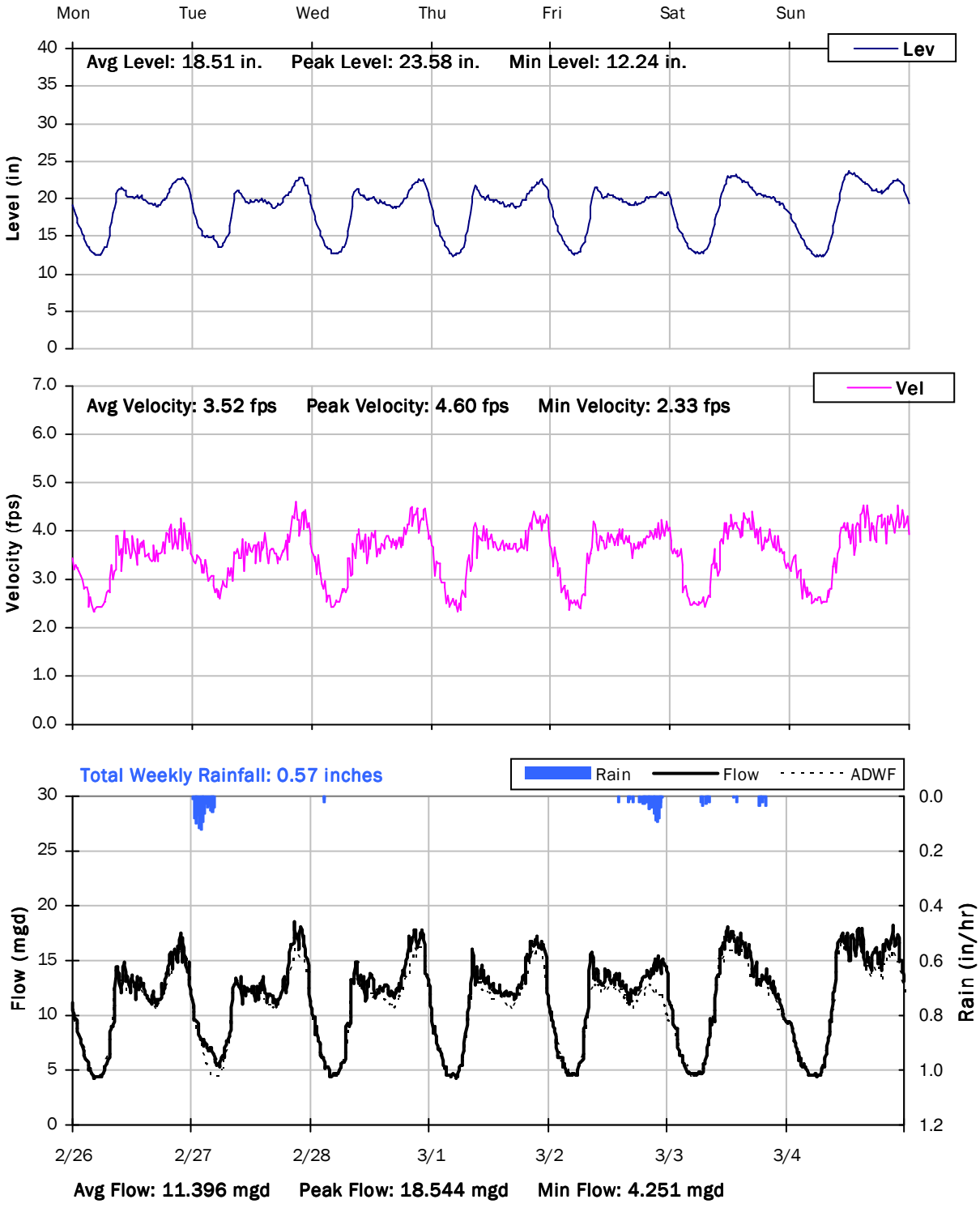
2/19/2018 to 2/26/2018



SMH 0870014

Weekly Level, Velocity and Flow Hydrographs

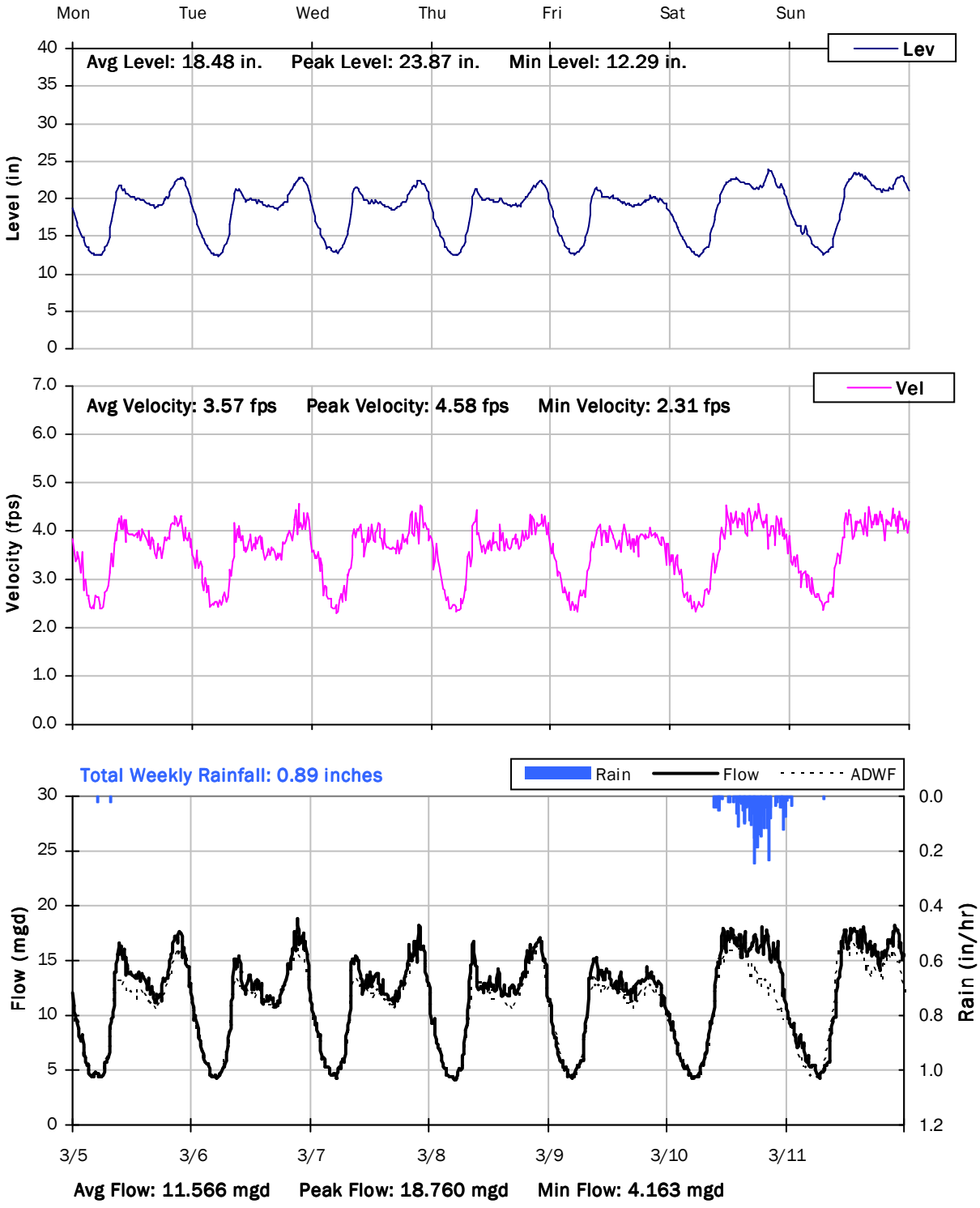
2/26/2018 to 3/5/2018



SMH 0870014

Weekly Level, Velocity and Flow Hydrographs

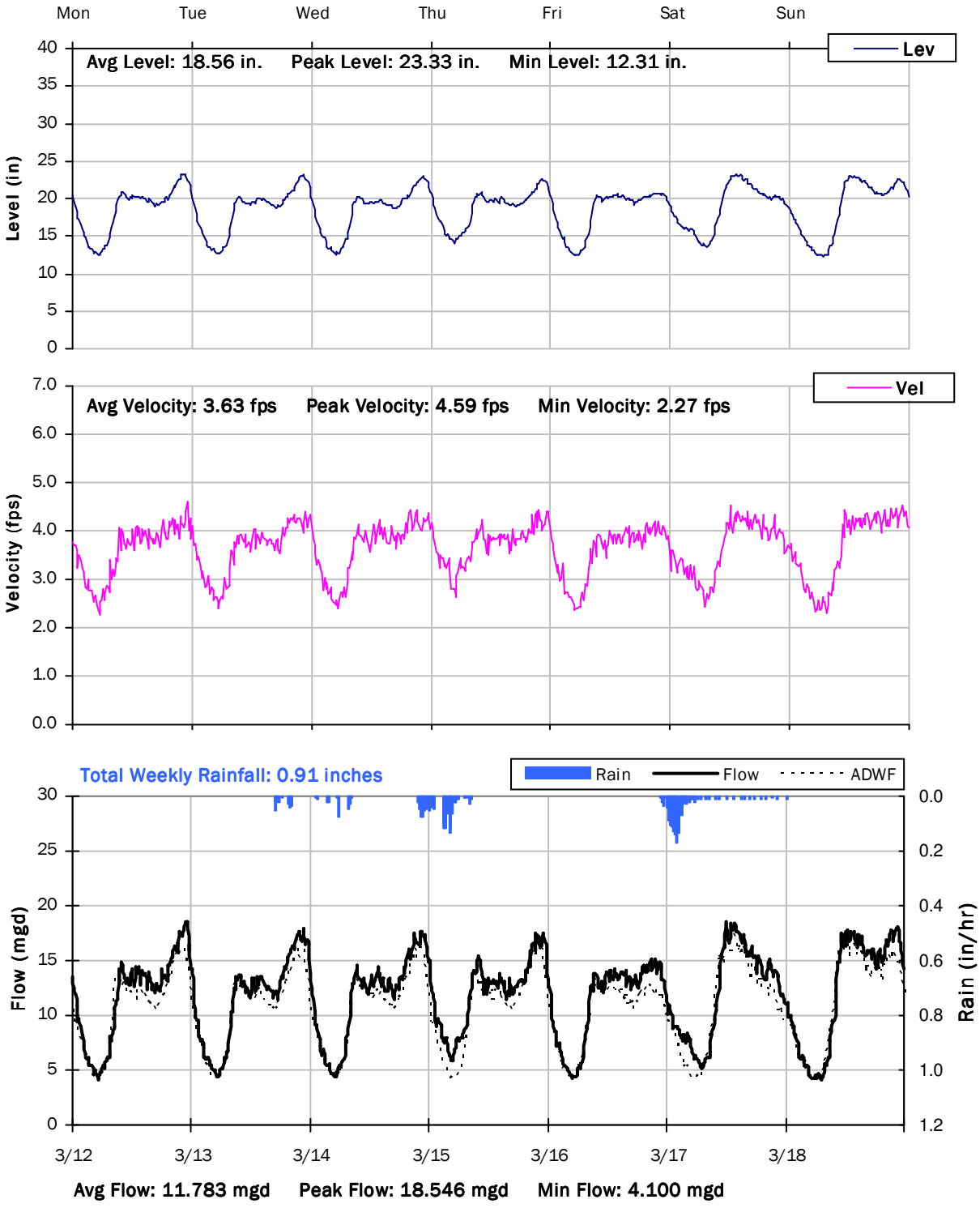
3/5/2018 to 3/12/2018



SMH 0870014

Weekly Level, Velocity and Flow Hydrographs

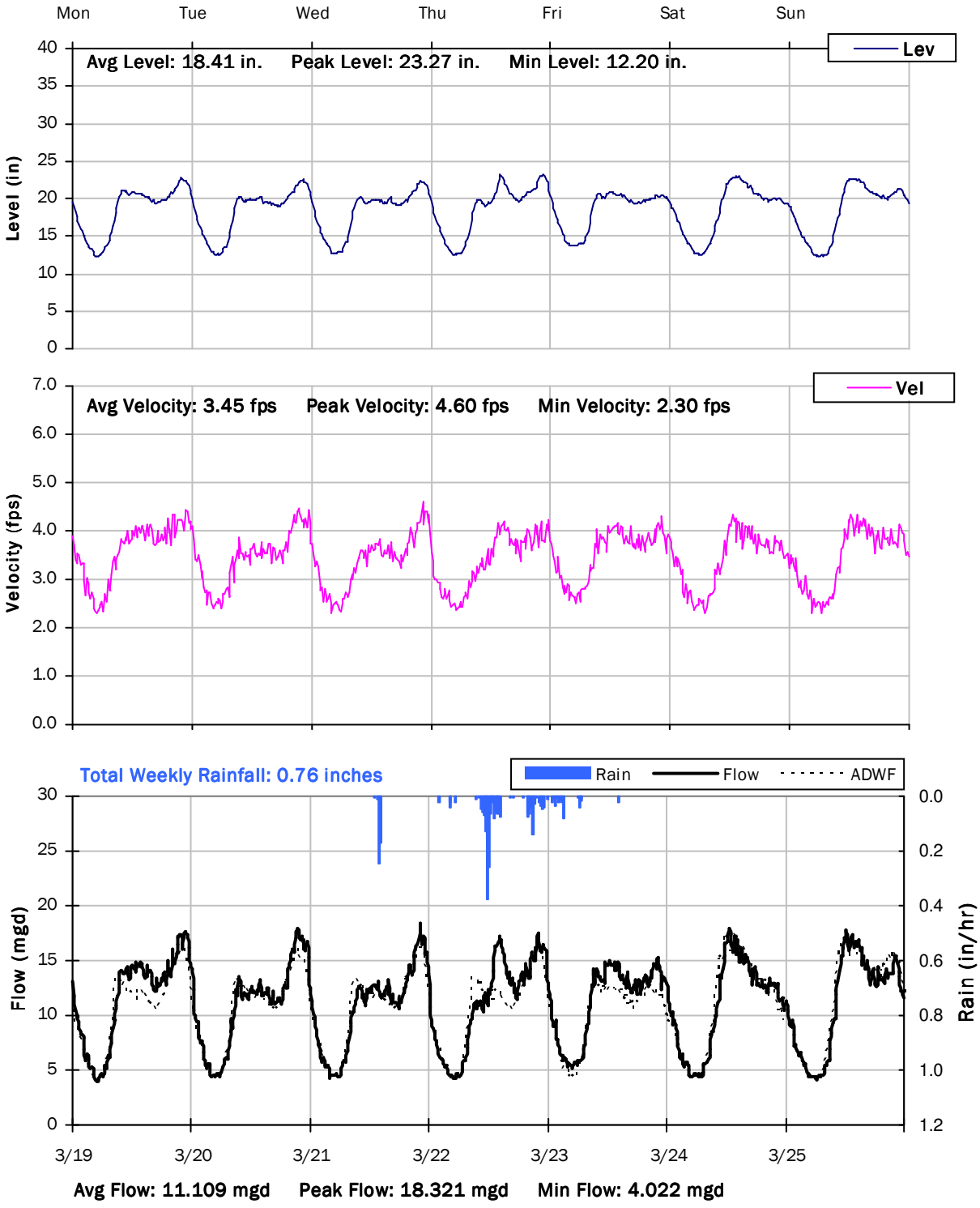
3/12/2018 to 3/19/2018



SMH 0870014

Weekly Level, Velocity and Flow Hydrographs

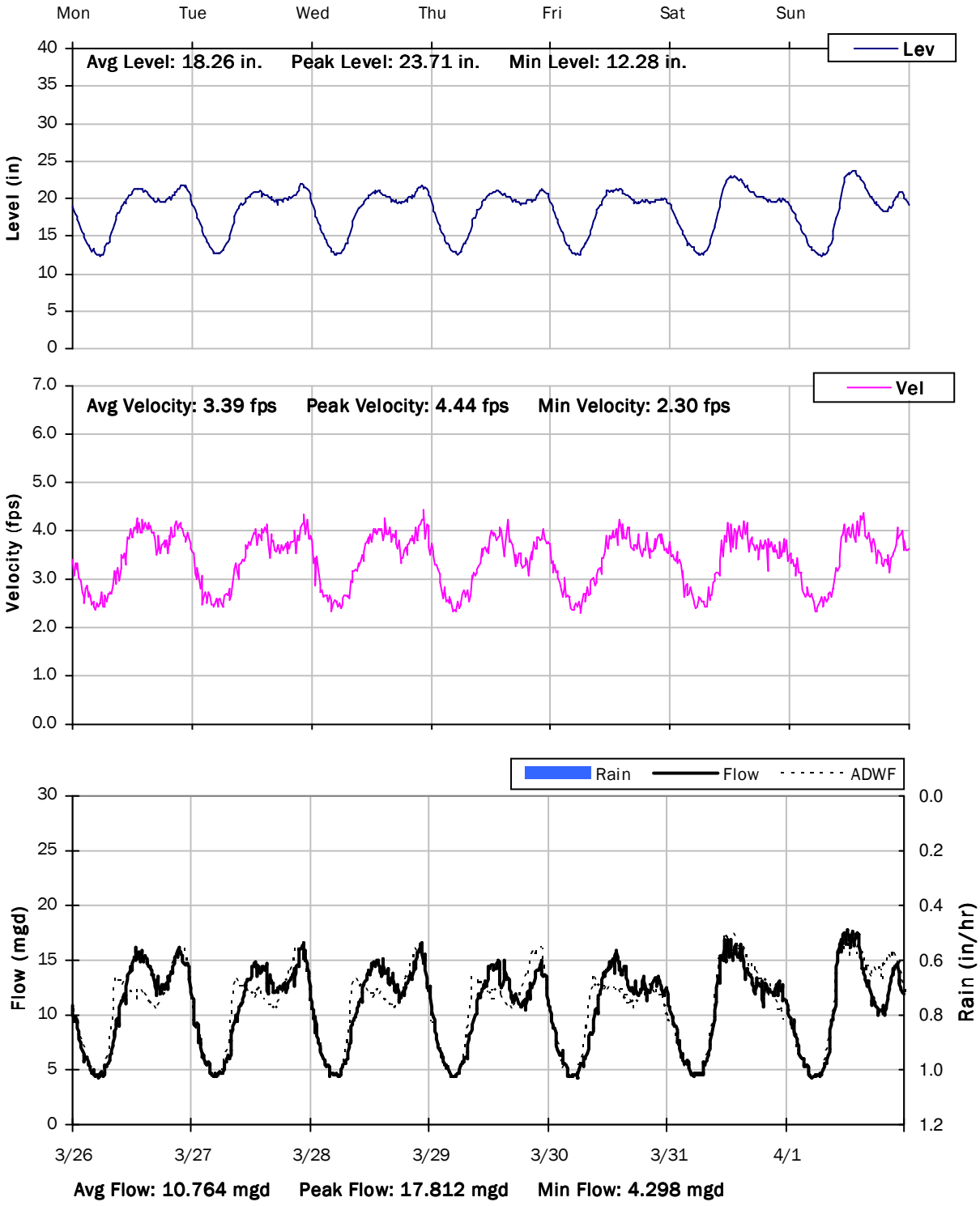
3/19/2018 to 3/26/2018



SMH 0870014

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



Appendix B
Phase 2

Flow Monitoring Site Reports: Data, Graphs, Information

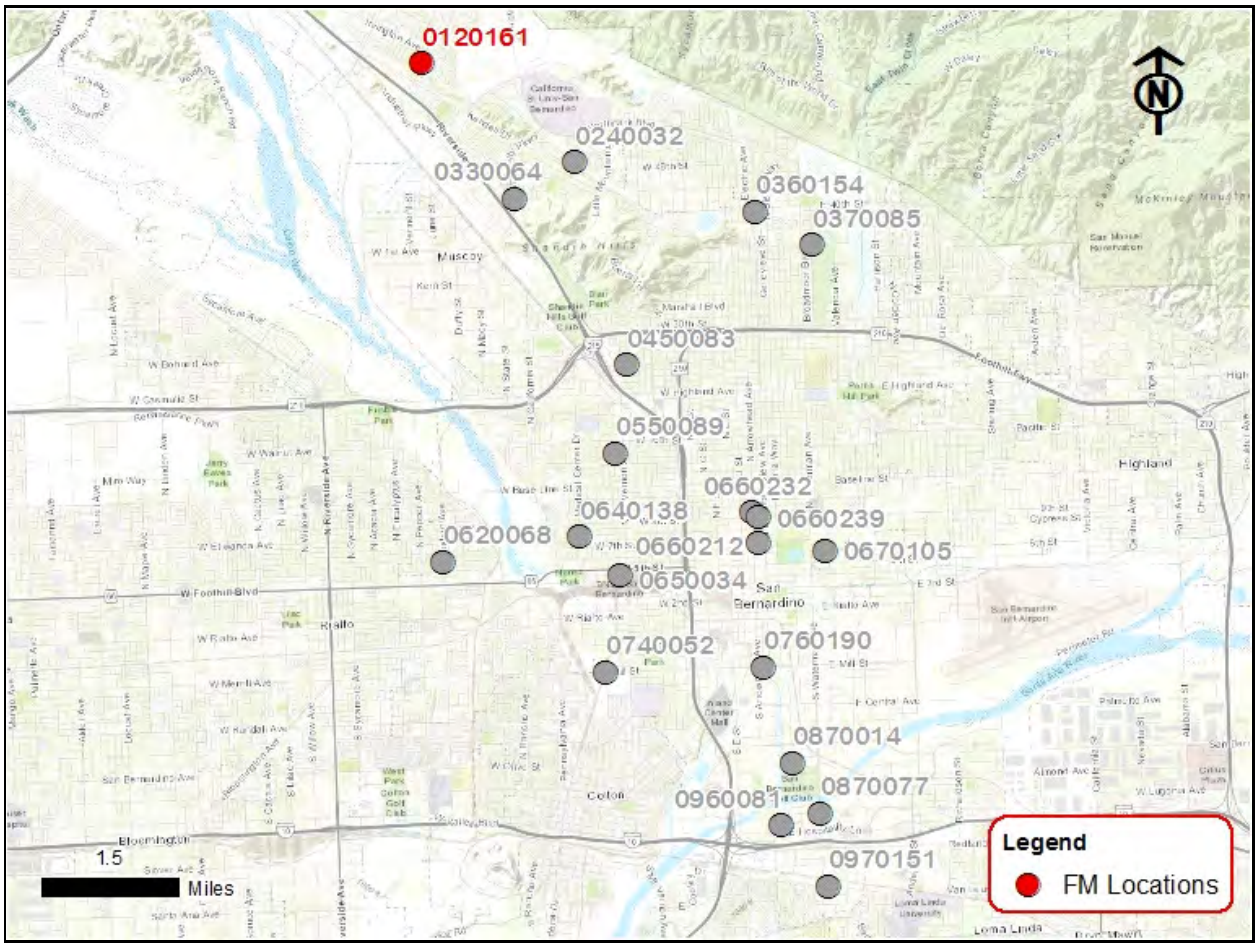
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0120161

Location: Washington Avenue and Laura Lane

Data Summary Report



Vicinity Map: SMH 0120161

SMH 0120161

Site Information

Location: Washington Avenue and Laura Lane

Coordinates: 117.3495° W, 34.1896° N

Rim Elevation (Earth): 1657 feet

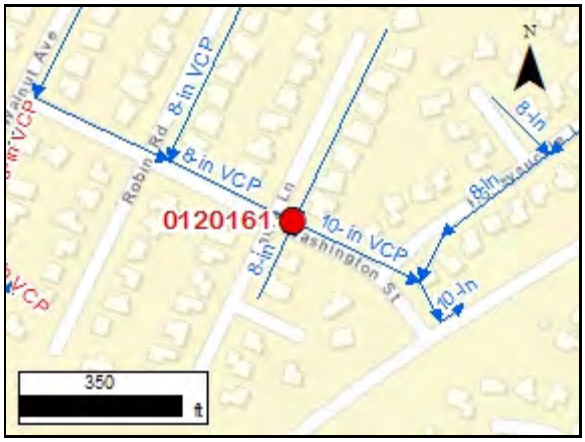
Pipe Diameter: 8 inches

ADWF: 0.062 mgd

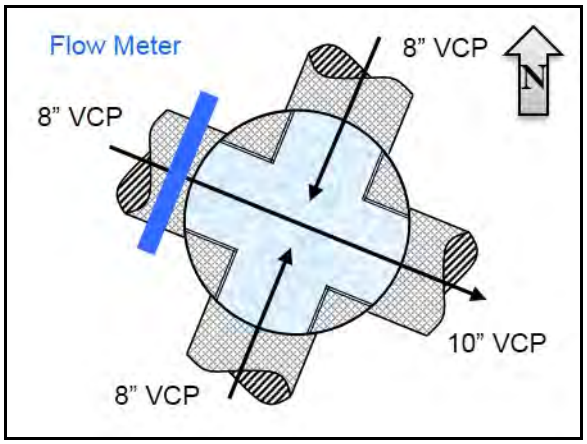
Peak Measured Flow: 0.158 mgd



Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0120161

Additional Site Photos

Effluent Pipe



Northwest Influent Pipe



SMH 0120161

Additional Site Photos

Northeast Influent Pipe



Southwest Influent Pipe

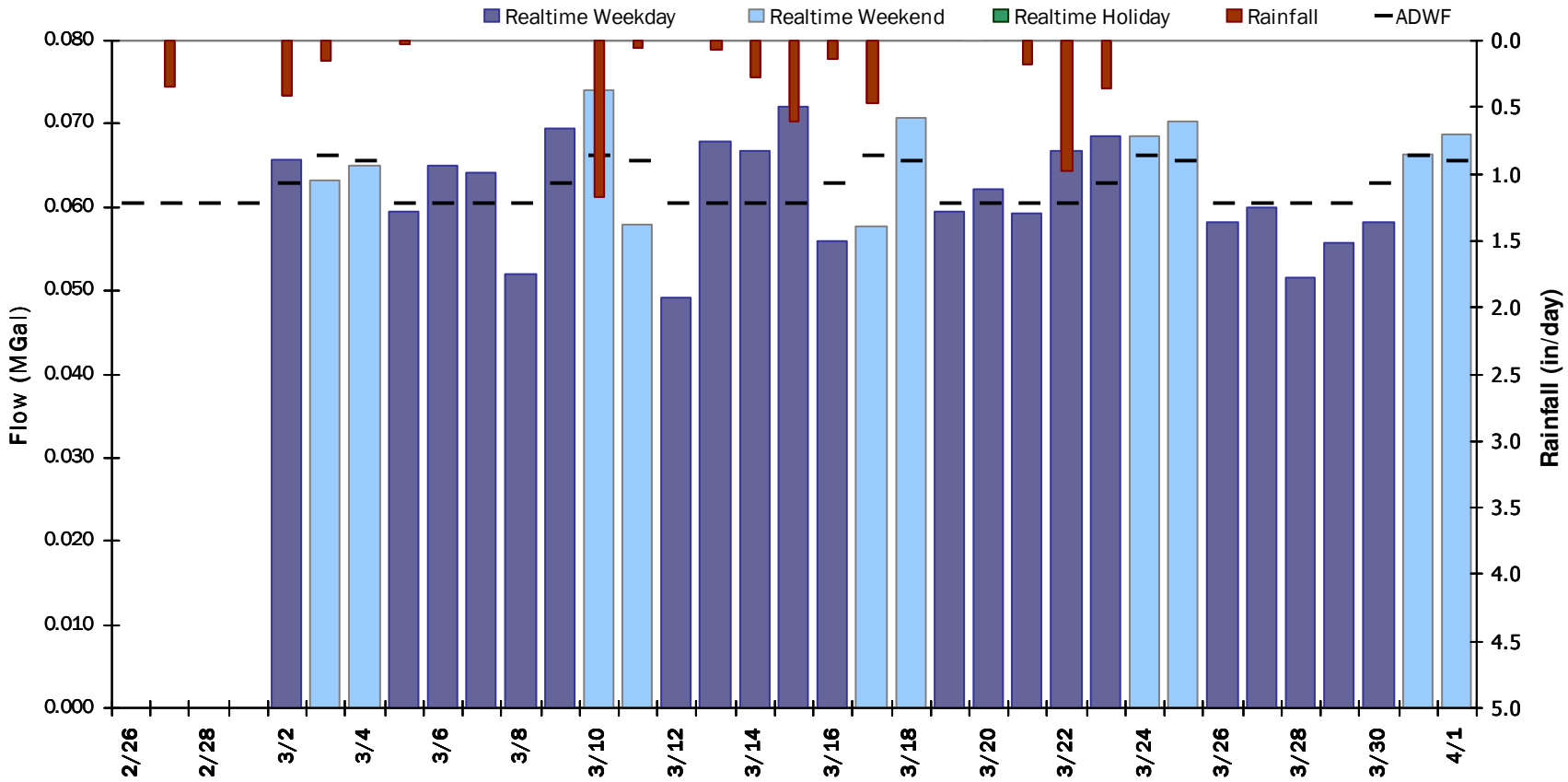


SMH 0120161

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.063 MGal **Peak Daily Flow: 0.074 MGal** **Min Daily Flow: 0.049 MGal**

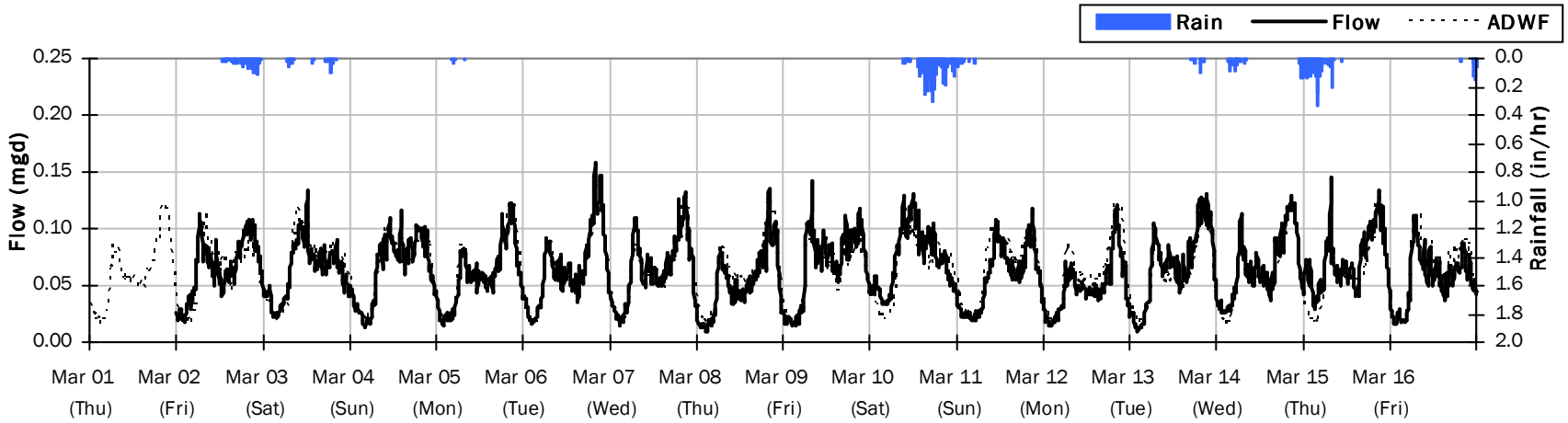
Total Period Rainfall: 4.89 inches

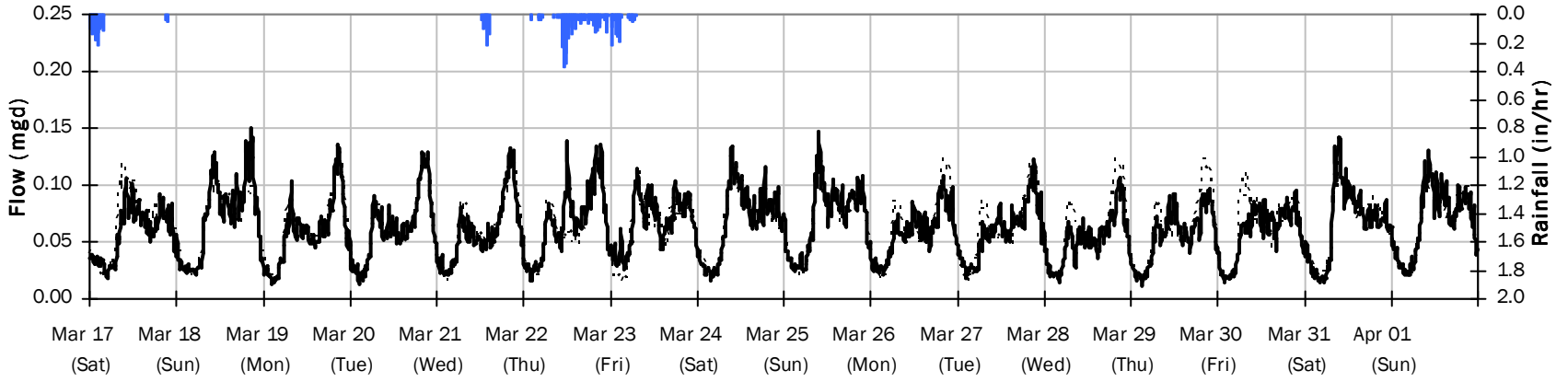


SMH 0120161

Flow Summary: 3/1/2018 to 4/1/2018

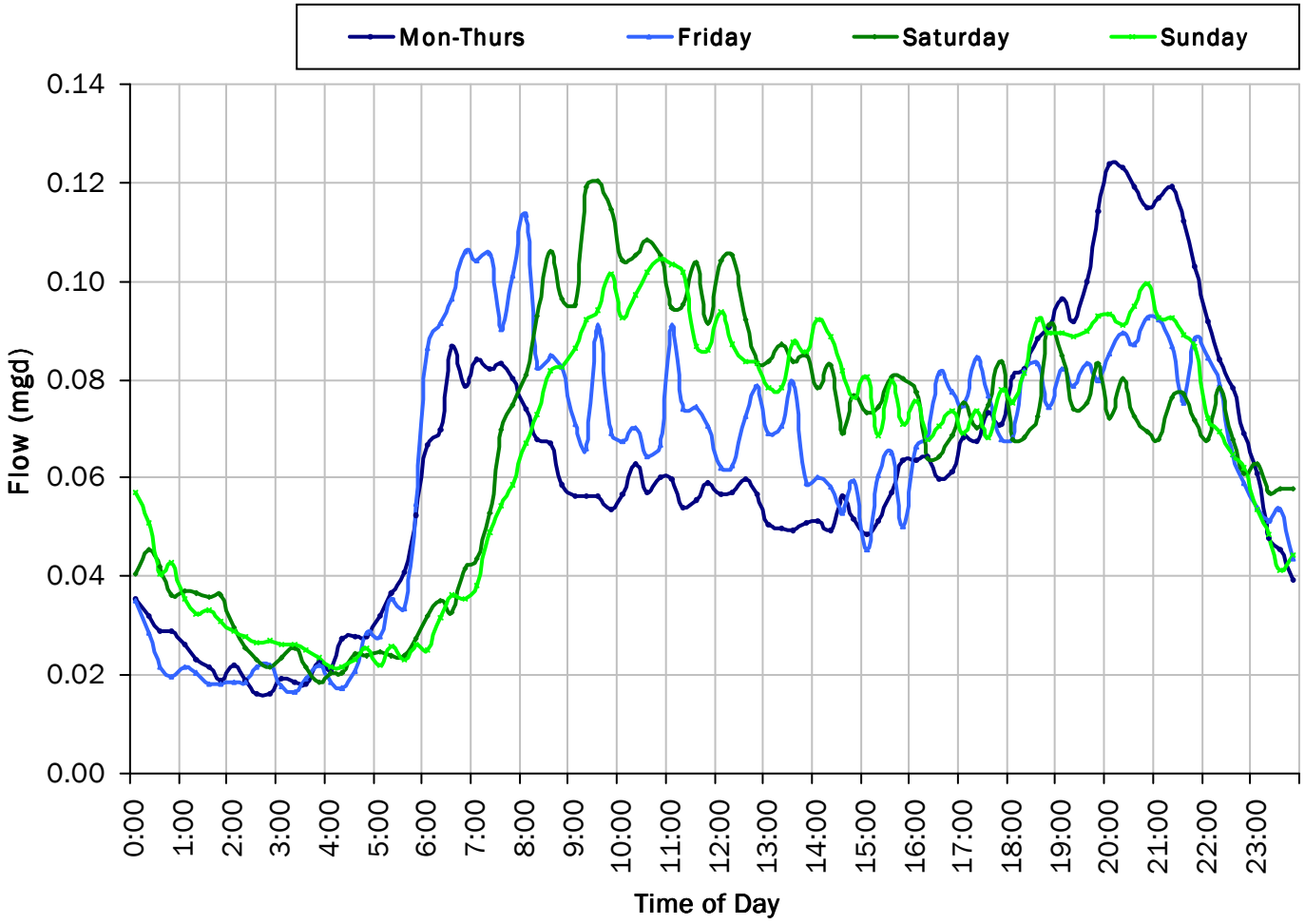
Total Period Rainfall: 4.89 inches **Avg Flow: 0.063 mgd** **Peak Flow: 0.158 mgd** **Min Flow: 0.009 mgd**





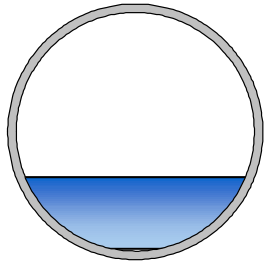
SMH 0120161

Average Dry Weather Flow Hydrographs



ADWF:

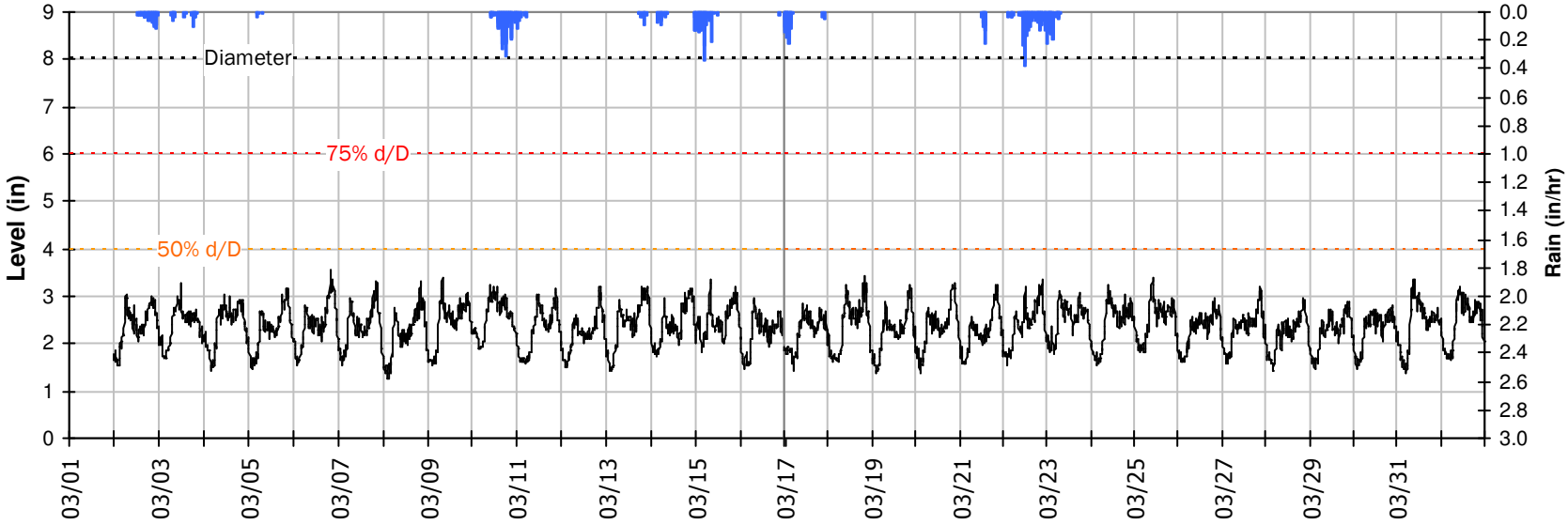
0.062 *mgd*

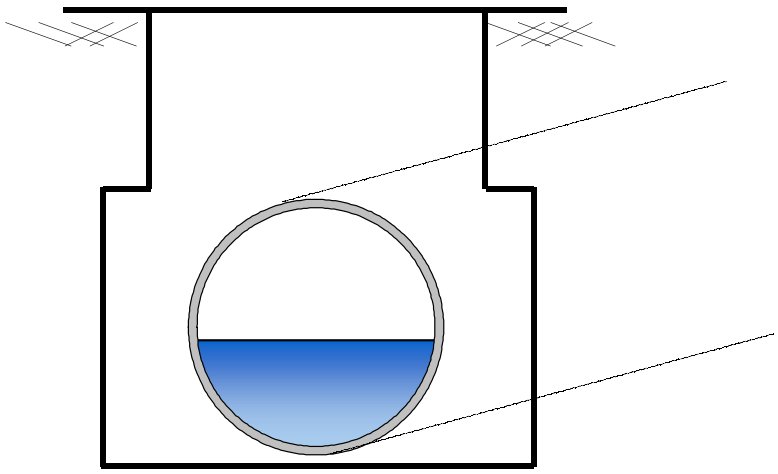


SMH 0120161

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



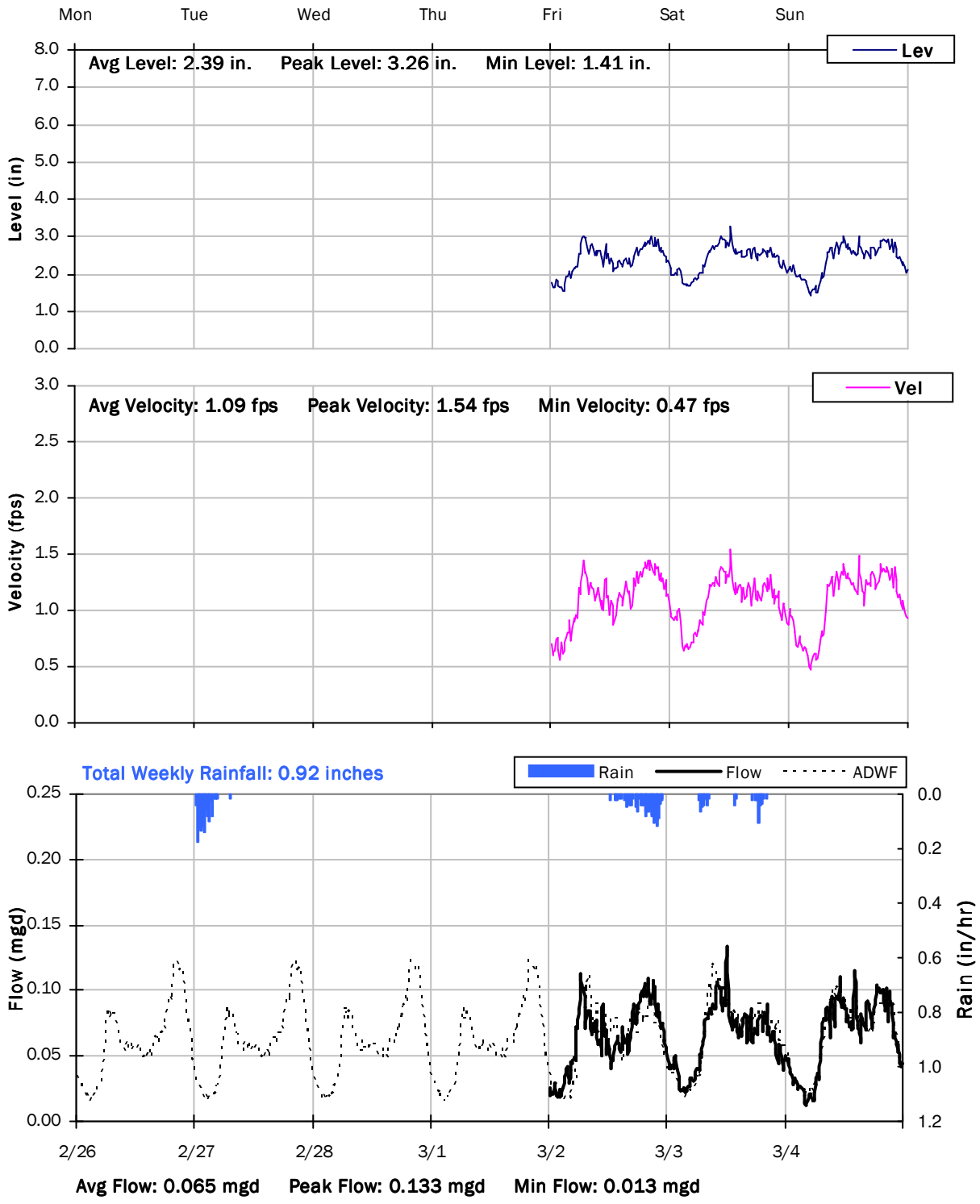


Pipe Diameter:	8	*inches*
Peak Measured Level:	3.56	*inches*
Peak d/D Ratio:	0.45	

SMH 0120161

Weekly Level, Velocity and Flow Hydrographs

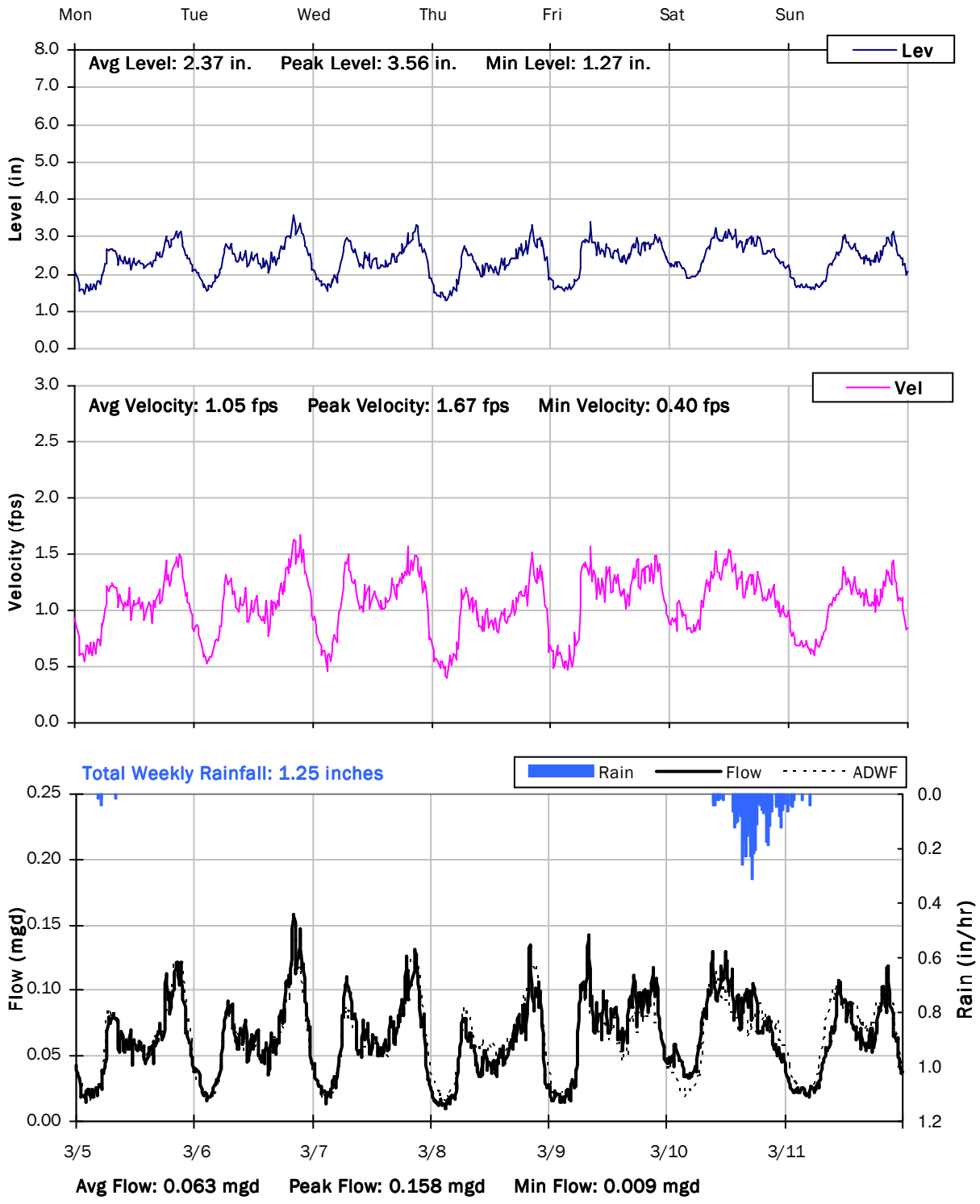
2/26/2018 to 3/5/2018



SMH 0120161

Weekly Level, Velocity and Flow Hydrographs

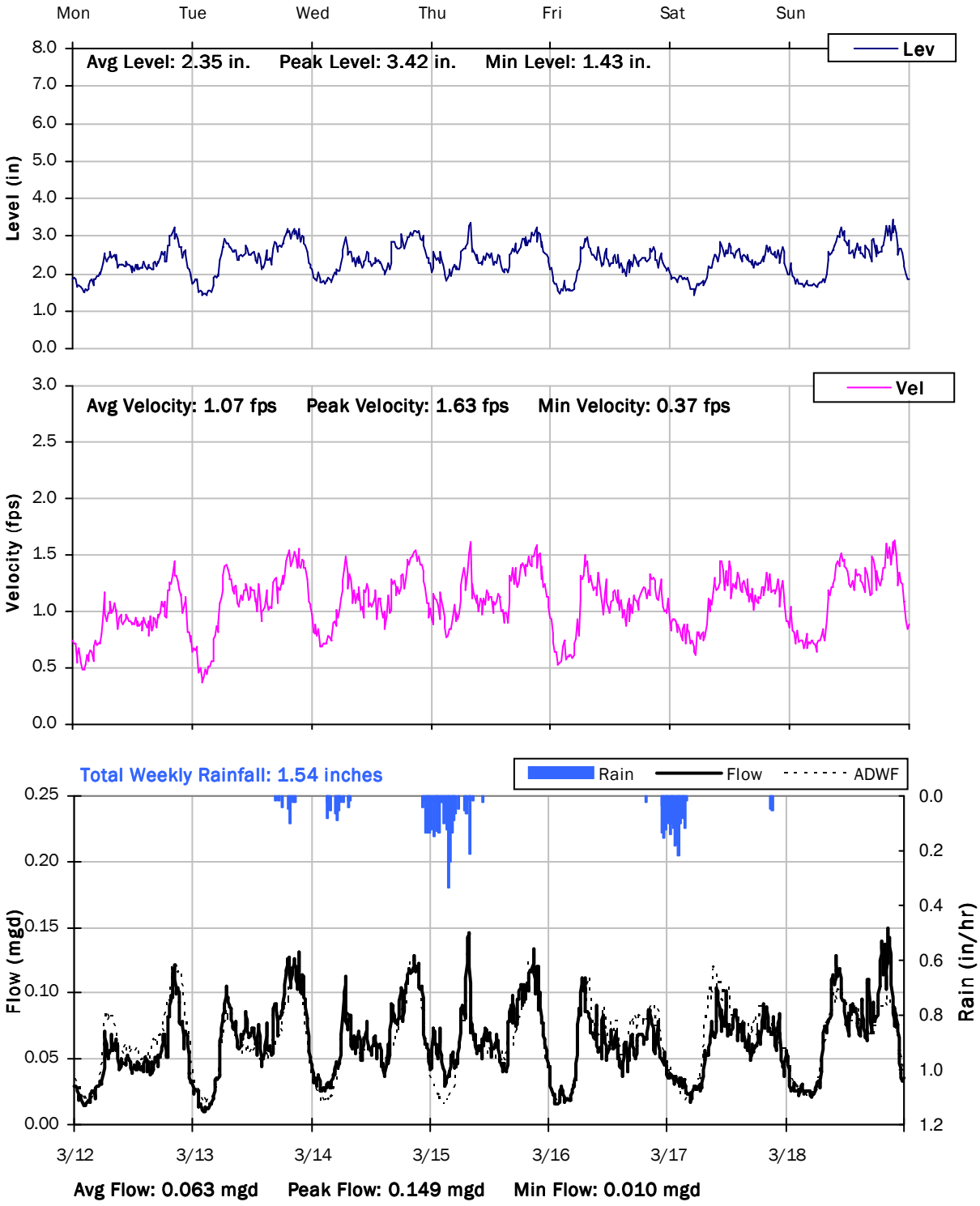
3/5/2018 to 3/12/2018



SMH 0120161

Weekly Level, Velocity and Flow Hydrographs

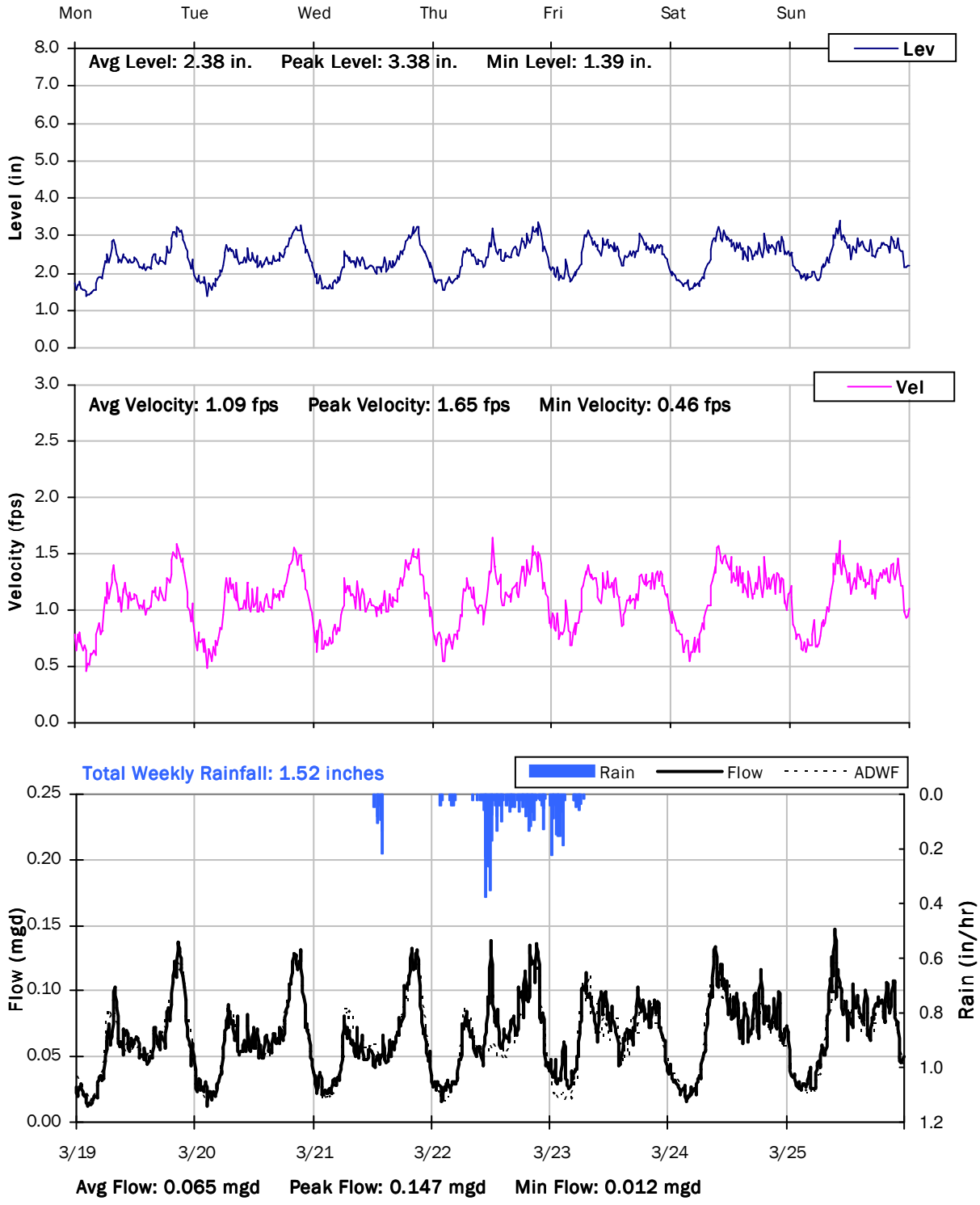
3/12/2018 to 3/19/2018



SMH 0120161

Weekly Level, Velocity and Flow Hydrographs

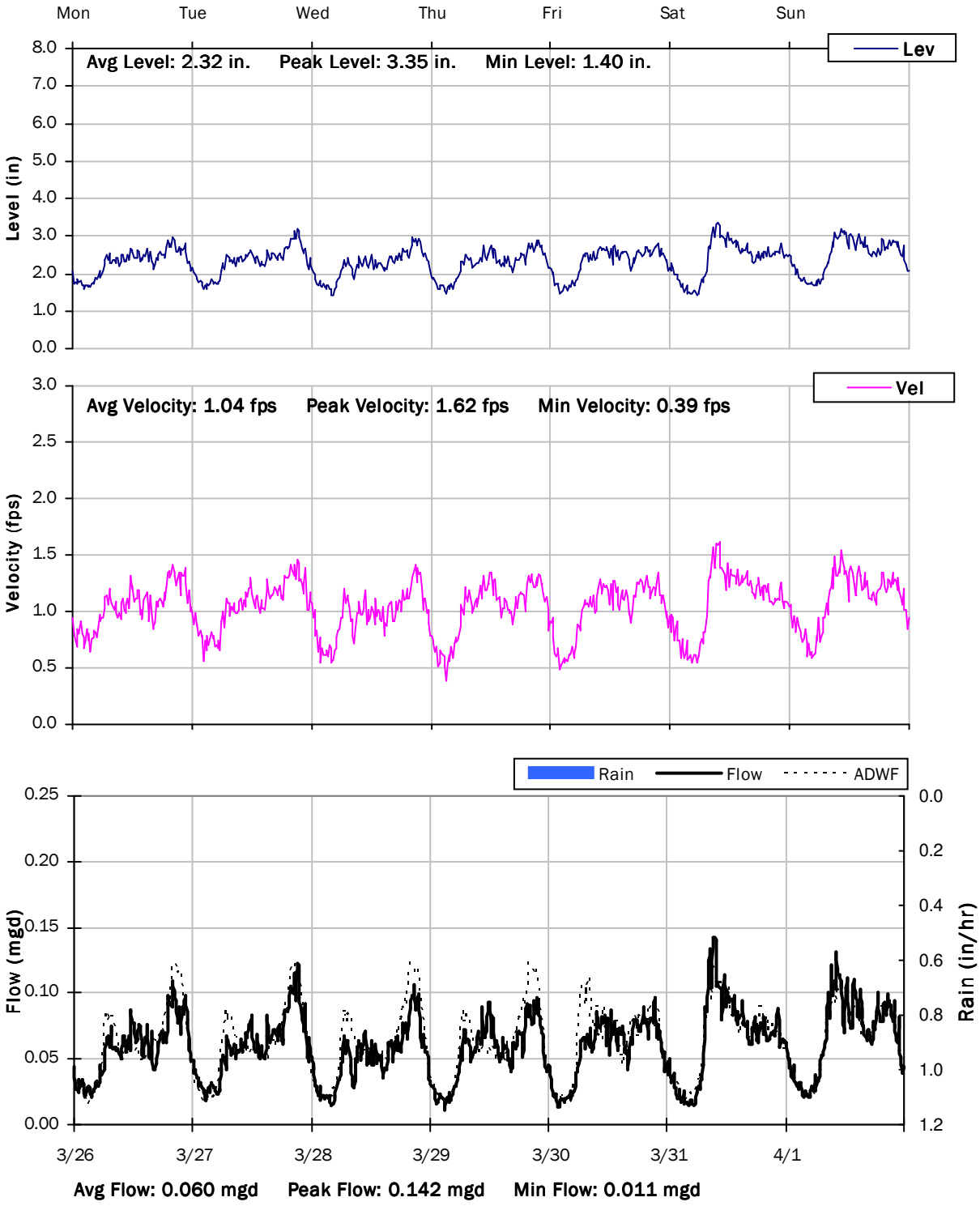
3/19/2018 to 3/26/2018



SMH 0120161

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



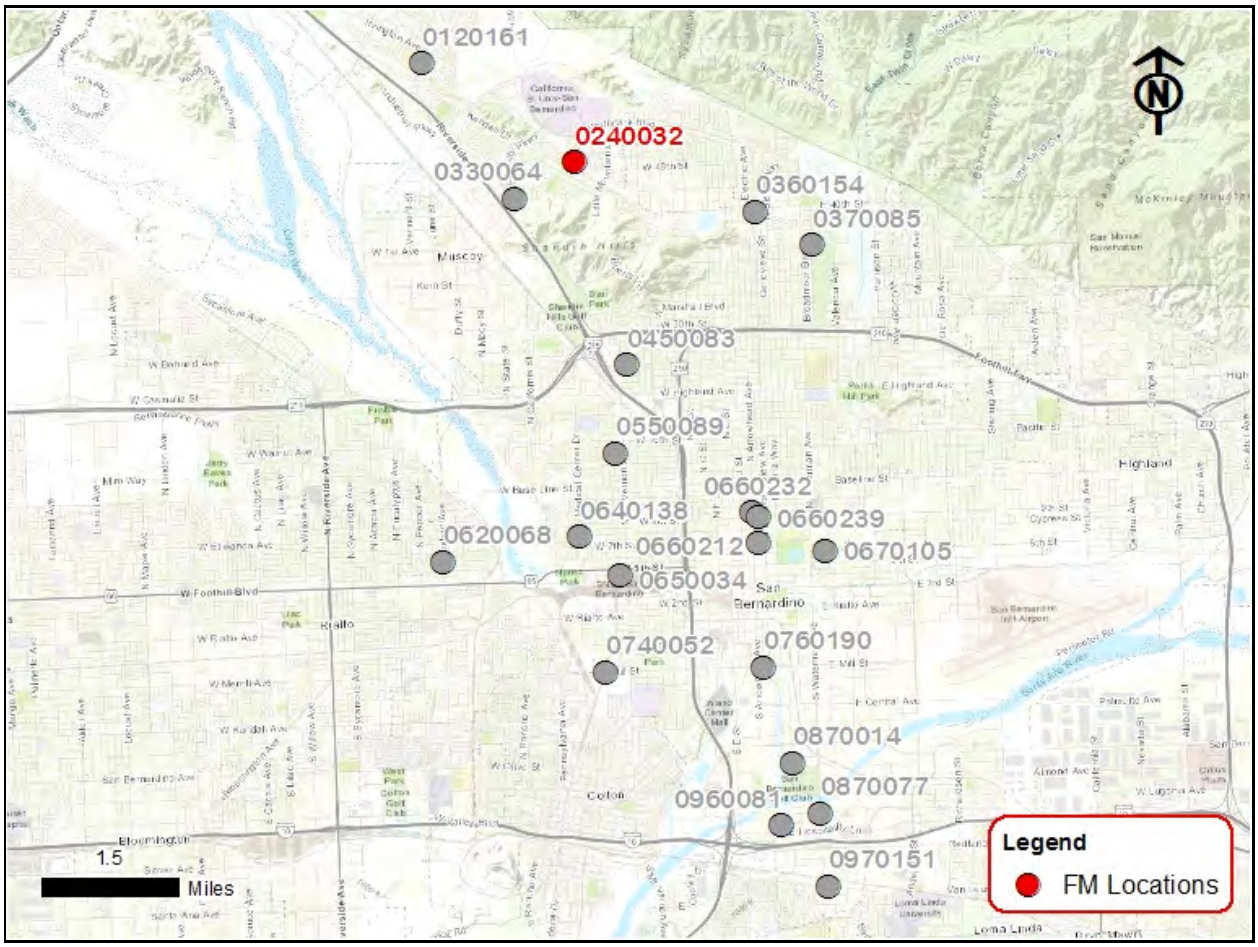
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0240032

Location: 1494 Creekside Drive

Data Summary Report



Vicinity Map: SMH 0240032

SMH 0240032

Site Information

Location: 1494 Creekside Drive

Coordinates: 117.3213° W, 34.1731° N

Rim Elevation (Earth): 1443 feet

Pipe Diameter: 8 inches

ADWF: 0.027 mgd

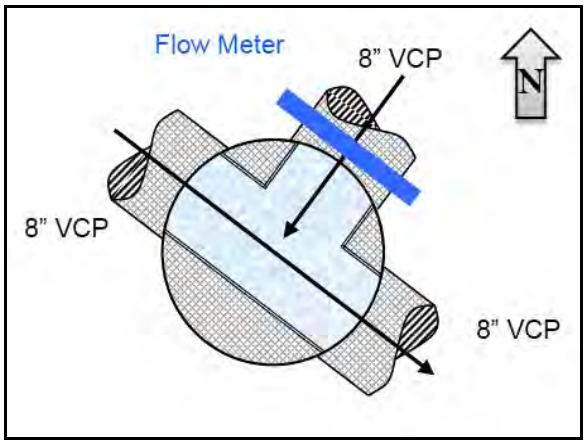
Peak Measured Flow: 0.065 mgd



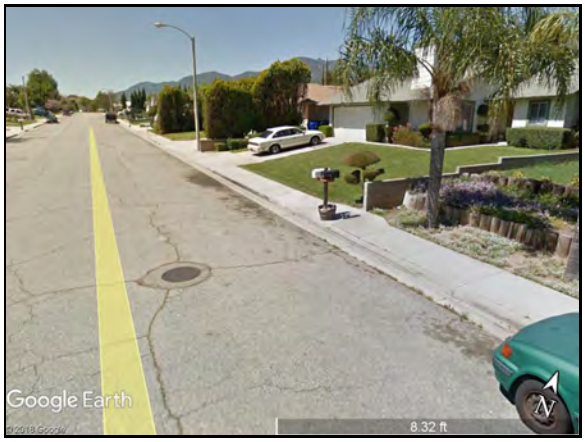
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0240032

Additional Site Photos

Effluent Pipe



East Influent Pipe



SMH 0240032

Additional Site Photos

North Influent Pipe

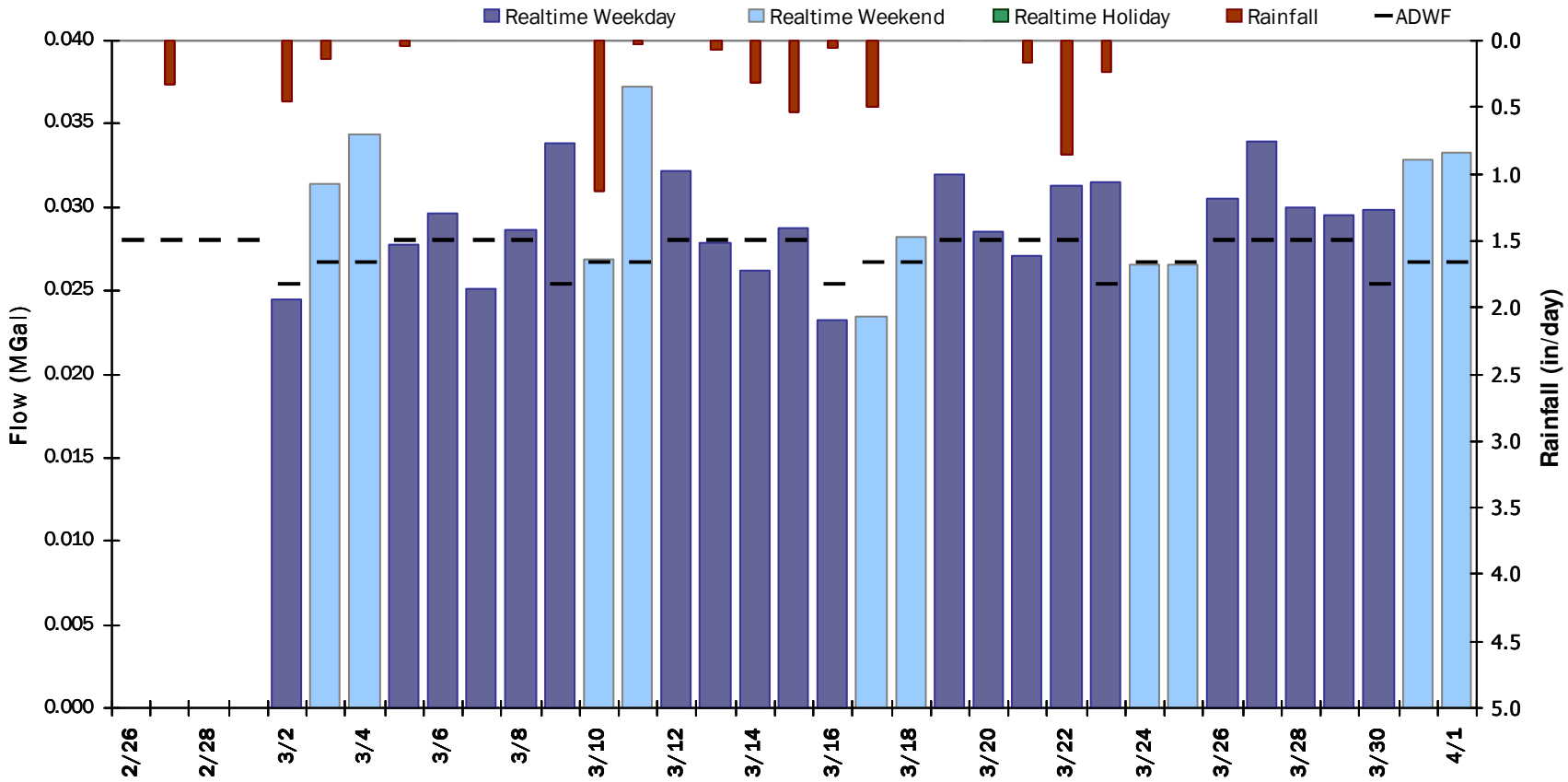


SMH 0240032

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.029 MGal **Peak Daily Flow: 0.037 MGal** **Min Daily Flow: 0.023 MGal**

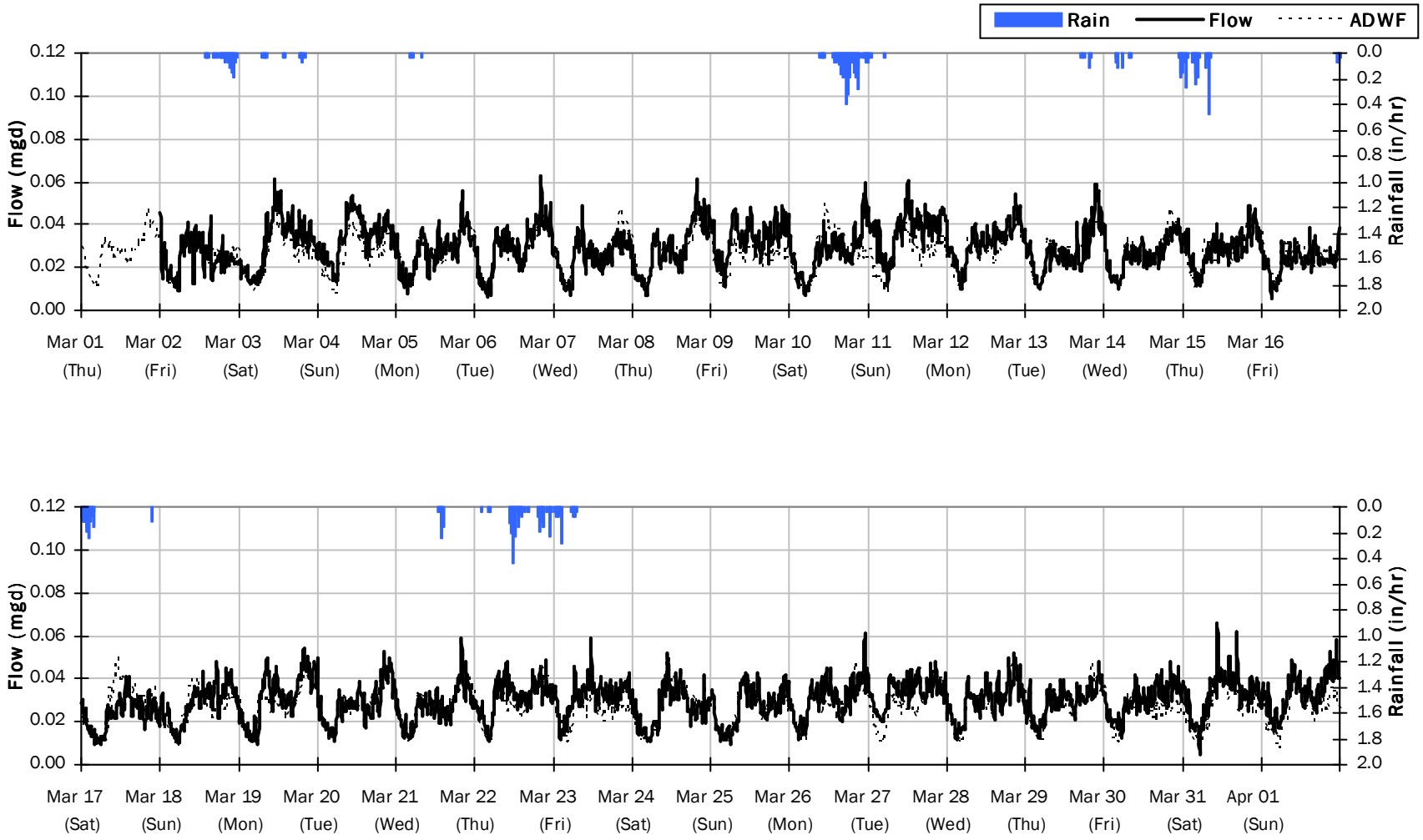
Total Period Rainfall: 4.52 inches



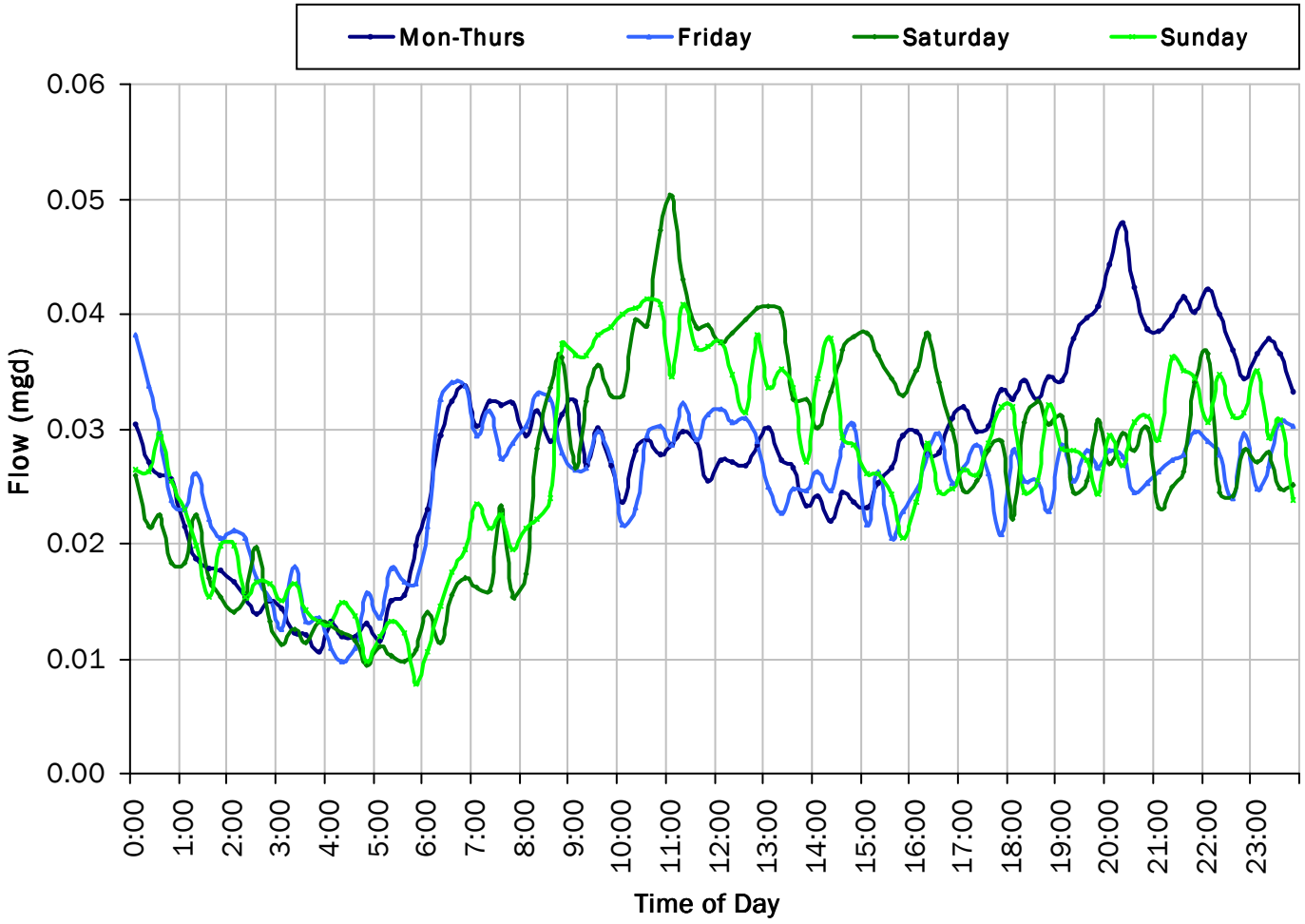
SMH 0240032

Flow Summary: 3/1/2018 to 4/1/2018

Total Period Rainfall: 4.52 inches **Avg Flow: 0.029 mgd Peak Flow: 0.065 mgd Min Flow: 0.005 mgd**

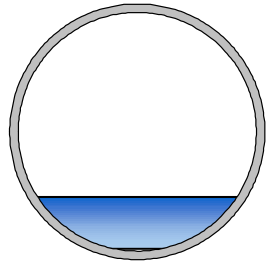


SMH 0240032
Average Dry Weather Flow Hydrographs



ADWF:

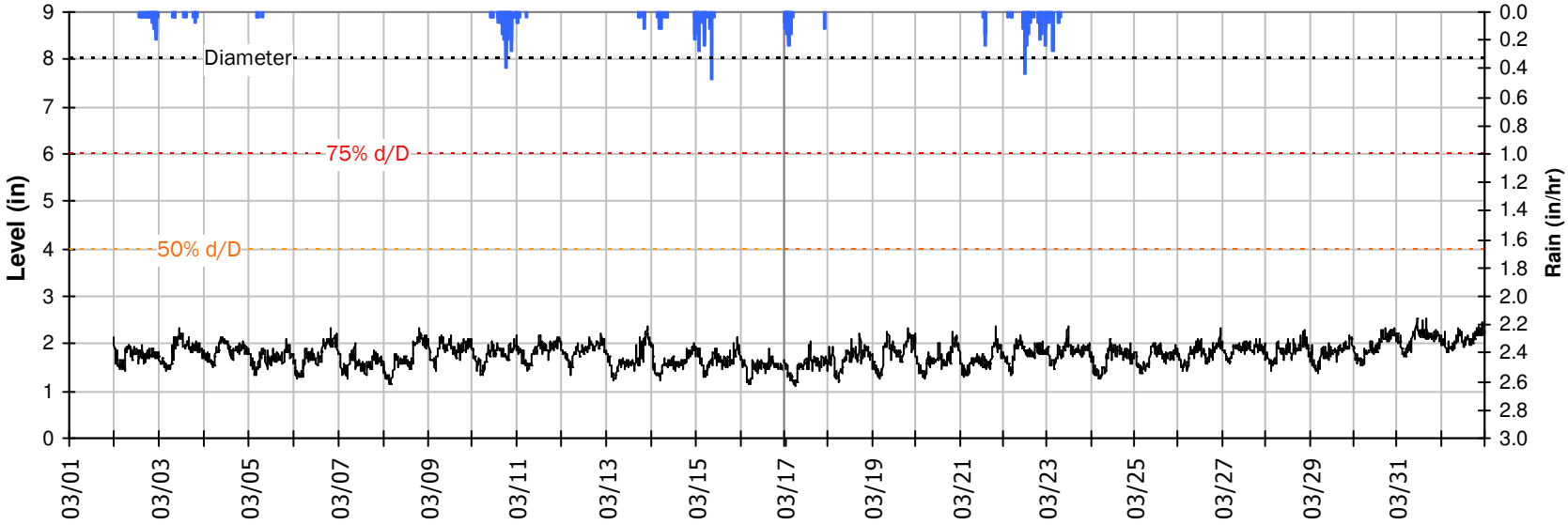
0.027 *mgd*

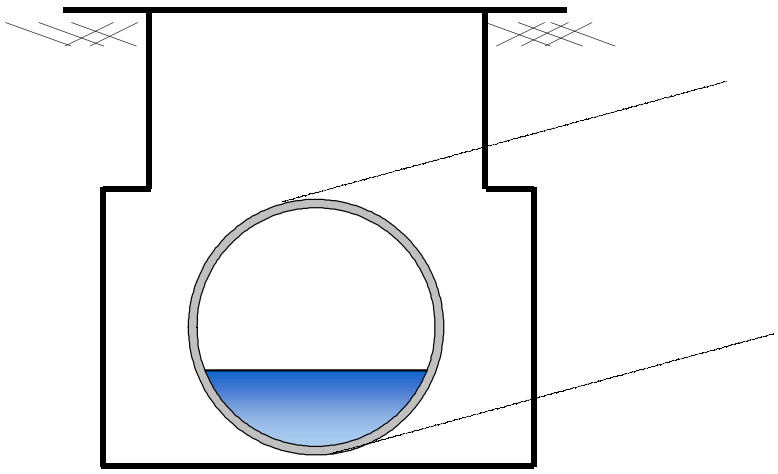


SMH 0240032

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



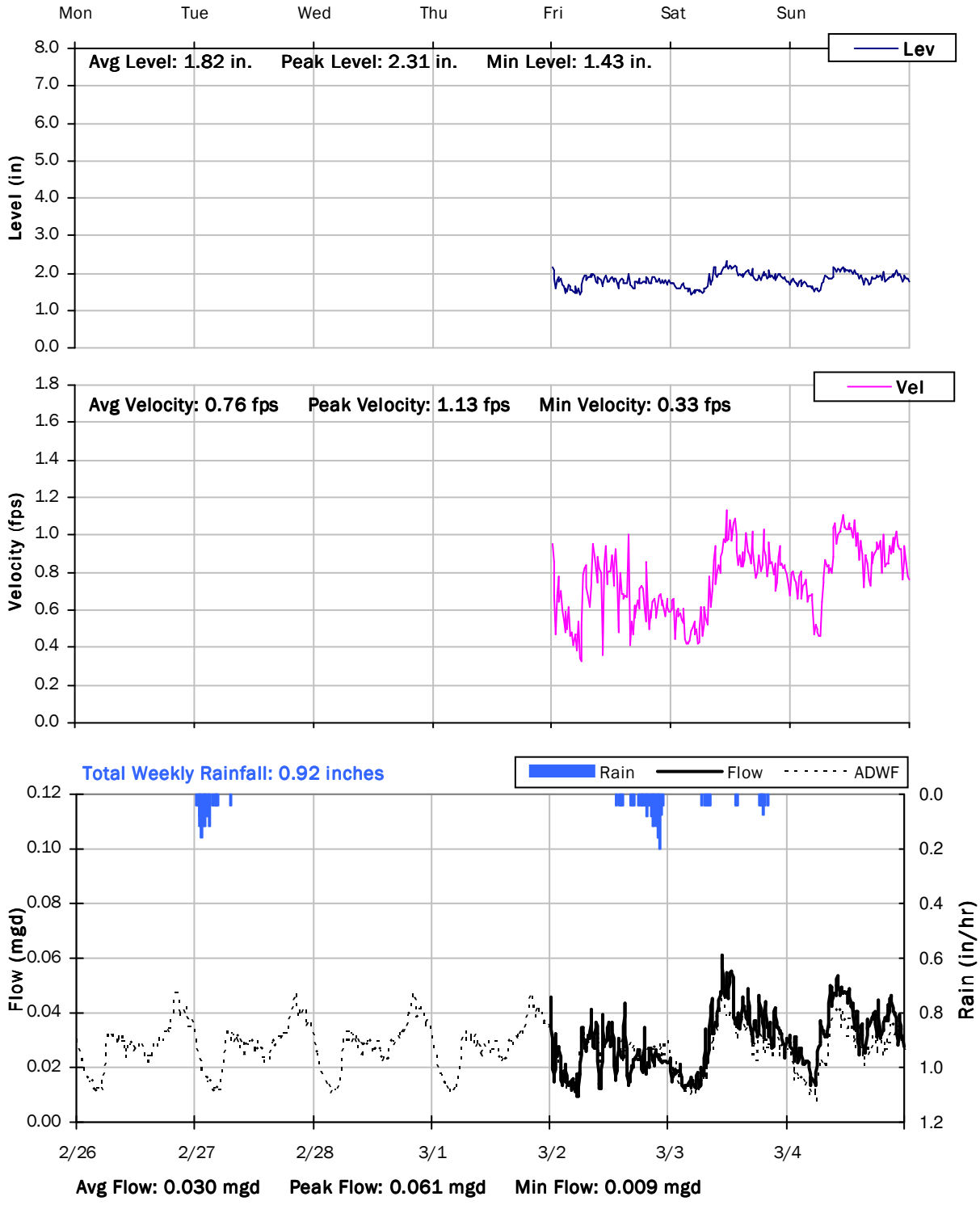


Pipe Diameter:	8	*inches*
Peak Measured Level:	2.54	*inches*
Peak d/D Ratio:	0.32	

SMH 0240032

Weekly Level, Velocity and Flow Hydrographs

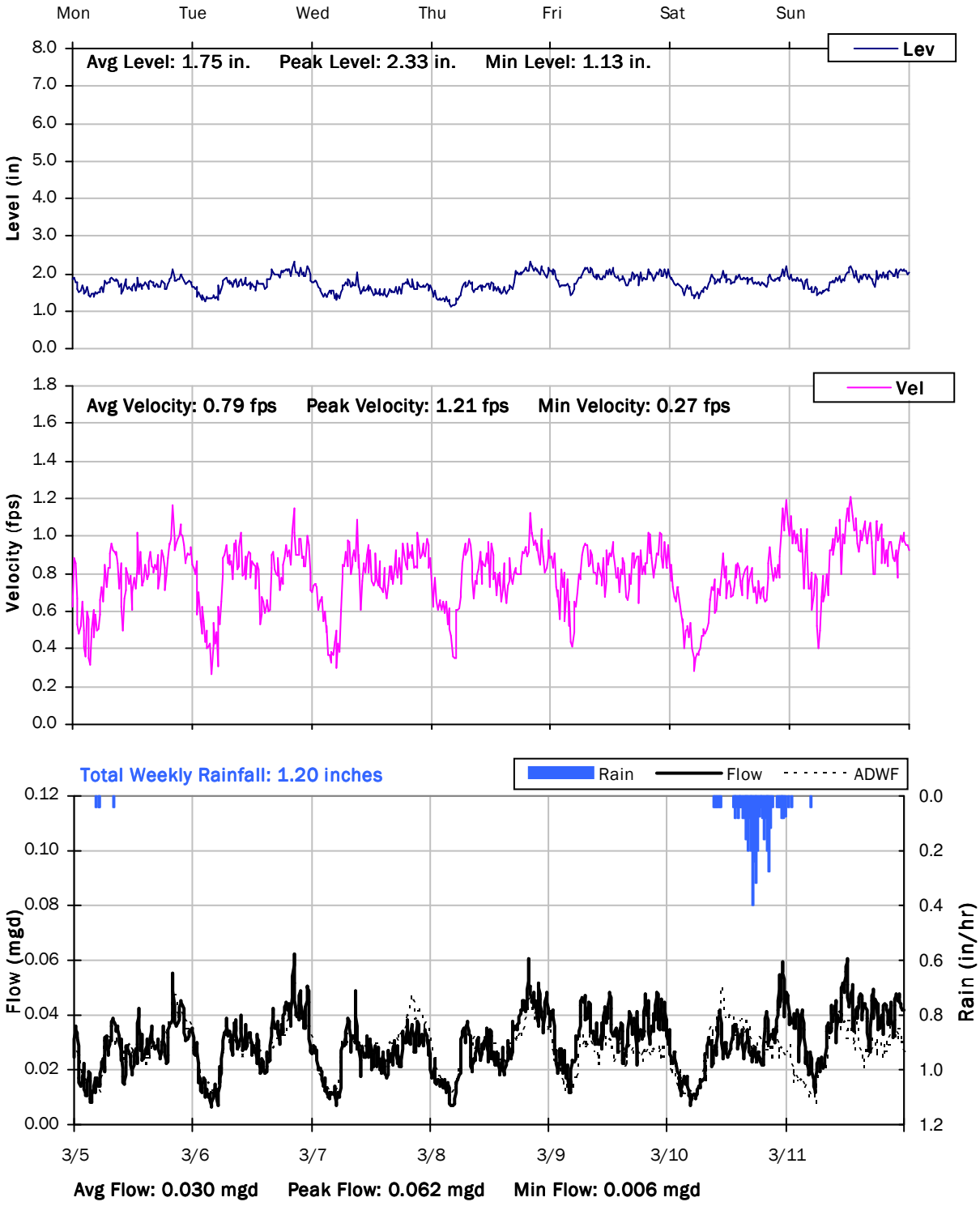
2/26/2018 to 3/5/2018



SMH 0240032

Weekly Level, Velocity and Flow Hydrographs

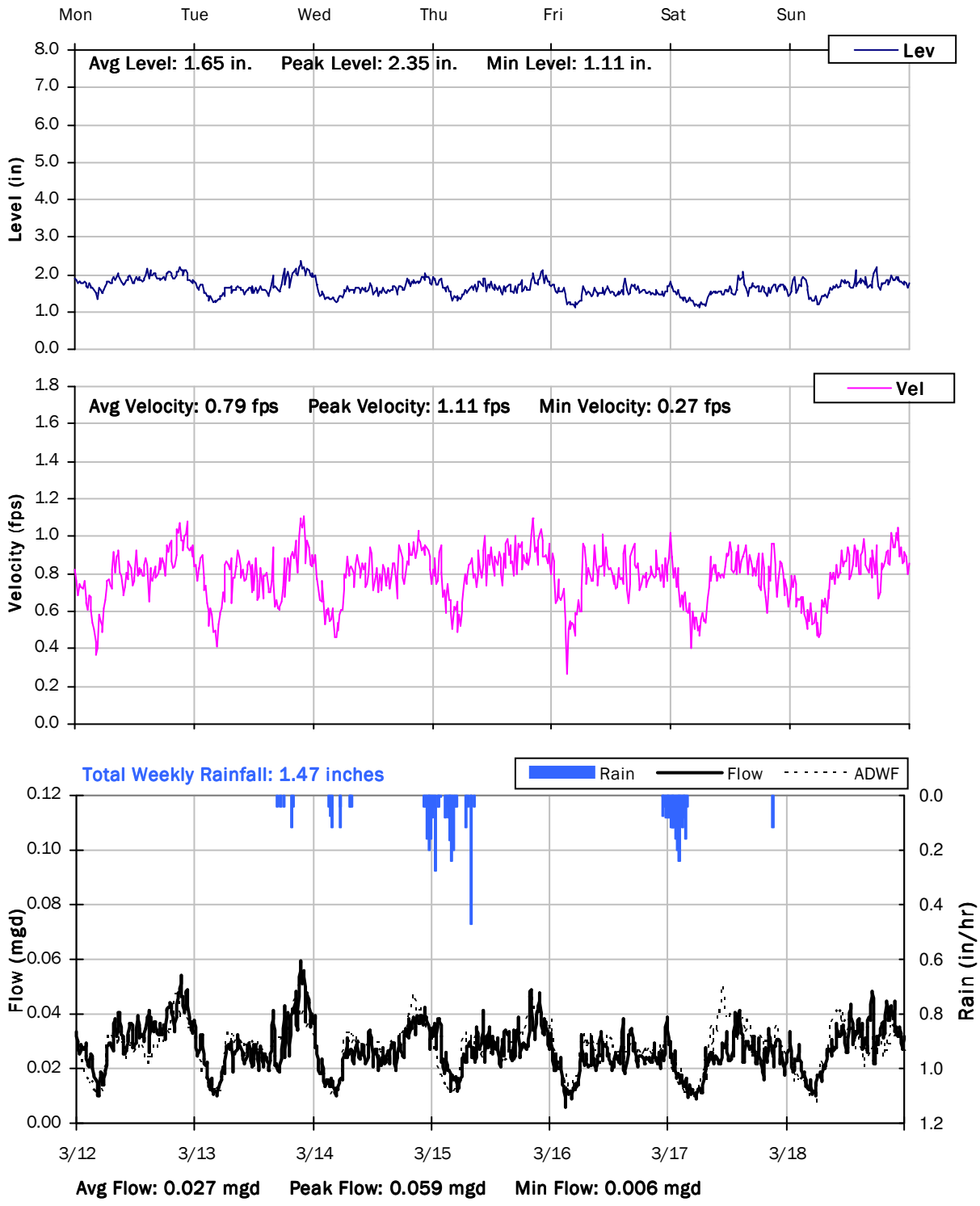
3/5/2018 to 3/12/2018



SMH 0240032

Weekly Level, Velocity and Flow Hydrographs

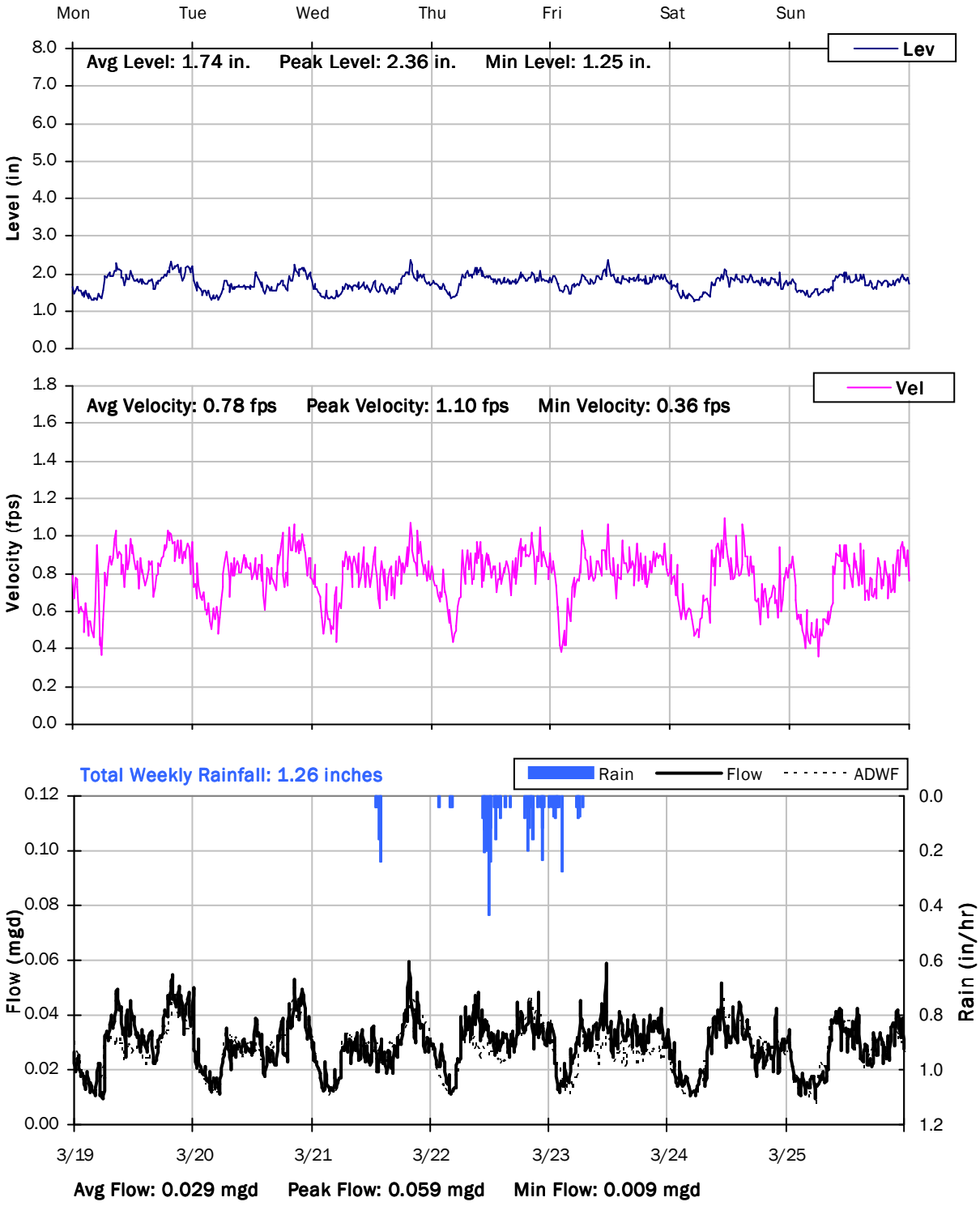
3/12/2018 to 3/19/2018



SMH 0240032

Weekly Level, Velocity and Flow Hydrographs

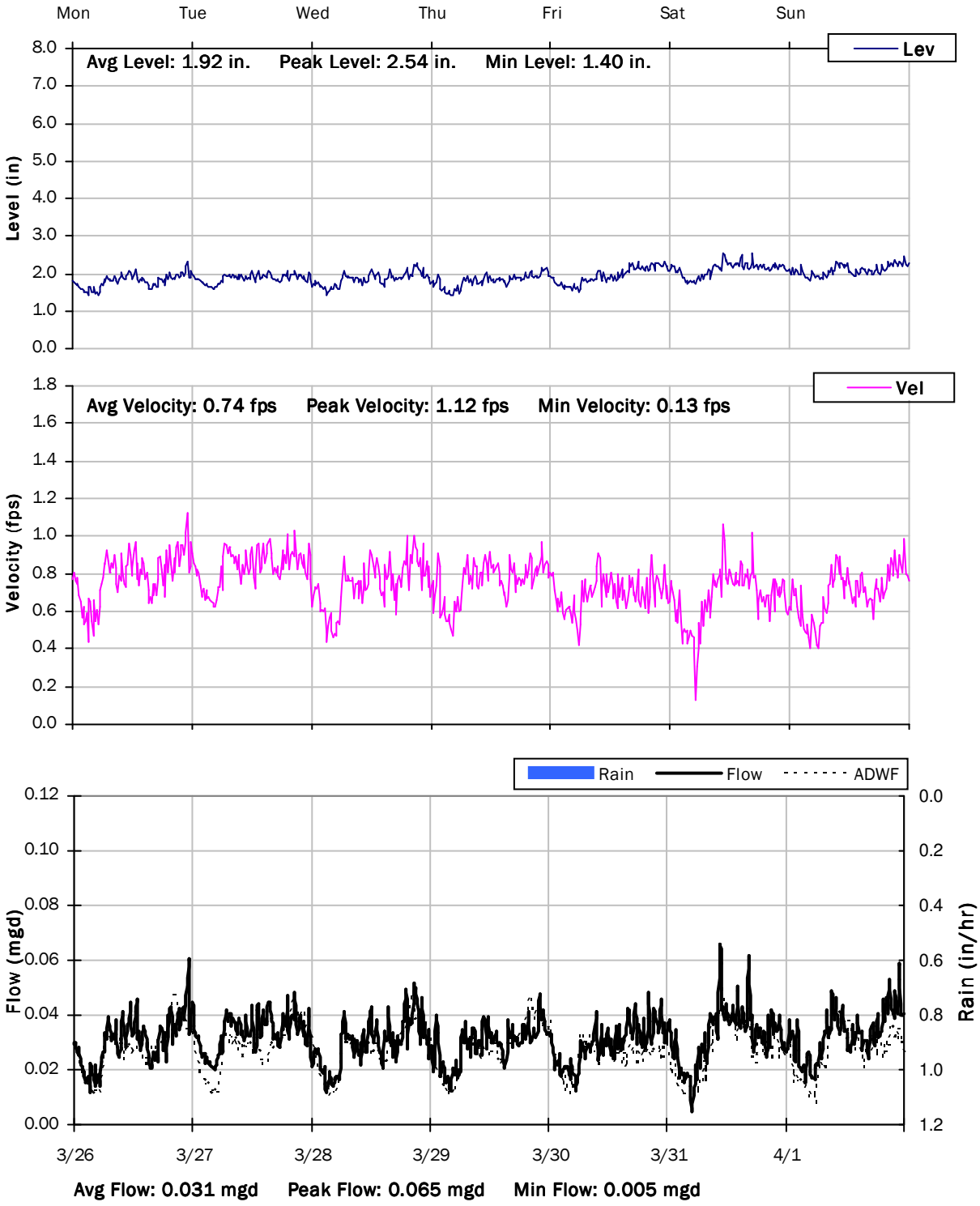
3/19/2018 to 3/26/2018



SMH 0240032

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



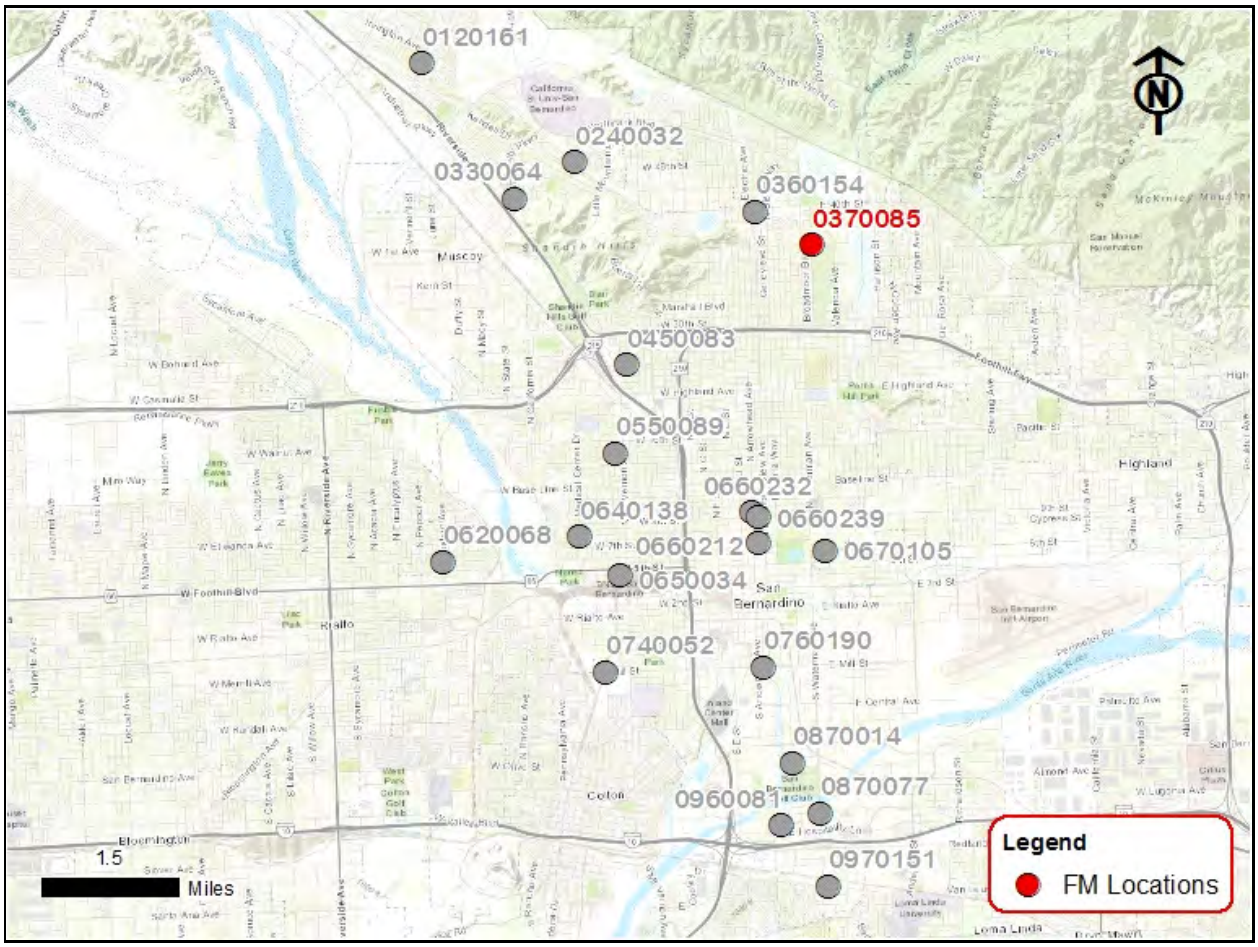
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0370085

Location: E Parkdale Drive and Parkside Drive

Data Summary Report



Vicinity Map: SMH 0370085

SMH 0370085

Site Information

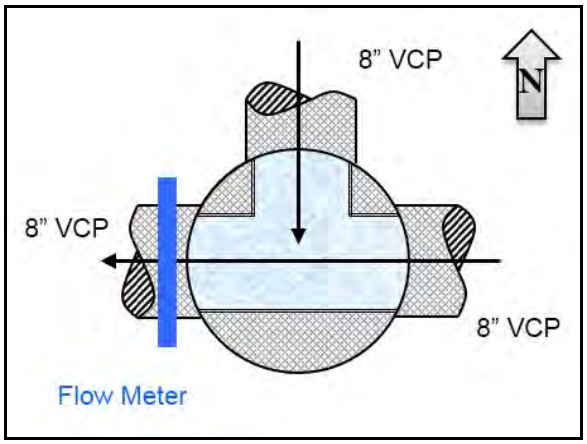
Location:	E Parkdale Drive and Parkside Drive
Coordinates:	117.2766° W, 34.1588° N
Rim Elevation (Earth):	1307 feet
Pipe Diameter:	8 inches
ADWF:	0.026 mgd
Peak Measured Flow:	0.103 mgd



Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0370085

Additional Site Photos

Effluent Pipe



East Influent Pipe



SMH 0370085

Additional Site Photos

North Influent Pipe

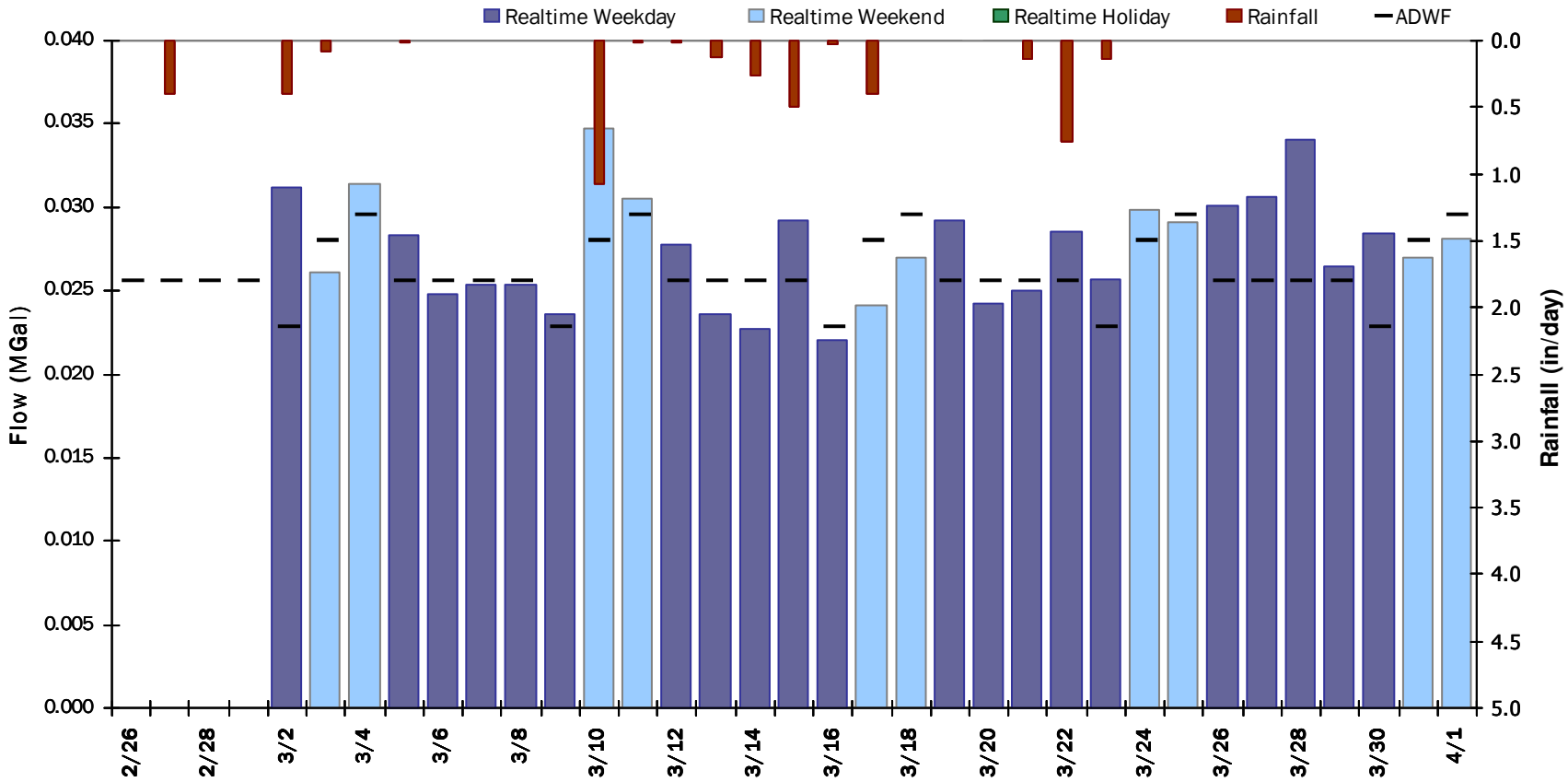


SMH 0370085

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.028 MGal **Peak Daily Flow: 0.035 MGal** **Min Daily Flow: 0.022 MGal**

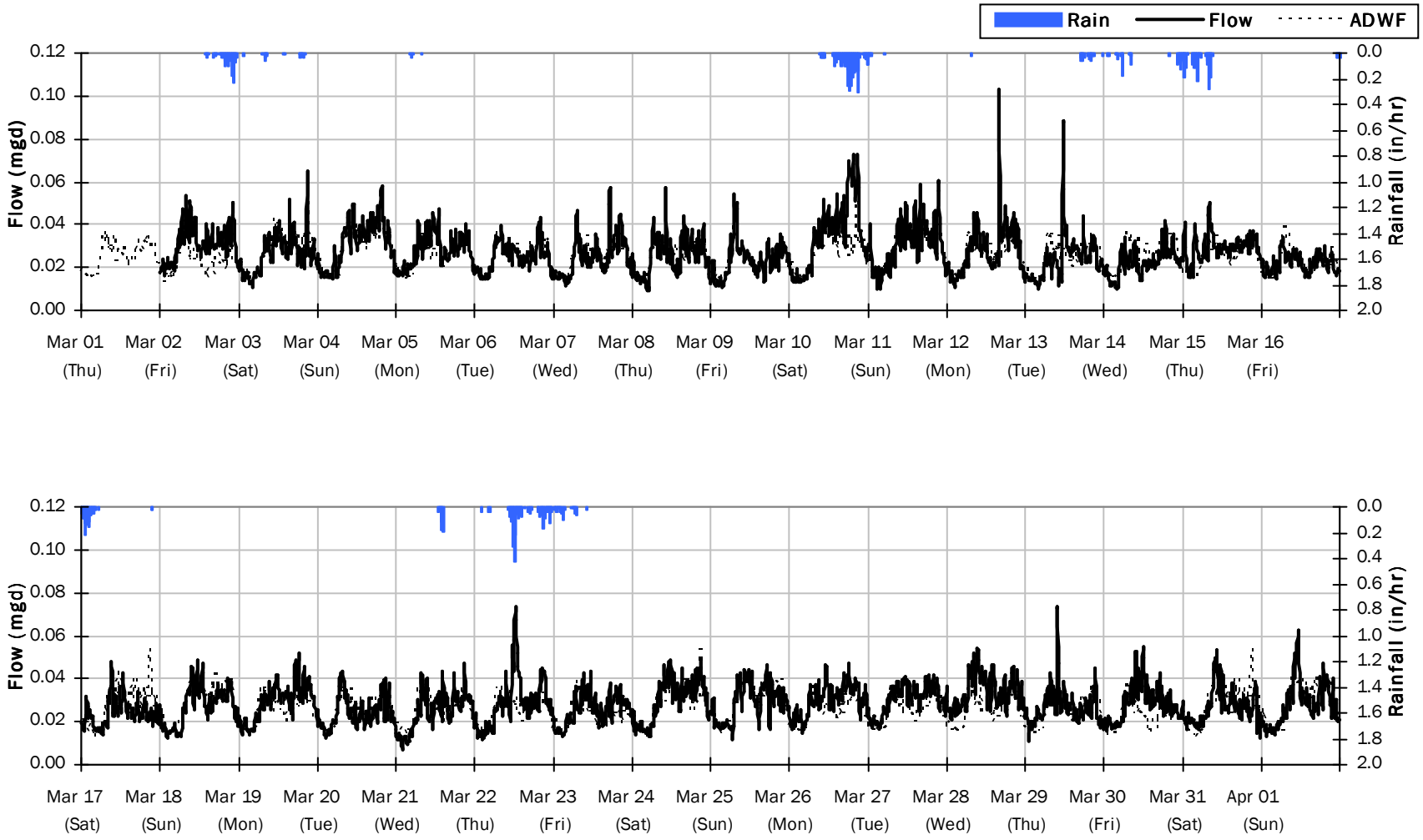
Total Period Rainfall: 3.94 inches



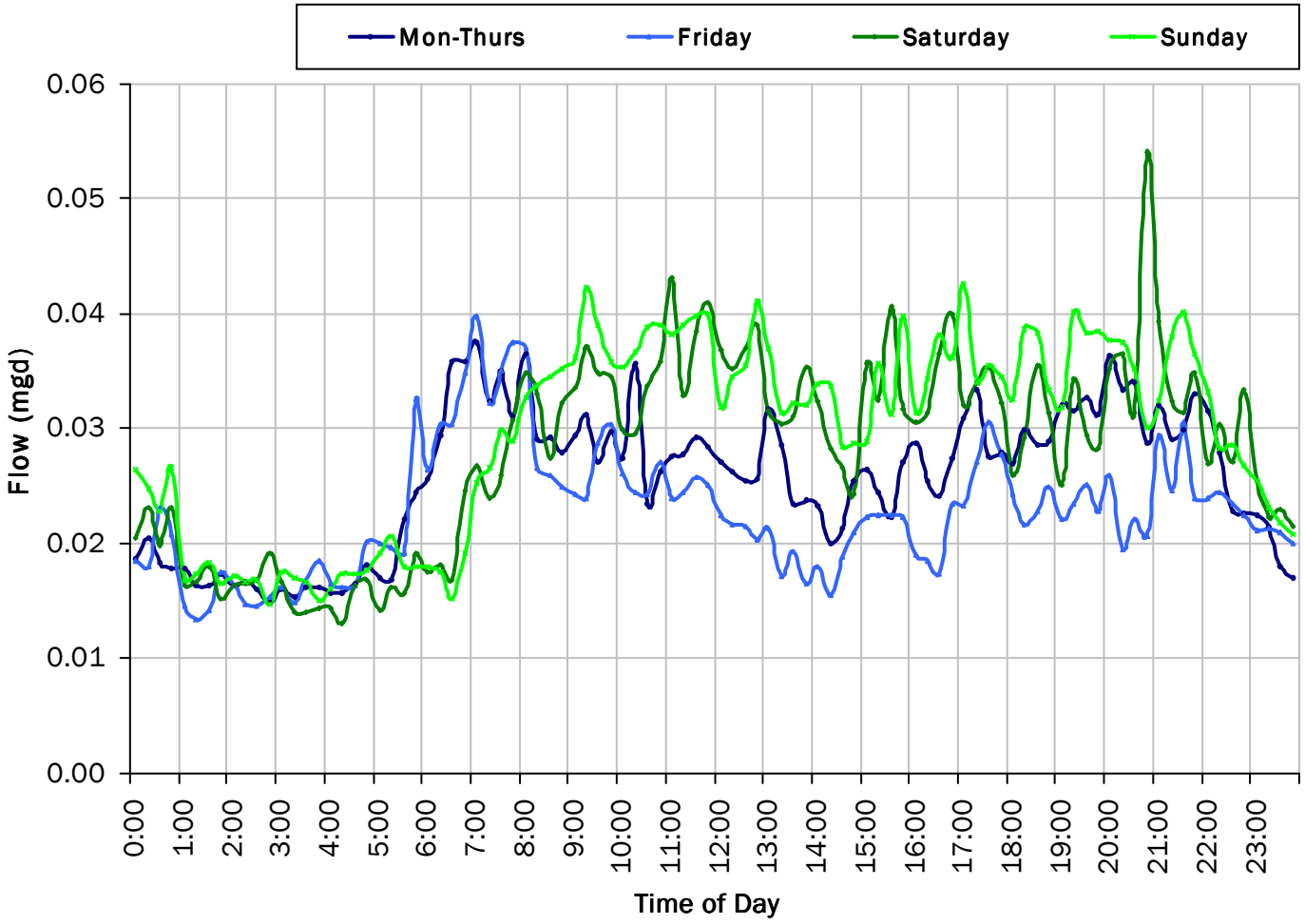
SMH 0370085

Flow Summary: 3/1/2018 to 4/1/2018

Total Period Rainfall: 3.94 inches **Avg Flow: 0.028 mgd Peak Flow: 0.103 mgd Min Flow: 0.007 mgd**

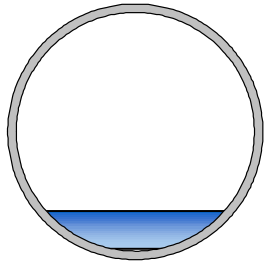


SMH 0370085
Average Dry Weather Flow Hydrographs



ADWF:

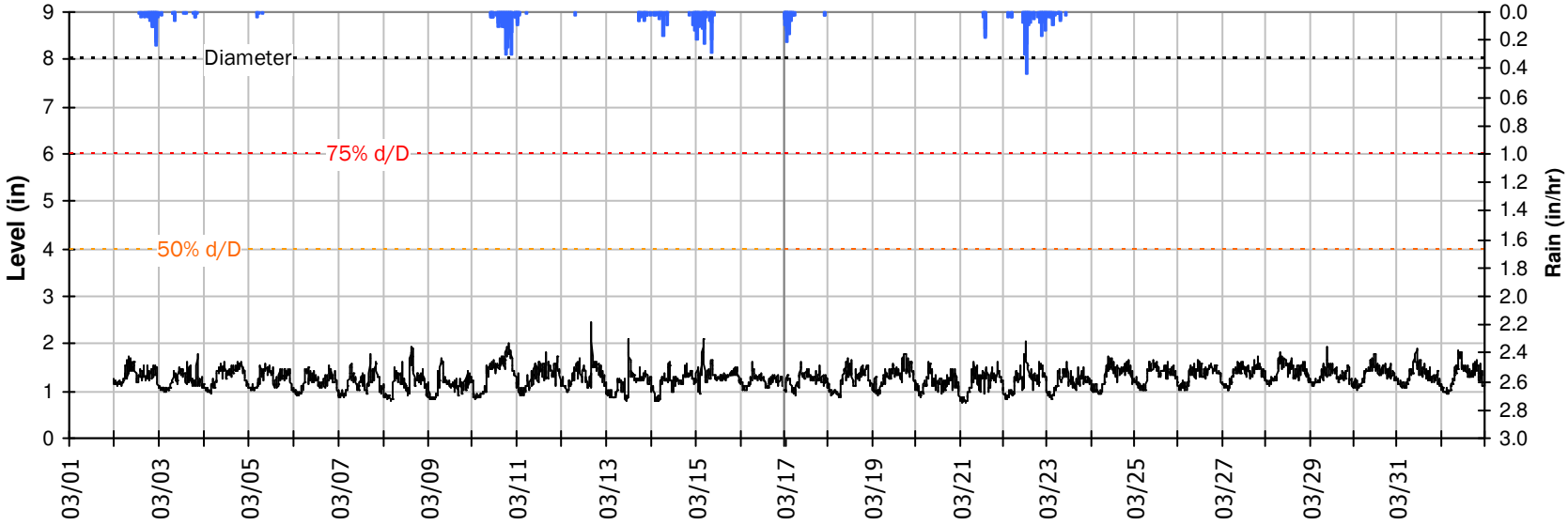
0.026 *mgd*

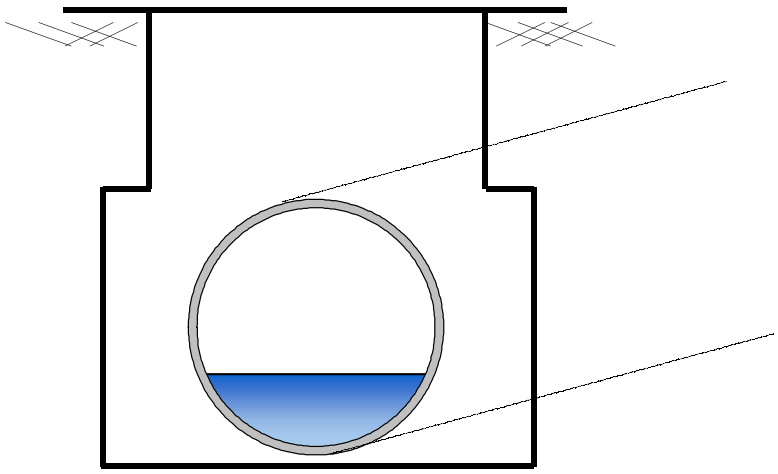


SMH 0370085

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



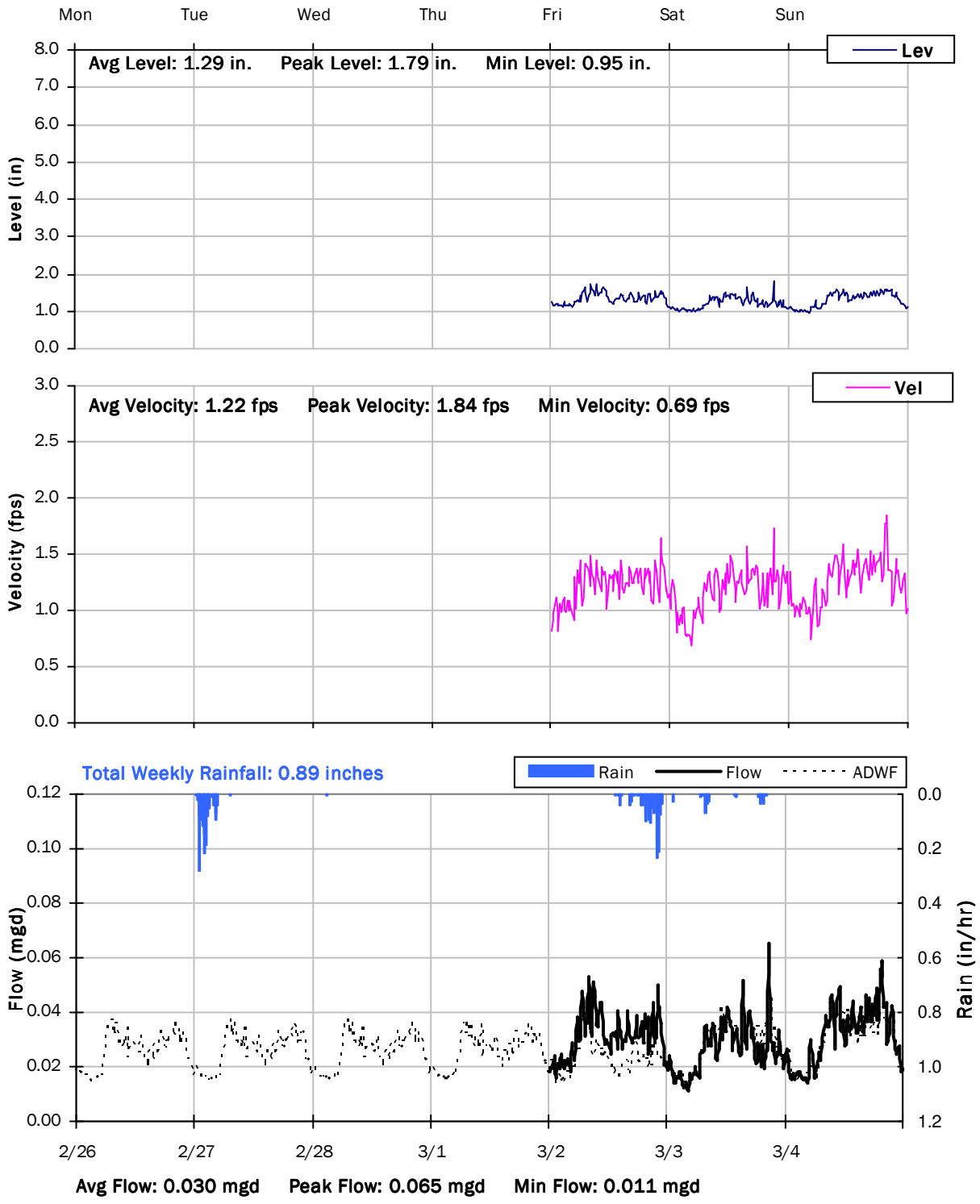


Pipe Diameter:	8	*inches*
Peak Measured Level:	2.44	*inches*
Peak d/D Ratio:	0.31	

SMH 0370085

Weekly Level, Velocity and Flow Hydrographs

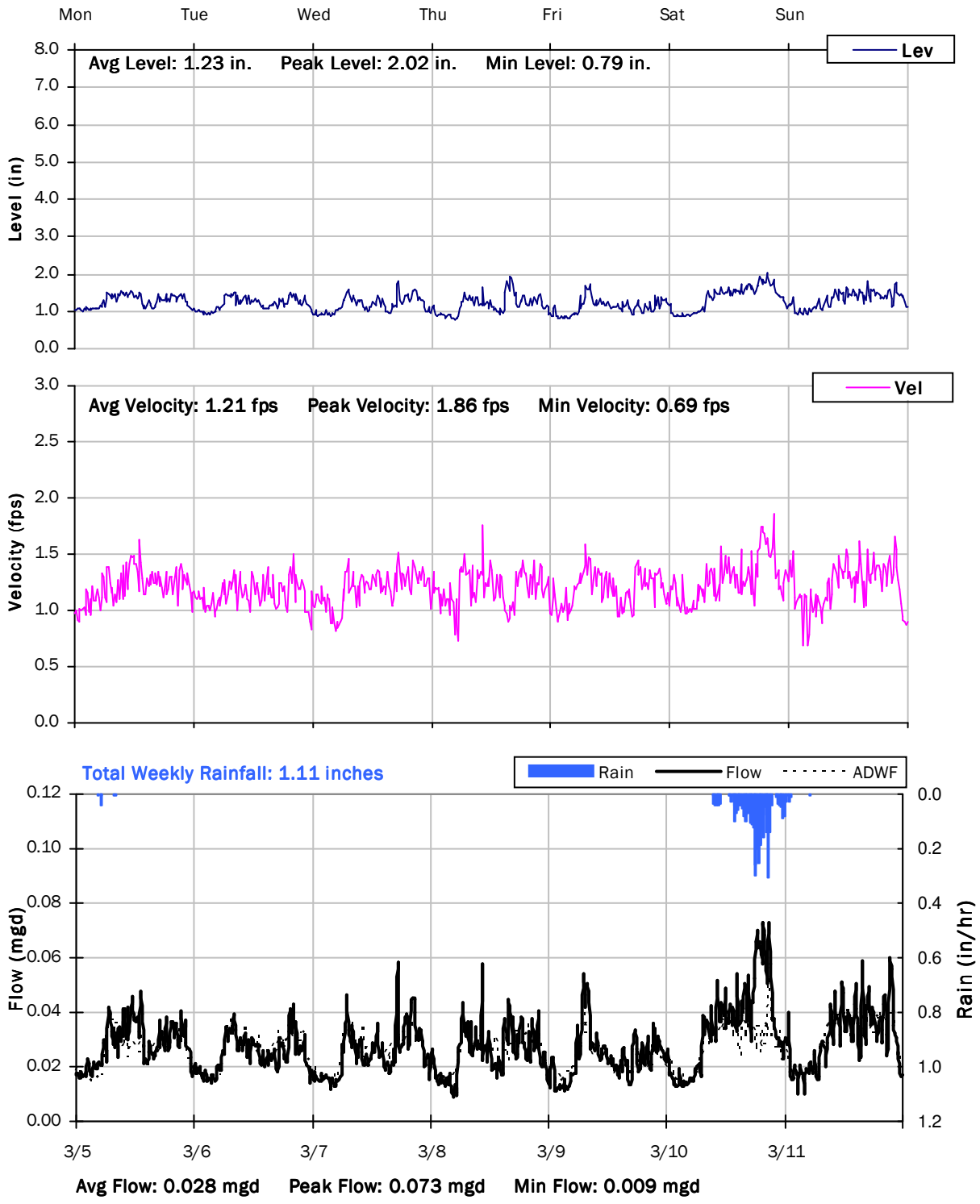
2/26/2018 to 3/5/2018



SMH 0370085

Weekly Level, Velocity and Flow Hydrographs

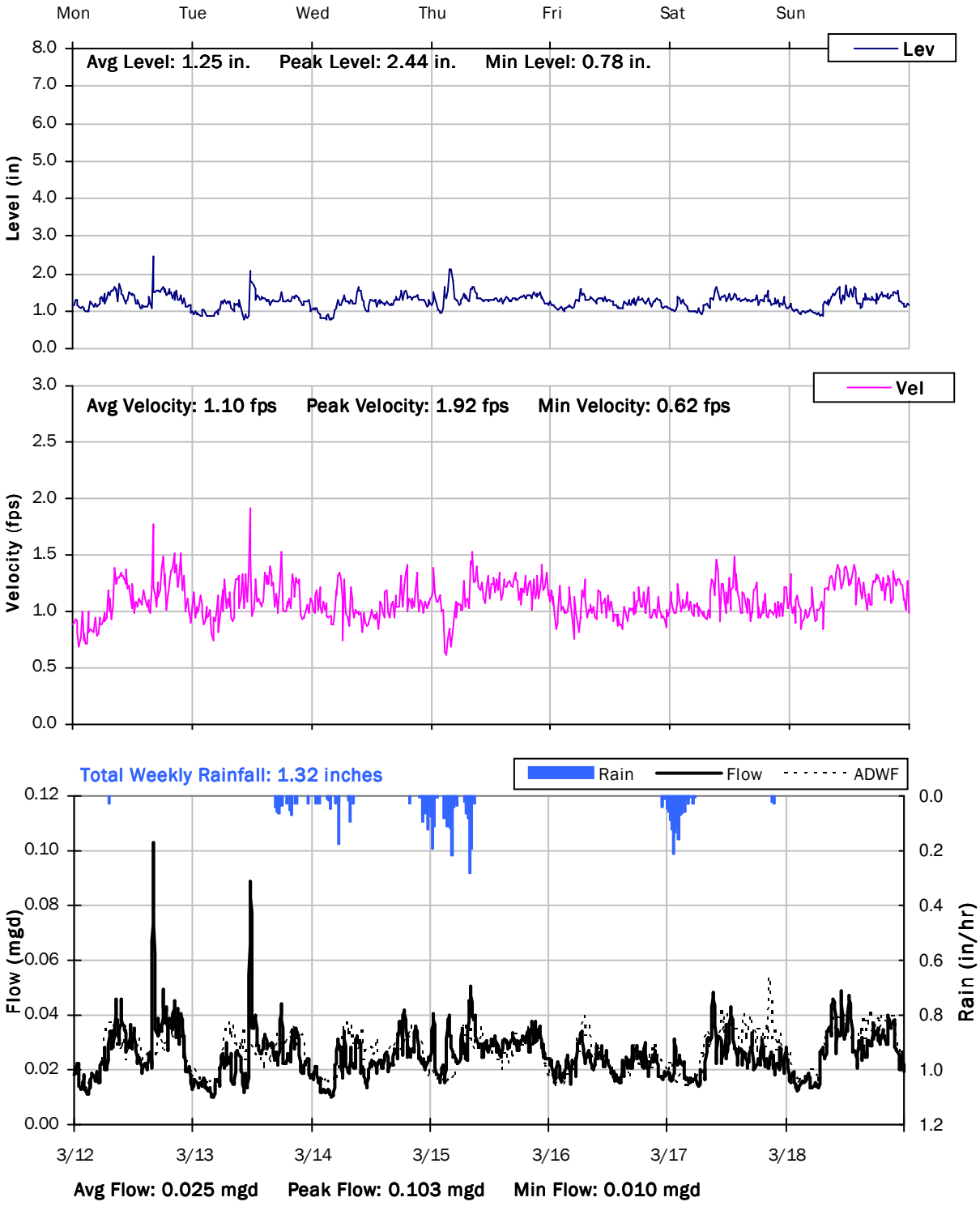
3/5/2018 to 3/12/2018



SMH 0370085

Weekly Level, Velocity and Flow Hydrographs

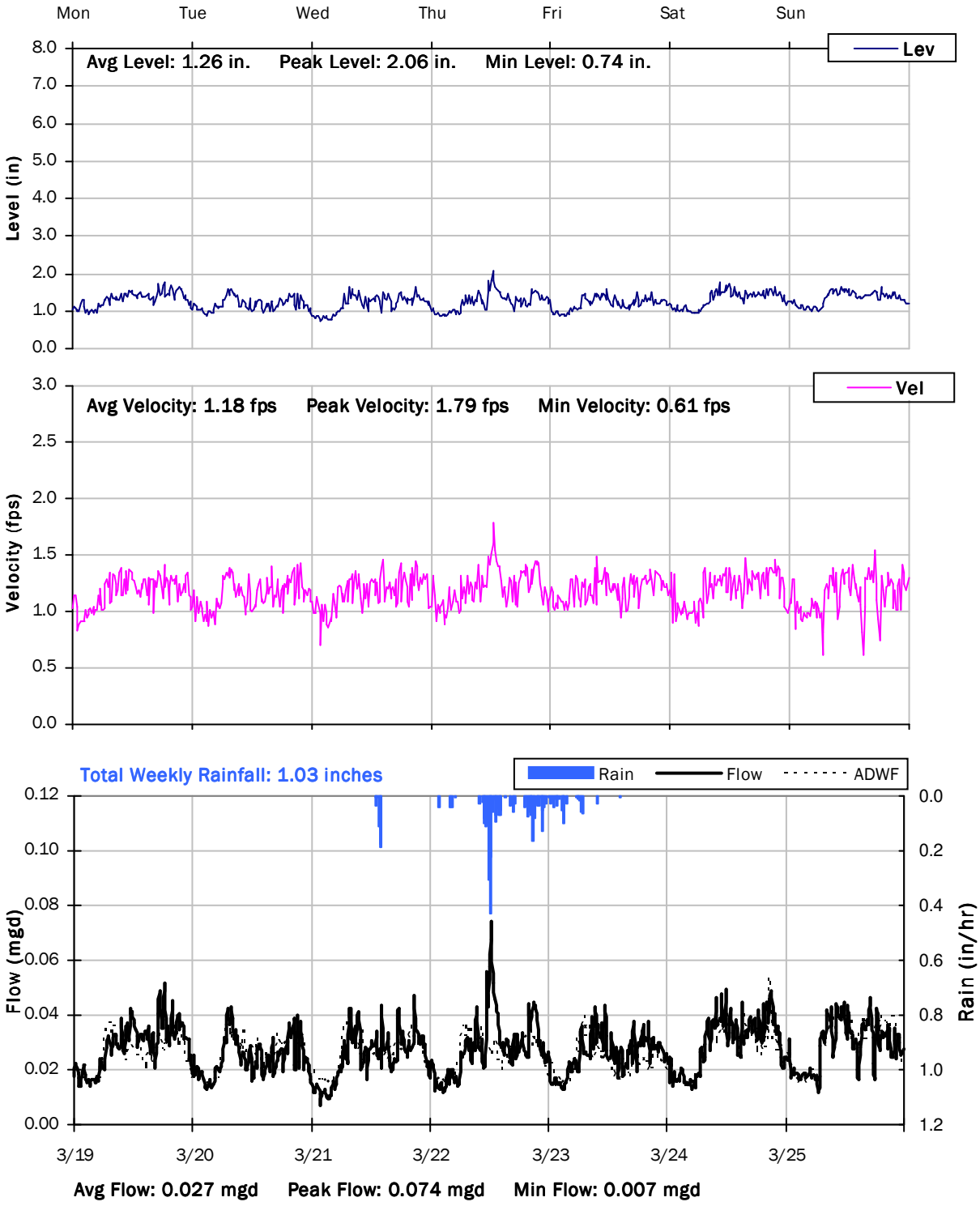
3/12/2018 to 3/19/2018



SMH 0370085

Weekly Level, Velocity and Flow Hydrographs

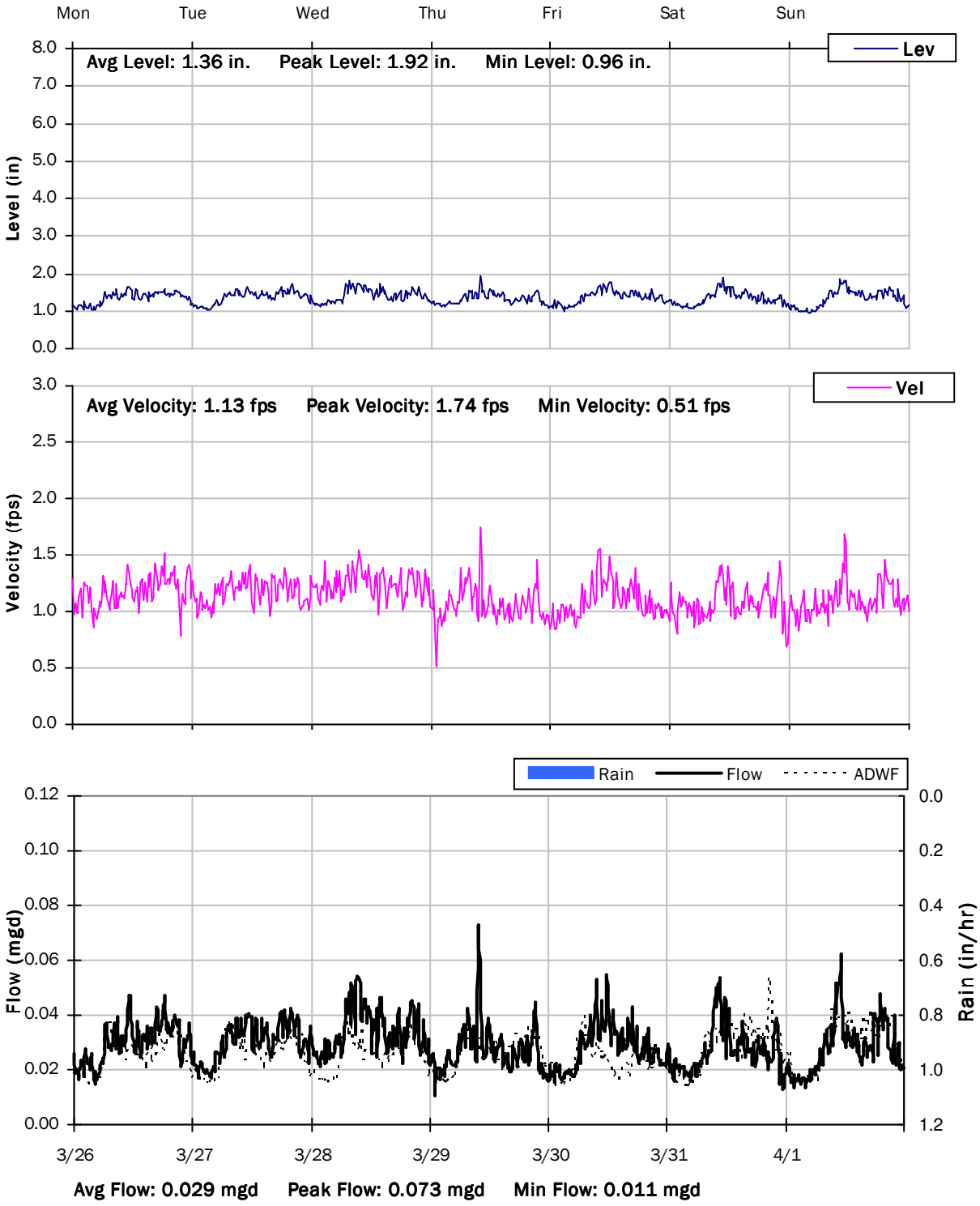
3/19/2018 to 3/26/2018



SMH 0370085

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



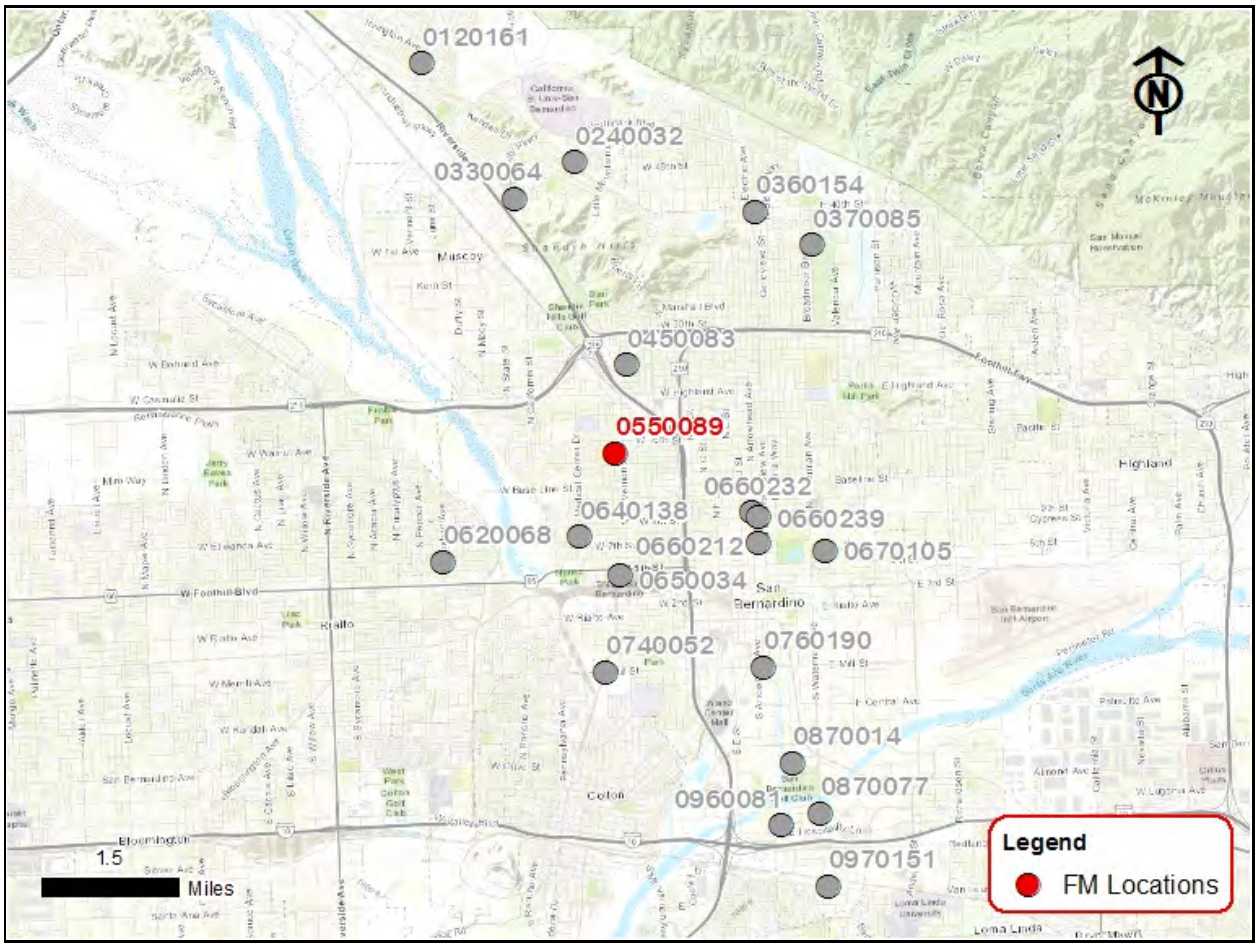
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0550089

Location: W 15th Steet east of N Pico Avenue

Data Summary Report



Vicinity Map: SMH 0550089

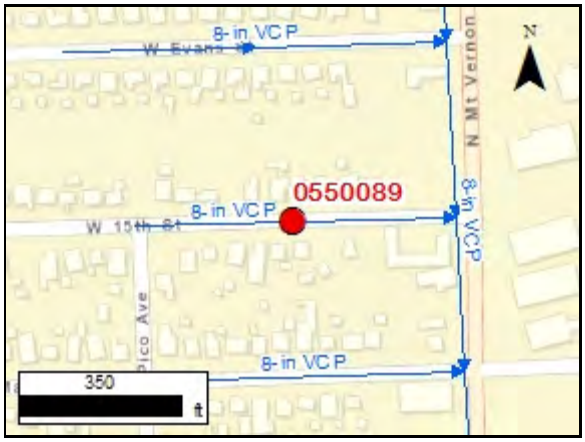
SMH 0550089

Site Information

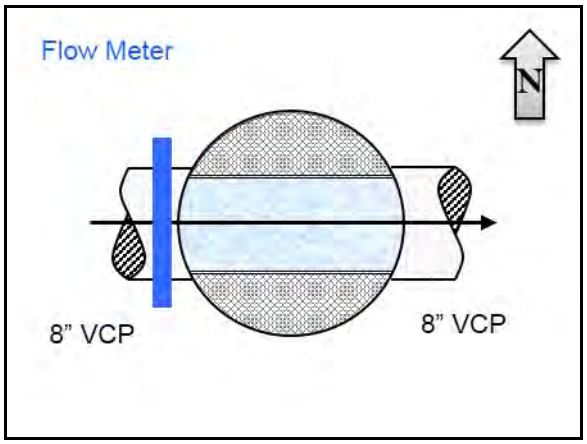
Location:	W 15th Steet east of N Pico Avenue
Coordinates:	117.3150° W, 34.1269° N
Rim Elevation (Earth):	1174 feet
Pipe Diameter:	8 inches
ADWF:	0.016 mgd
Peak Measured Flow:	0.057 mgd



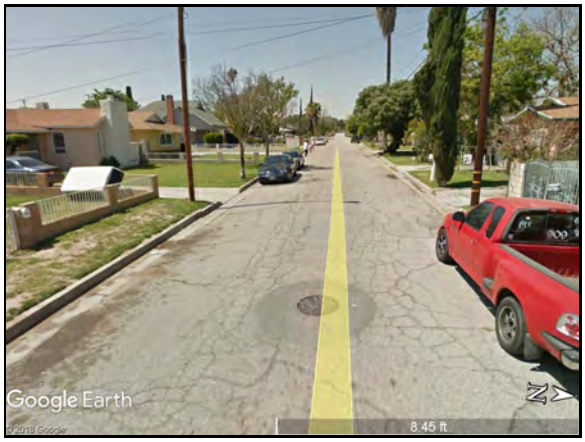
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0550089

Additional Site Photos

Effluent Pipe



Influent Pipe

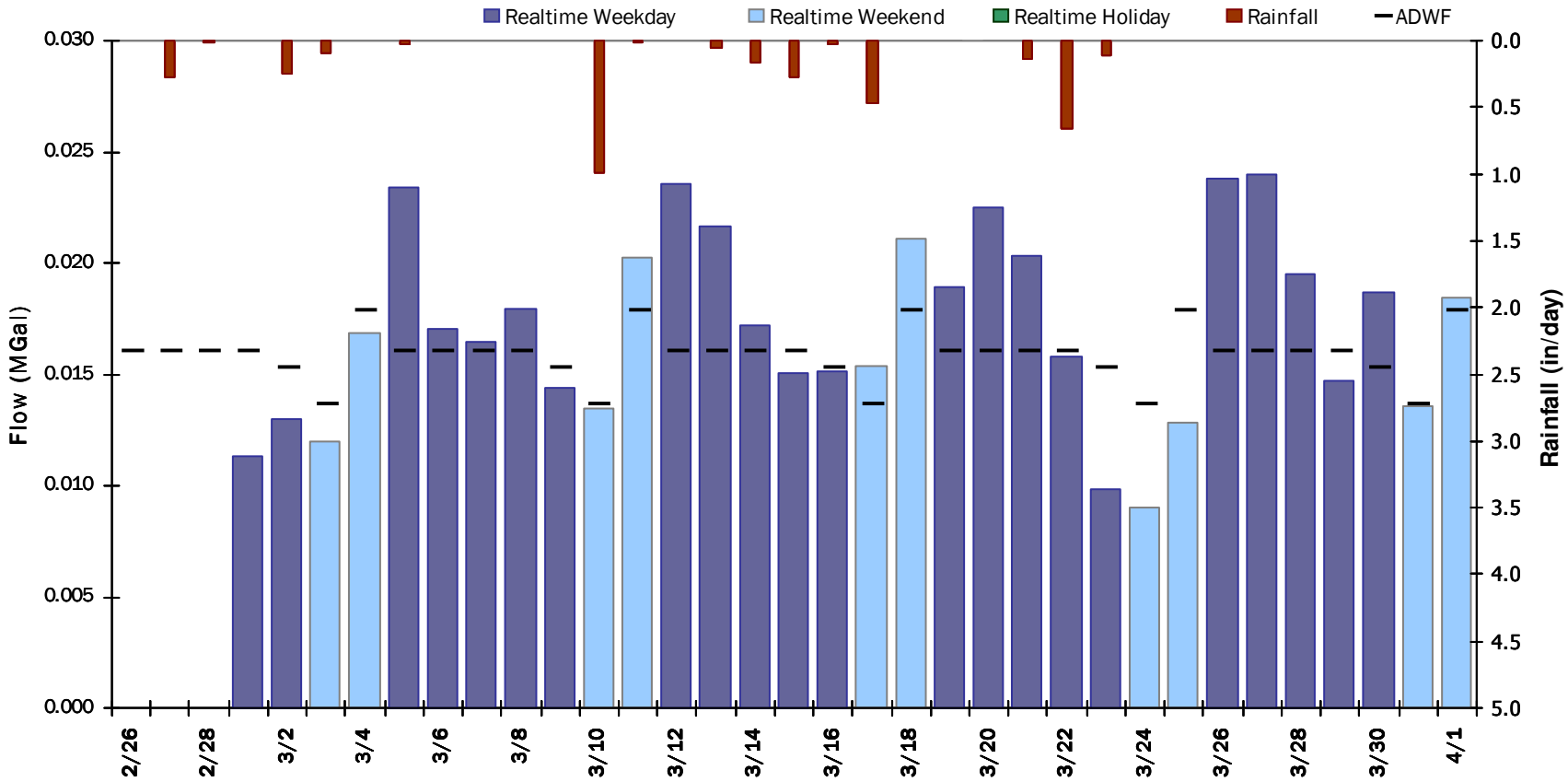


SMH 0550089

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.017 MGal **Peak Daily Flow: 0.024 MGal** **Min Daily Flow: 0.009 MGal**

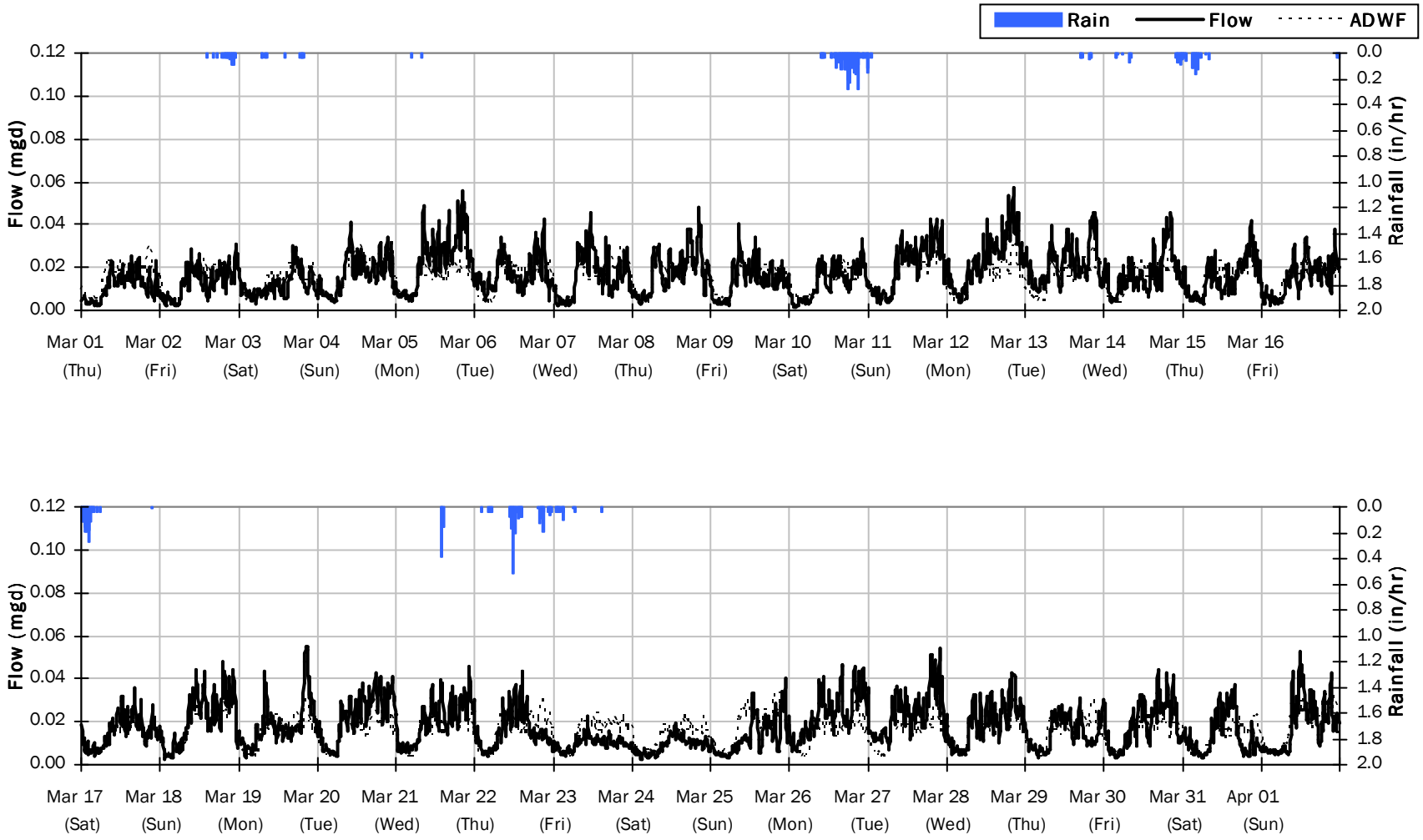
Total Period Rainfall: 3.27 inches



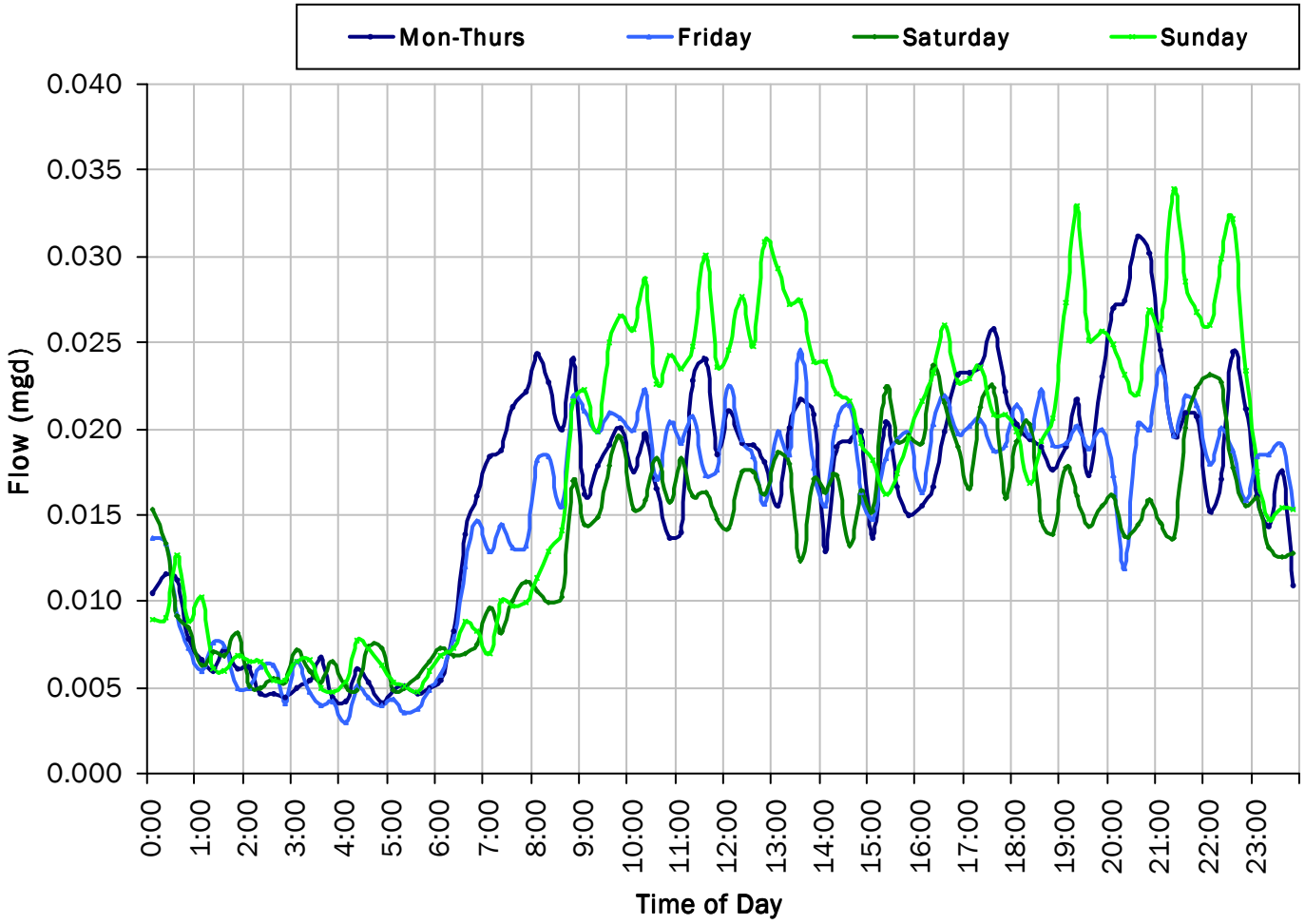
SMH 0550089

Flow Summary: 3/1/2018 to 4/1/2018

Total Period Rainfall: 3.27 inches **Avg Flow: 0.017 mgd** **Peak Flow: 0.057 mgd** **Min Flow: 0.001 mgd**

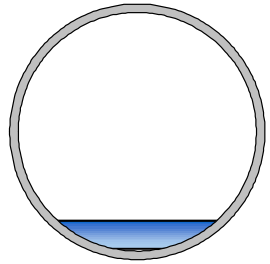


SMH 0550089
Average Dry Weather Flow Hydrographs



ADWF:

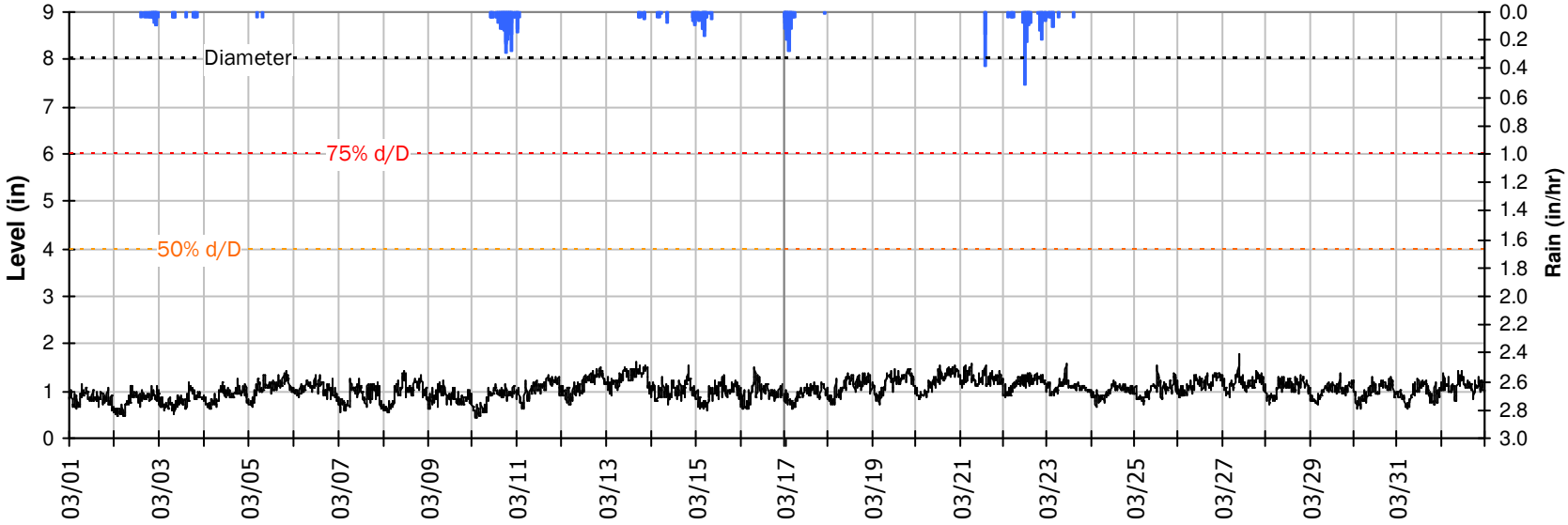
0.016 *mgd*

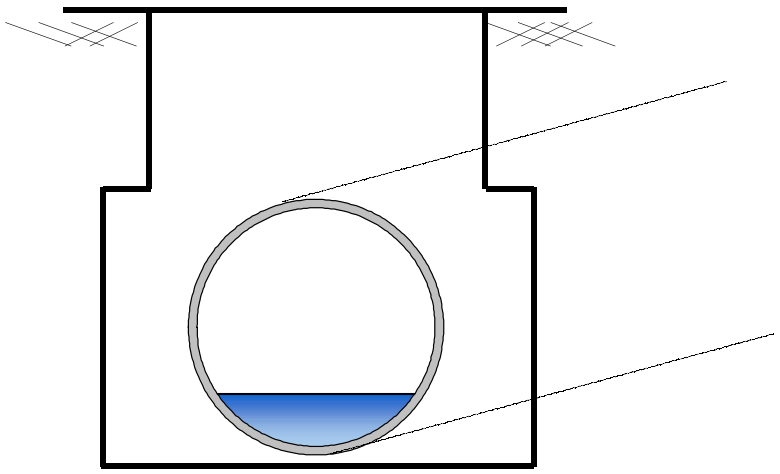


SMH 0550089

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



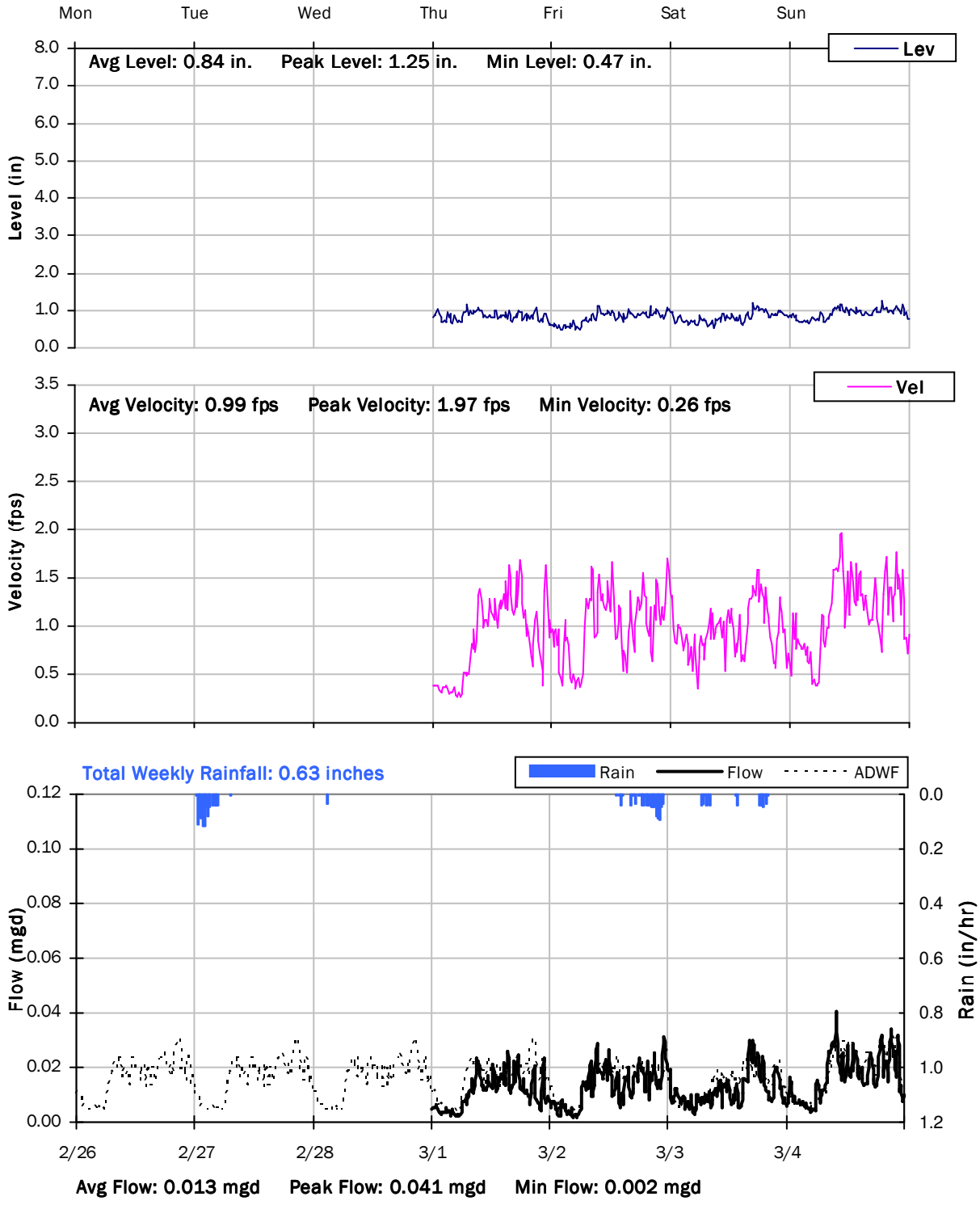


Pipe Diameter:	8	*inches*
Peak Measured Level:	1.78	*inches*
Peak d/D Ratio:	0.22	

SMH 0550089

Weekly Level, Velocity and Flow Hydrographs

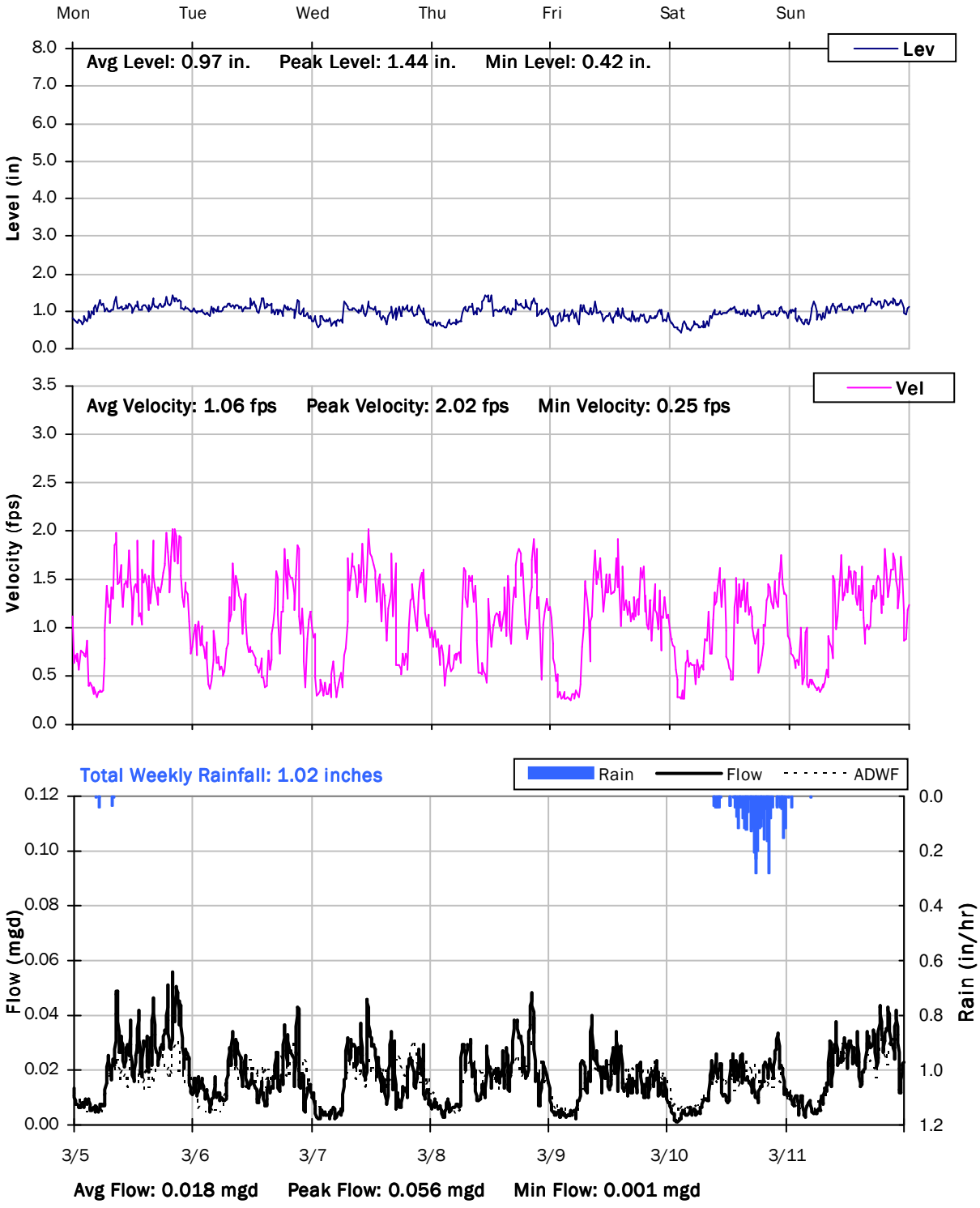
2/26/2018 to 3/5/2018



SMH 0550089

Weekly Level, Velocity and Flow Hydrographs

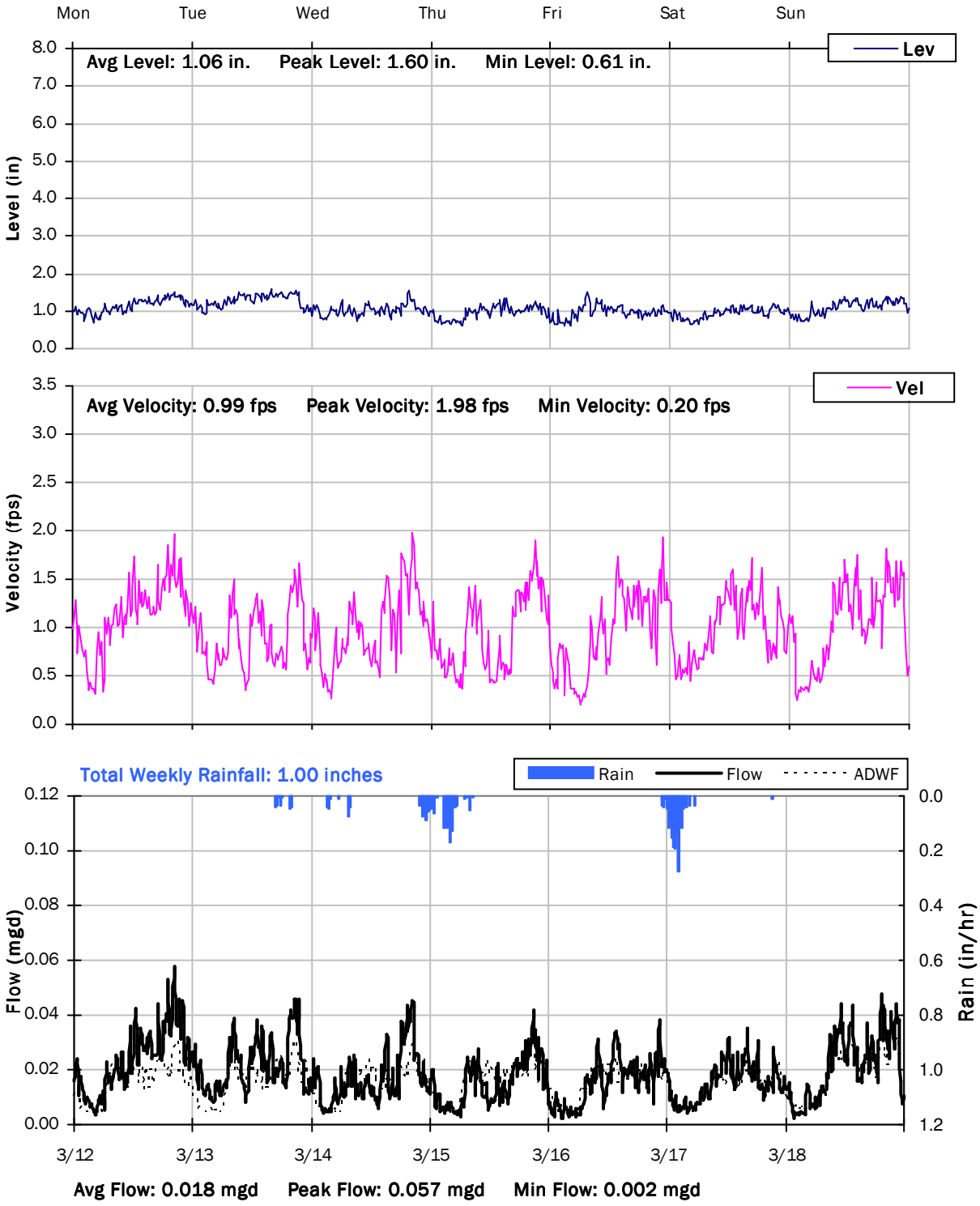
3/5/2018 to 3/12/2018



SMH 0550089

Weekly Level, Velocity and Flow Hydrographs

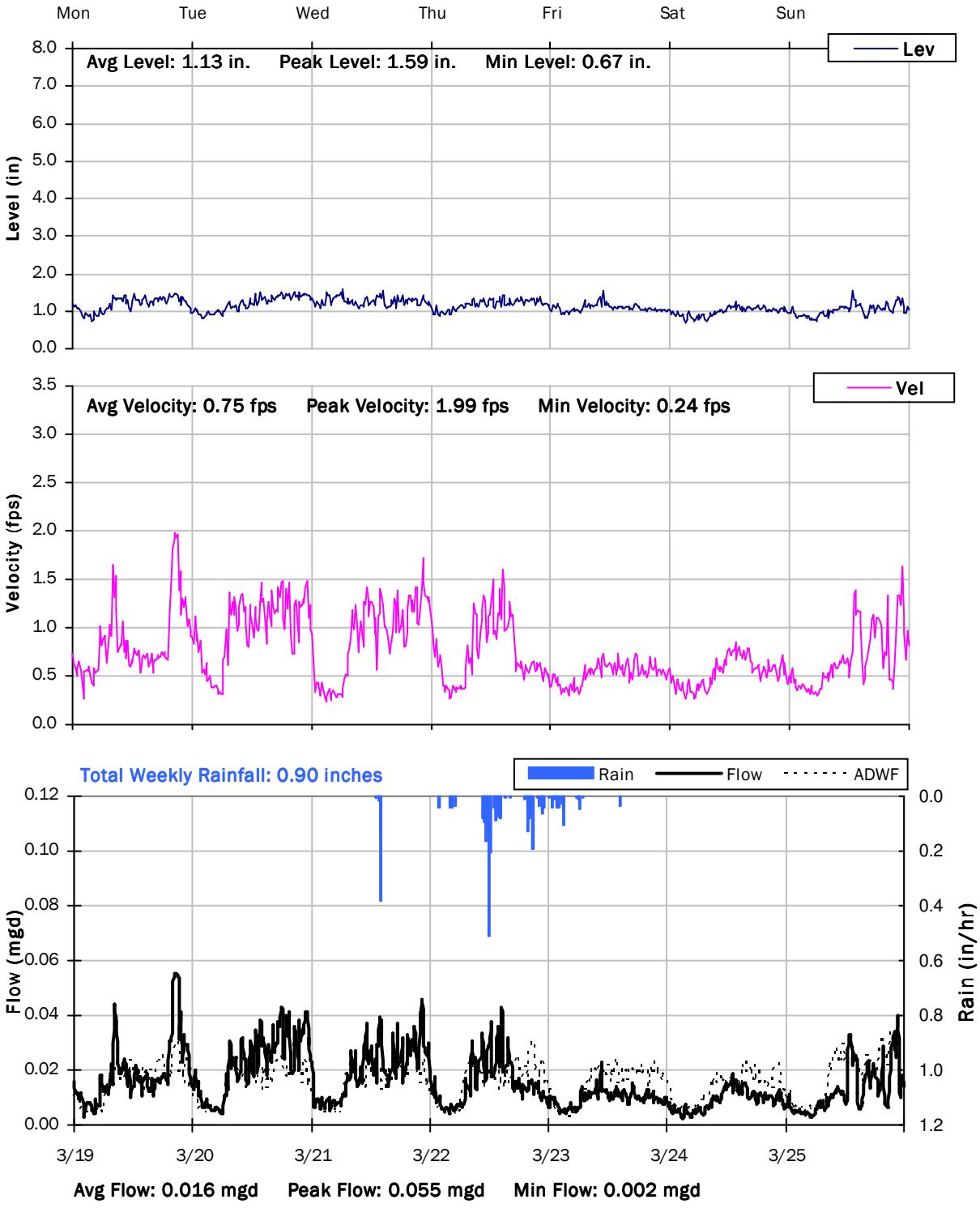
3/12/2018 to 3/19/2018



SMH 0550089

Weekly Level, Velocity and Flow Hydrographs

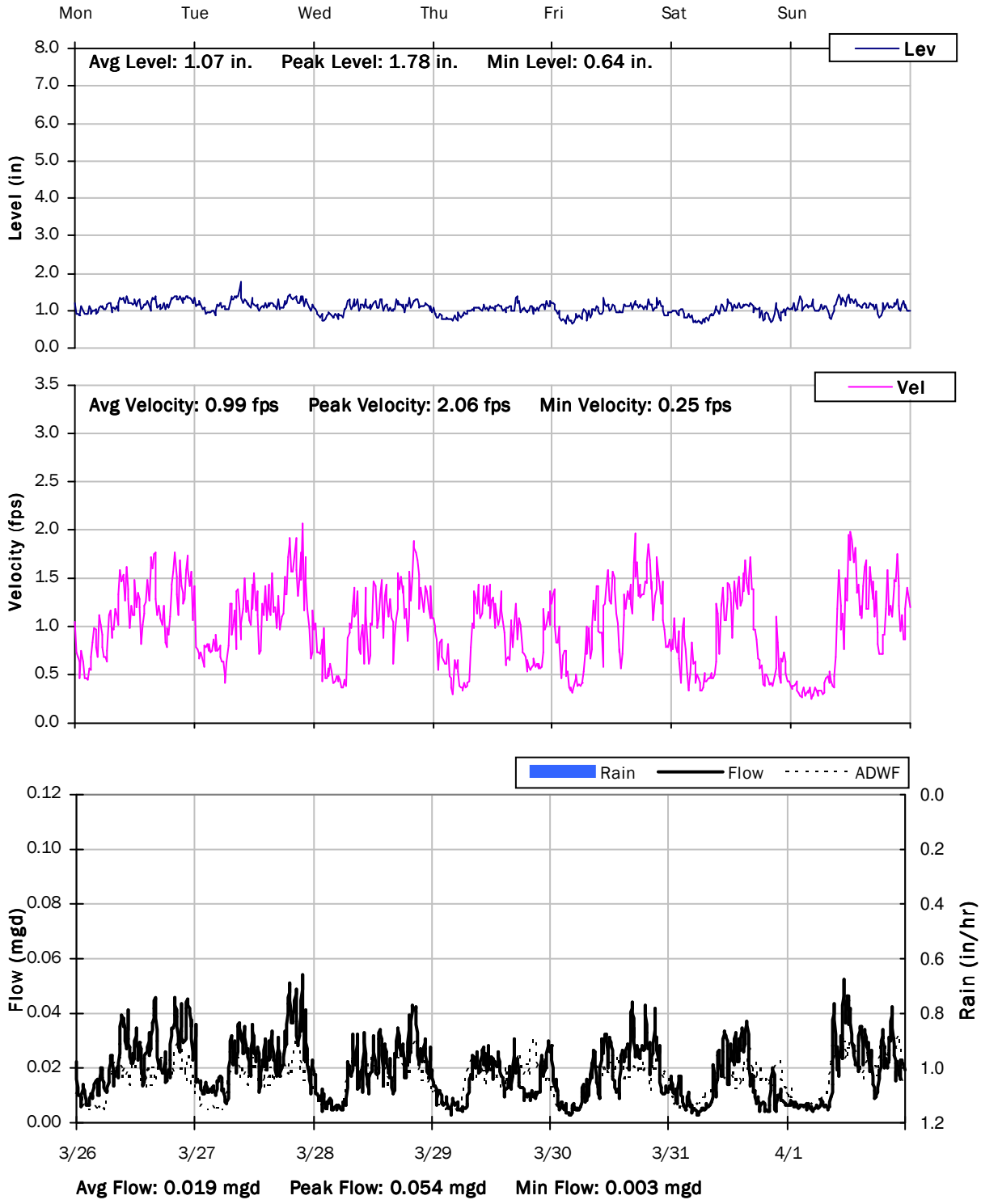
3/19/2018 to 3/26/2018



SMH 0550089

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



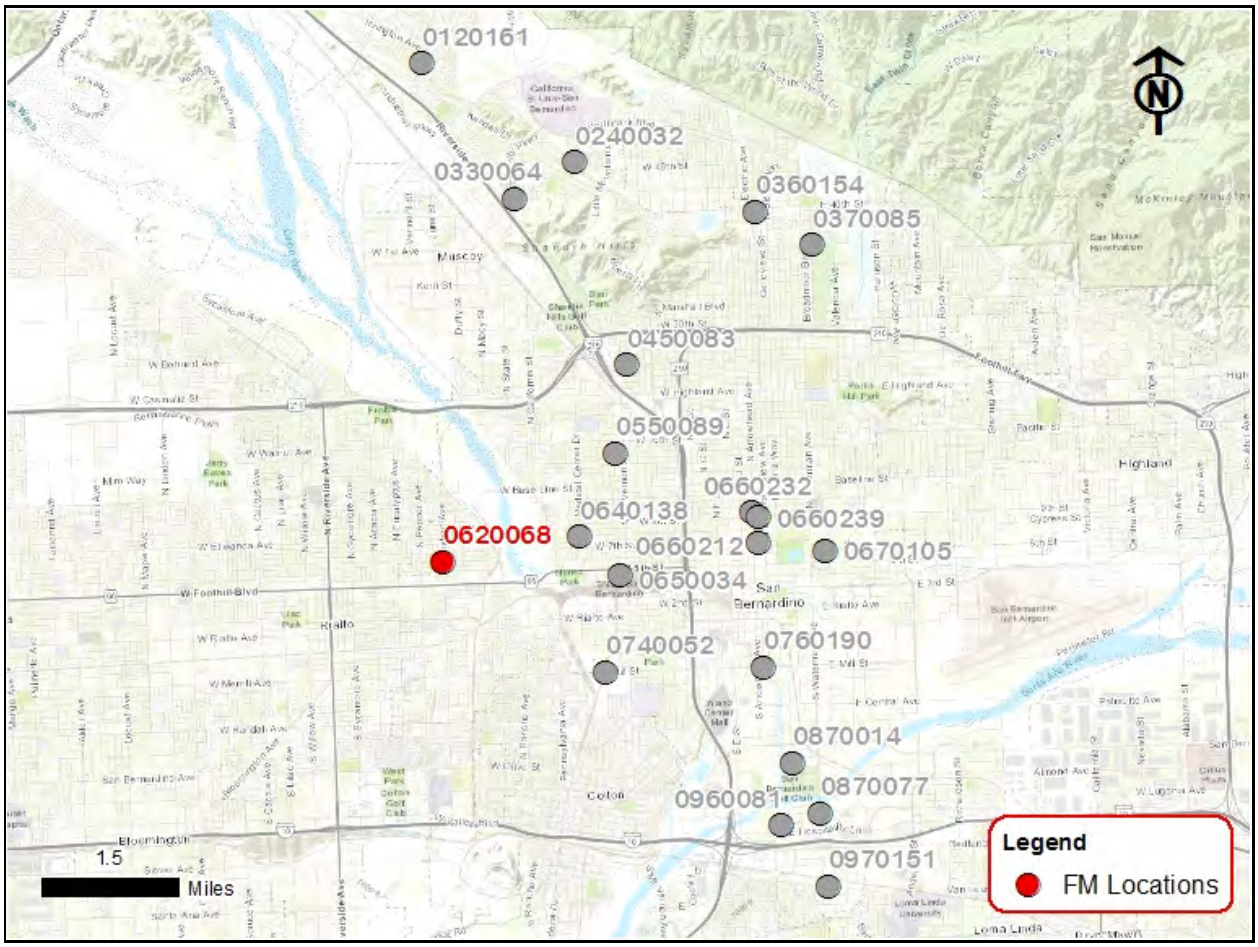
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0620068

Location: N Meridian Avenue and W 6th Street

Data Summary Report



Vicinity Map: SMH 0620068

SMH 0620068

Site Information

Location: N Meridian Avenue and W 6th Street

Coordinates: 117.3485° W, 34.1104° N

Rim Elevation (Earth): 1226 feet

Pipe Diameter: 8 inches

ADWF: 0.035 mgd

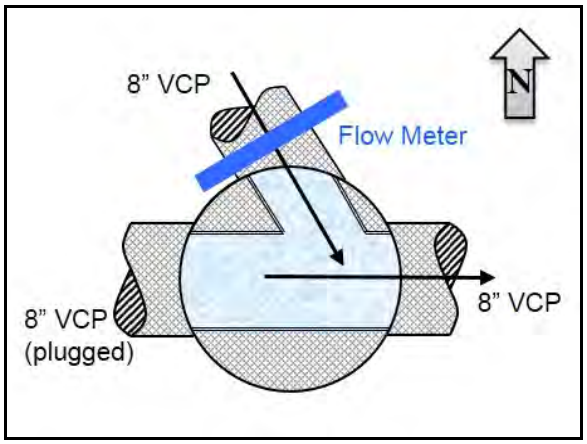
Peak Measured Flow: 0.071 mgd



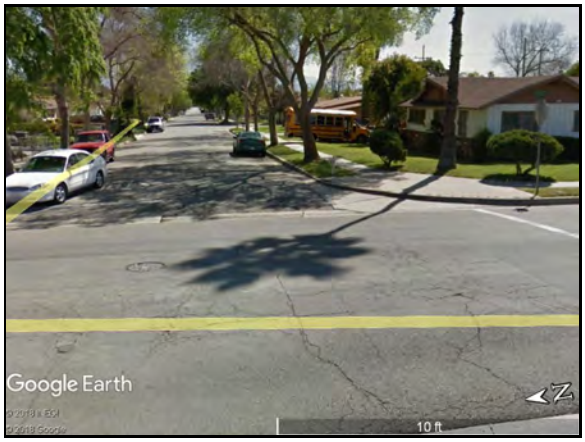
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0620068

Additional Site Photos

Effluent Pipe



North Influent Pipe



SMH 0620068

Additional Site Photos

West Influent Pipe

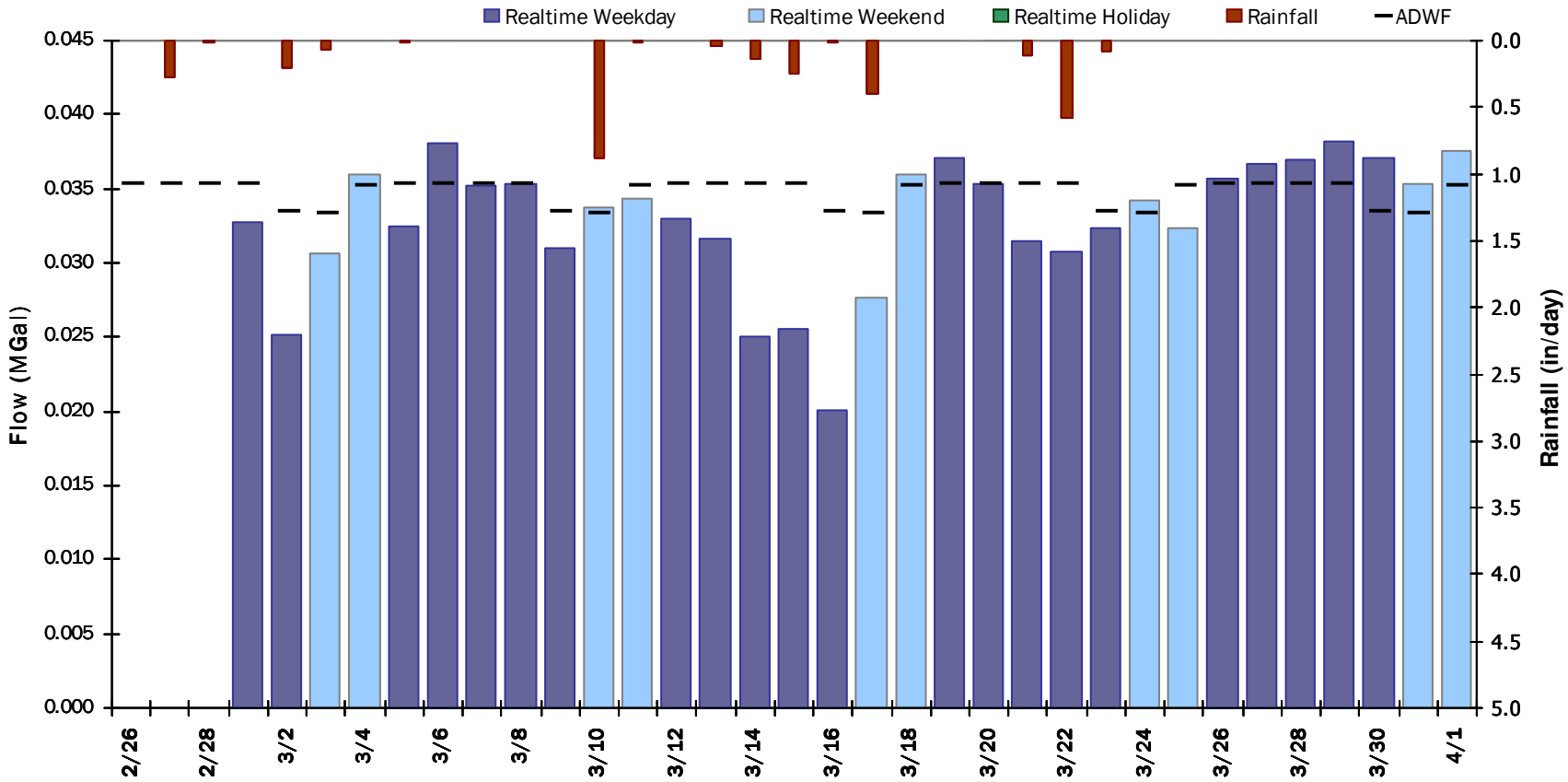


SMH 0620068

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.033 MGal **Peak Daily Flow: 0.038 MGal** **Min Daily Flow: 0.020 MGal**

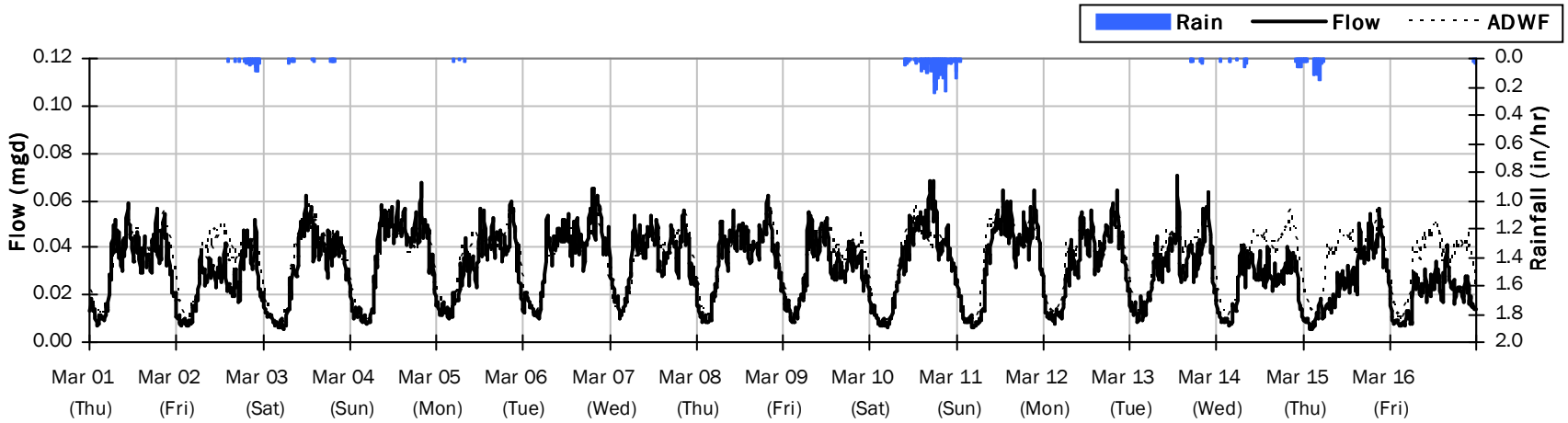
Total Period Rainfall: 2.81 inches

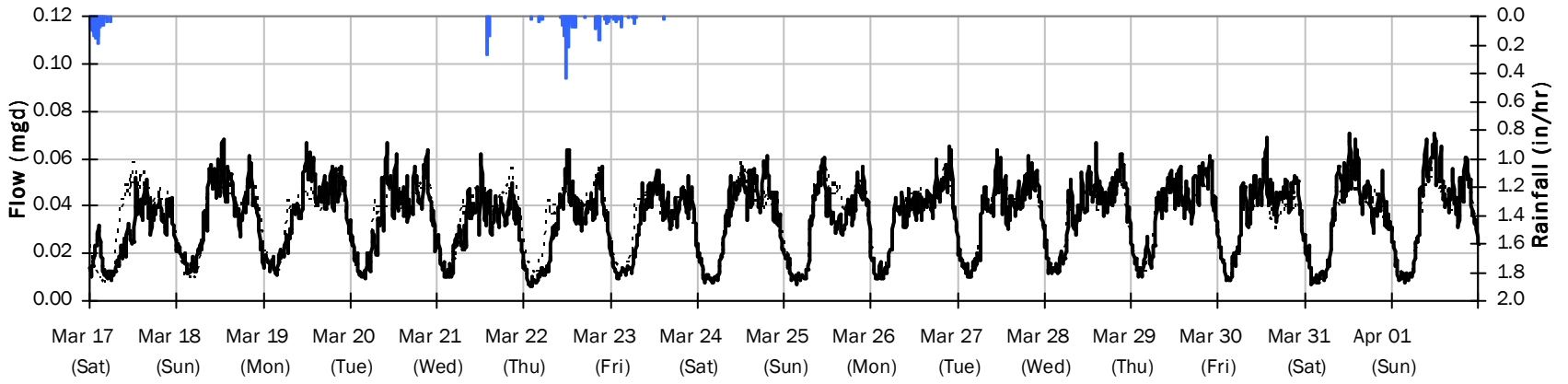


SMH 0620068

Flow Summary: 3/1/2018 to 4/1/2018

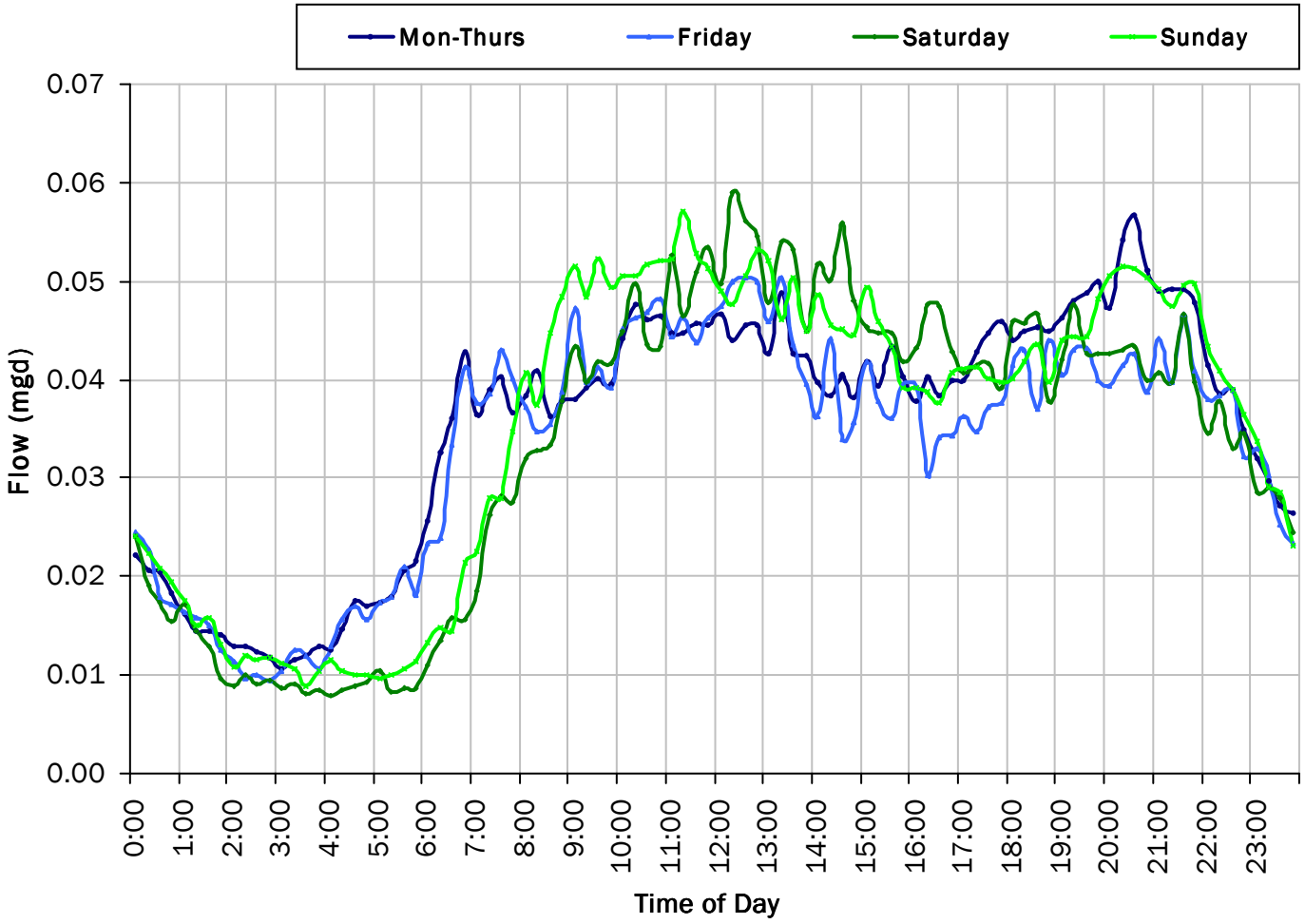
Total Period Rainfall: 2.81 inches Avg Flow: 0.033 mgd Peak Flow: 0.071 mgd Min Flow: 0.005 mgd





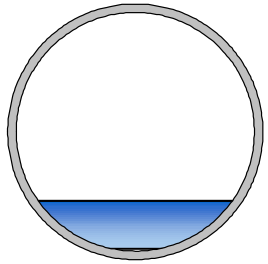
SMH 0620068

Average Dry Weather Flow Hydrographs



ADWF:

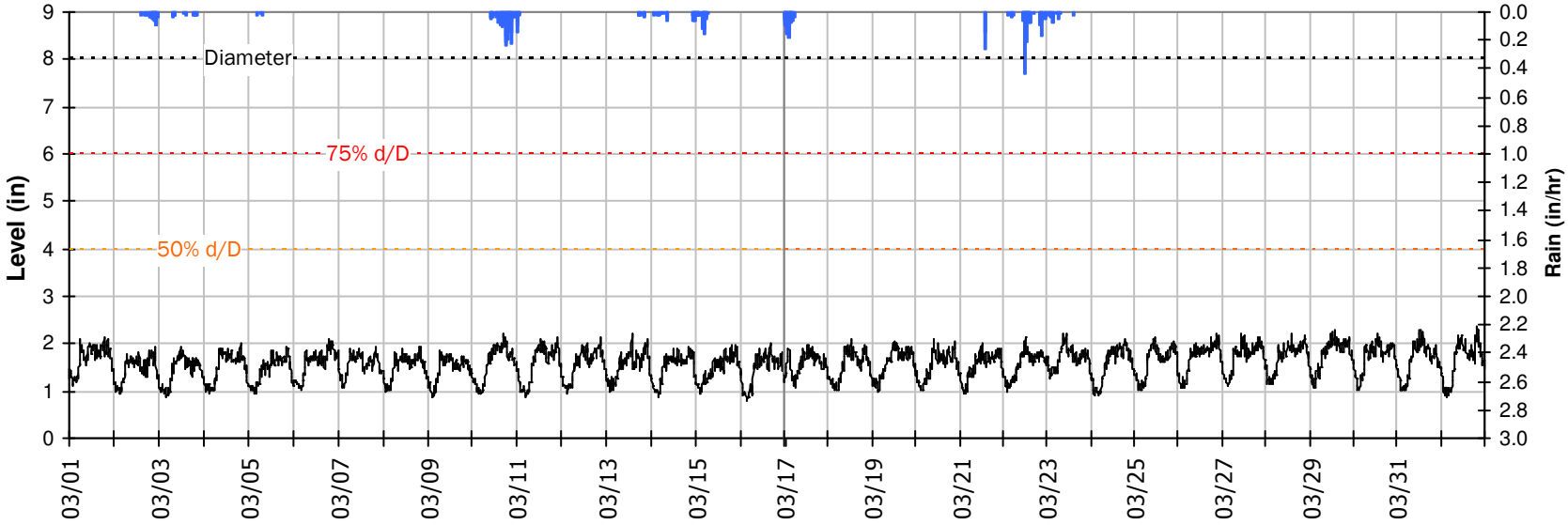
0.035 *mgd*

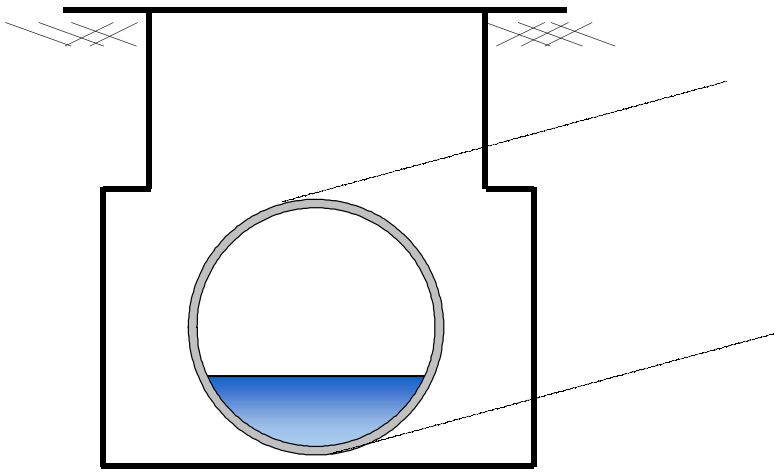


SMH 0620068

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



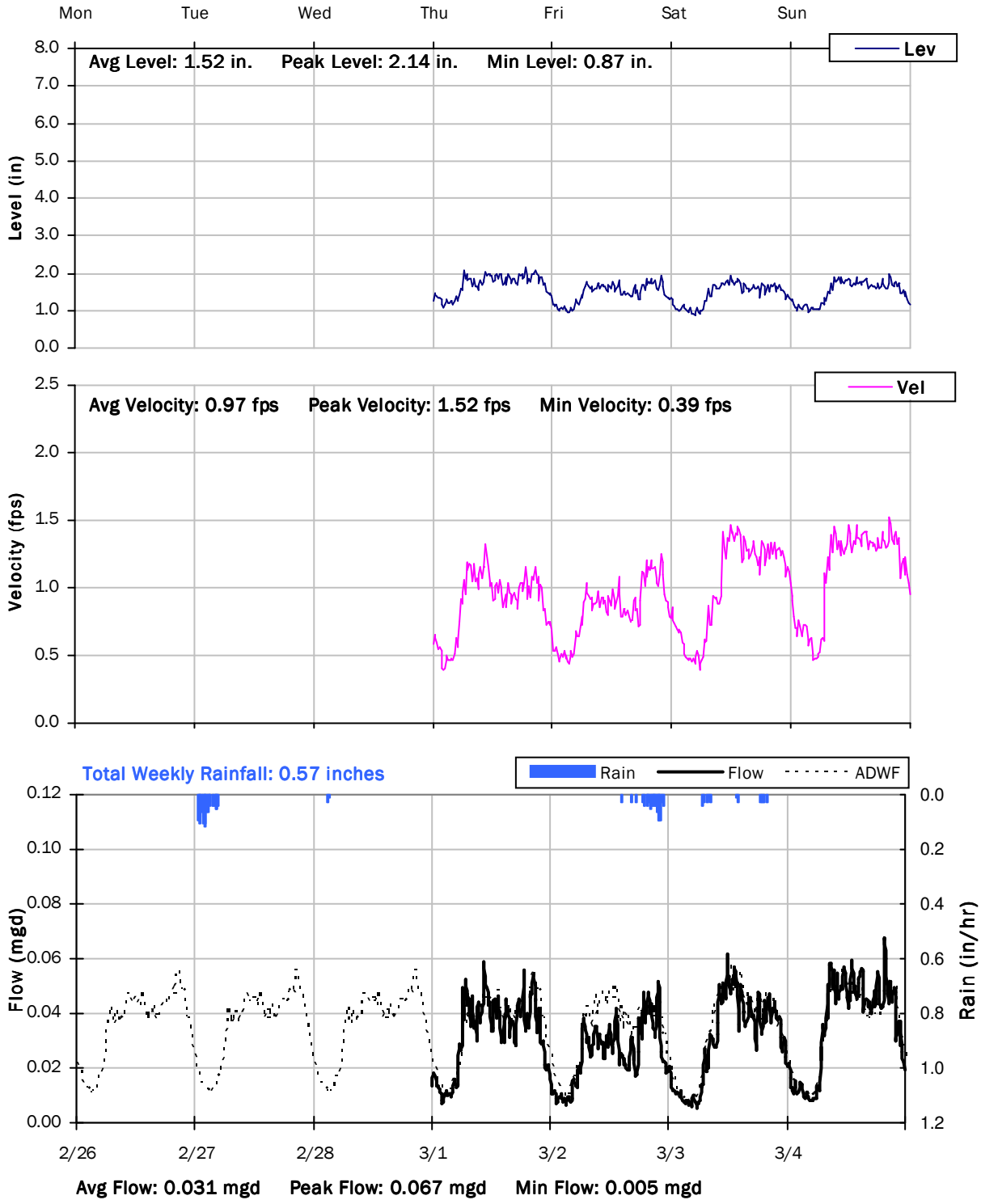


Pipe Diameter:	8	*inches*
Peak Measured Level:	2.37	*inches*
Peak d/D Ratio:	0.30	

SMH 0620068

Weekly Level, Velocity and Flow Hydrographs

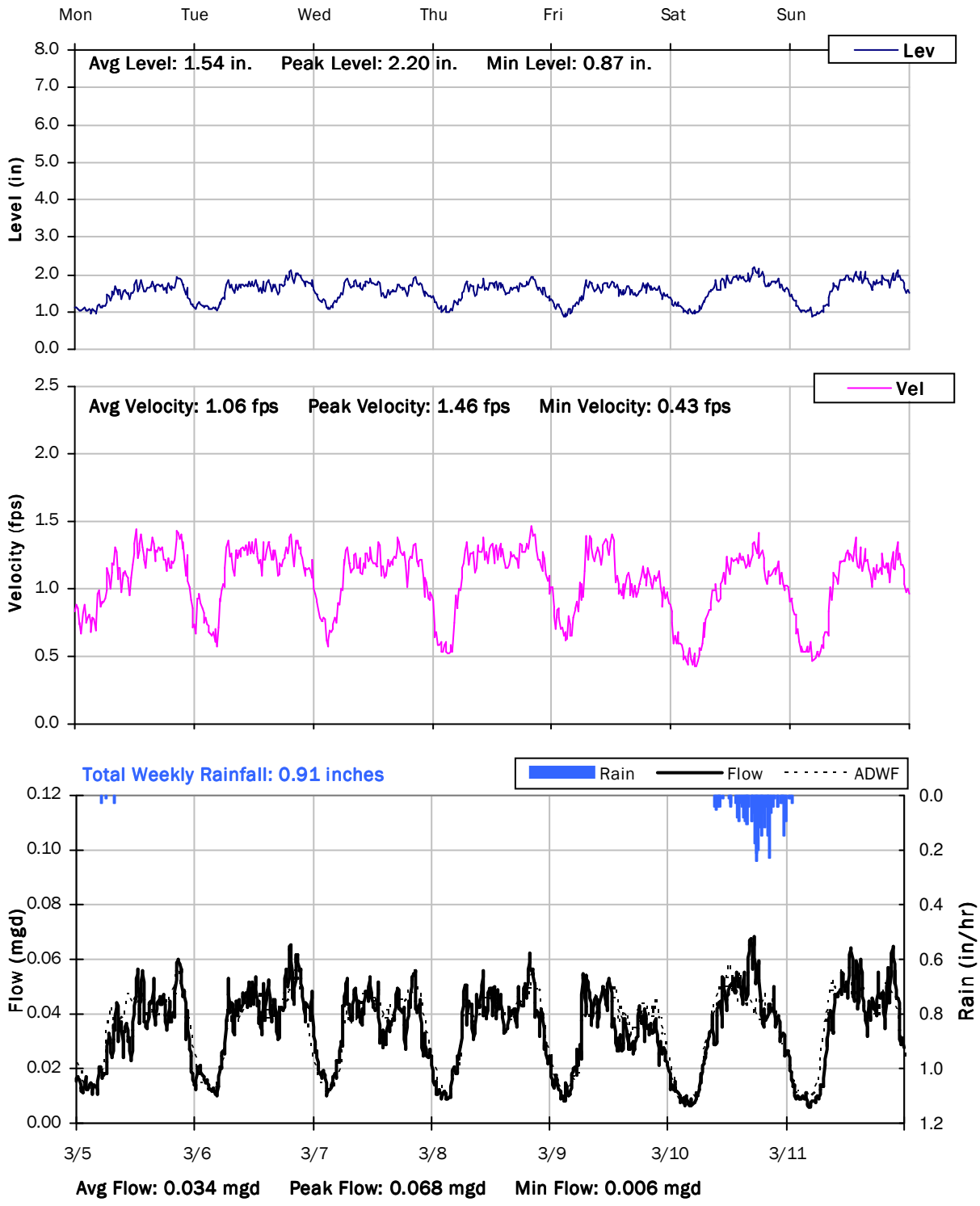
2/26/2018 to 3/5/2018



SMH 0620068

Weekly Level, Velocity and Flow Hydrographs

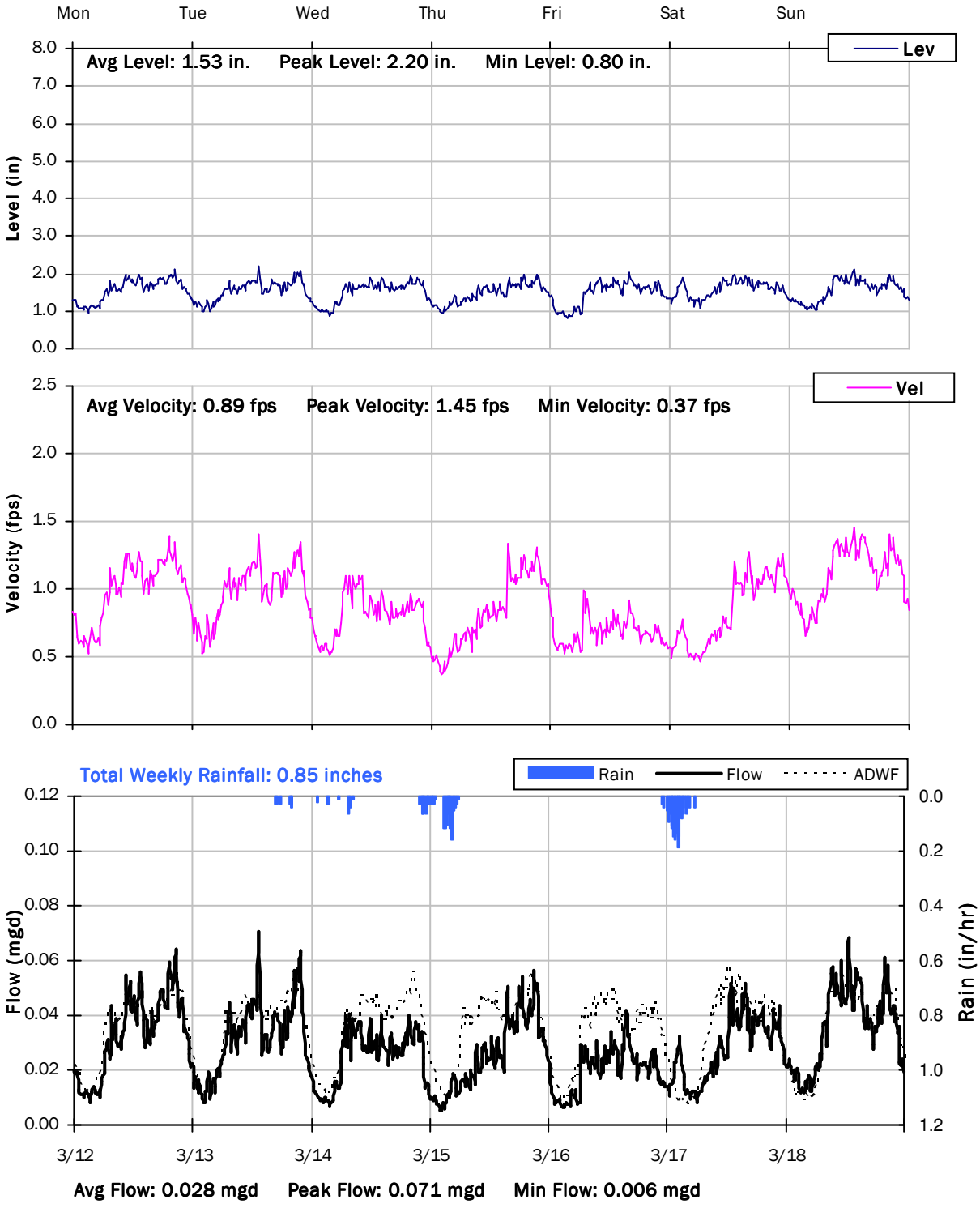
3/5/2018 to 3/12/2018



SMH 0620068

Weekly Level, Velocity and Flow Hydrographs

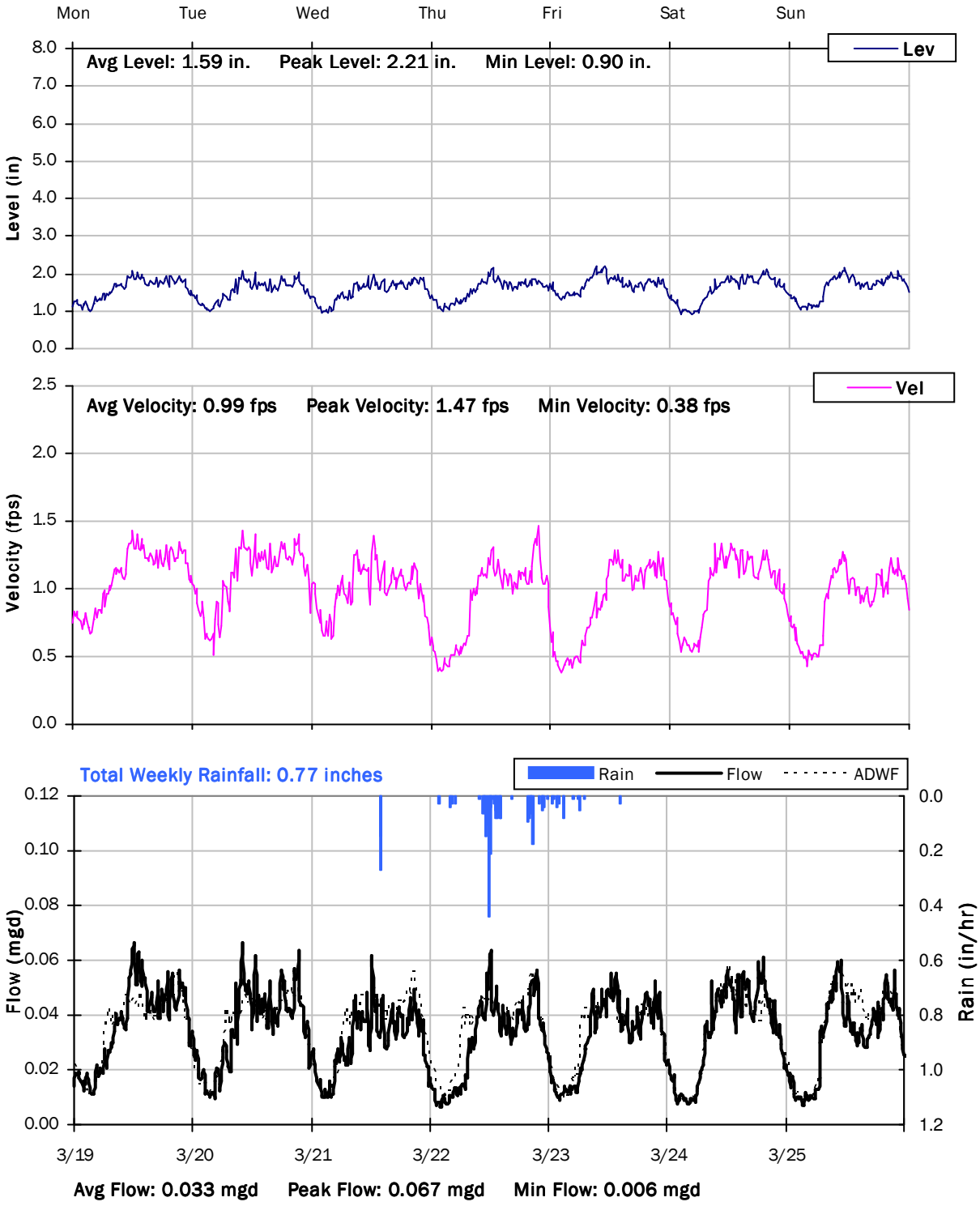
3/12/2018 to 3/19/2018



SMH 0620068

Weekly Level, Velocity and Flow Hydrographs

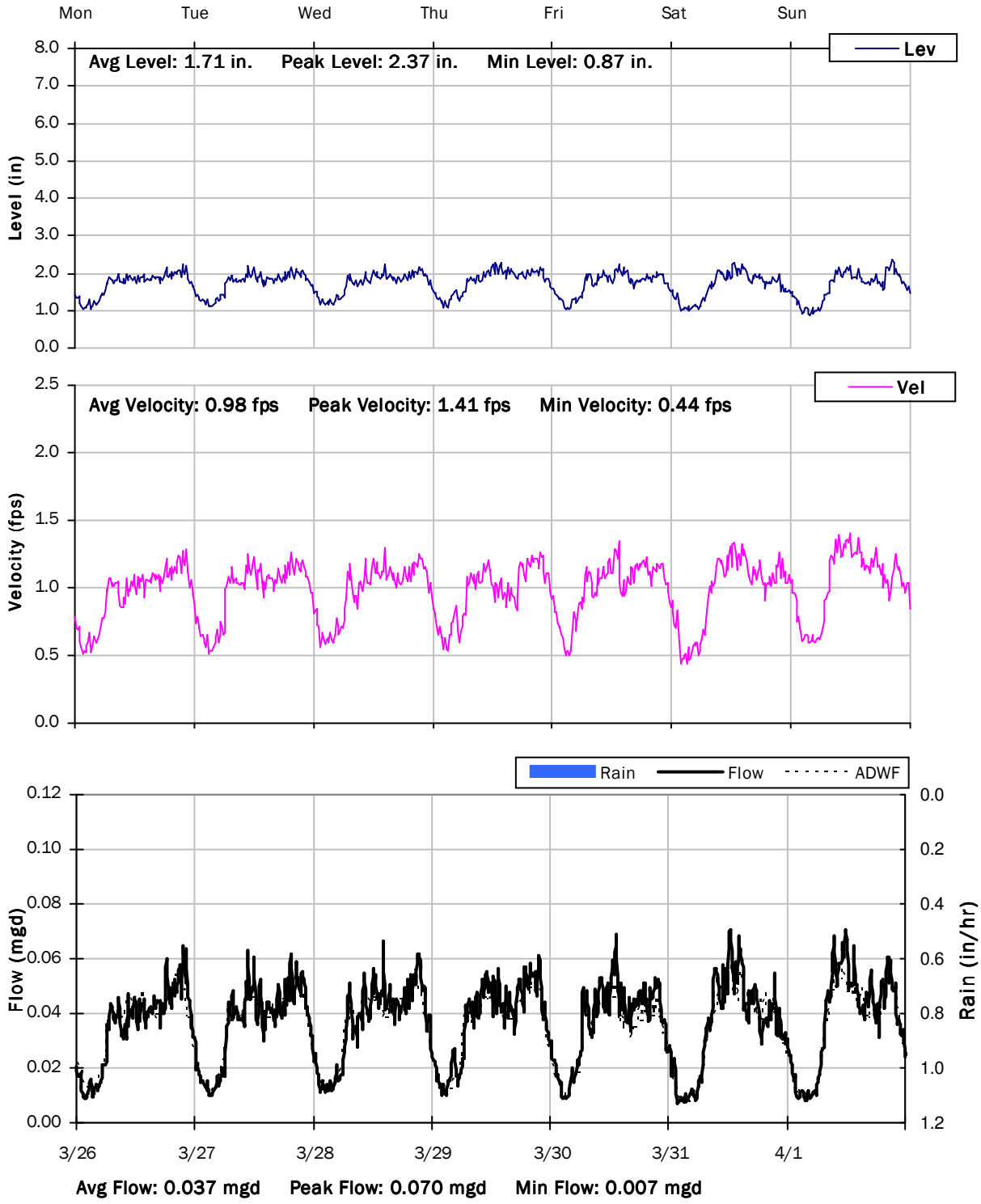
3/19/2018 to 3/26/2018



SMH 0620068

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



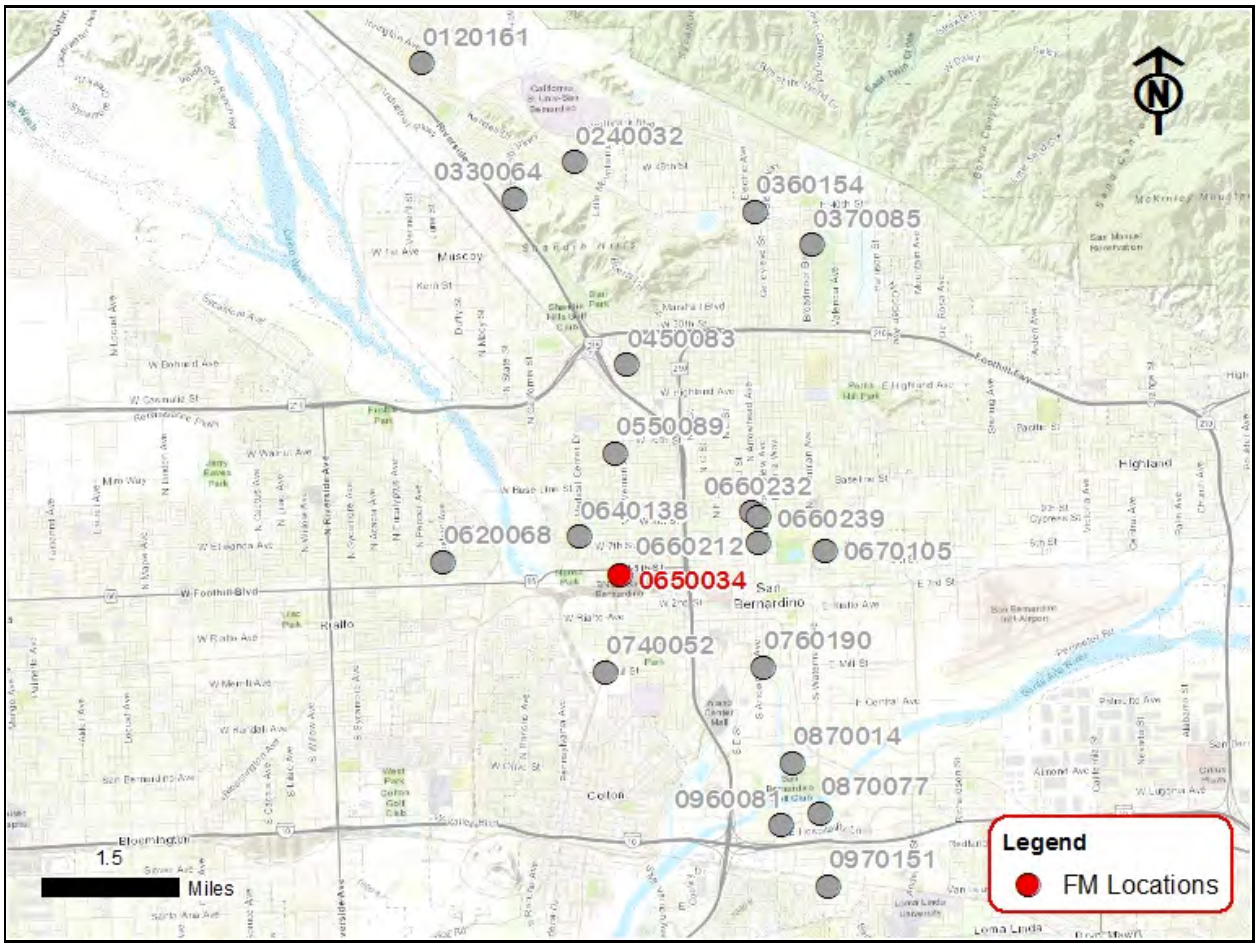
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0650034

Location: W Kingman Street west of N Mt Vernon Avenue

Data Summary Report



Vicinity Map: SMH 0650034

SMH 0650034

Site Information

Location: W Kingman Street west of N Mt Vernon Avenue

Coordinates: 117.3151° W, 34.1074° N

Rim Elevation (Earth): 1096 feet

Pipe Diameter: 8 inches

ADWF: 0.029 mgd

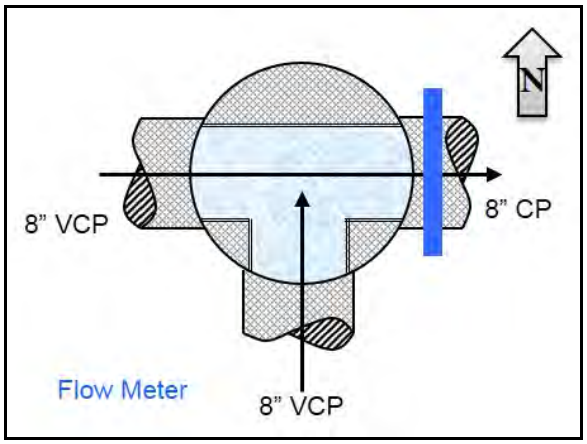
Peak Measured Flow: 0.243 mgd



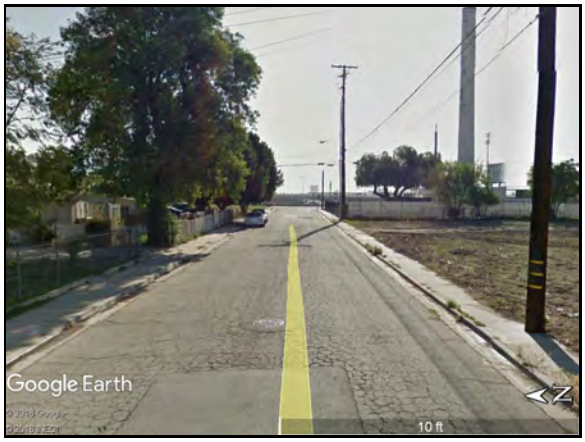
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0650034

Additional Site Photos

Effluent Pipe



West Influent Pipe



SMH 0650034

Additional Site Photos

South Influent Pipe

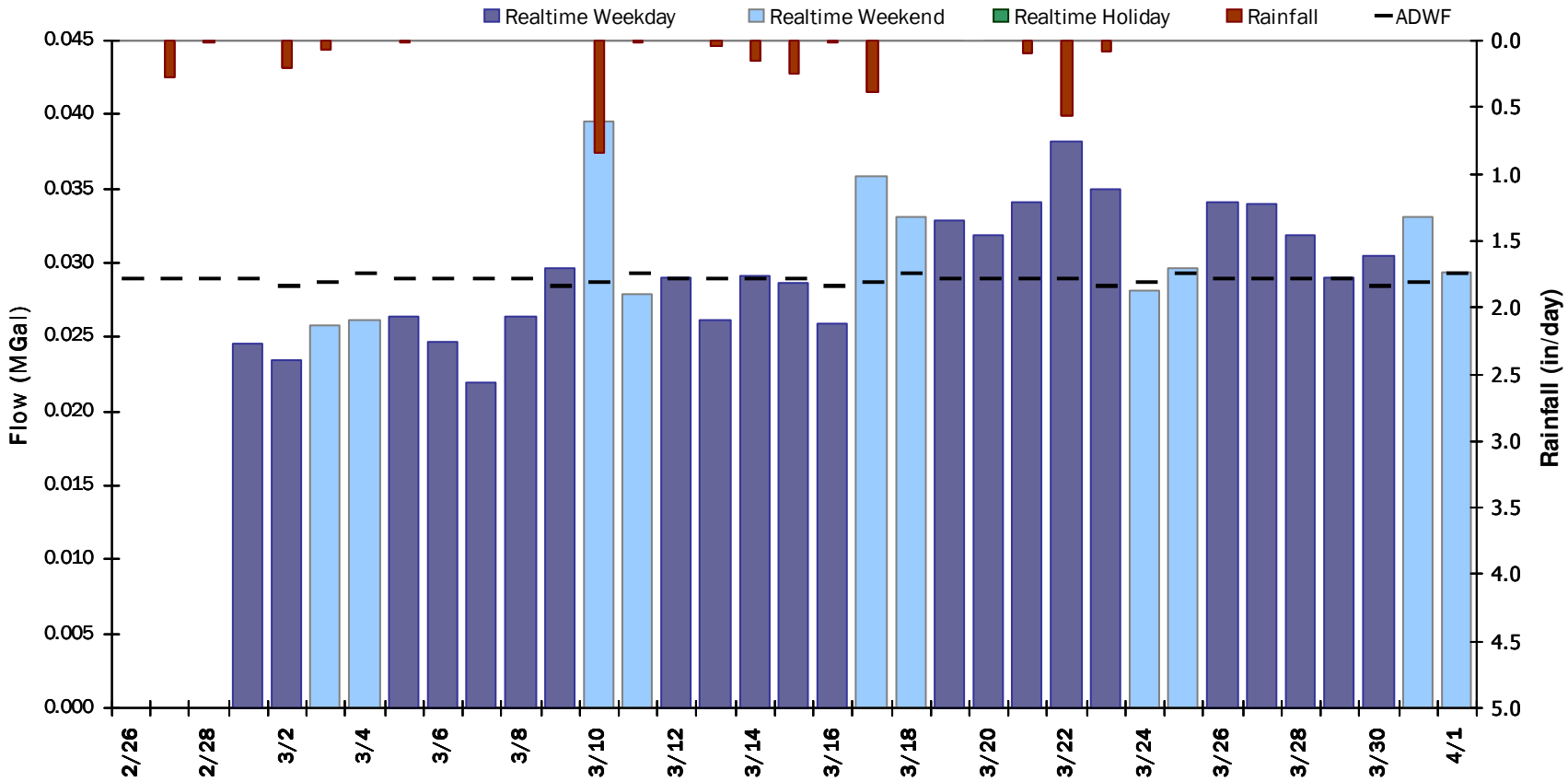


SMH 0650034

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.030 MGal **Peak Daily Flow: 0.040 MGal** **Min Daily Flow: 0.022 MGal**

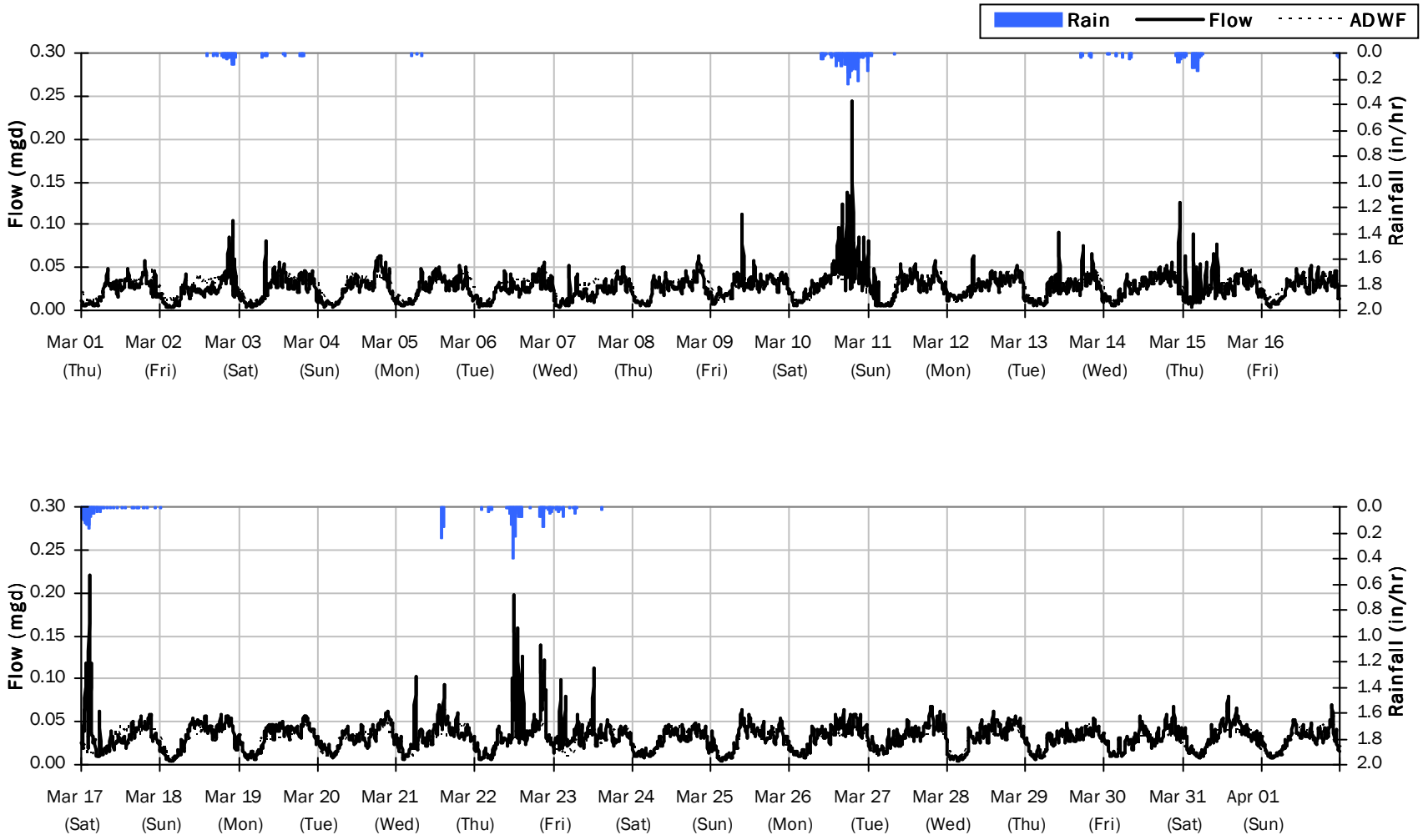
Total Period Rainfall: 2.73 inches



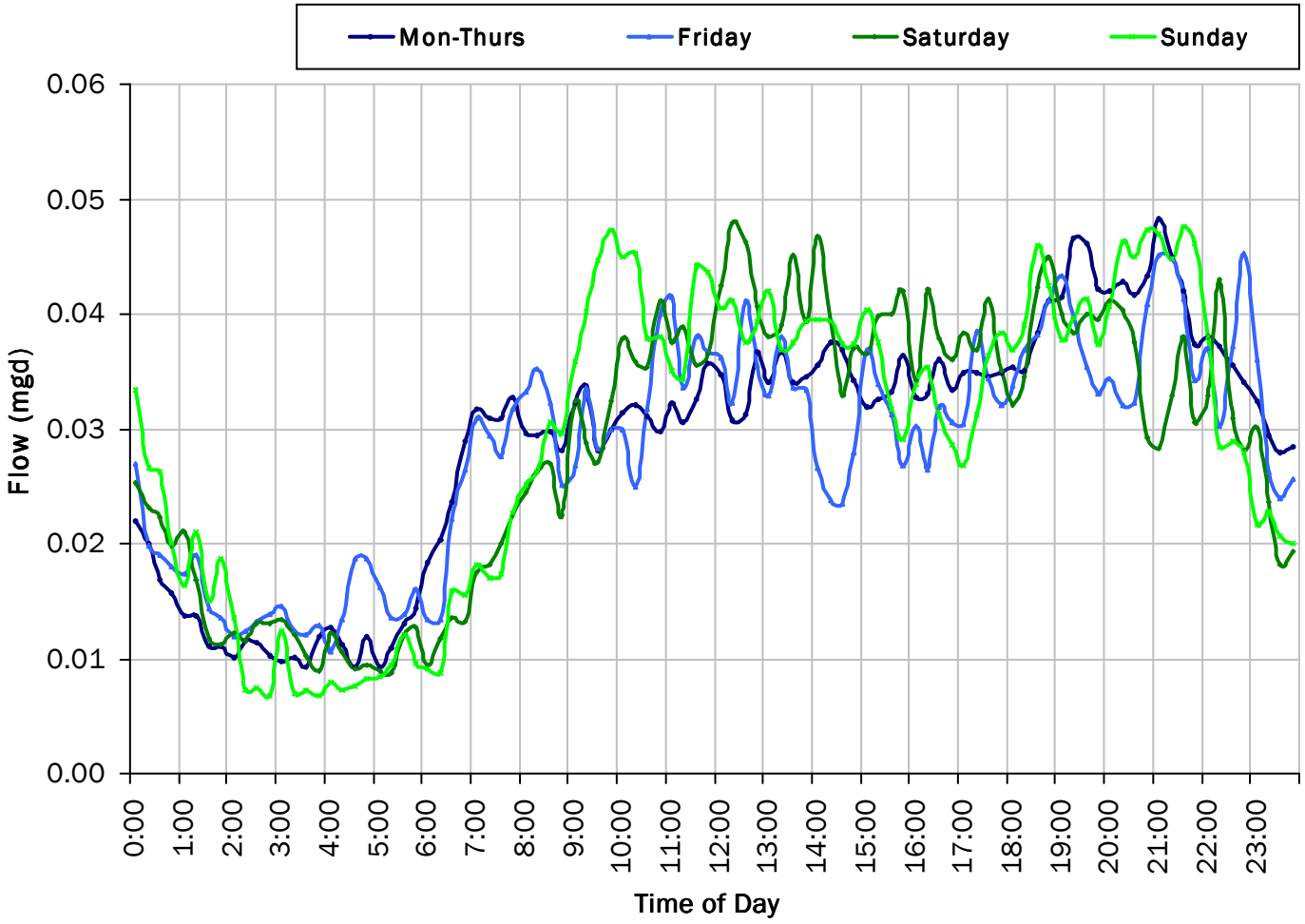
SMH 0650034

Flow Summary: 3/1/2018 to 4/1/2018

Total Period Rainfall: 2.73 inches **Avg Flow: 0.030 mgd** **Peak Flow: 0.243 mgd** **Min Flow: 0.003 mgd**

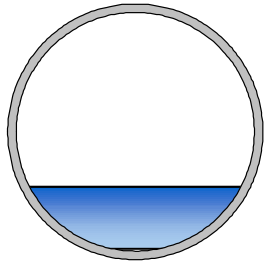


SMH 0650034
Average Dry Weather Flow Hydrographs



ADWF:

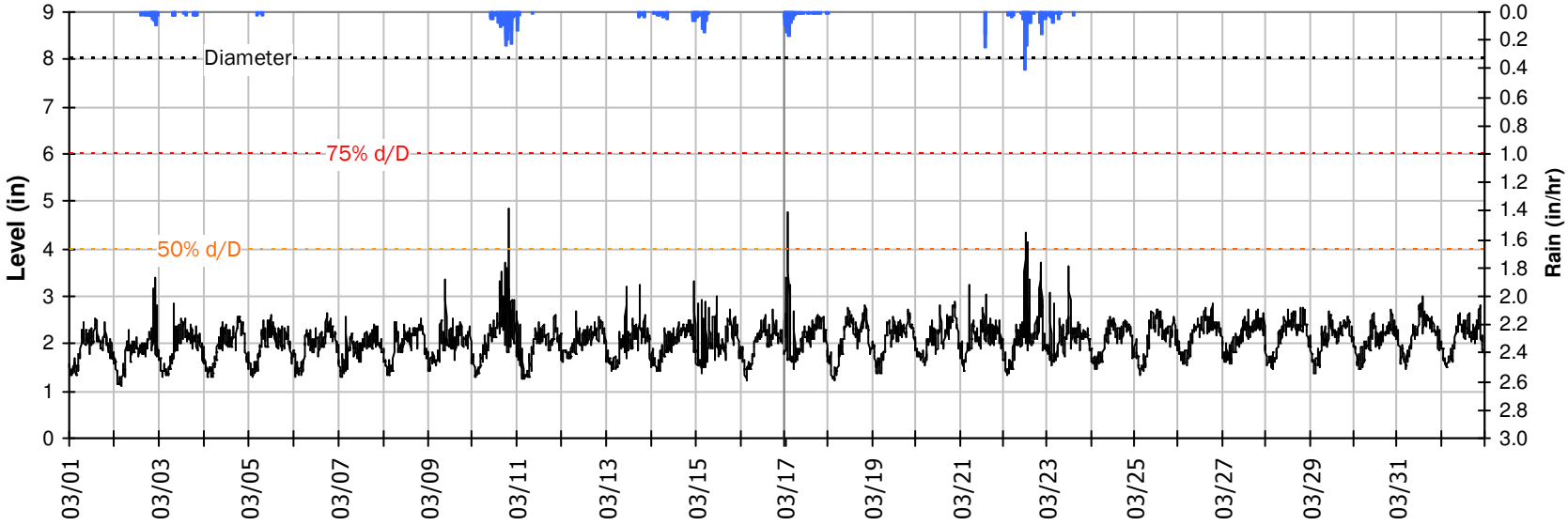
0.029 *mgd*

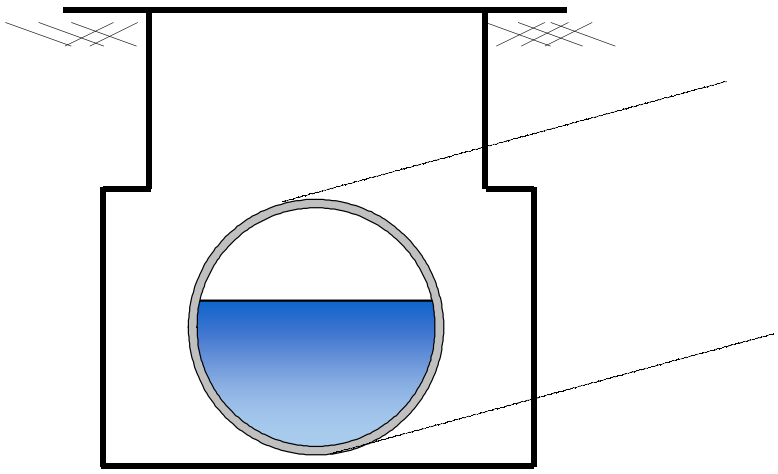


SMH 0650034

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



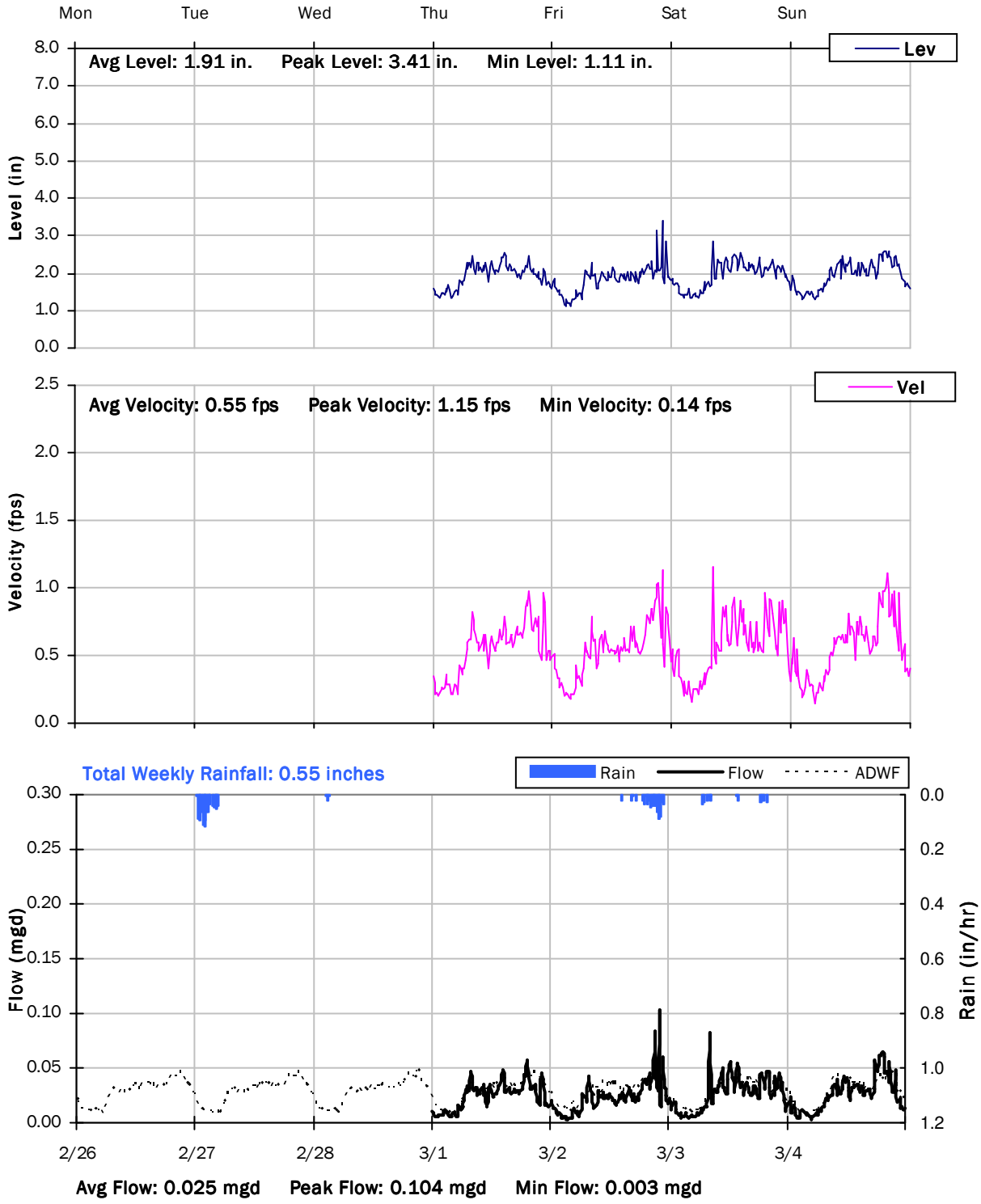


Pipe Diameter:	8	*inches*
Peak Measured Level:	4.87	*inches*
Peak d/D Ratio:	0.61	

SMH 0650034

Weekly Level, Velocity and Flow Hydrographs

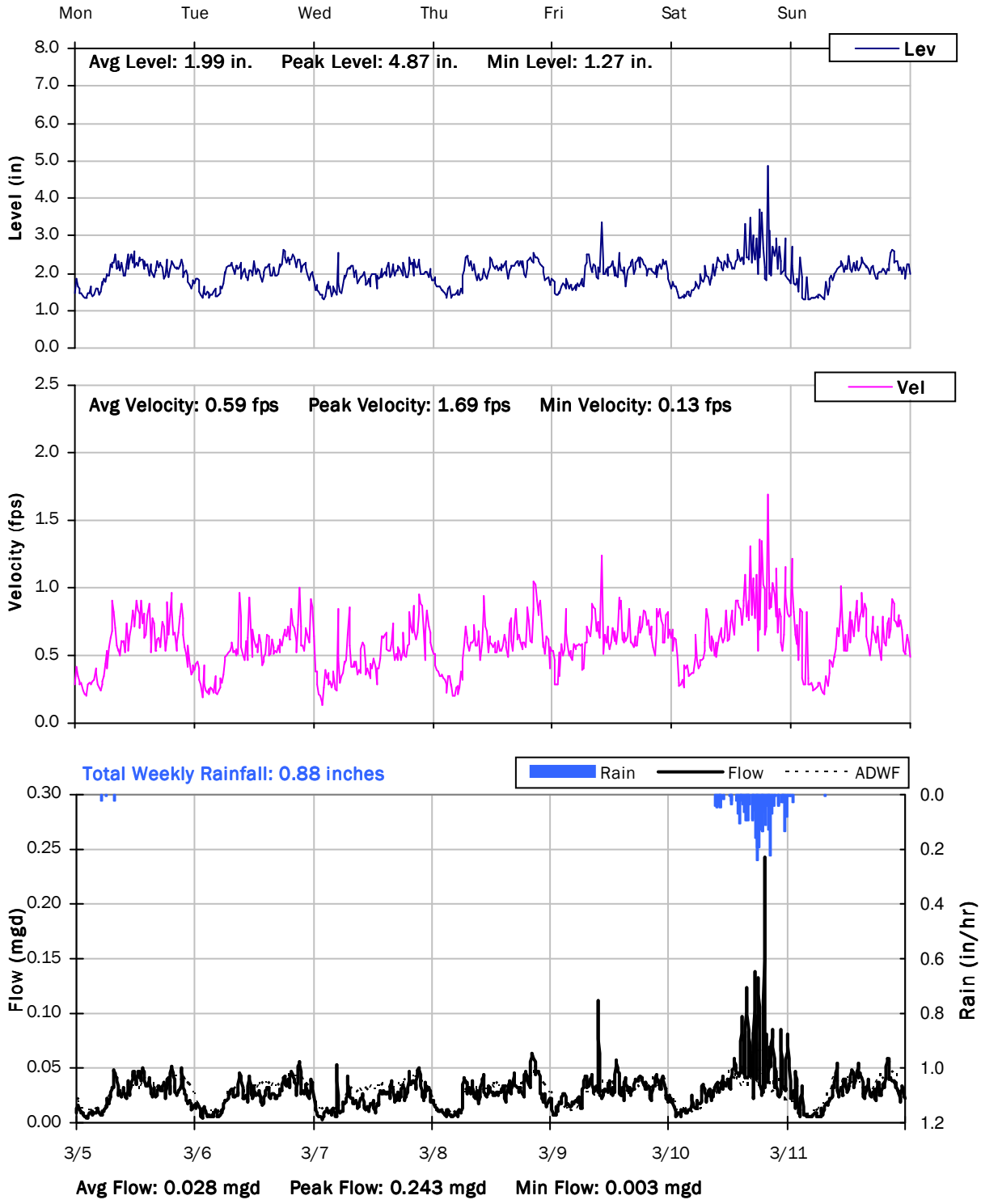
2/26/2018 to 3/5/2018



SMH 0650034

Weekly Level, Velocity and Flow Hydrographs

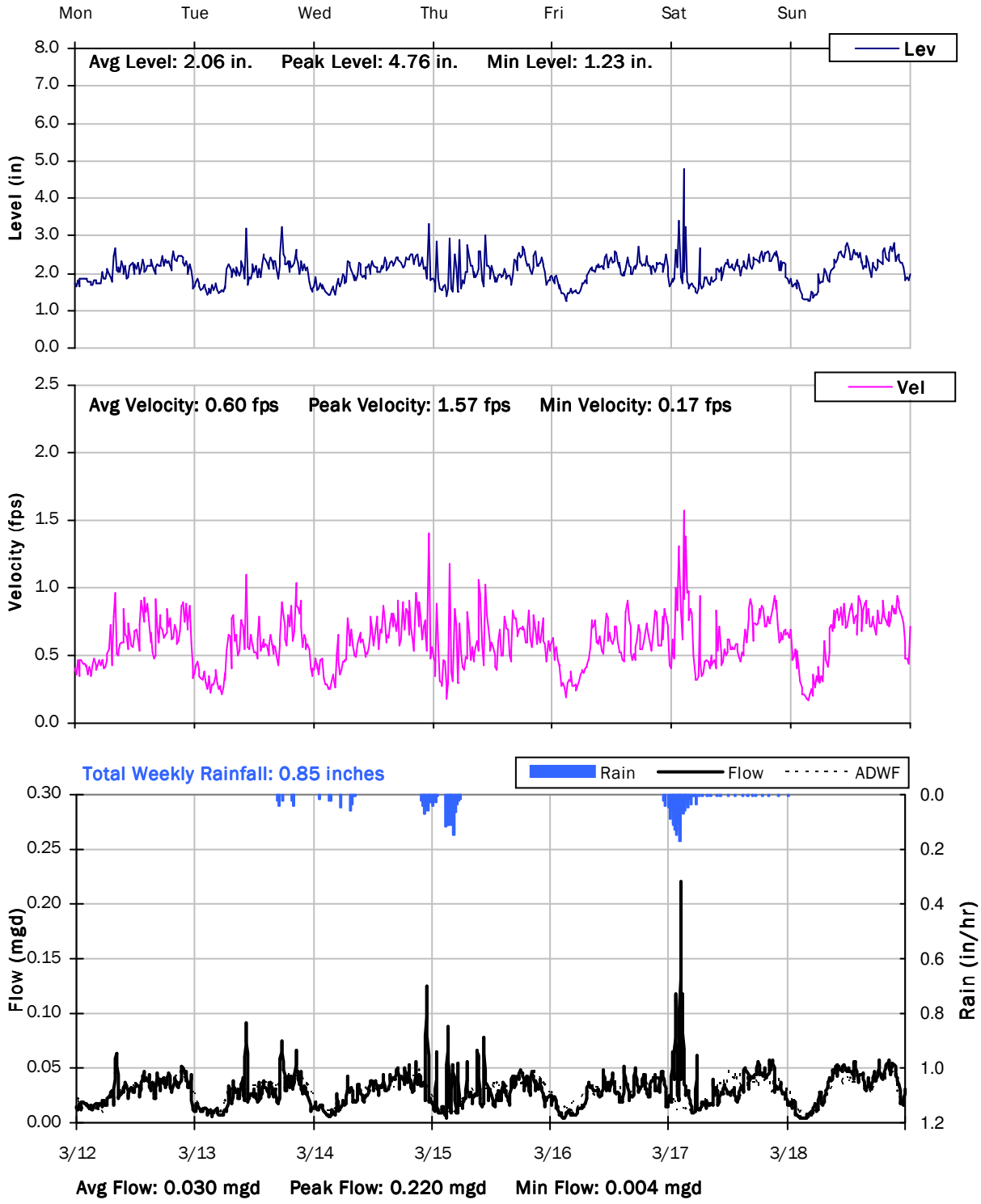
3/5/2018 to 3/12/2018



SMH 0650034

Weekly Level, Velocity and Flow Hydrographs

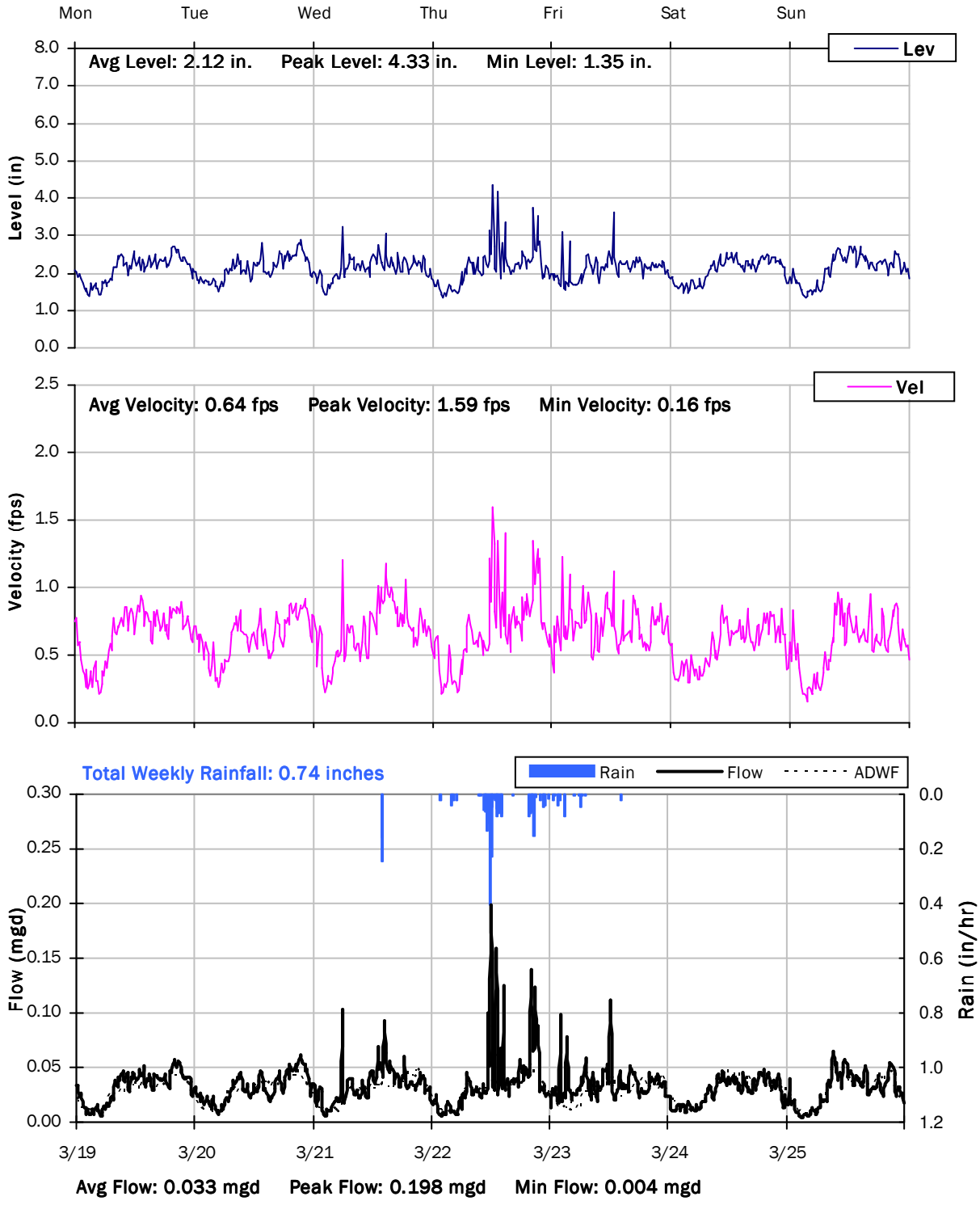
3/12/2018 to 3/19/2018



SMH 0650034

Weekly Level, Velocity and Flow Hydrographs

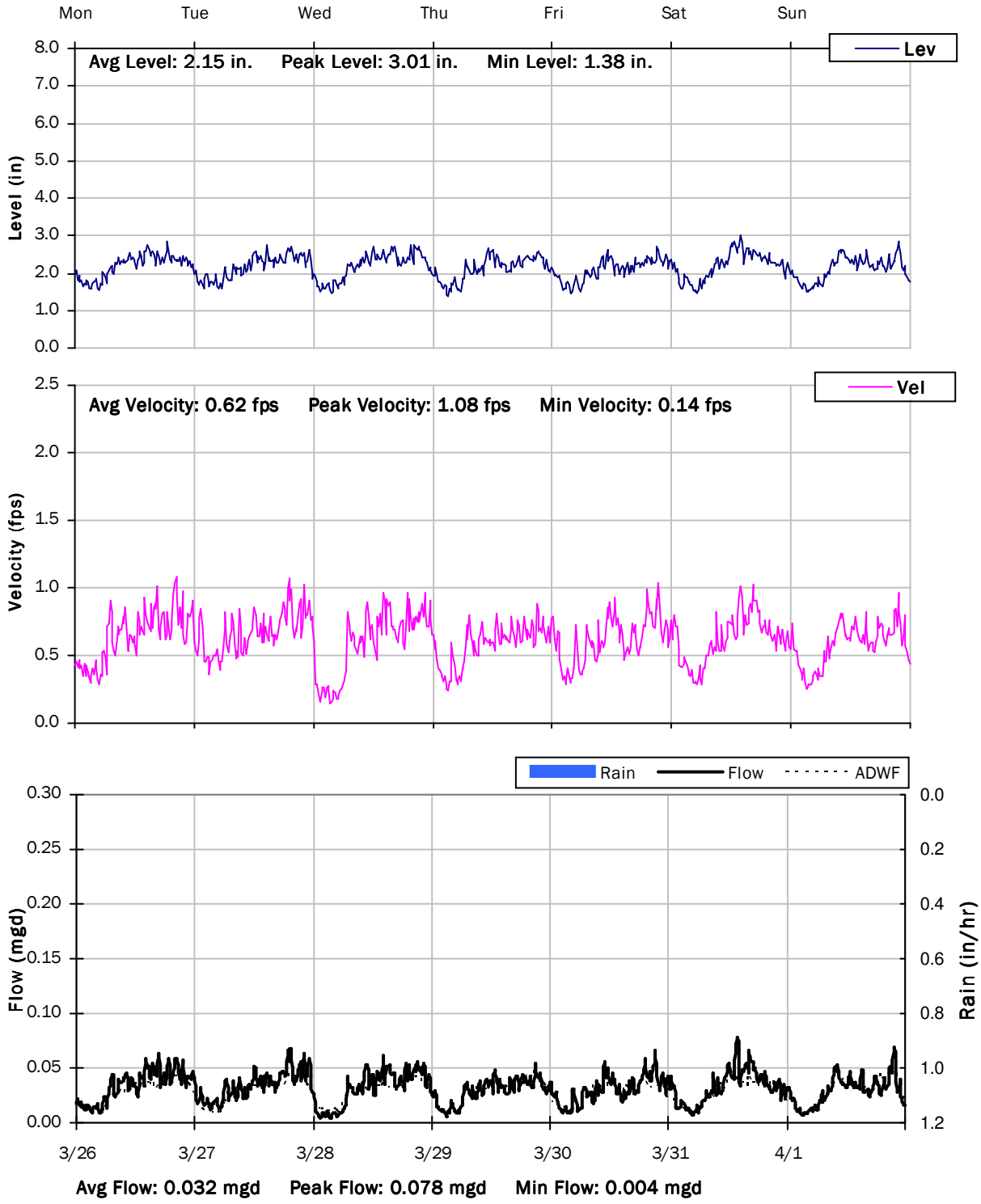
3/19/2018 to 3/26/2018



SMH 0650034

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



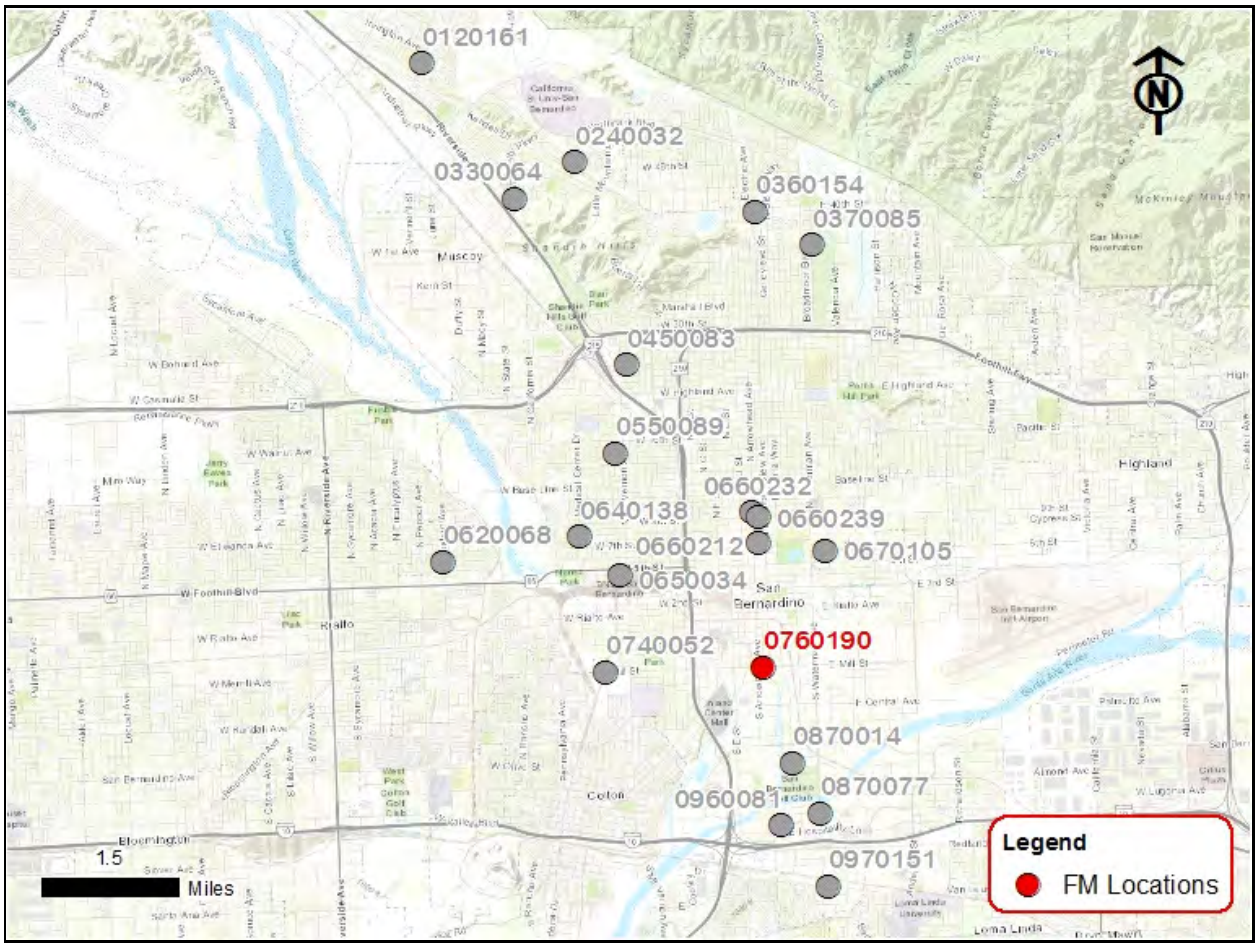
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0760190

Location: S Pershing Avenue and W Mill Street

Data Summary Report



Vicinity Map: SMH 0760190

SMH 0760190

Site Information

Location: S Pershing Avenue and W Mill Street

Coordinates: 117.2885° W, 34.0922° N

Rim Elevation (Earth): 1002 feet

Pipe Diameter: 8 inches

ADWF: 0.007 mgd

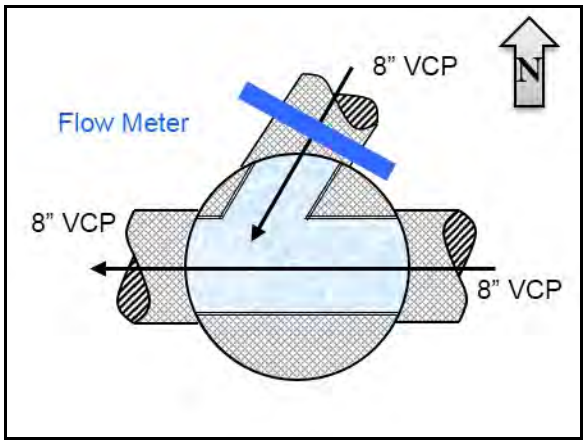
Peak Measured Flow: 0.027 mgd



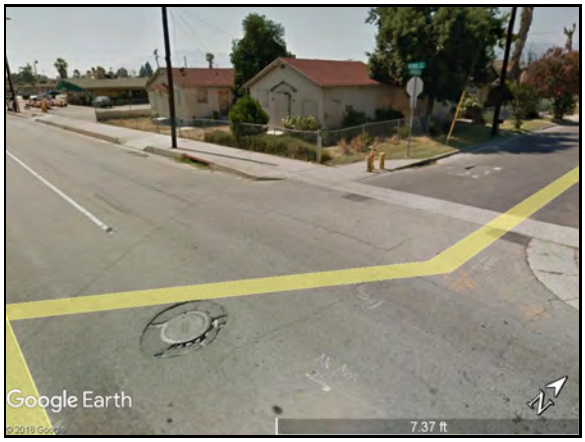
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0760190

Additional Site Photos

Effluent Pipe



East Influent Pipe



SMH 0760190

Additional Site Photos

North Influent Pipe

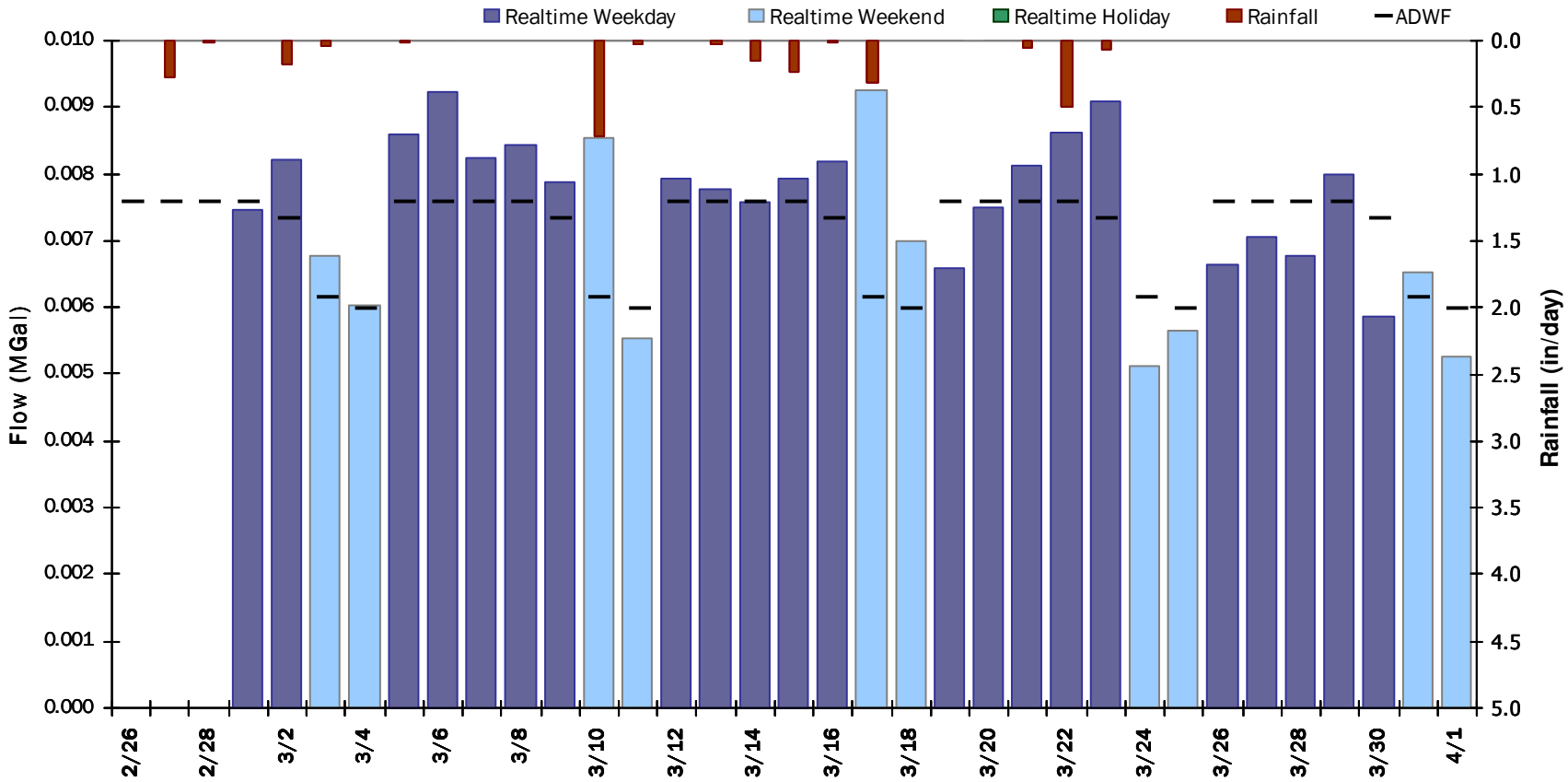


SMH 0760190

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.007 MGal **Peak Daily Flow: 0.009 MGal** **Min Daily Flow: 0.005 MGal**

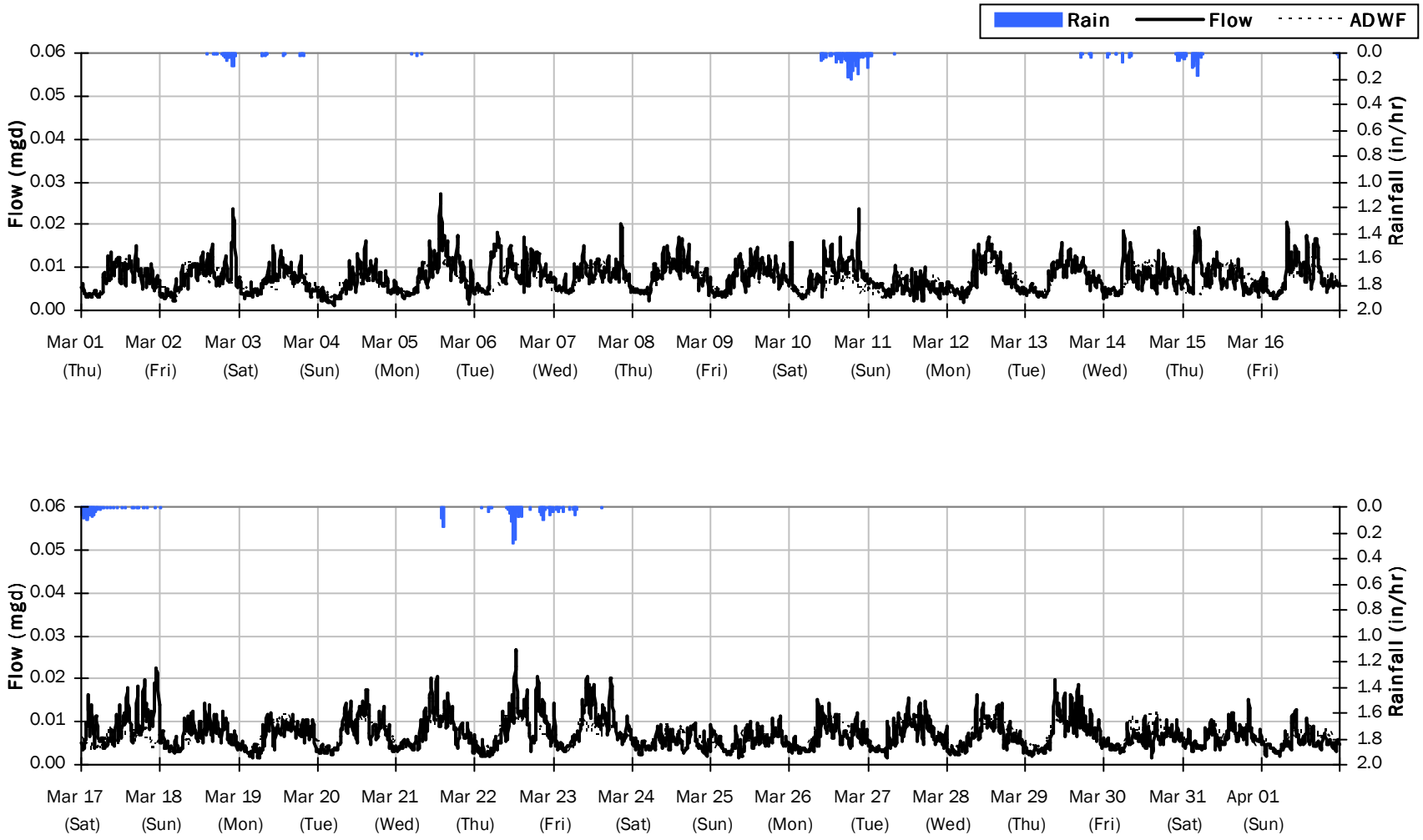
Total Period Rainfall: 2.34 inches



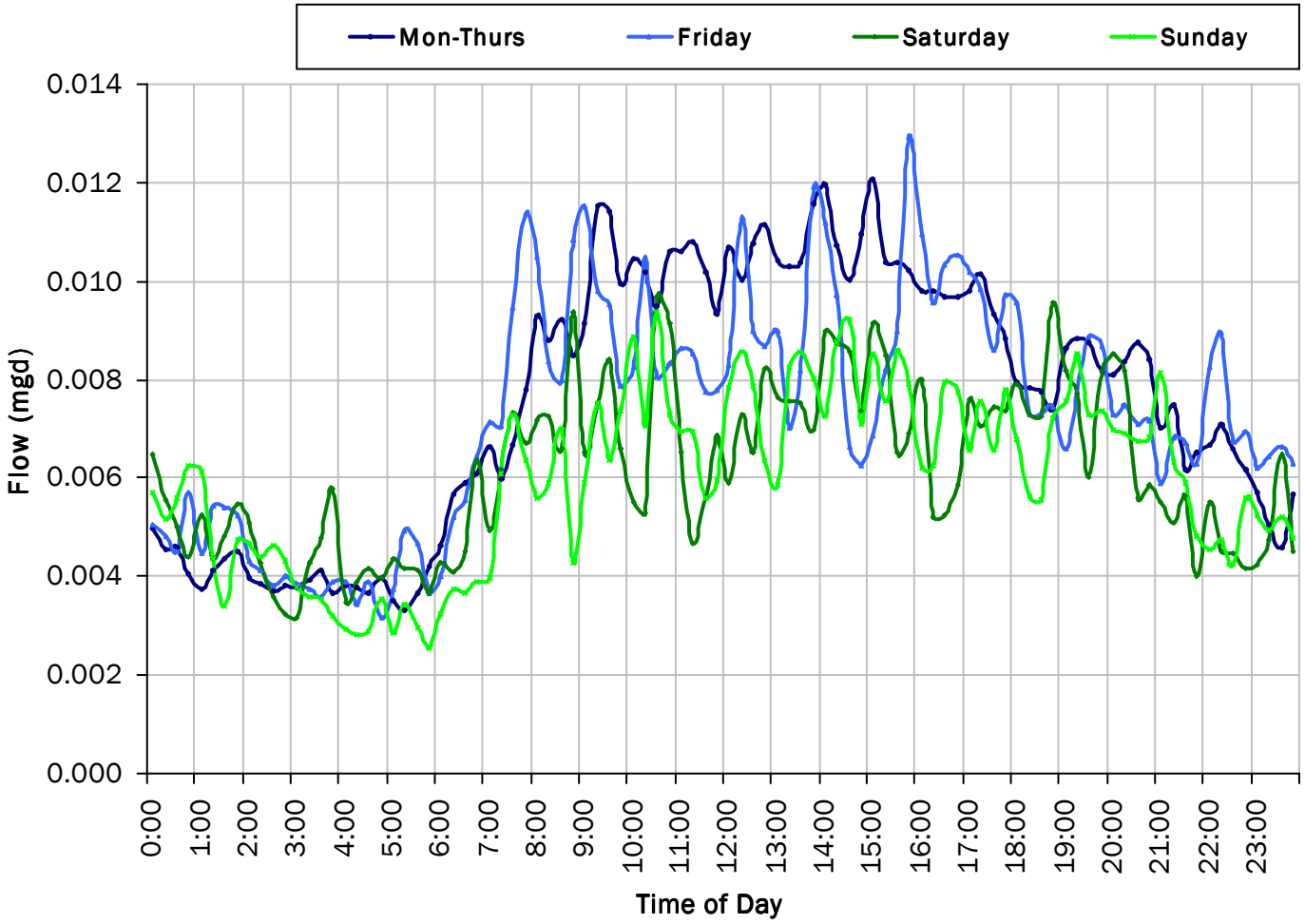
SMH 0760190

Flow Summary: 3/1/2018 to 4/1/2018

Total Period Rainfall: 2.34 inches Avg Flow: 0.007 mgd Peak Flow: 0.027 mgd Min Flow: 0.001 mgd

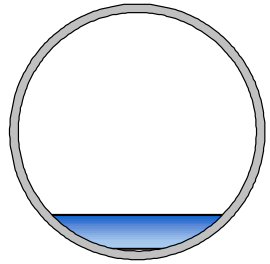


SMH 0760190
Average Dry Weather Flow Hydrographs



ADWF:

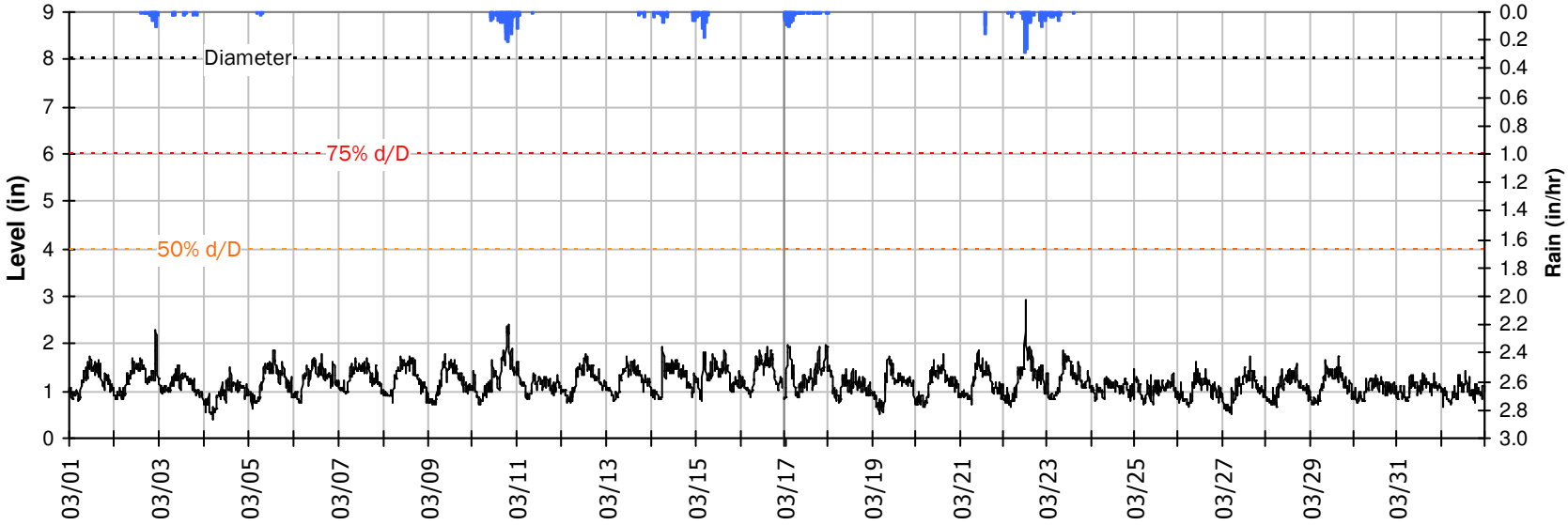
0.007 *mgd*

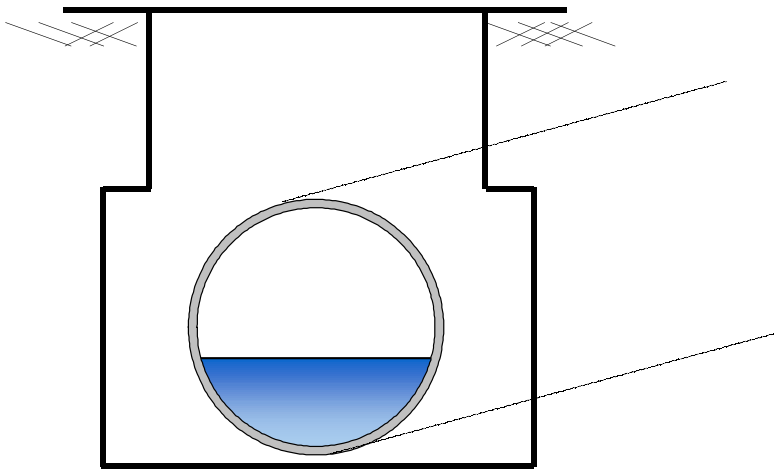


SMH 0760190

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



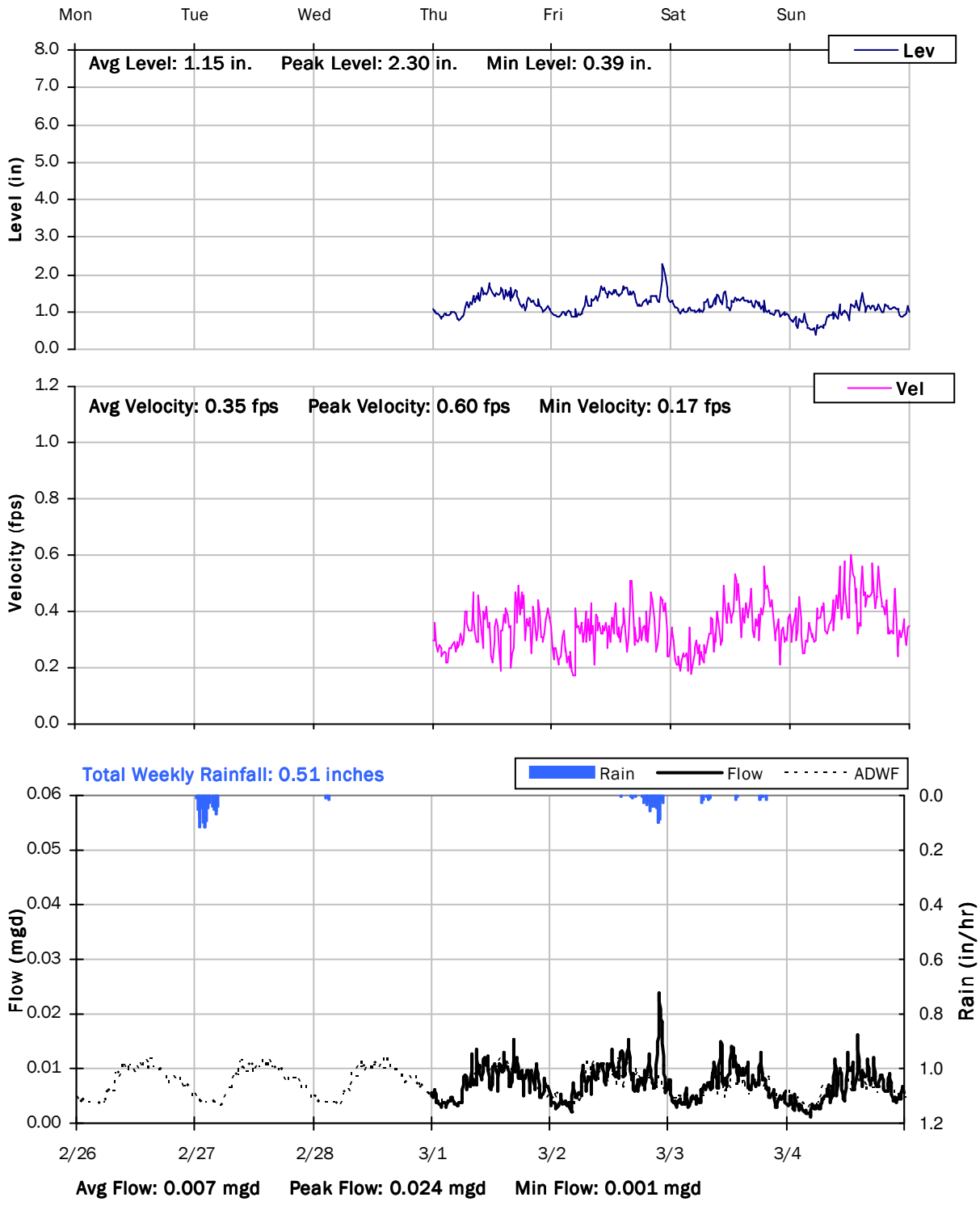


Pipe Diameter:	8	*inches*
Peak Measured Level:	2.93	*inches*
Peak d/D Ratio:	0.37	

SMH 0760190

Weekly Level, Velocity and Flow Hydrographs

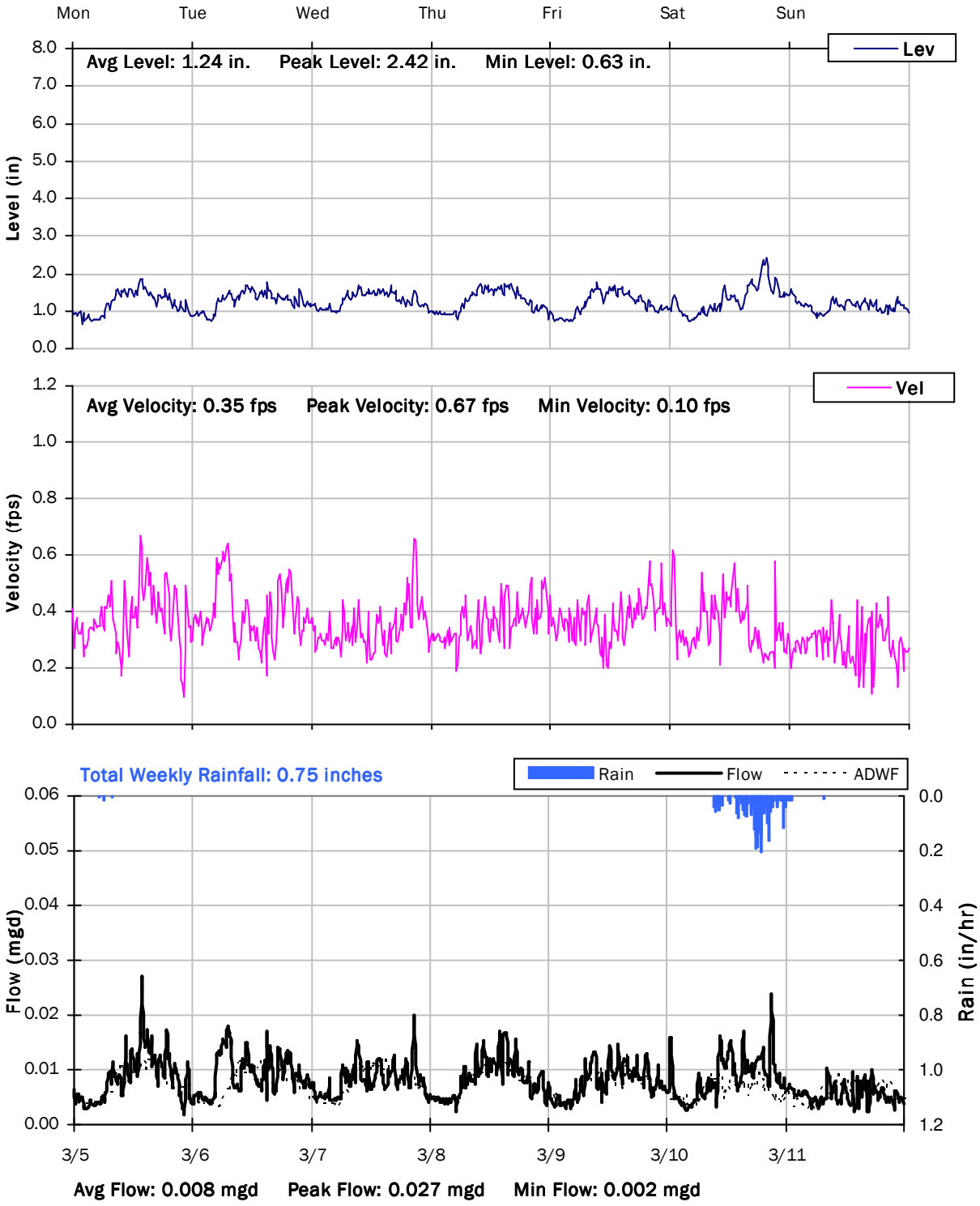
2/26/2018 to 3/5/2018



SMH 0760190

Weekly Level, Velocity and Flow Hydrographs

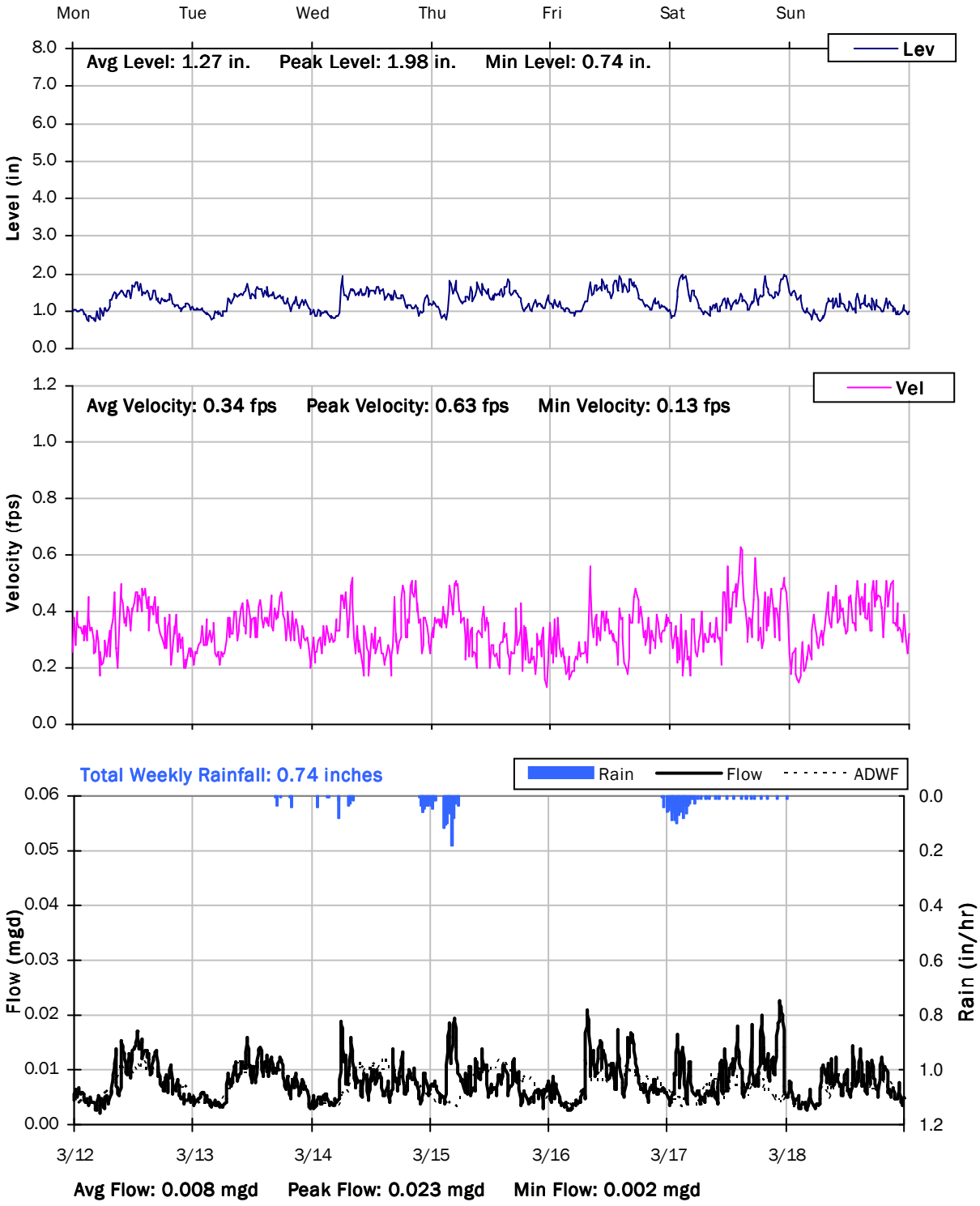
3/5/2018 to 3/12/2018



SMH 0760190

Weekly Level, Velocity and Flow Hydrographs

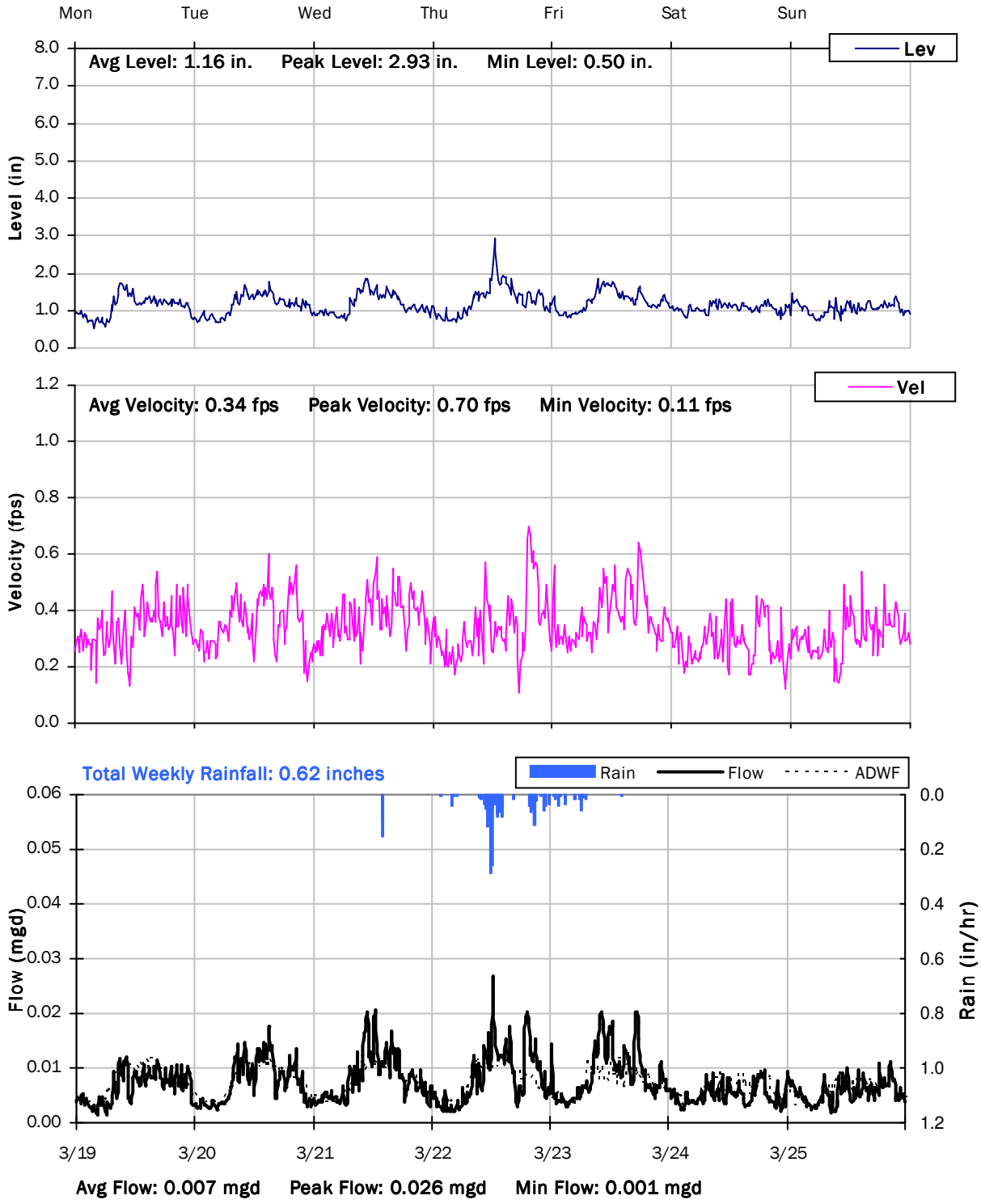
3/12/2018 to 3/19/2018



SMH 0760190

Weekly Level, Velocity and Flow Hydrographs

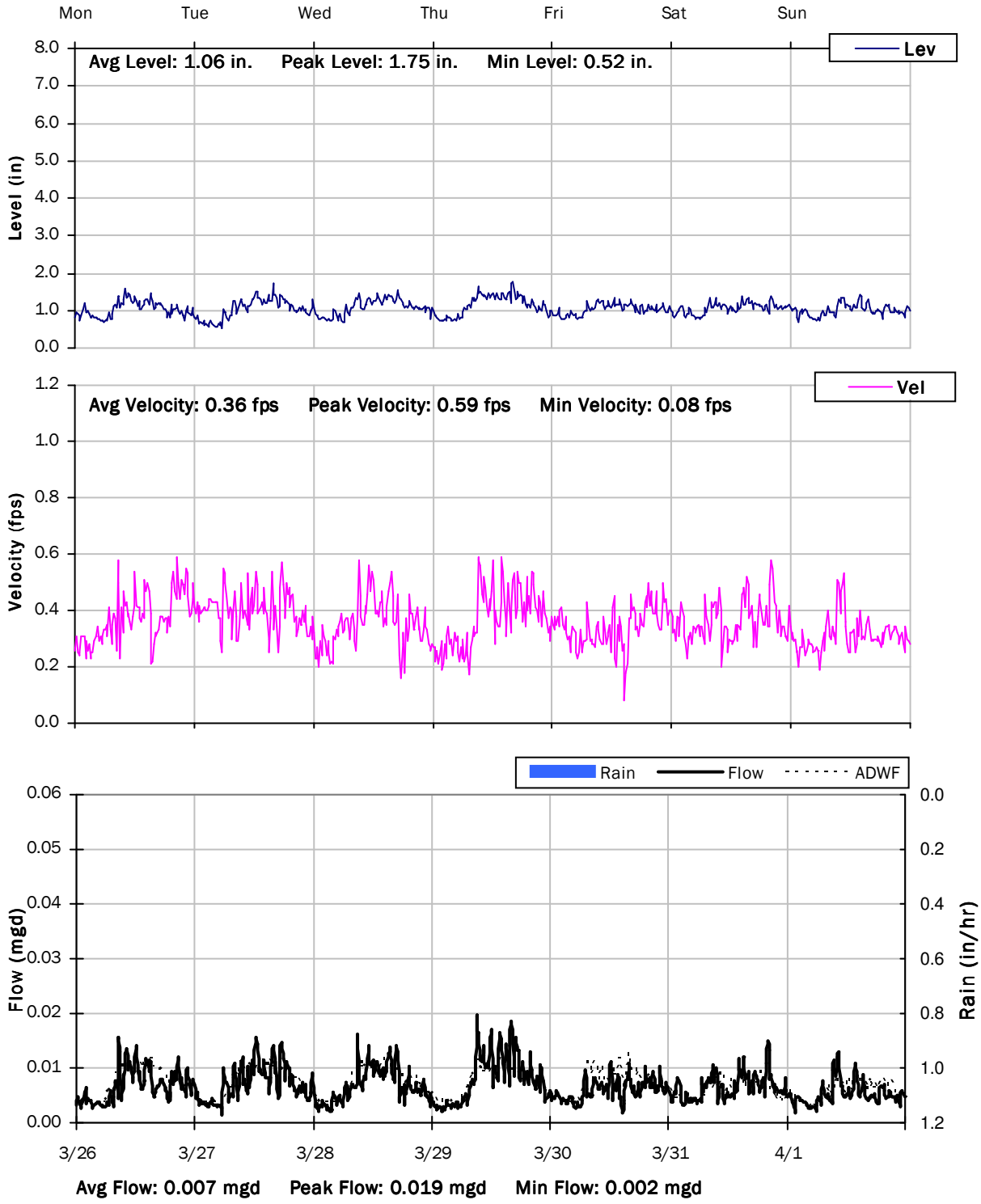
3/19/2018 to 3/26/2018



SMH 0760190

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



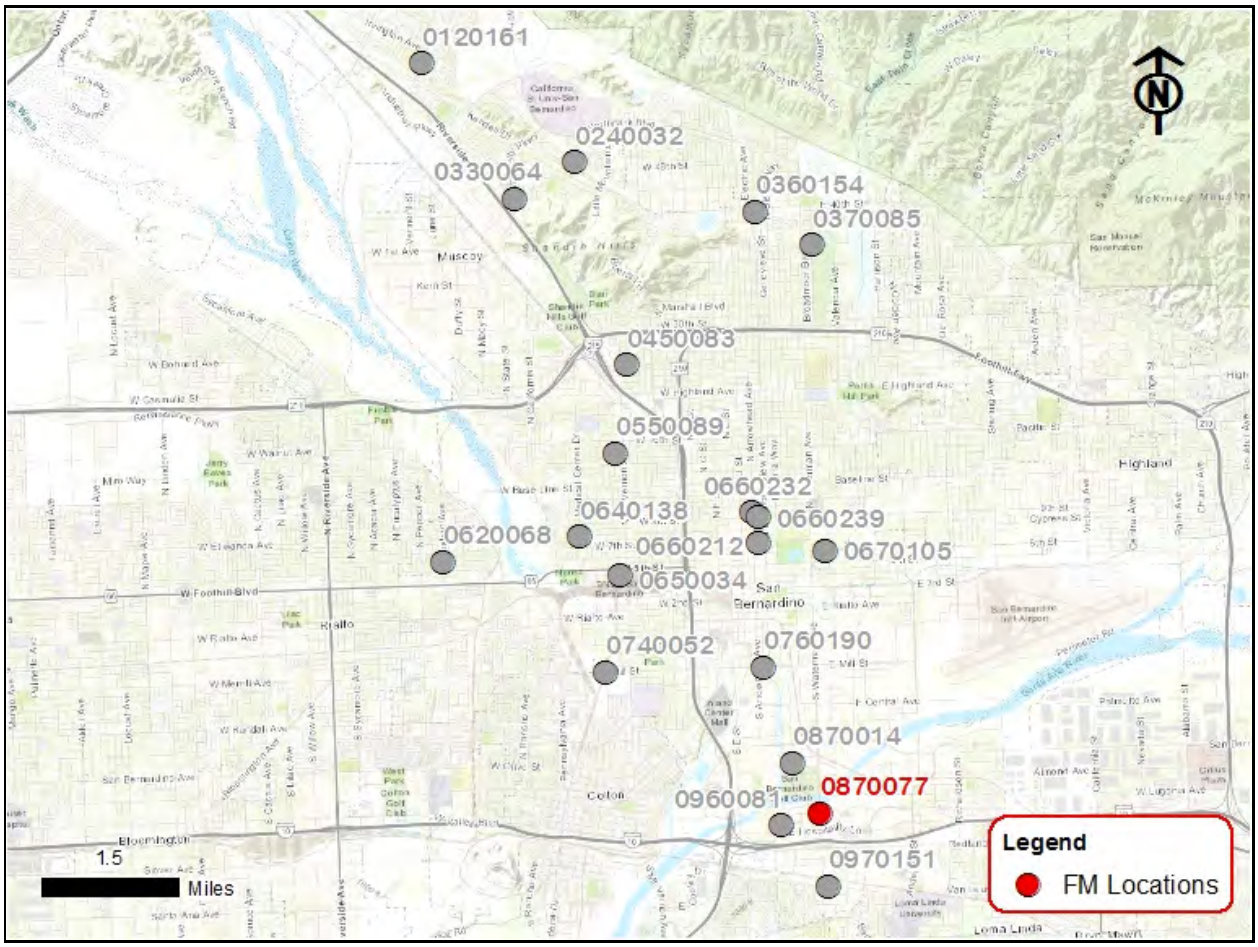
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0870077

Location: S Waterman Avenue and E Vanderbilt Way

Data Summary Report



Vicinity Map: SMH 0870077

SMH 0870077

Site Information

Location: S Waterman Avenue and E Vanderbilt Way

Coordinates: 117.2786° W, 34.0688° N

Rim Elevation (Earth): 1016 feet

Pipe Diameter: 15 inches

ADWF: 0.166 mgd

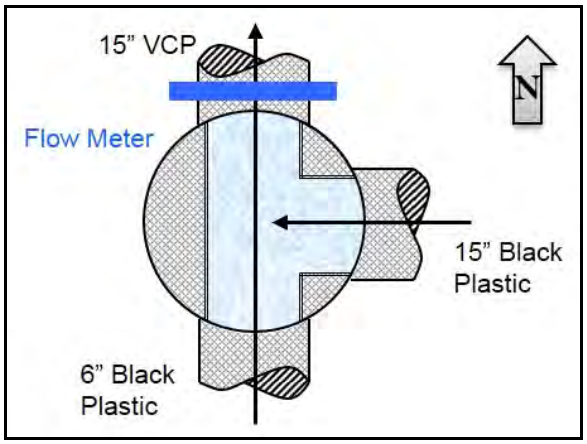
Peak Measured Flow: 0.368 mgd



Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0870077

Additional Site Photos

Effluent Pipe



East Influent Pipe



SMH 0870077

Additional Site Photos

South Influent Pipe

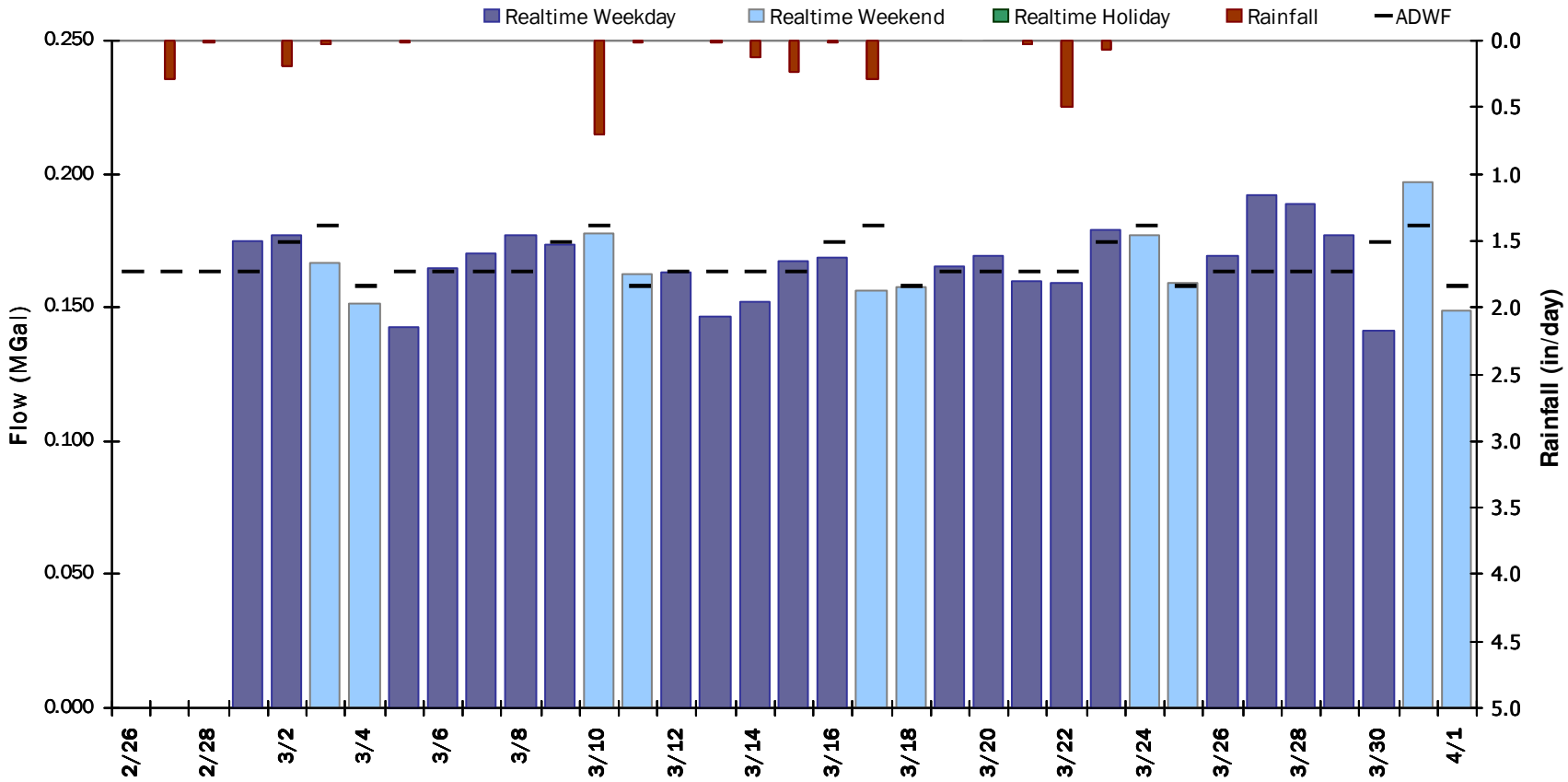


SMH 0870077

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.167 MGal Peak Daily Flow: 0.197 MGal Min Daily Flow: 0.141 MGal

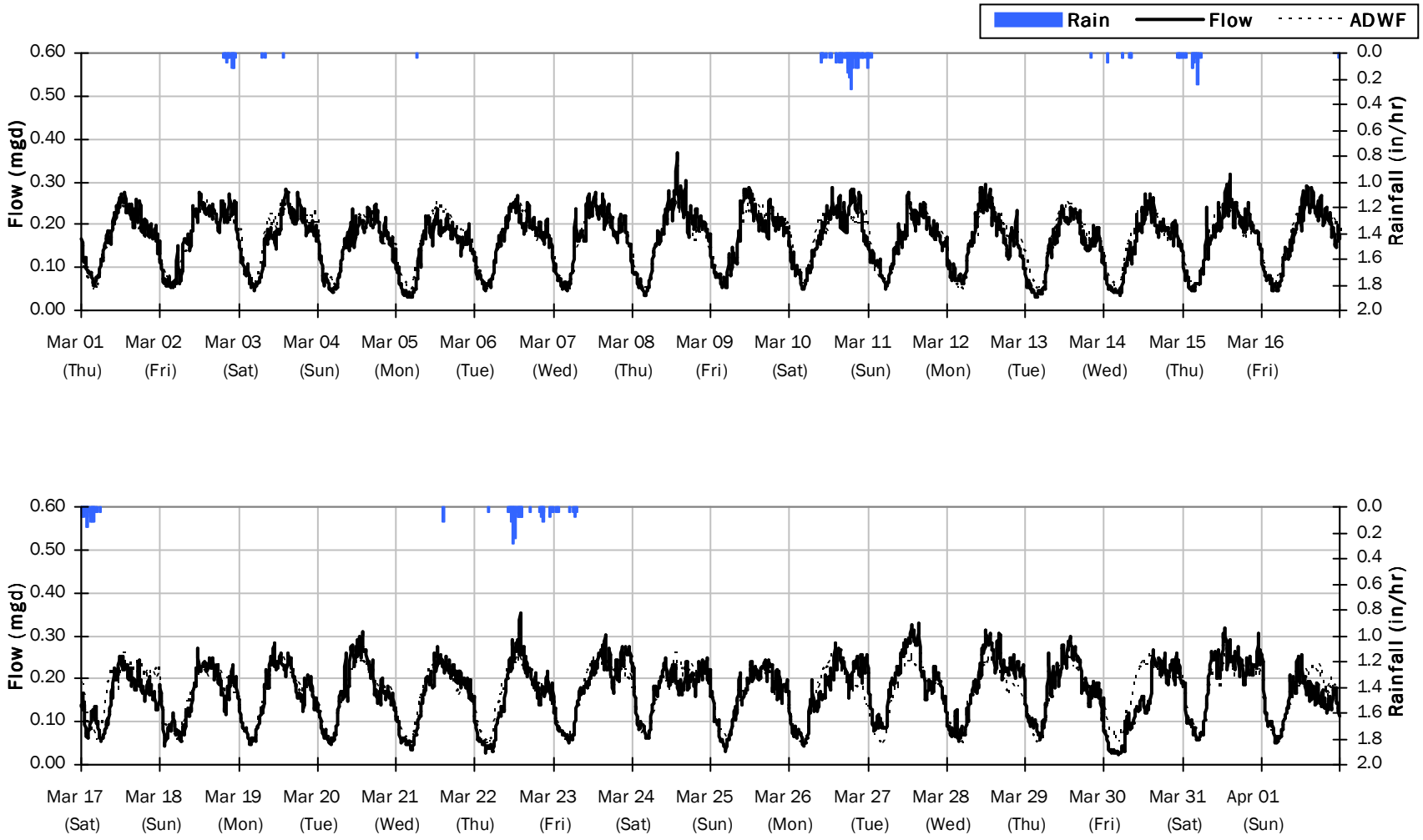
Total Period Rainfall: 2.20 inches



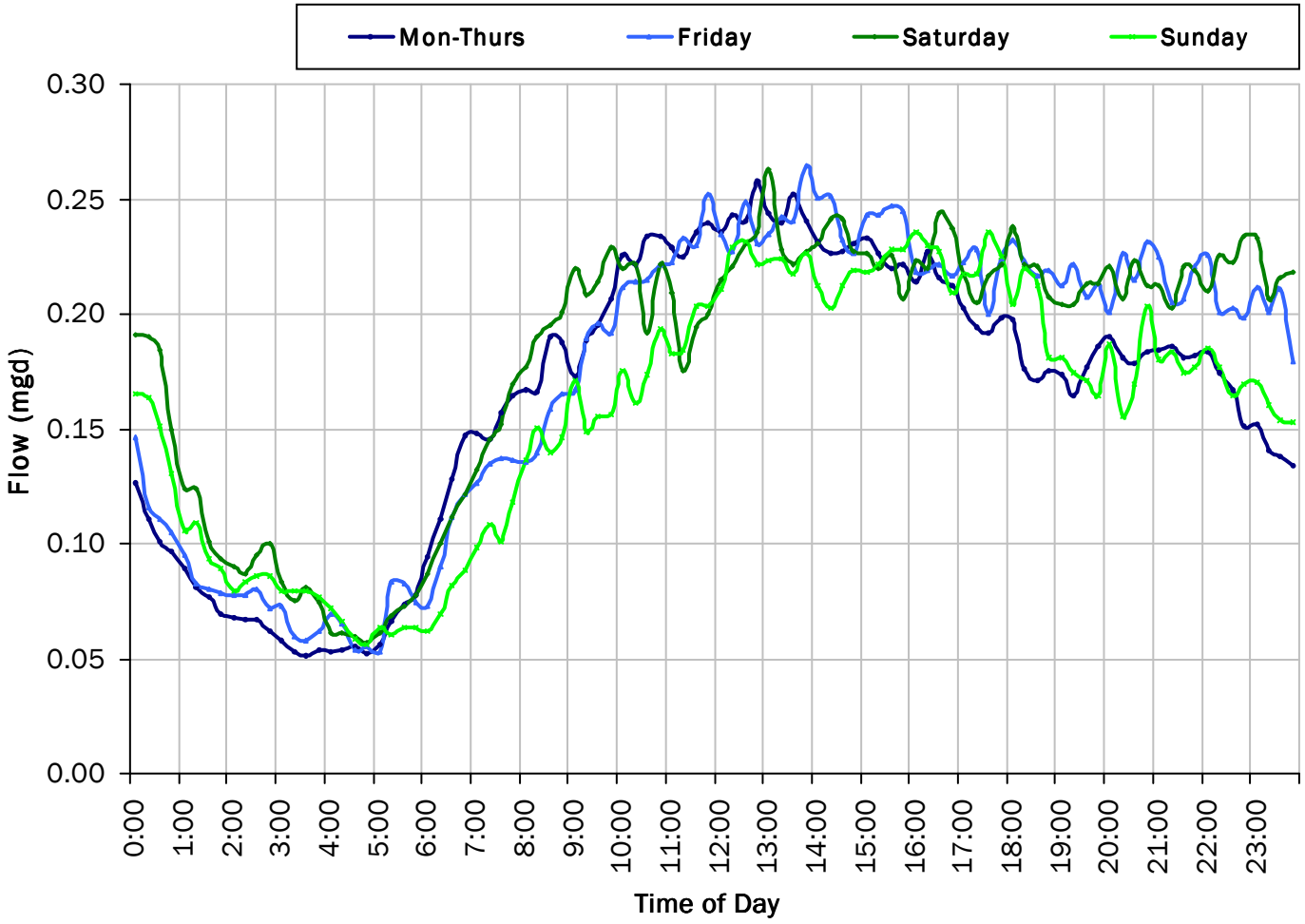
SMH 0870077

Flow Summary: 3/1/2018 to 4/1/2018

Total Period Rainfall: 2.20 inches **Avg Flow: 0.167 mgd** **Peak Flow: 0.368 mgd** **Min Flow: 0.025 mgd**

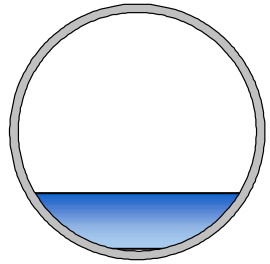


SMH 0870077
Average Dry Weather Flow Hydrographs



ADWF:

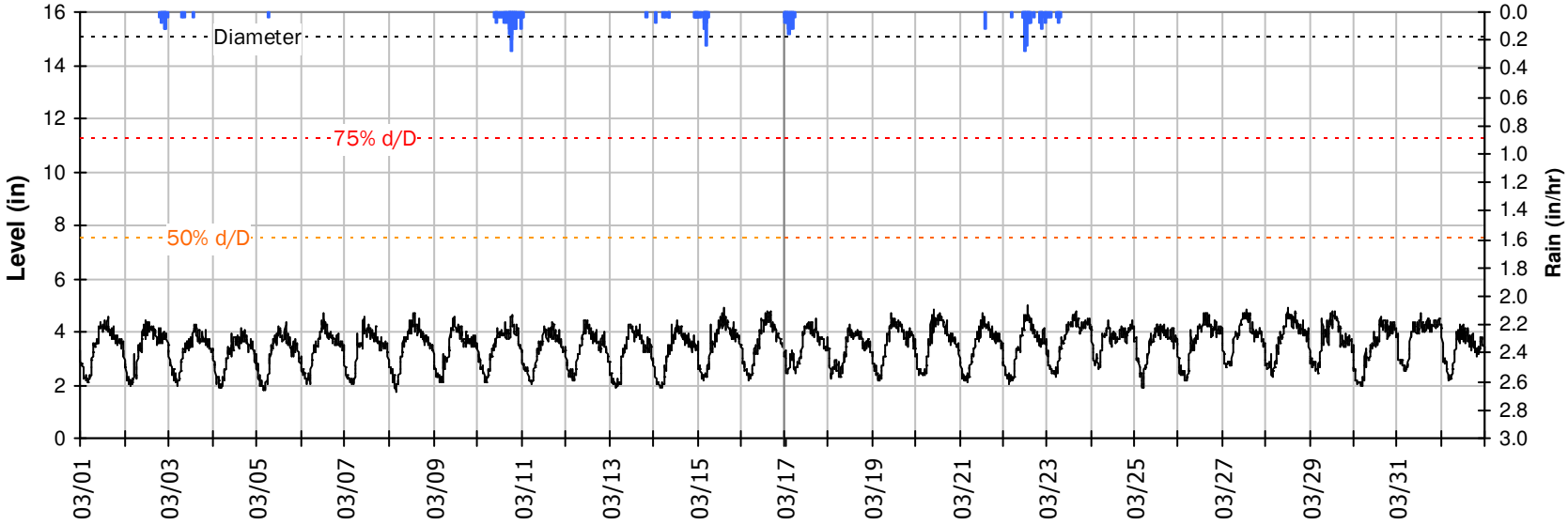
0.166 *mgd*

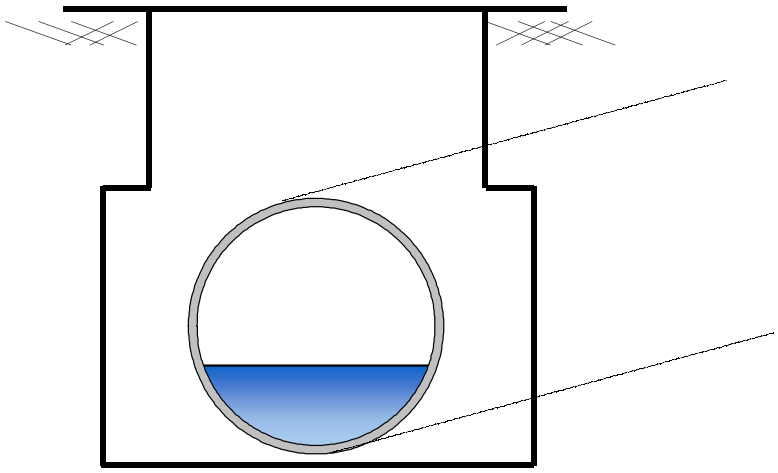


SMH 0870077

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



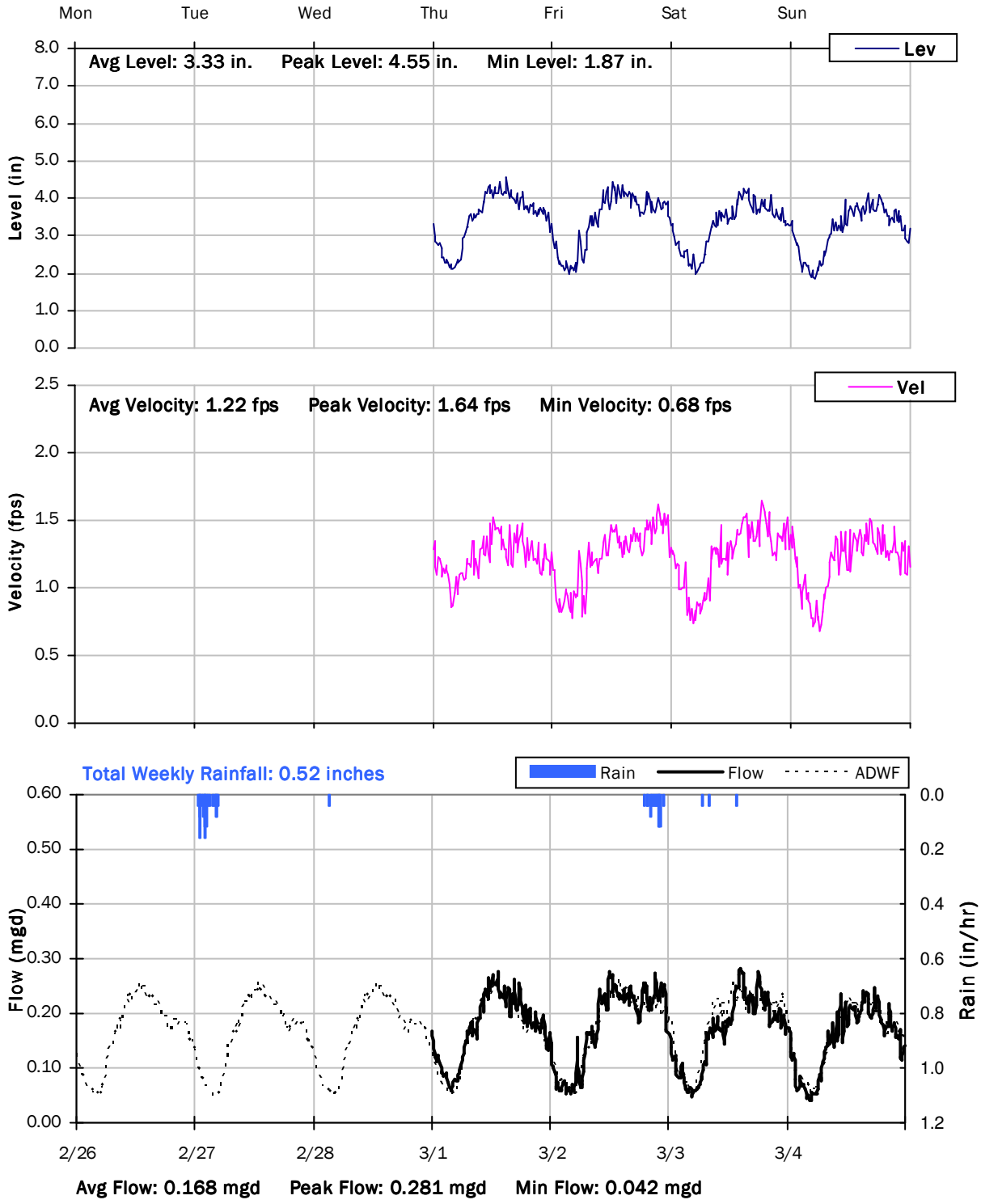


Pipe Diameter:	15	*inches*
Peak Measured Level:	4.99	*inches*
Peak d/D Ratio:	0.33	

SMH 0870077

Weekly Level, Velocity and Flow Hydrographs

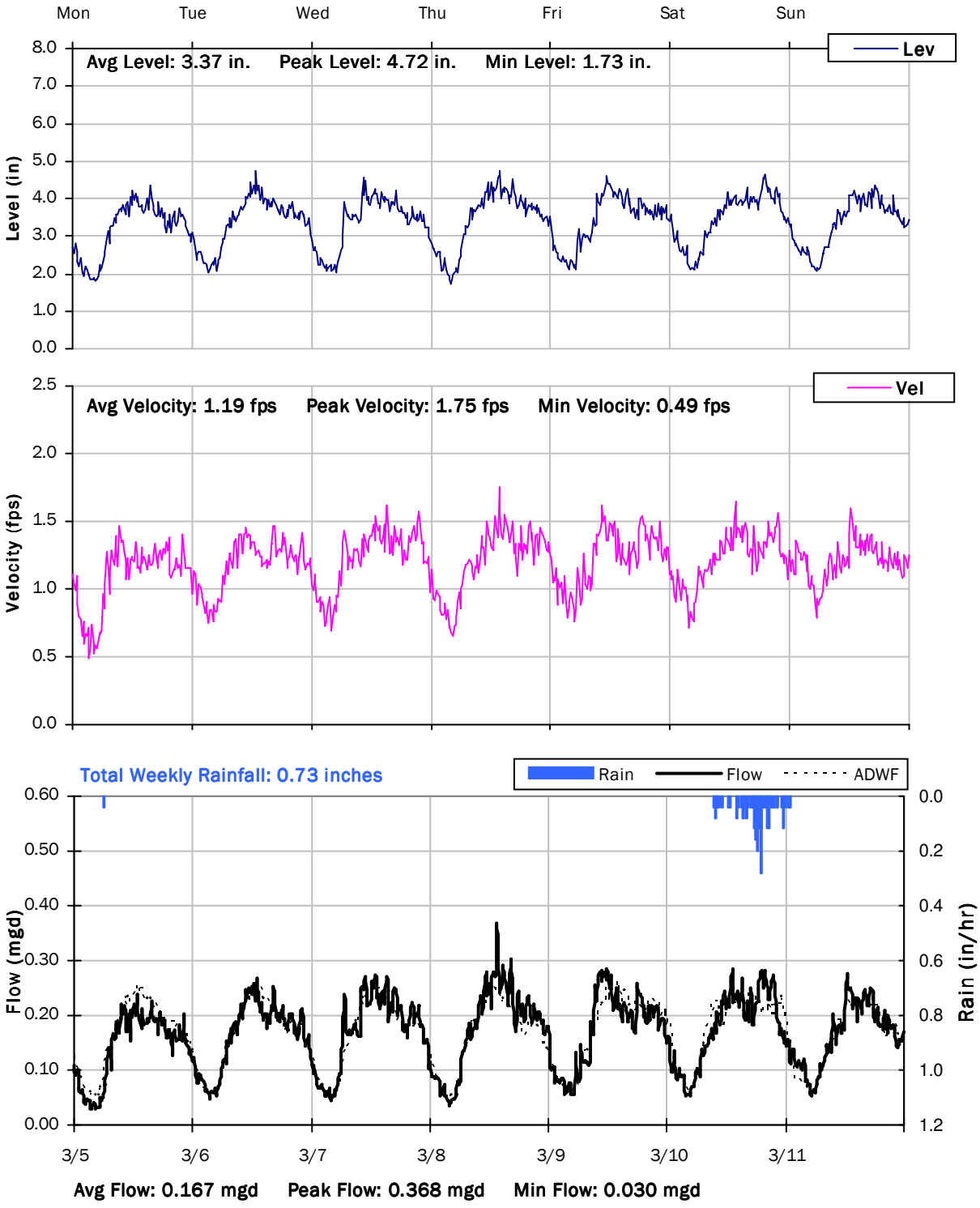
2/26/2018 to 3/5/2018



SMH 0870077

Weekly Level, Velocity and Flow Hydrographs

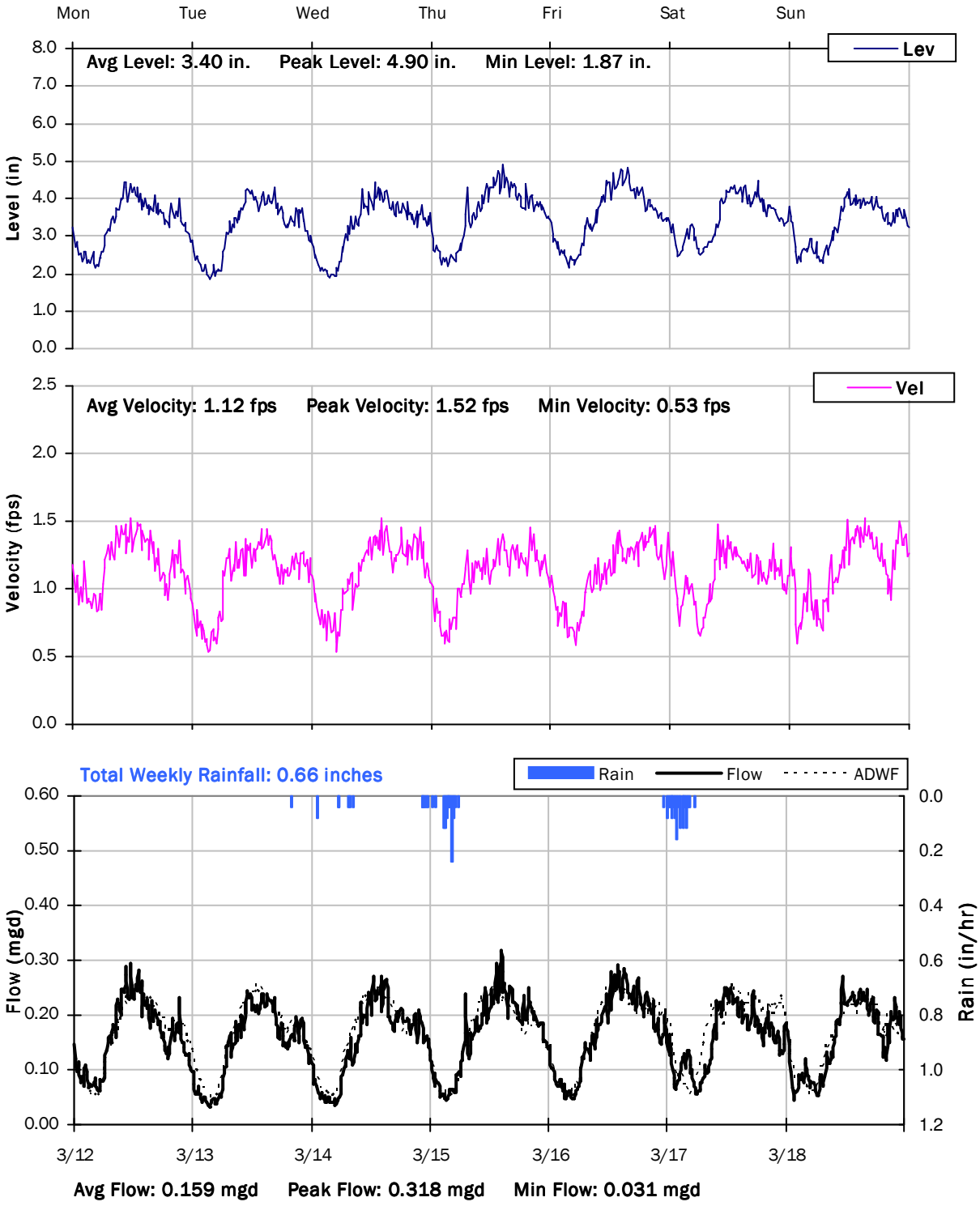
3/5/2018 to 3/12/2018



SMH 0870077

Weekly Level, Velocity and Flow Hydrographs

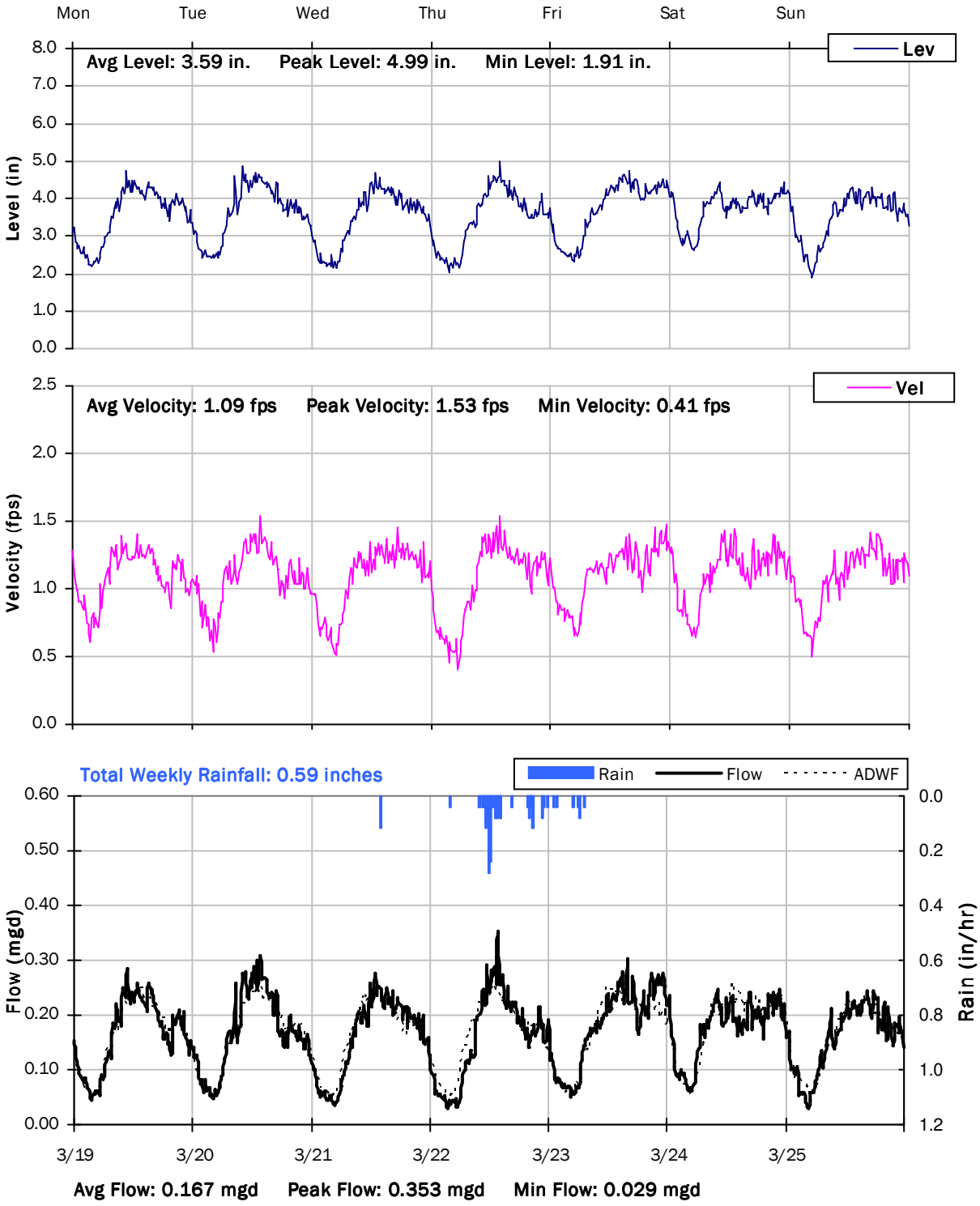
3/12/2018 to 3/19/2018



SMH 0870077

Weekly Level, Velocity and Flow Hydrographs

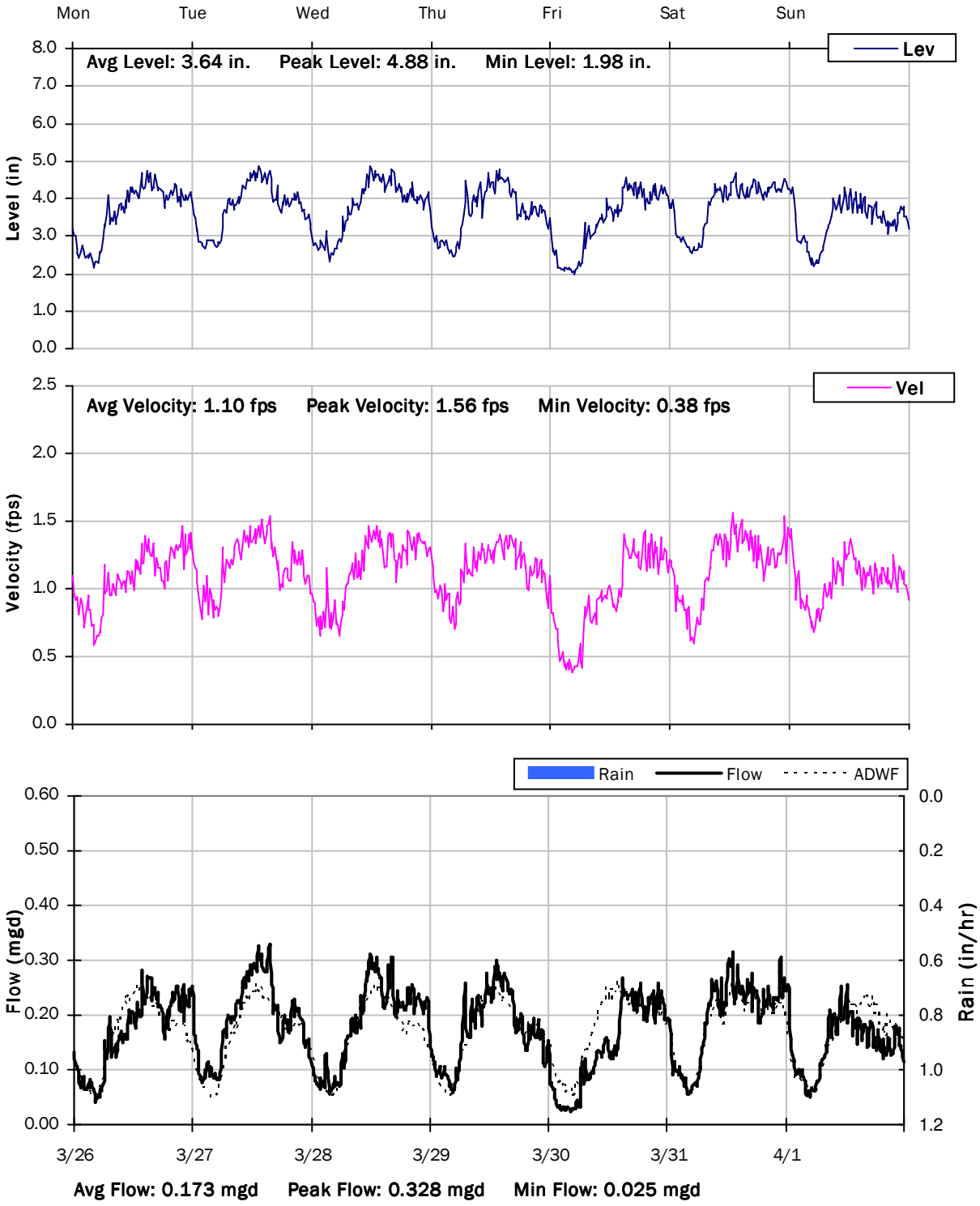
3/19/2018 to 3/26/2018



SMH 0870077

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



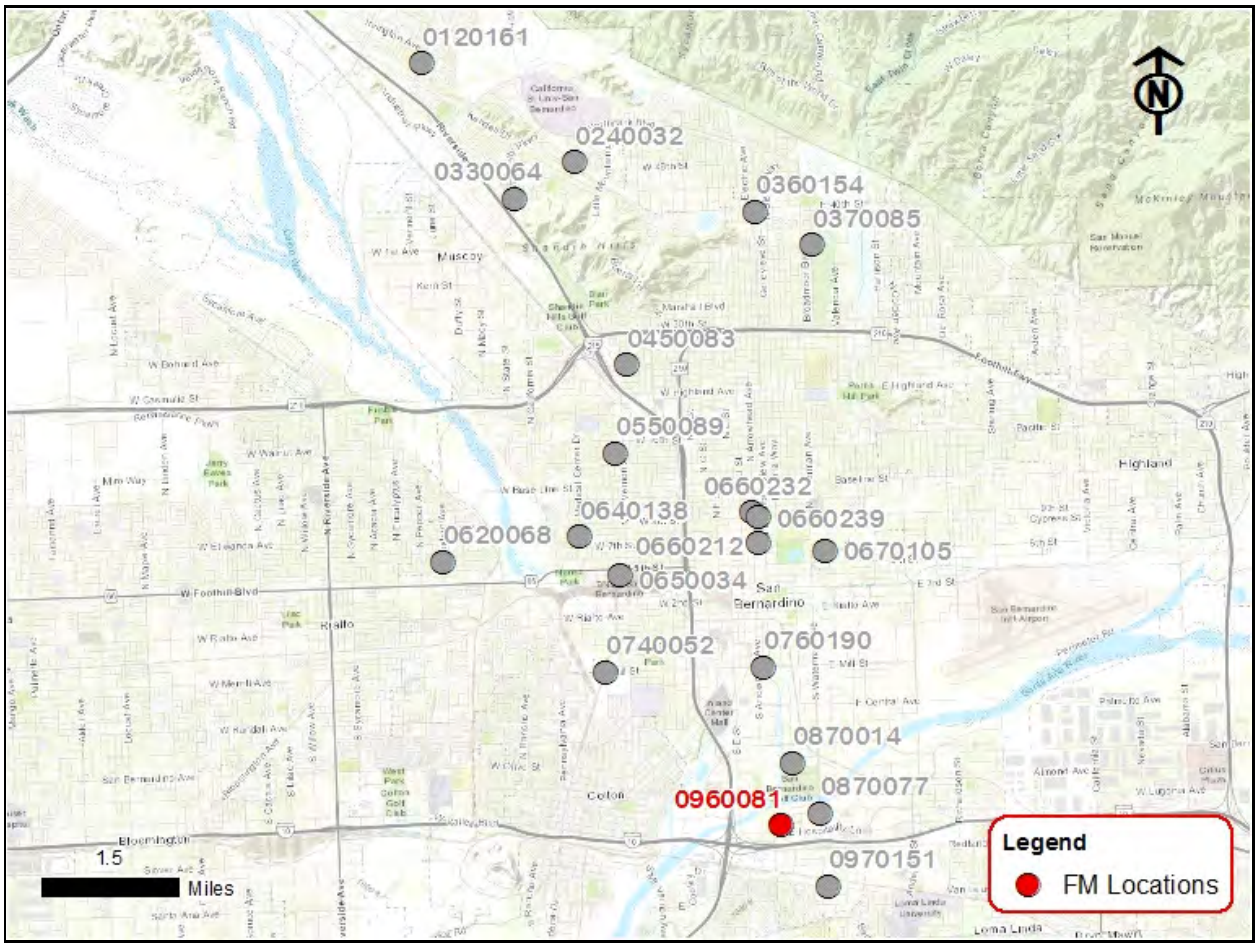
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0960081

Location: S Commercenter Drive W, north of E Hospitality Lane

Data Summary Report



Vicinity Map: SMH 0960081

SMH 0960081

Site Information

Location: S Commercenter Drive W, north of E Hospitality Lane

Coordinates: 117.2862° W, 34.0665° N

Rim Elevation (Earth): 997 feet

Pipe Diameter: 8 inches

ADWF: 0.020 mgd

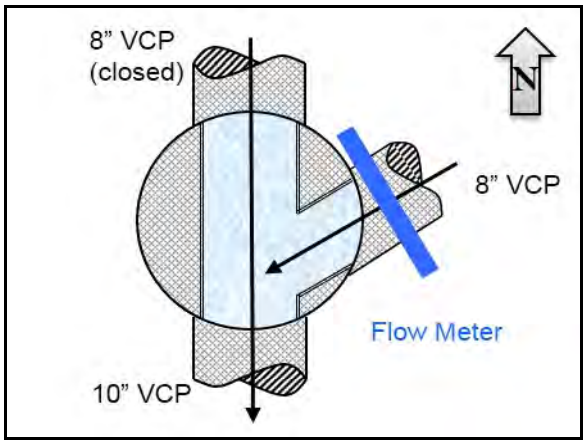
Peak Measured Flow: 0.091 mgd



Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0960081

Additional Site Photos

Effluent Pipe



North Influent Pipe



SMH 0960081

Additional Site Photos

East Influent Pipe

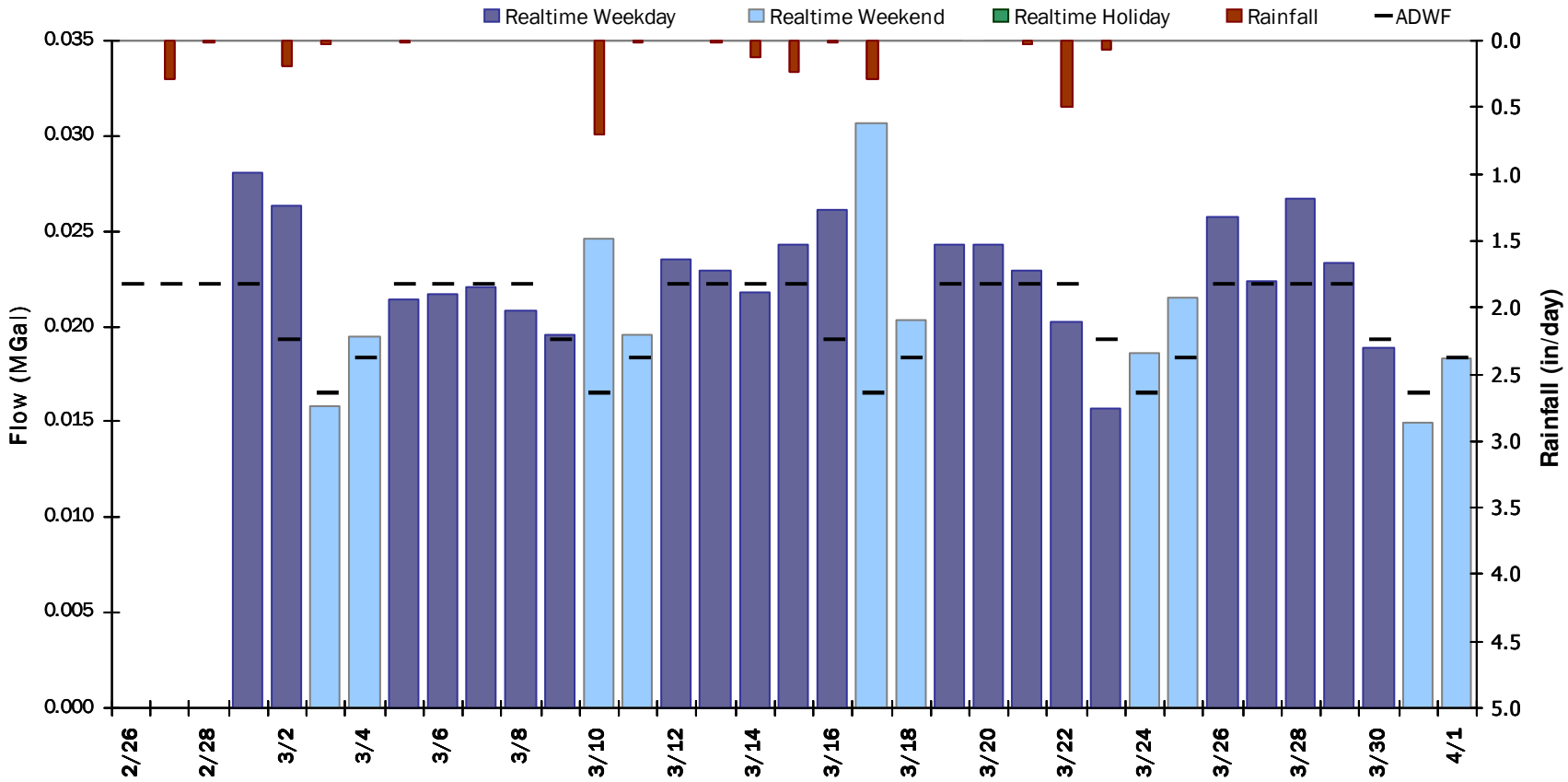


SMH 0960081

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.022 MGal Peak Daily Flow: 0.031 MGal Min Daily Flow: 0.015 MGal

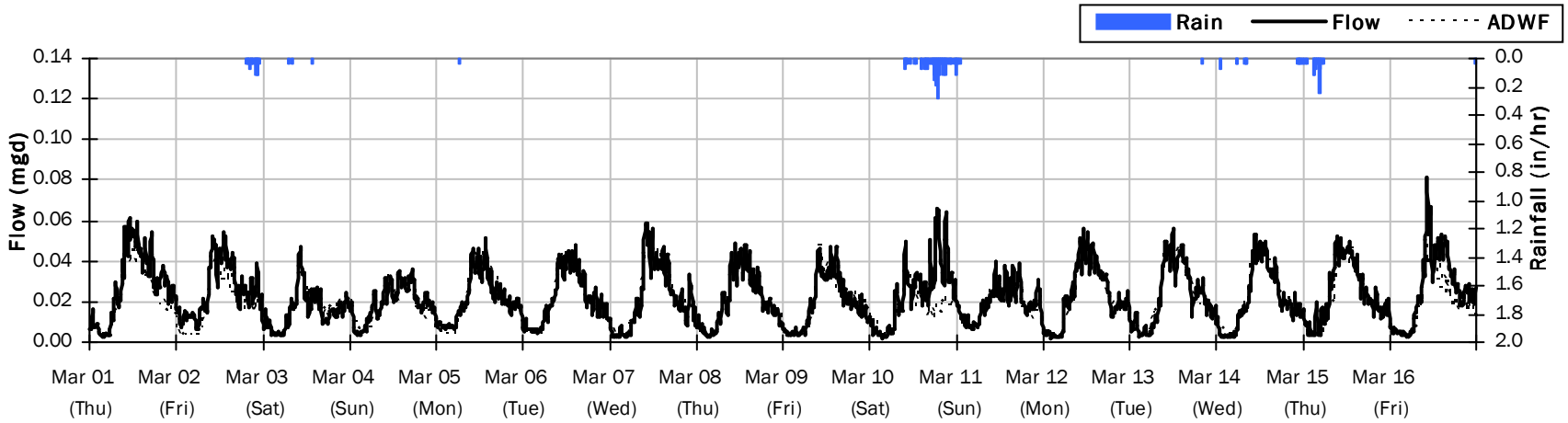
Total Period Rainfall: 2.20 inches

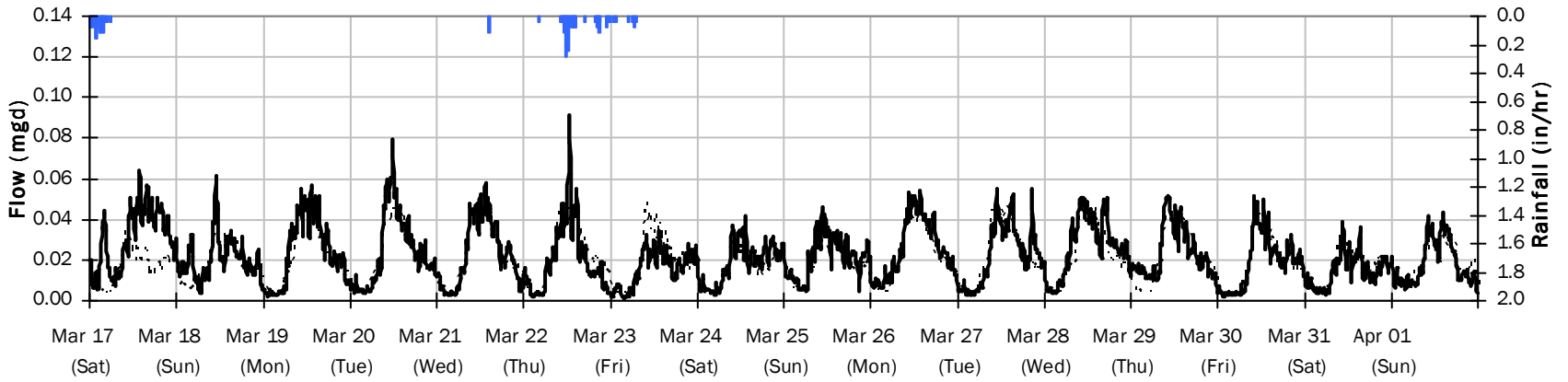


SMH 0960081

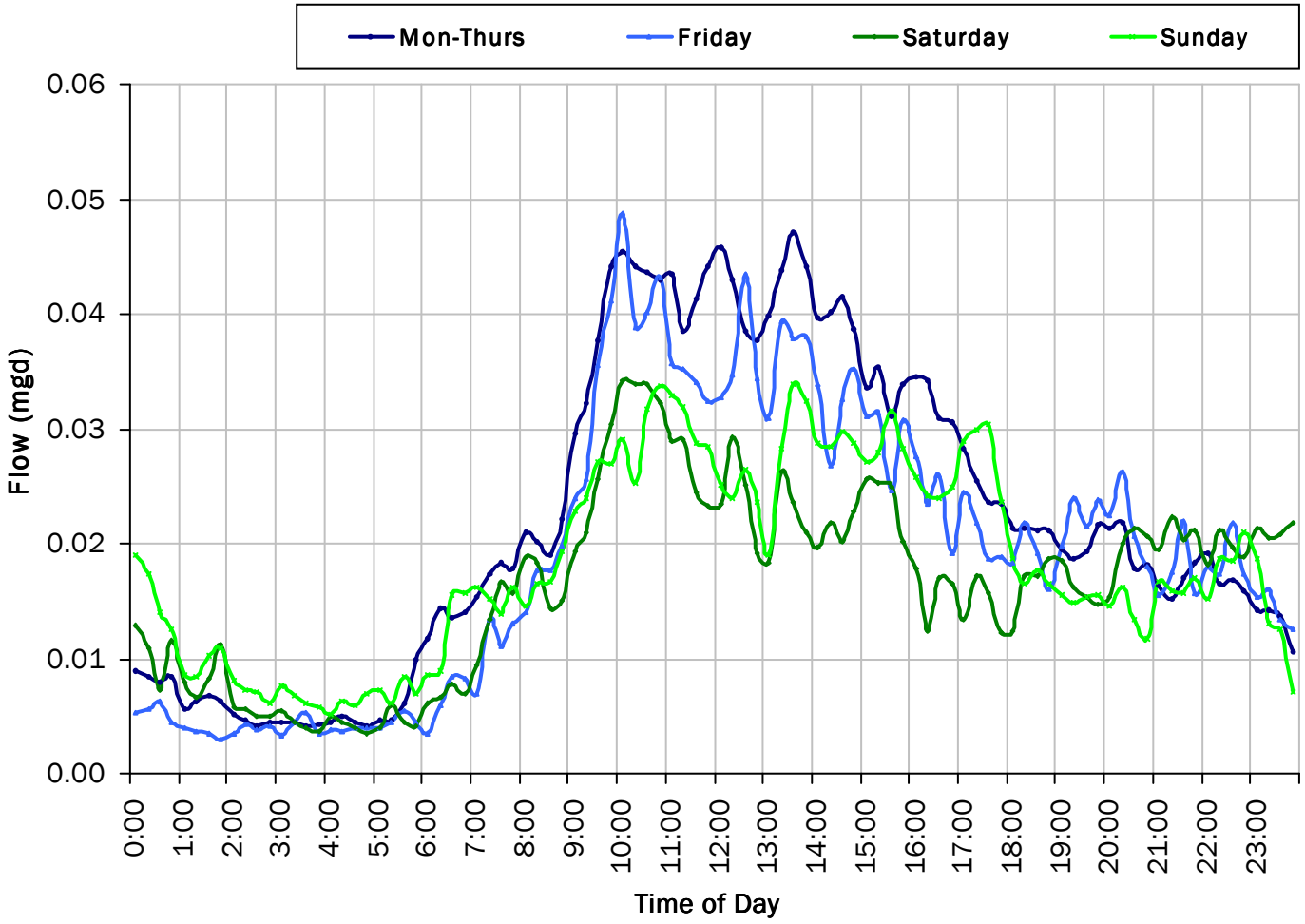
Flow Summary: 3/1/2018 to 4/1/2018

Total Period Rainfall: 2.20 inches **Avg Flow: 0.022 mgd** **Peak Flow: 0.091 mgd** **Min Flow: 0.001 mgd**



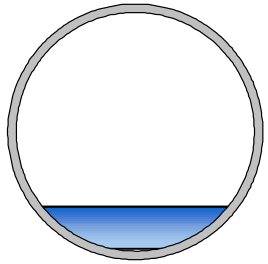


SMH 0960081
Average Dry Weather Flow Hydrographs



ADWF:

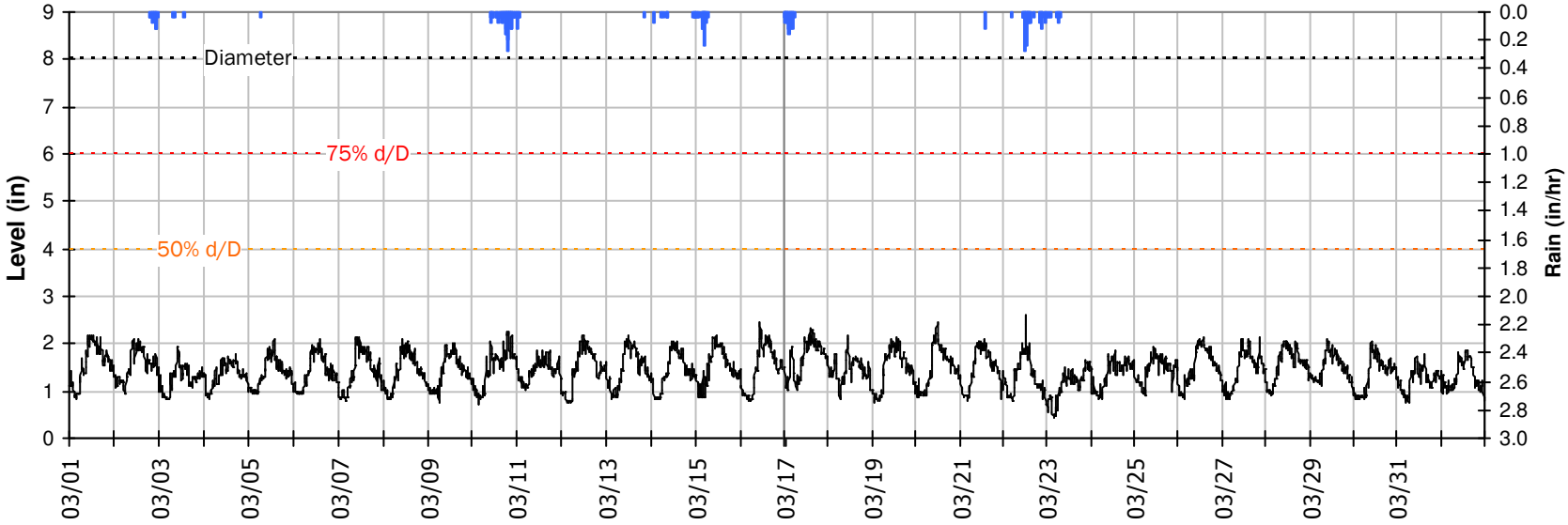
0.020 *mgd*

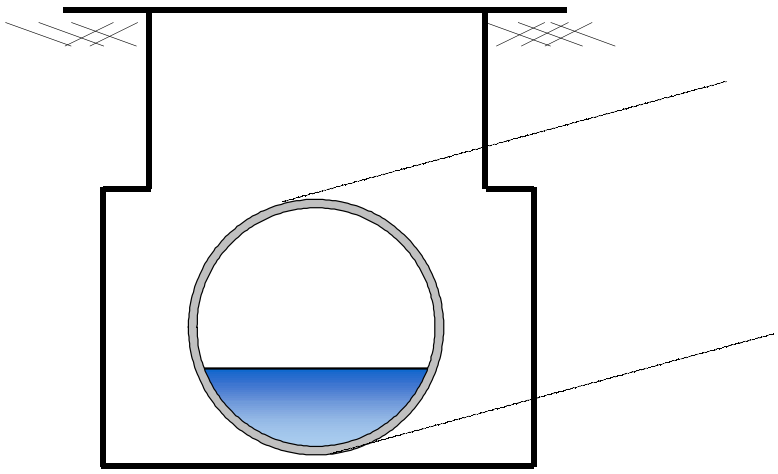


SMH 0960081

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



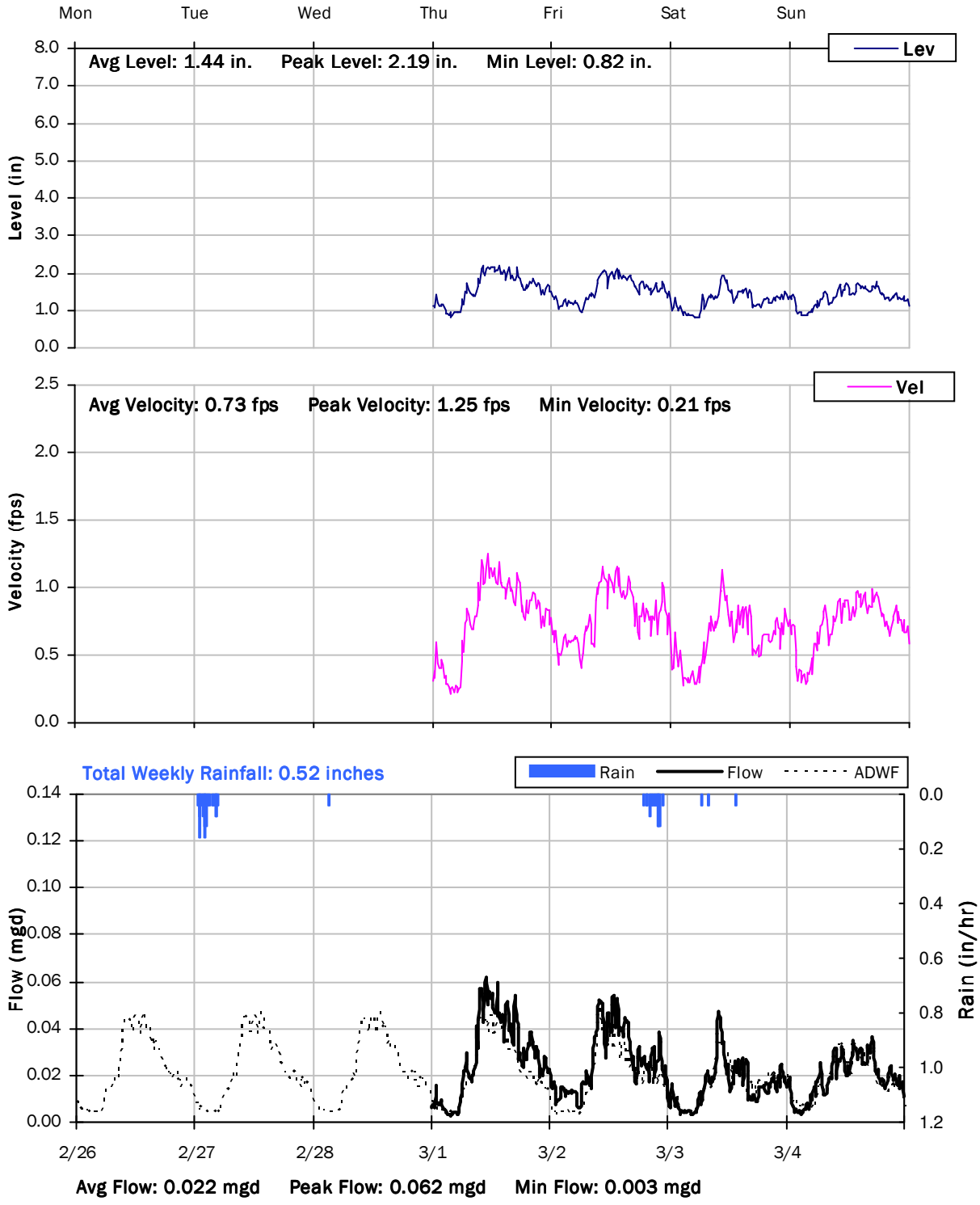


Pipe Diameter:	8	*inches*
Peak Measured Level:	2.6	*inches*
Peak d/D Ratio:	0.33	

SMH 0960081

Weekly Level, Velocity and Flow Hydrographs

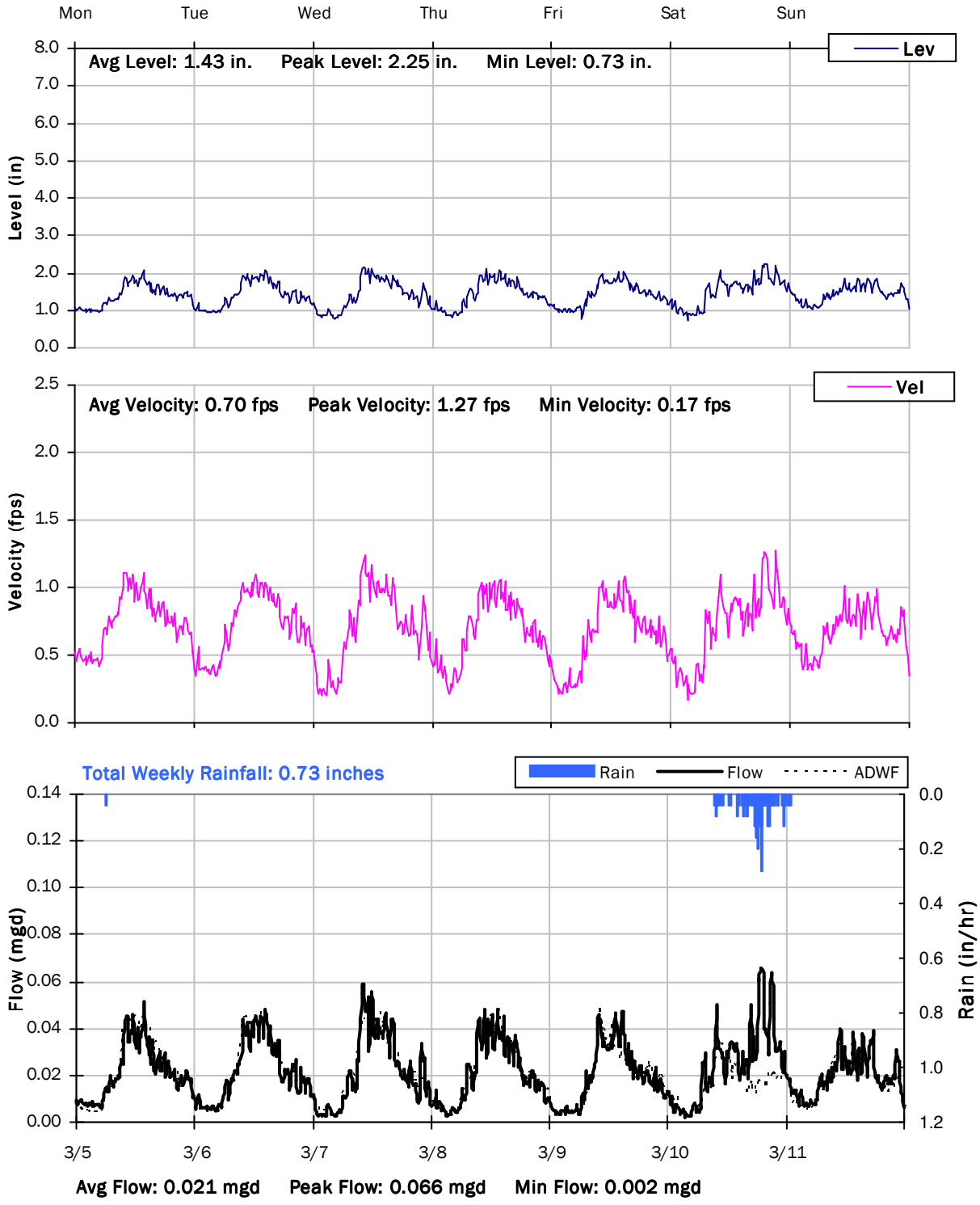
2/26/2018 to 3/5/2018



SMH 0960081

Weekly Level, Velocity and Flow Hydrographs

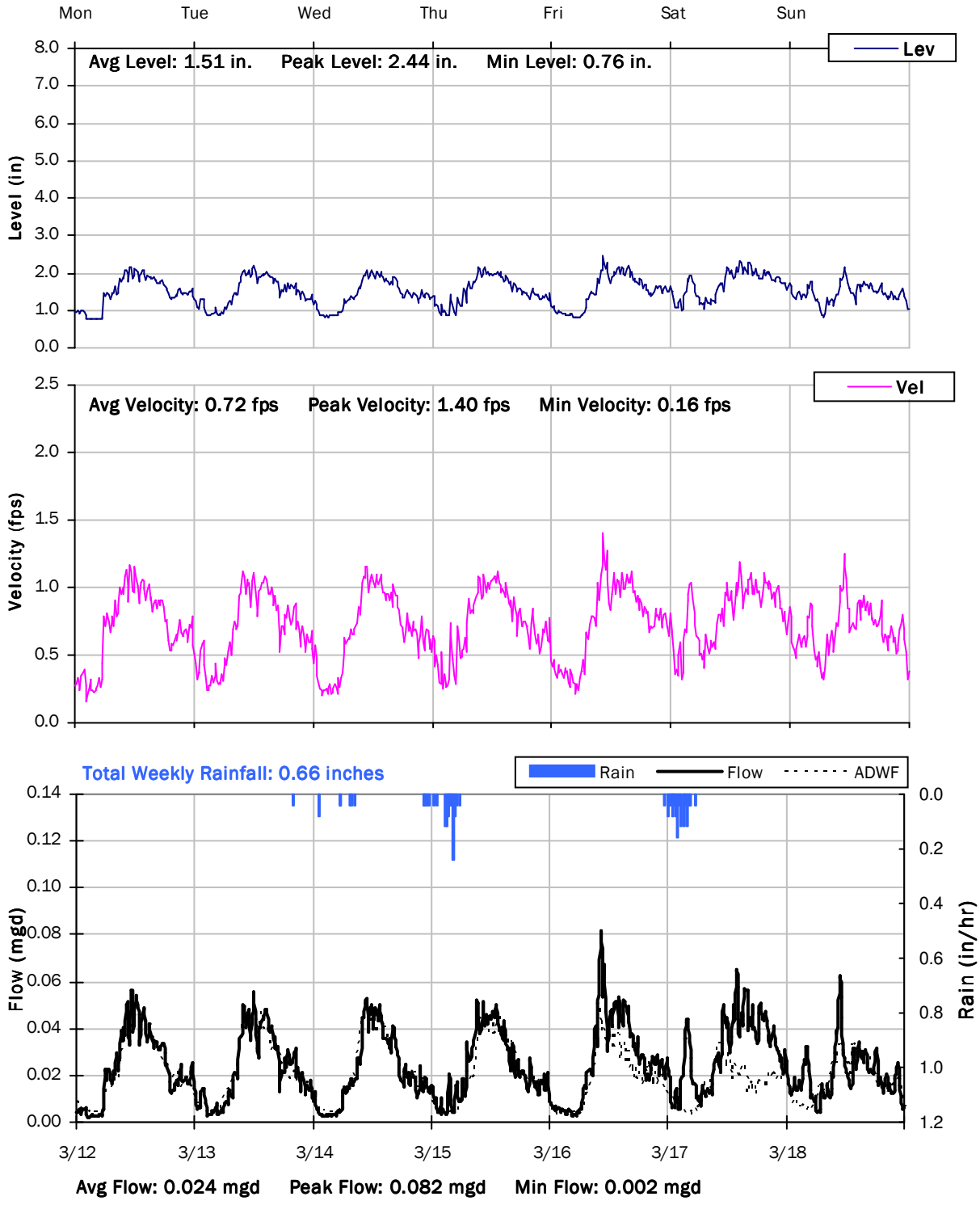
3/5/2018 to 3/12/2018



SMH 0960081

Weekly Level, Velocity and Flow Hydrographs

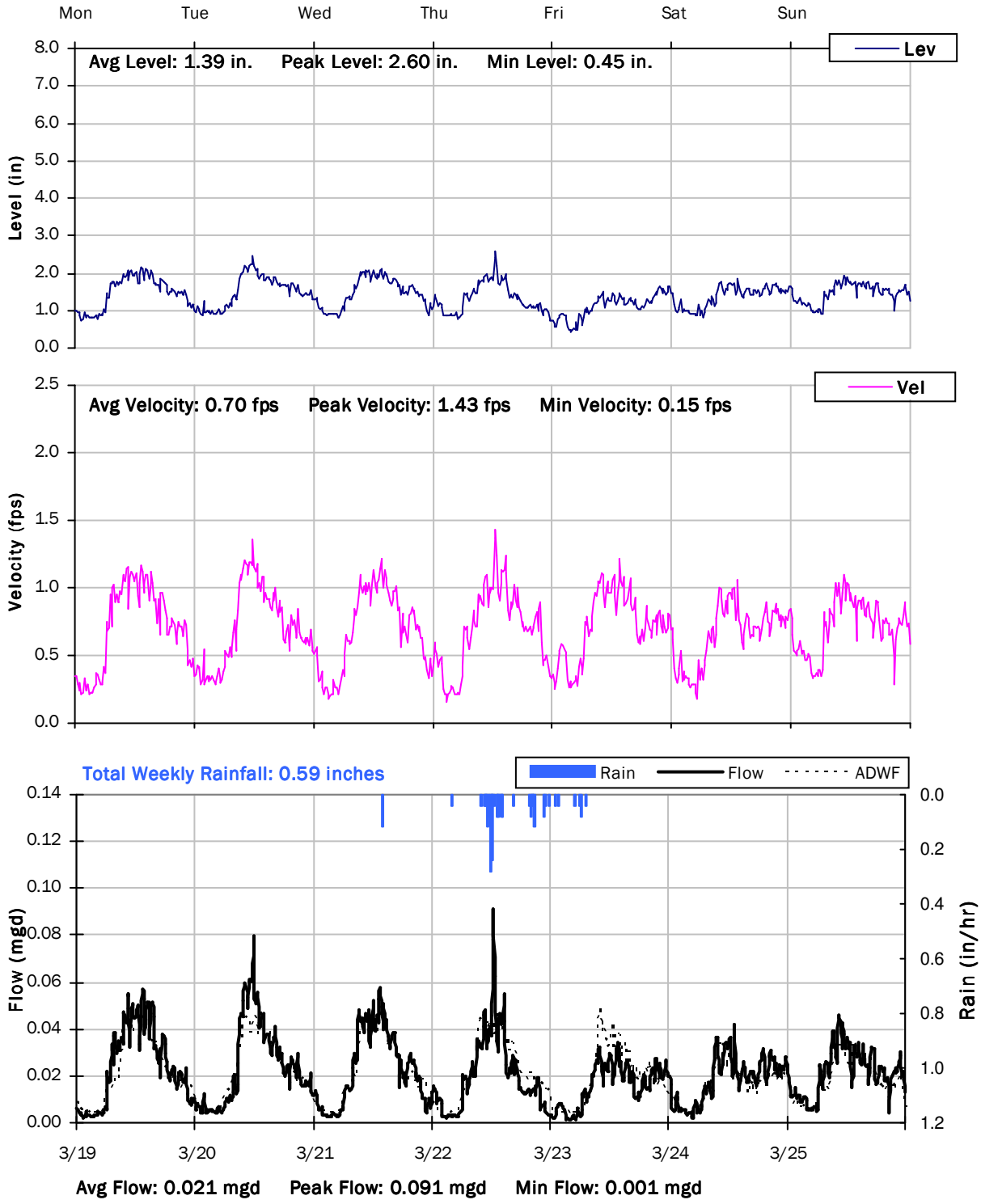
3/12/2018 to 3/19/2018



SMH 0960081

Weekly Level, Velocity and Flow Hydrographs

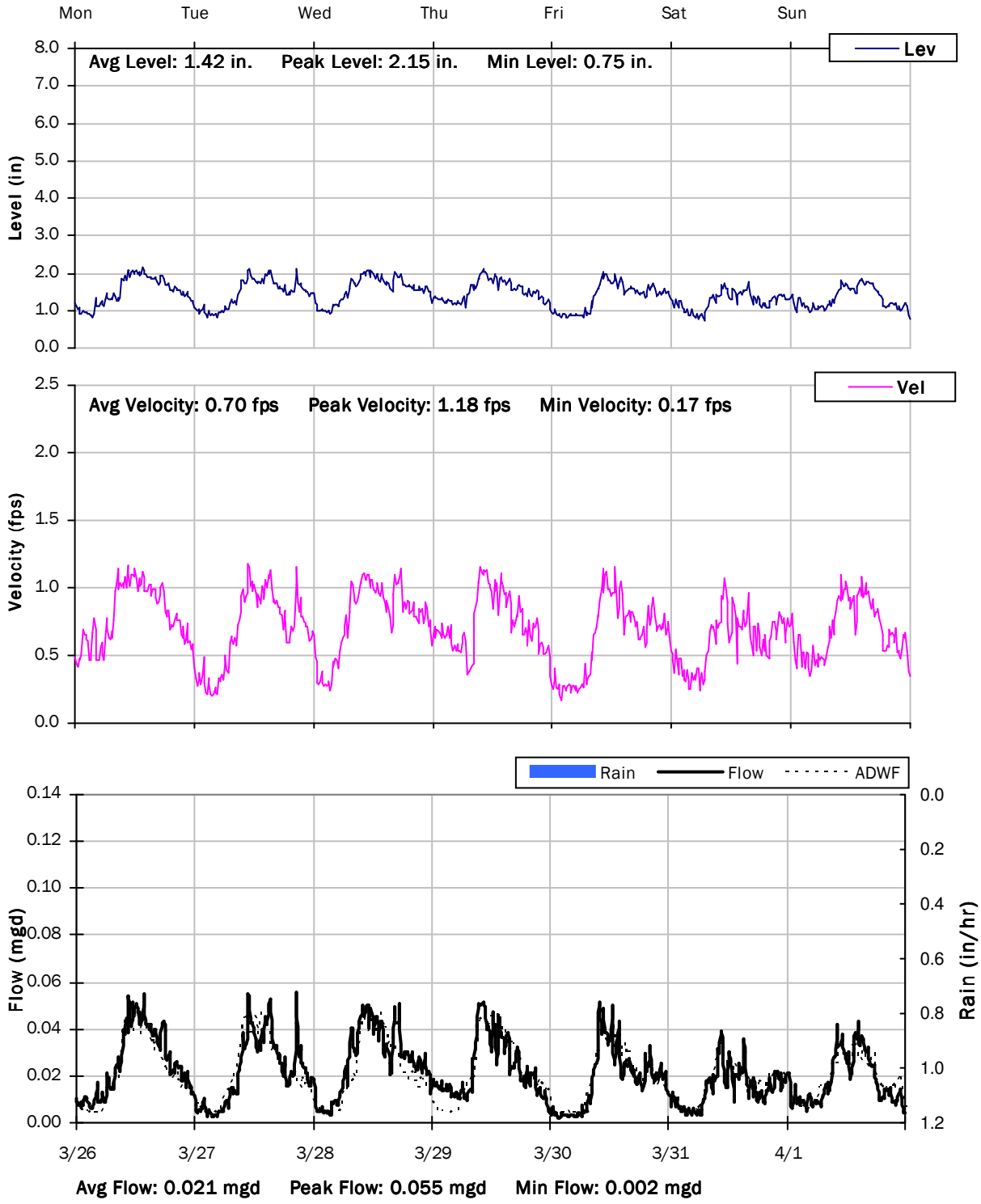
3/19/2018 to 3/26/2018



SMH 0960081

Weekly Level, Velocity and Flow Hydrographs

3/26/2018 to 4/2/2018



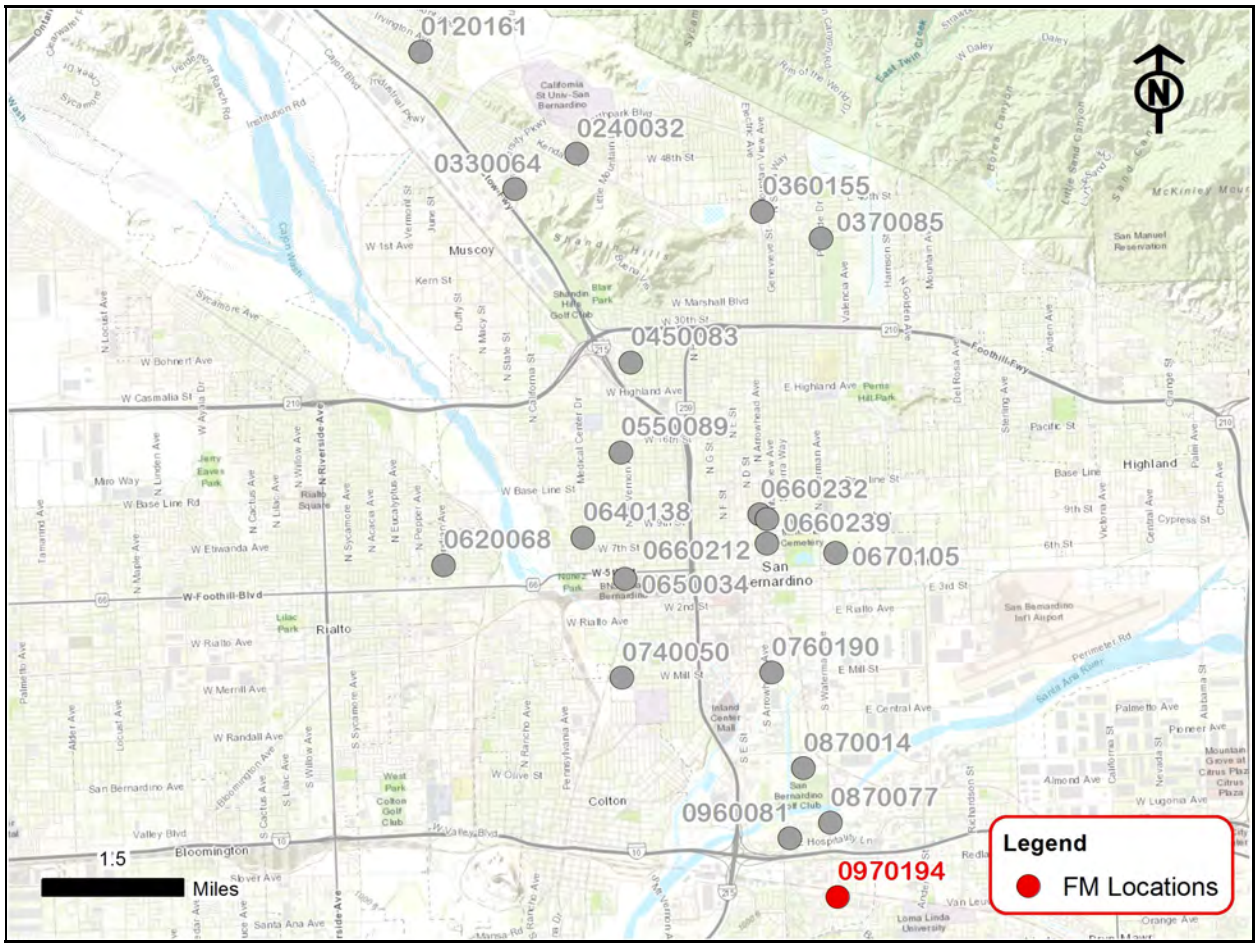
San Bernardino Municipal Water District

Sanitary Sewer Flow Monitoring
Phase 2: March 1 - April 1, 2018

Monitoring Site: SMH 0970194

Location: E Industrial Road east of South Waterman Avenue E

Data Summary Report



Vicinity Map: SMH 0970194

SMH 0970194

Site Information

Location: E Industrial Road east of South Waterman Avenue E

Coordinates: 117.2777° W, 34.0573° N

Rim Elevation (Earth): 1025 feet

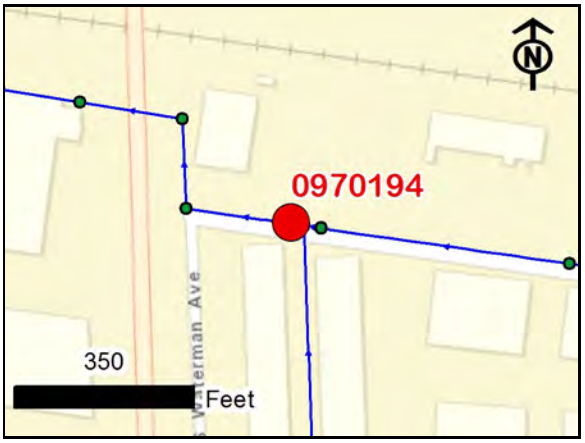
Pipe Diameter: 8 inches

ADWF: 0.222 mgd

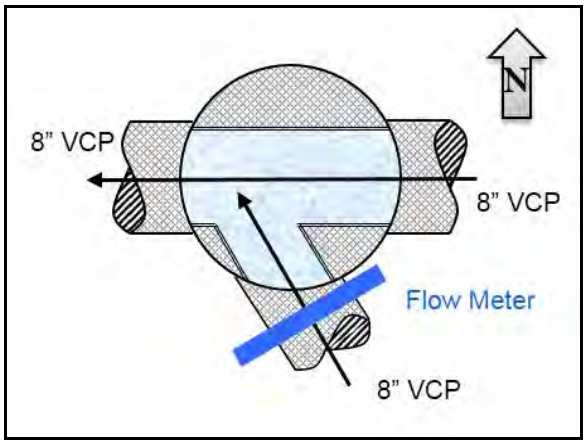
Peak Measured Flow: 0.398 mgd



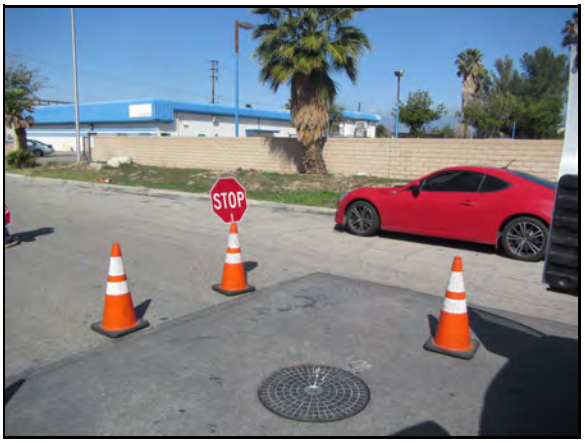
Satellite Map



Sewer Map



Flow Sketch



Street View



Plan View

SMH 0970194

Additional Site Photos

Effluent Pipe



East Influent Pipe



SMH 0970194

Additional Site Photos

North Influent Pipe

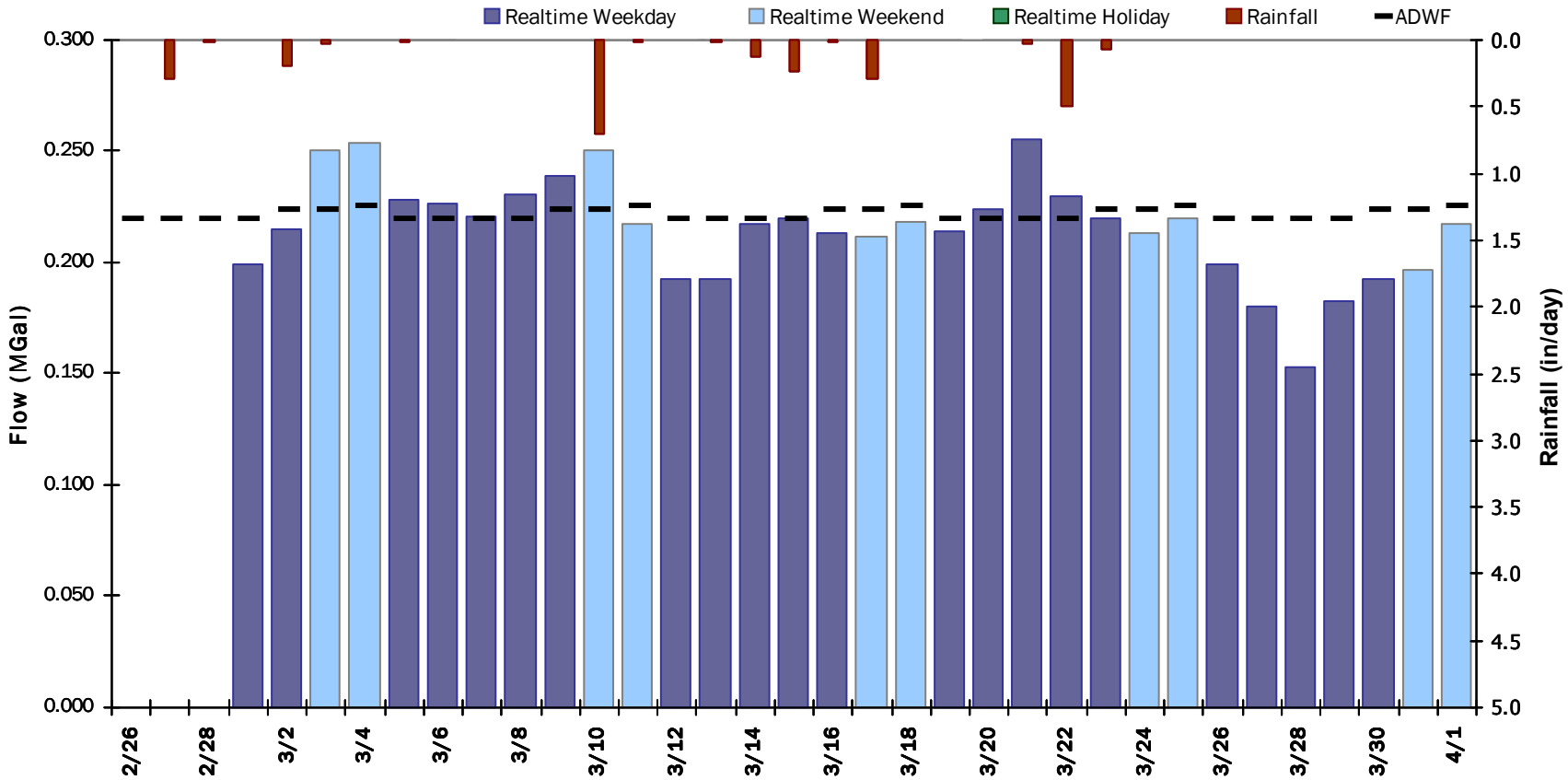


SMH 0970194

Period Flow Summary: Daily Flow Totals

Avg Period Flow: 0.215 MGal Peak Daily Flow: 0.255 MGal Min Daily Flow: 0.153 MGal

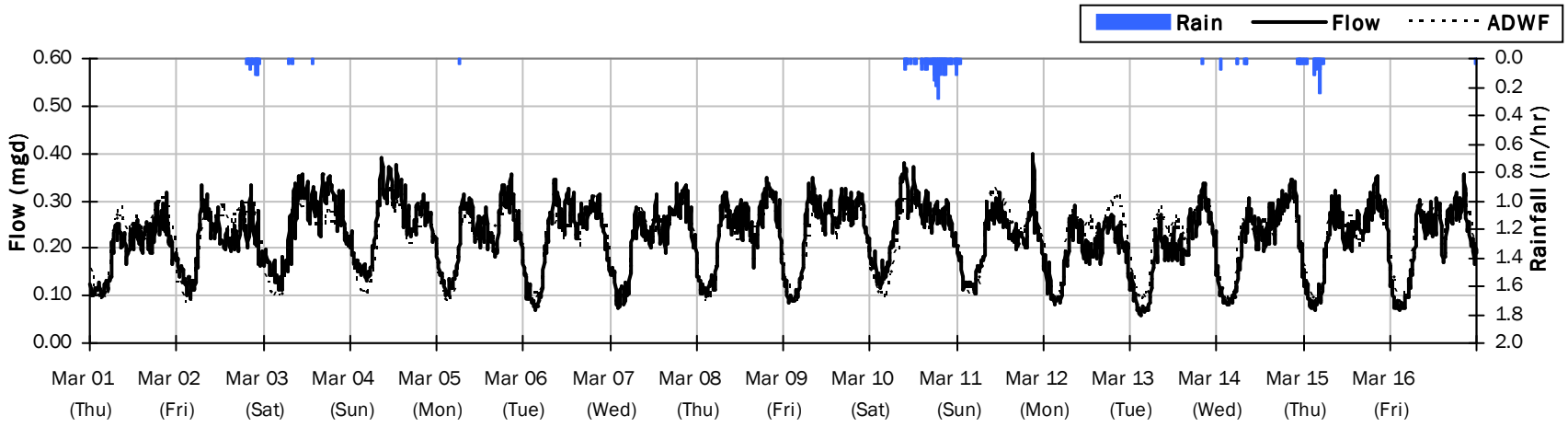
Total Period Rainfall: 2.20 inches

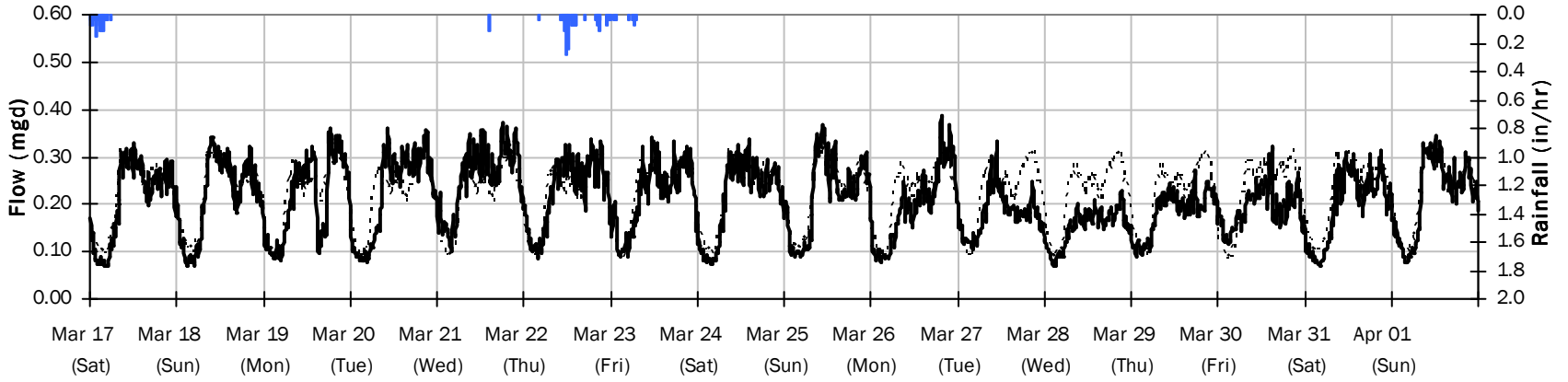


SMH 0970194

Flow Summary: 3/1/2018 to 4/1/2018

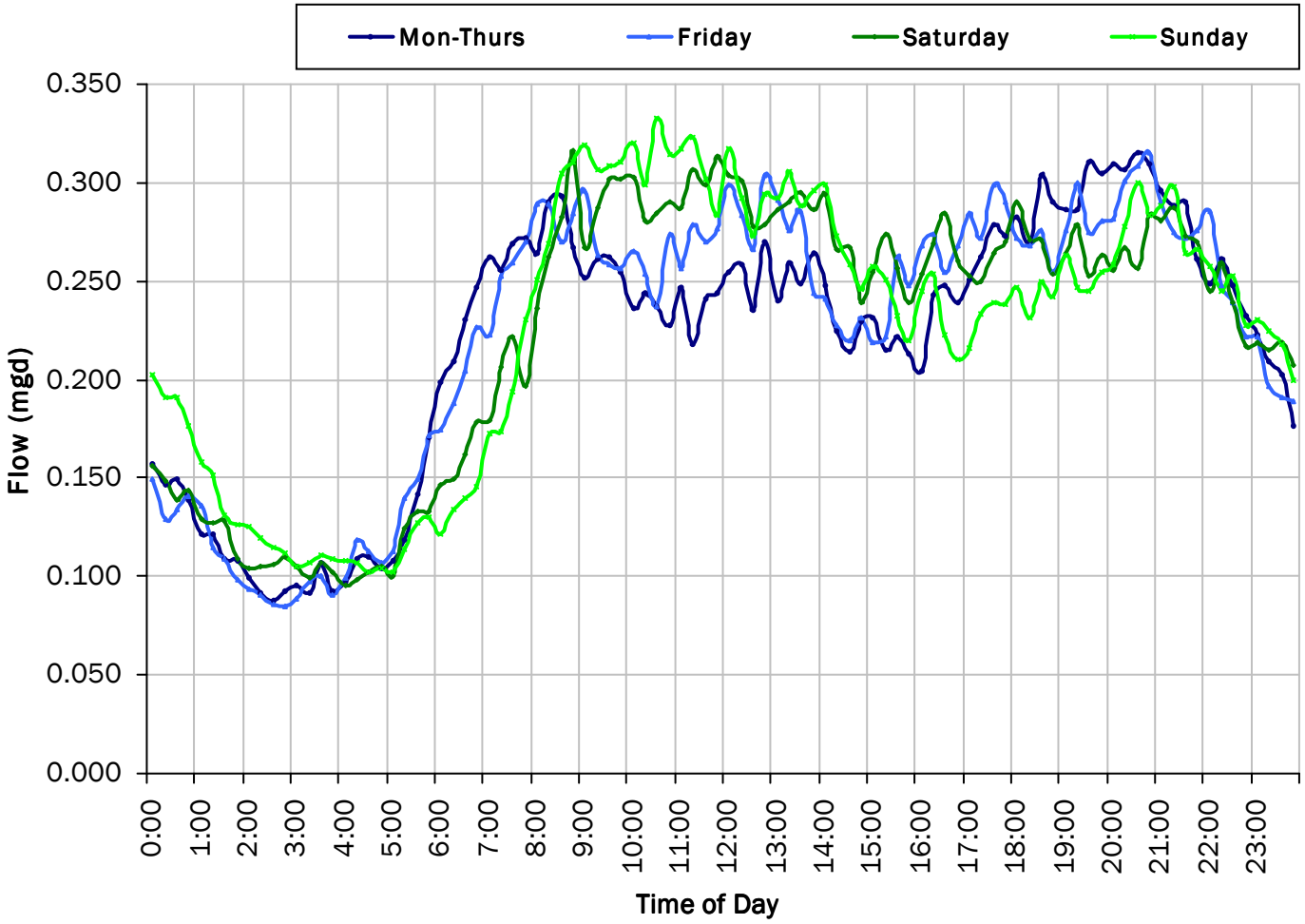
Total Period Rainfall: 2.20 inches Avg Flow: 0.215 mgd Peak Flow: 0.398 mgd Min Flow: 0.057 mgd





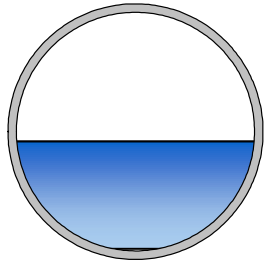
SMH 0970194

Average Dry Weather Flow Hydrographs



ADWF:

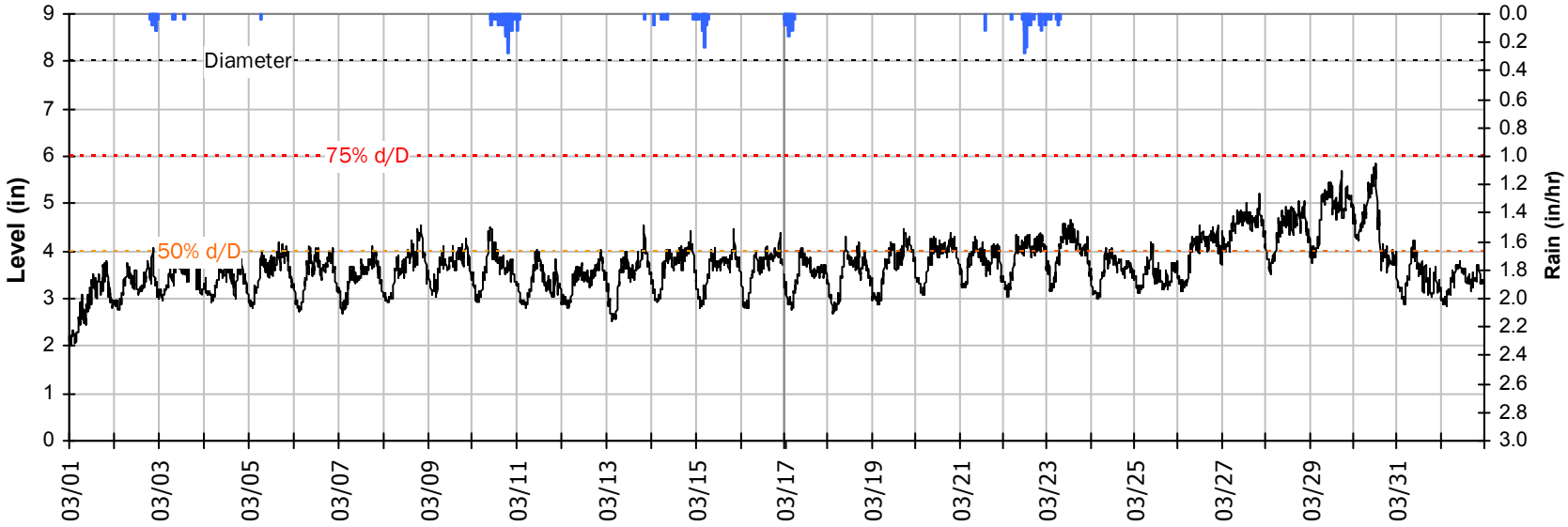
0.222 *mgd*

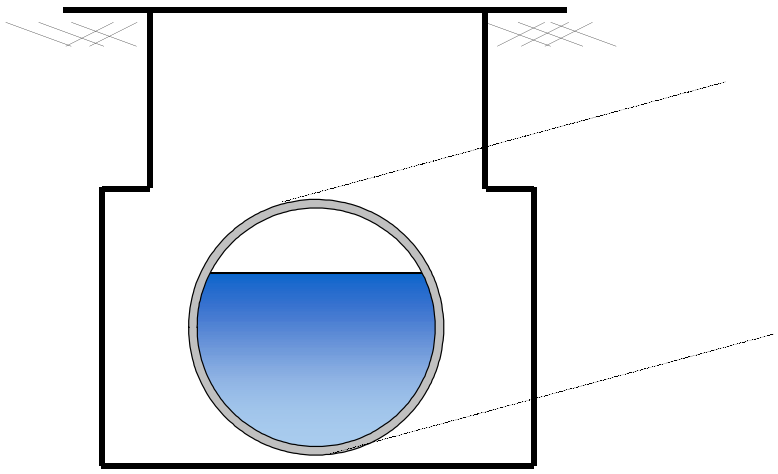


SMH 0970194

Site Capacity and Surcharge Summary

Realtime Flow Levels with Rainfall Data over Monitoring Period



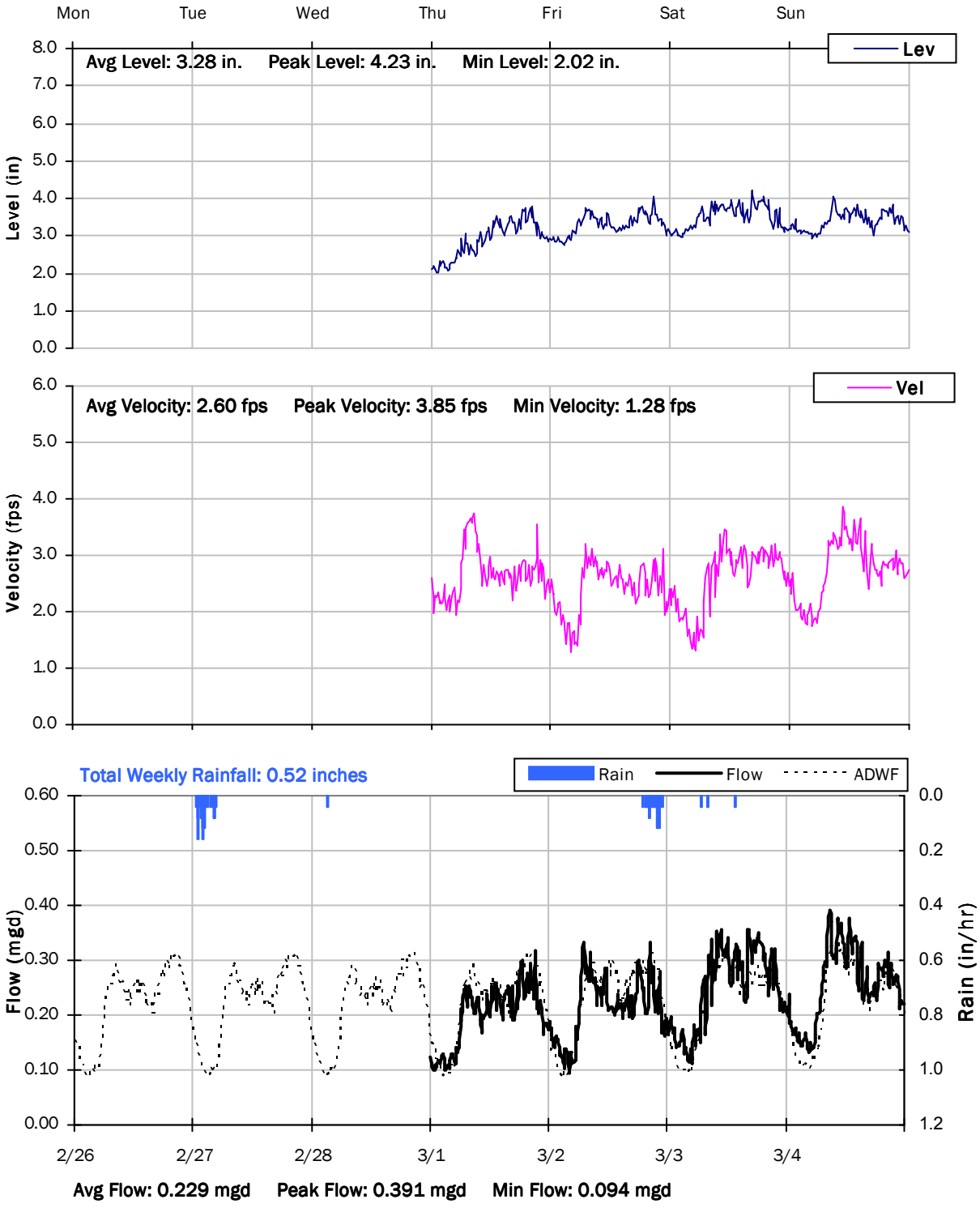


Pipe Diameter:	8	*inches*
Peak Measured Level:	5.8	*inches*
Peak d/D Ratio:	0.73	

SMH 0970194

Weekly Level, Velocity and Flow Hydrographs

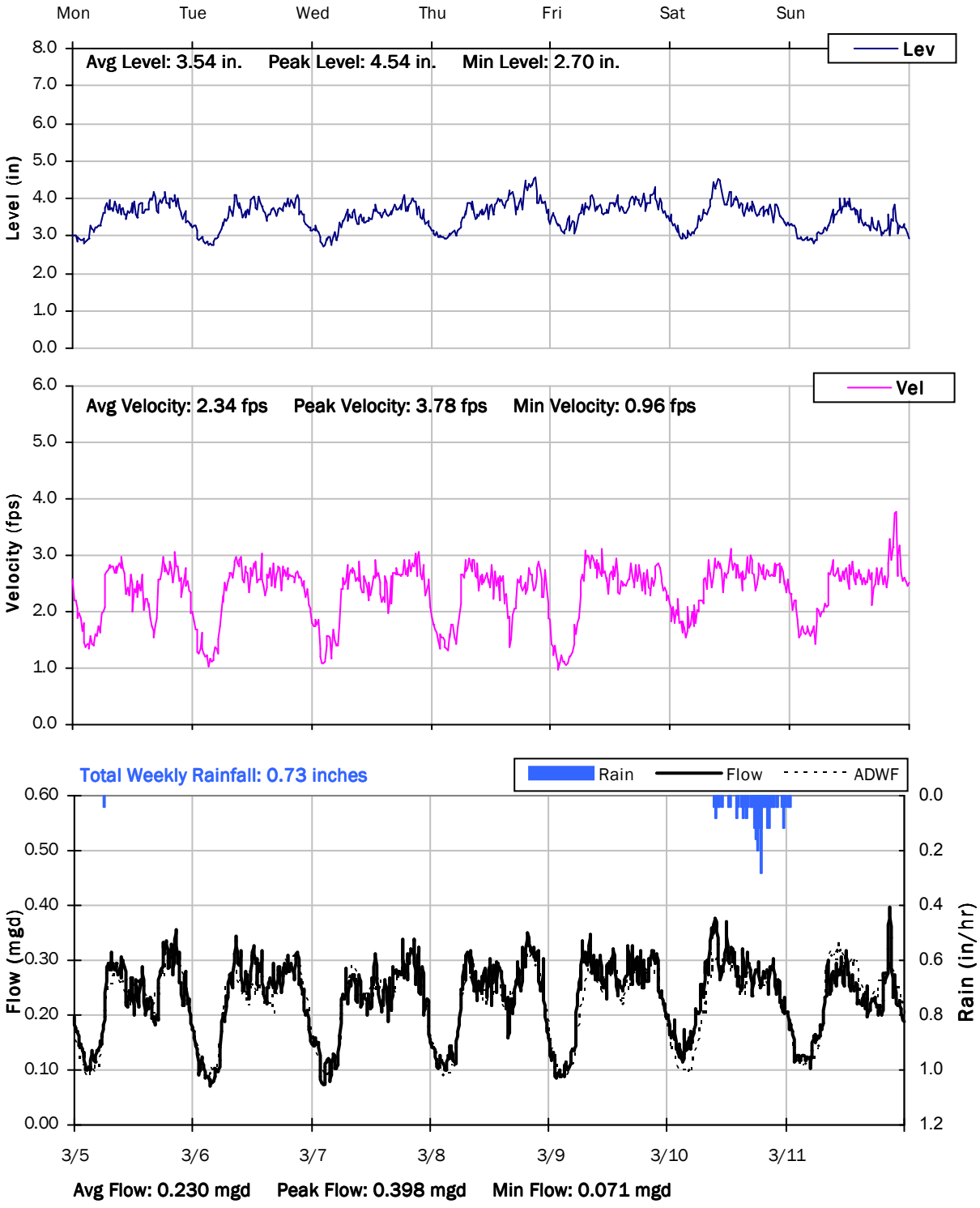
2/26/2018 to 3/5/2018



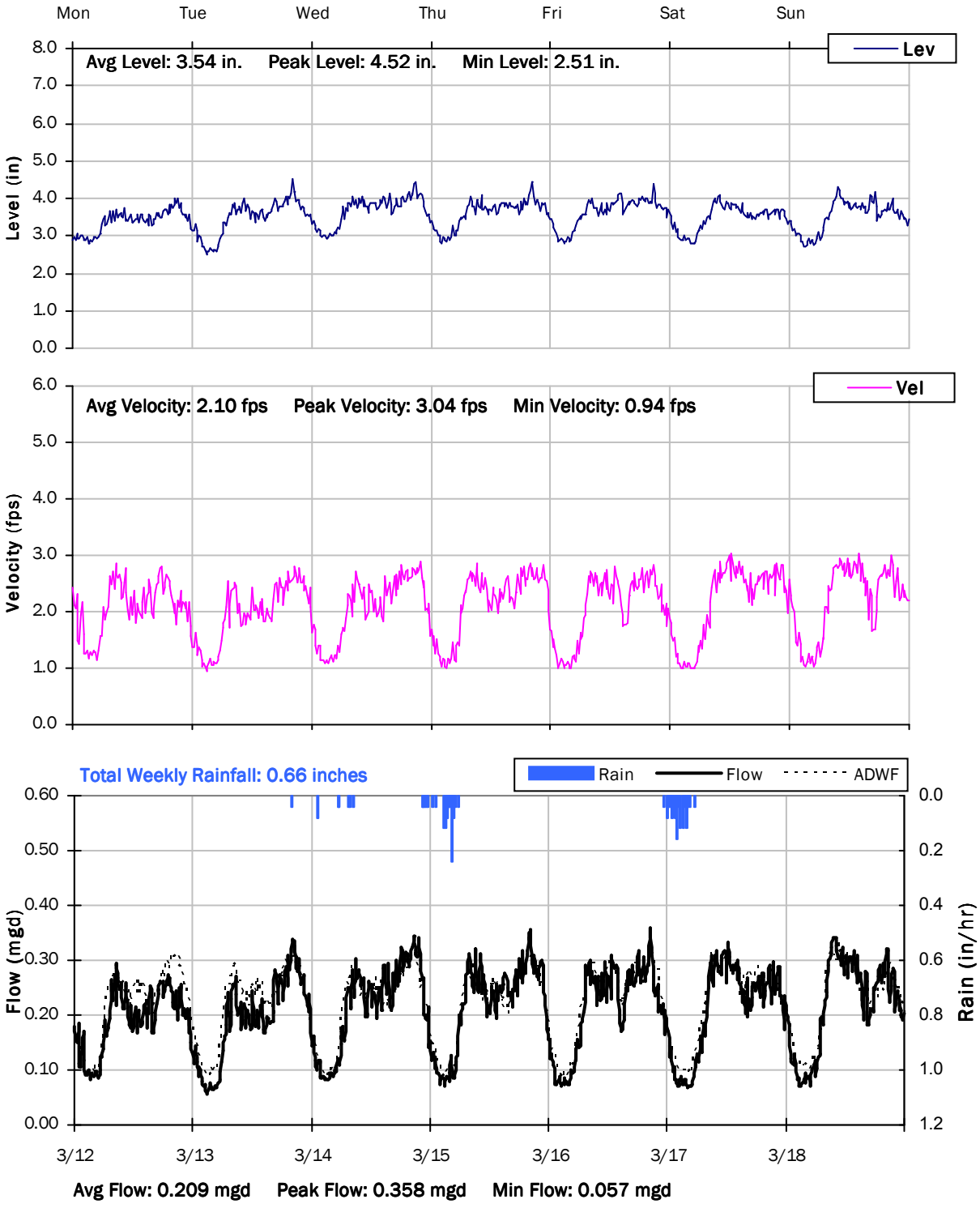
SMH 0970194

Weekly Level, Velocity and Flow Hydrographs

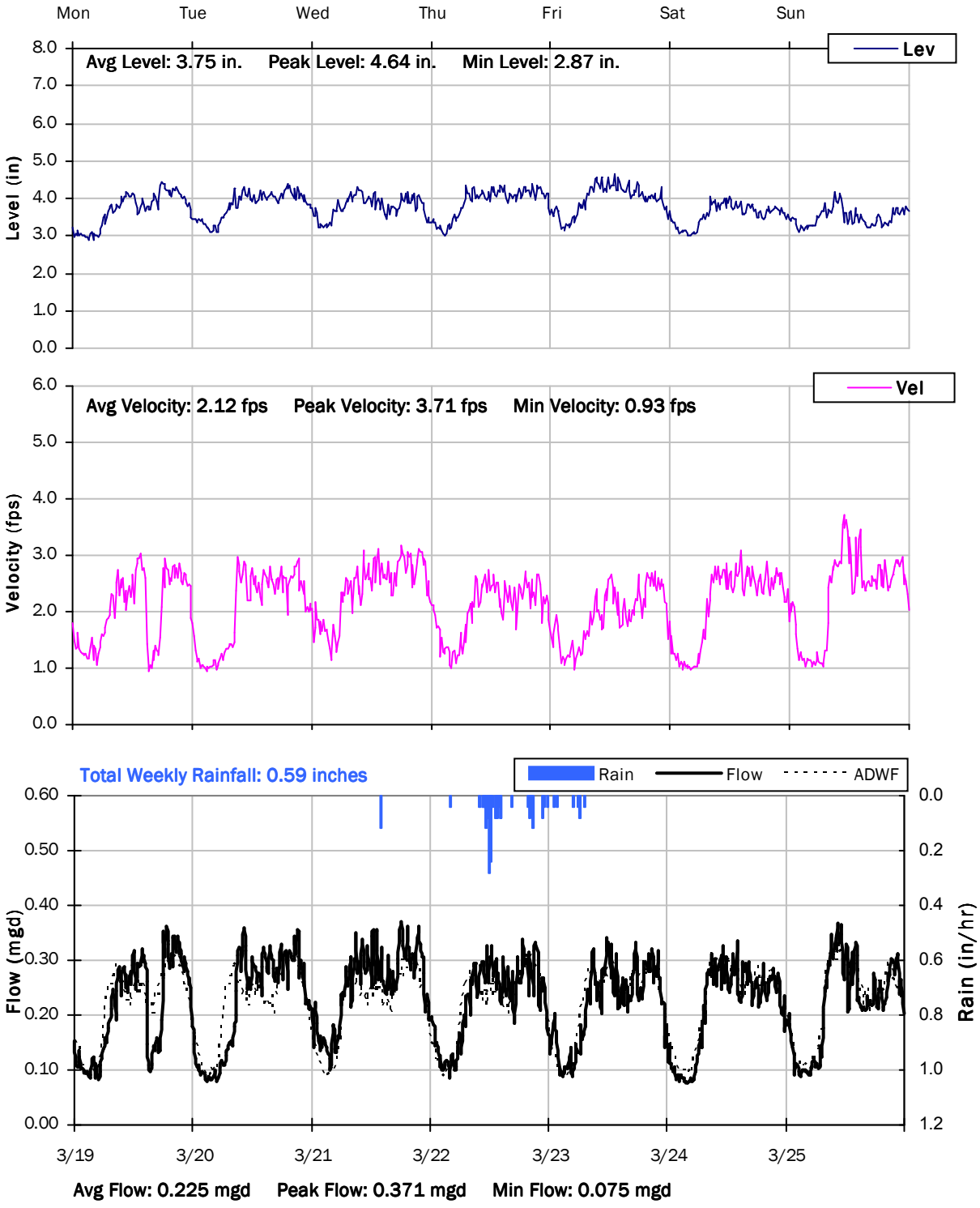
3/5/2018 to 3/12/2018



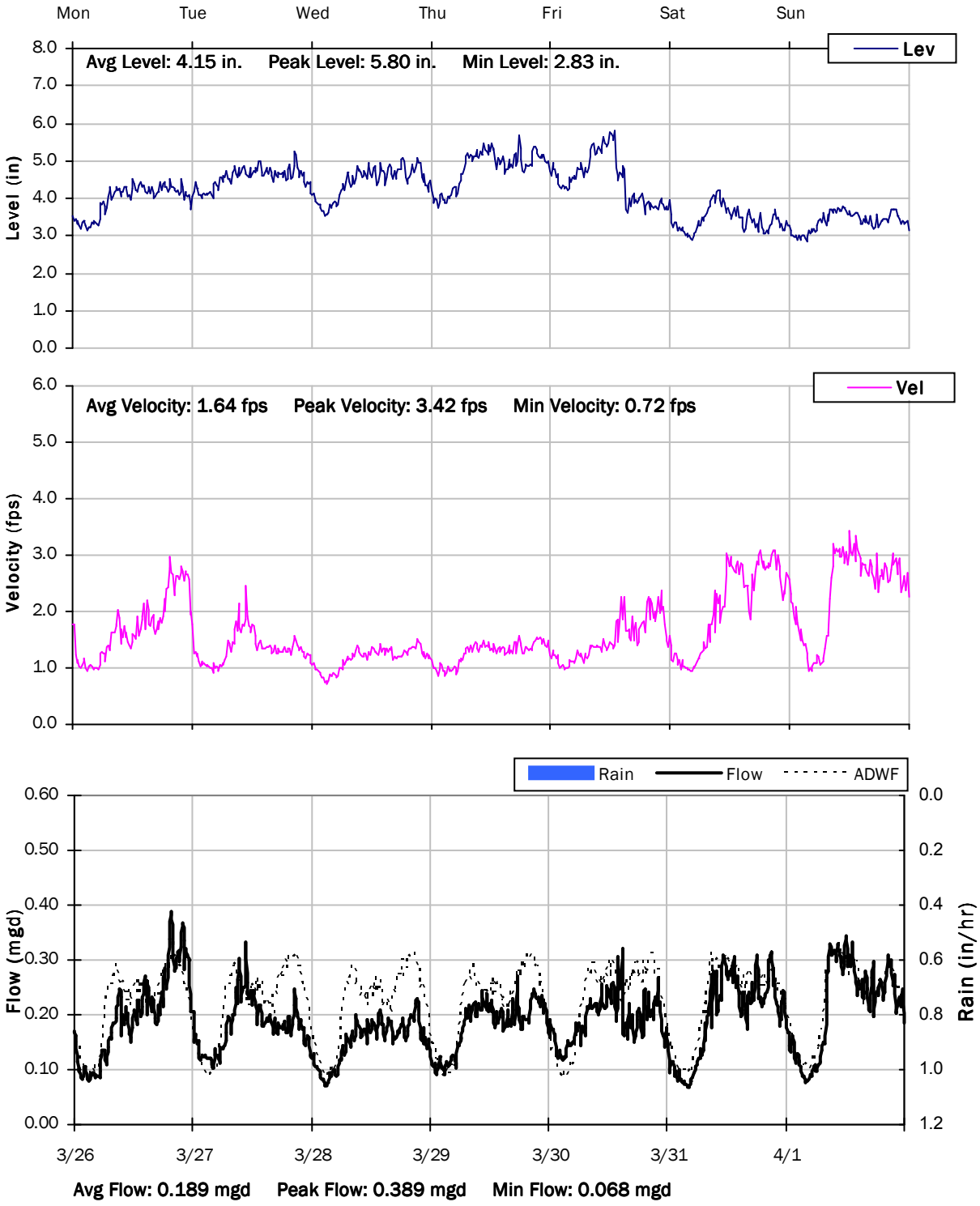
SMH 0970194
Weekly Level, Velocity and Flow Hydrographs
3/12/2018 to 3/19/2018



SMH 0970194
Weekly Level, Velocity and Flow Hydrographs
3/19/2018 to 3/26/2018



SMH 0970194
Weekly Level, Velocity and Flow Hydrographs
3/26/2018 to 4/2/2018



V&A Project No. 17-0311



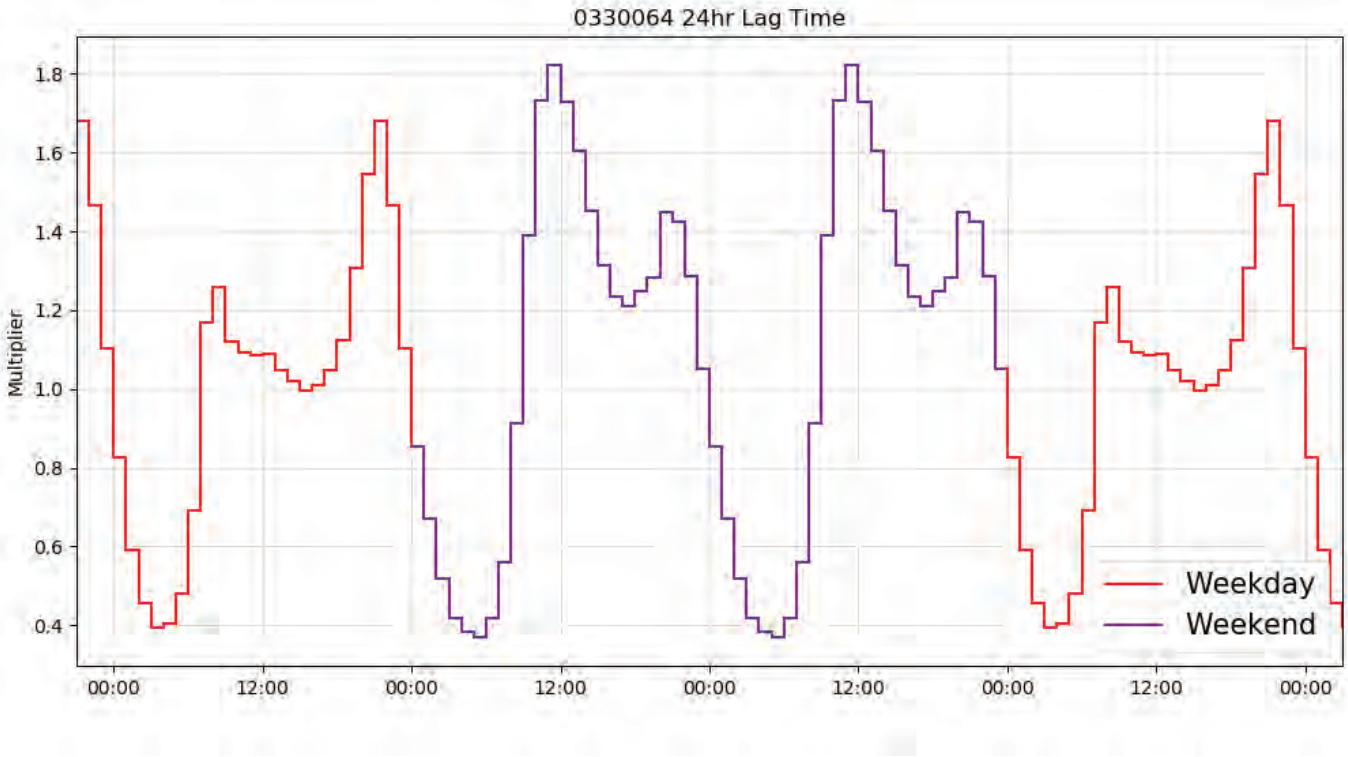


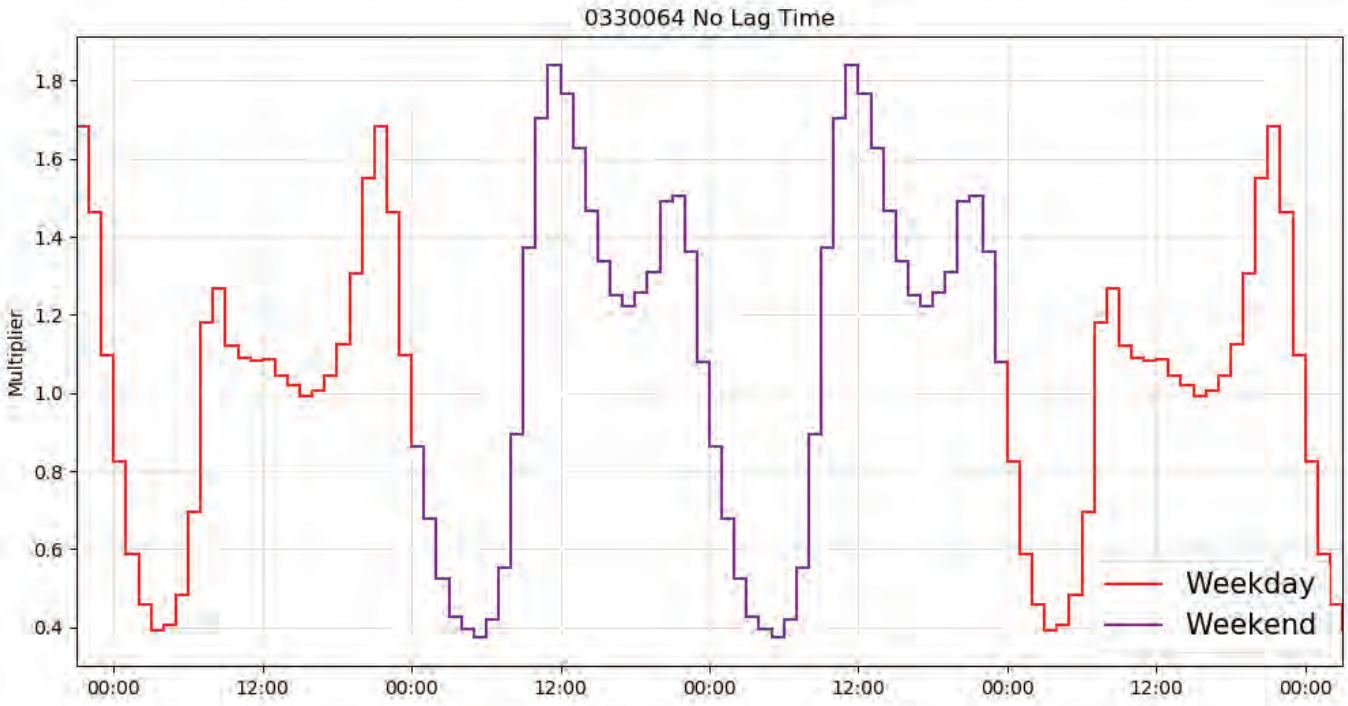


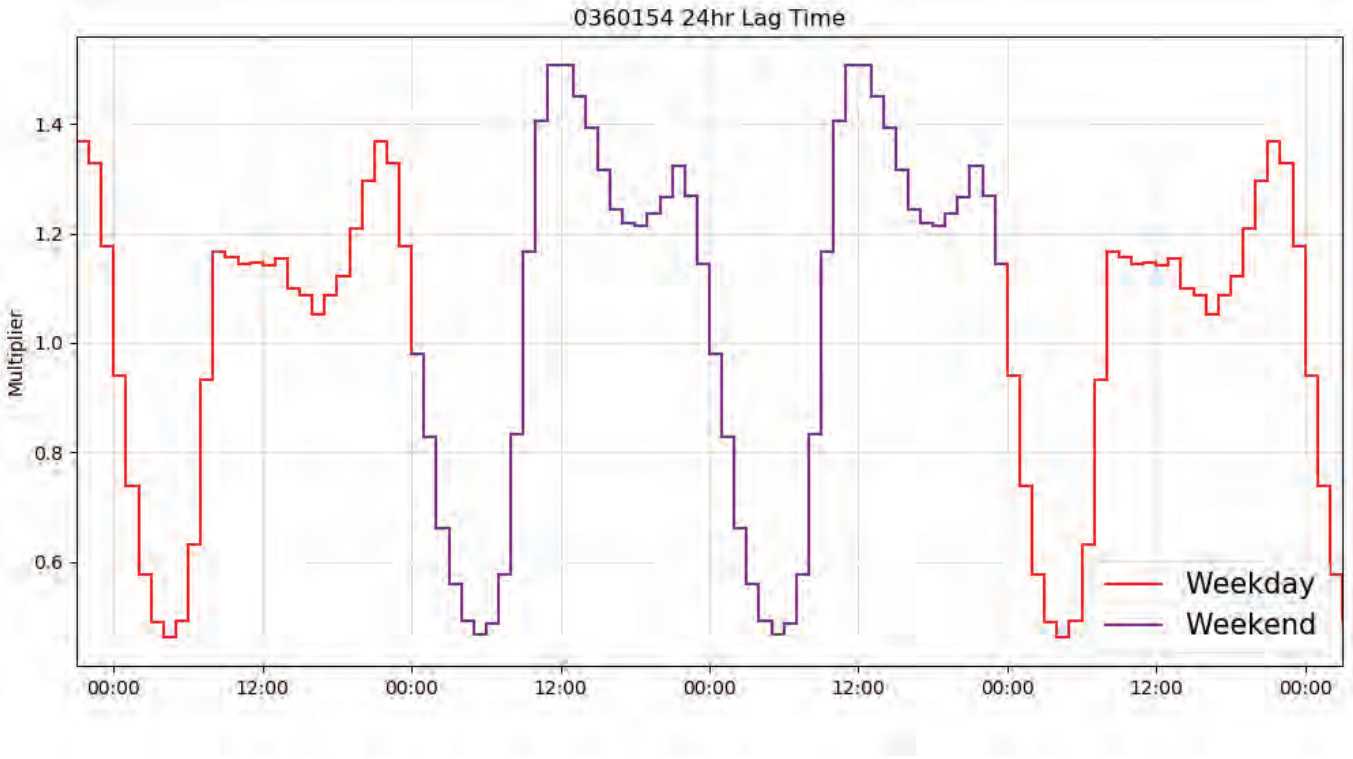
V&A
consulting engineers
1000 Broadway, Suite 320
Oakland, CA 94607
510.903.6600
510.903.6601, Fax

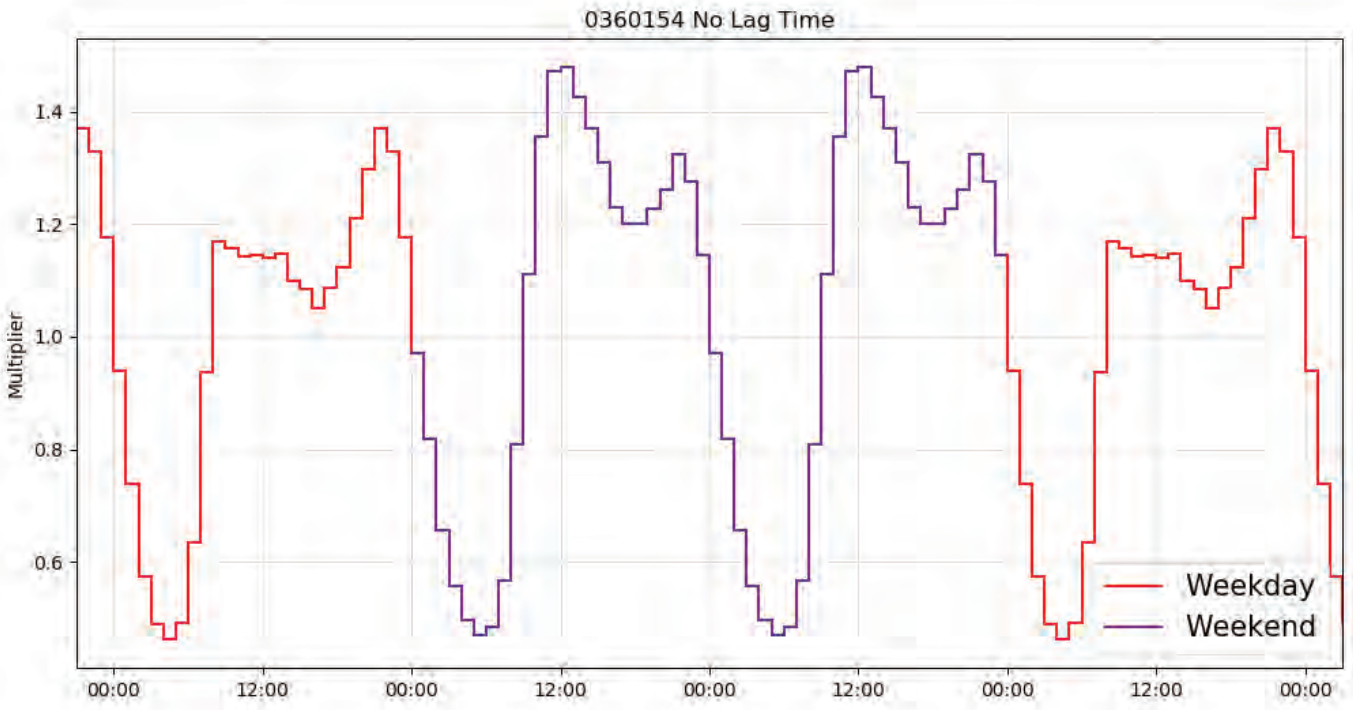
APPENDIX C

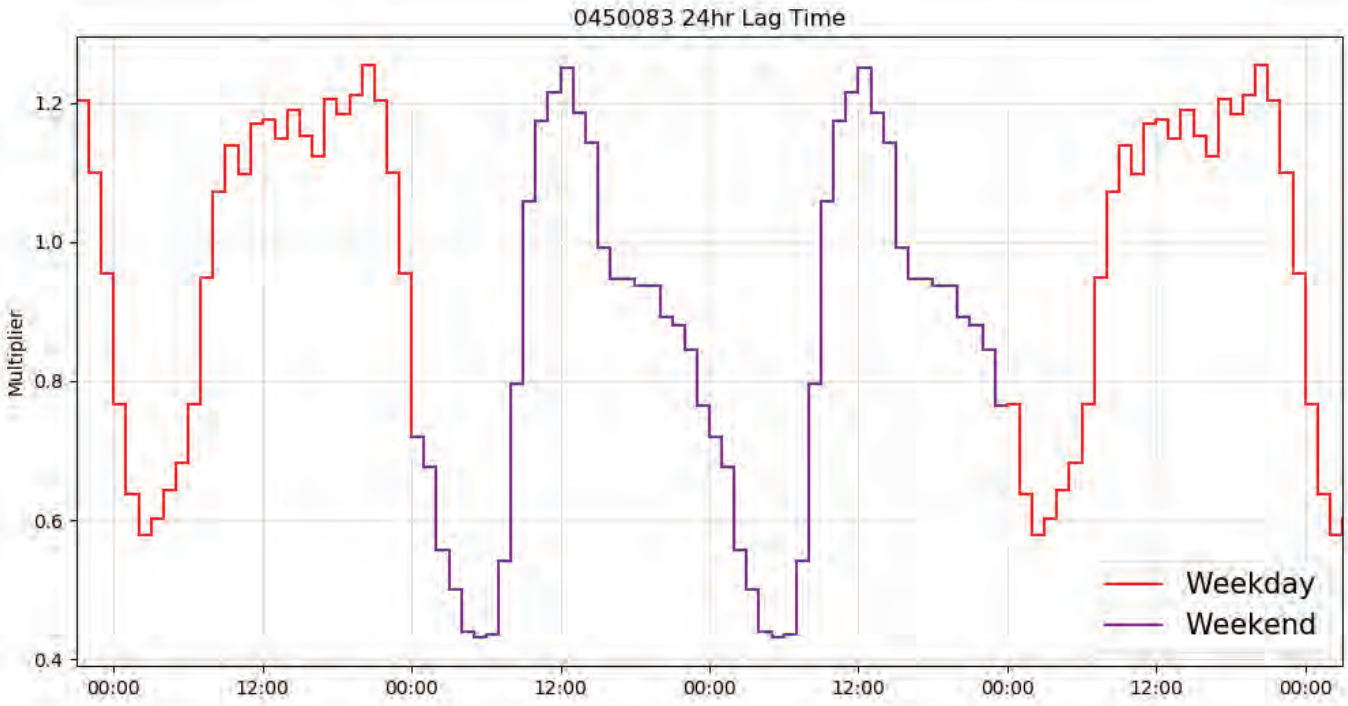
DIURNAL PLOTS OF FLOW METERS

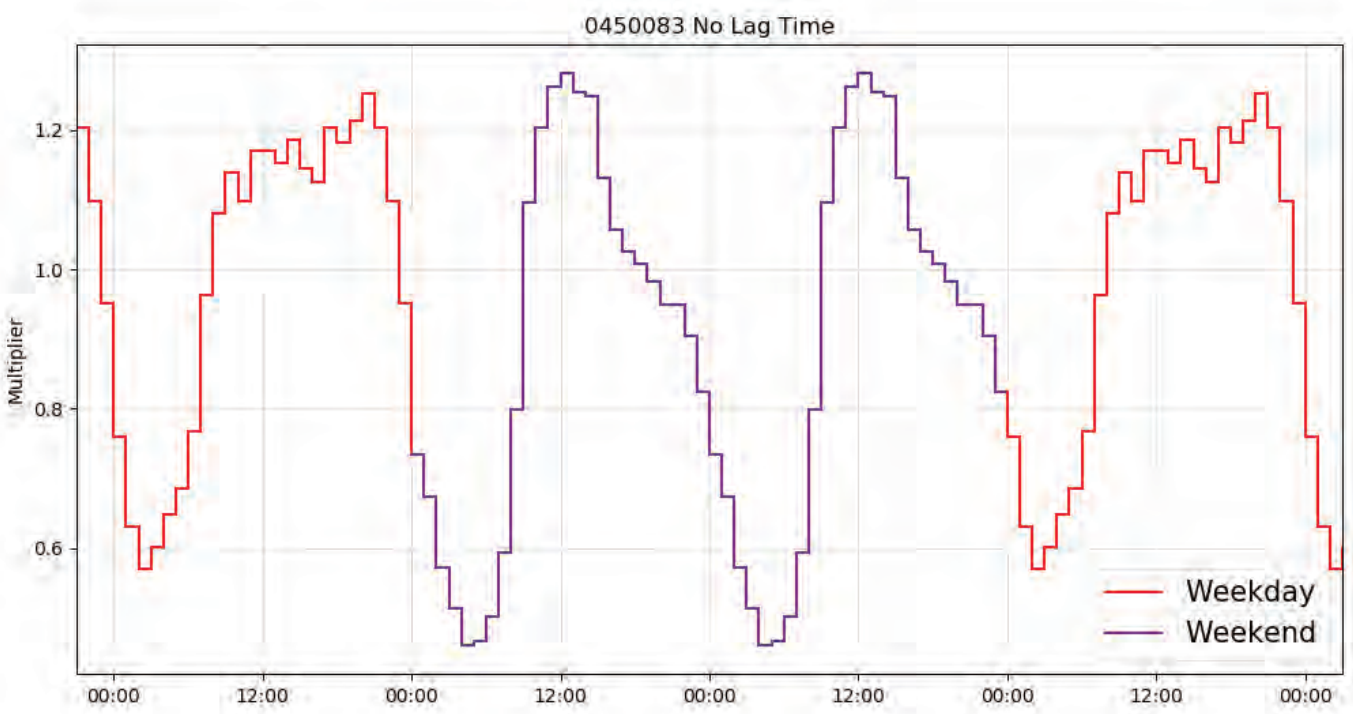

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Weekday
Weekend

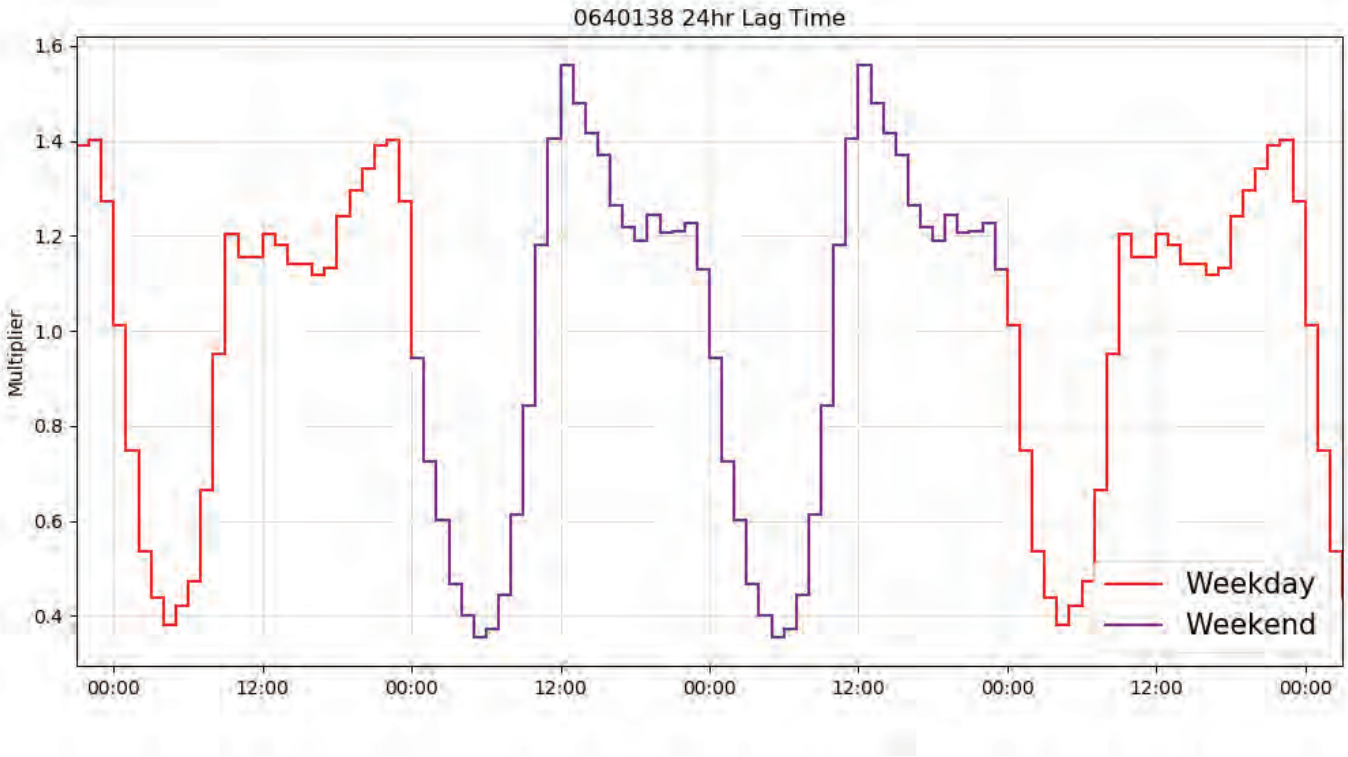

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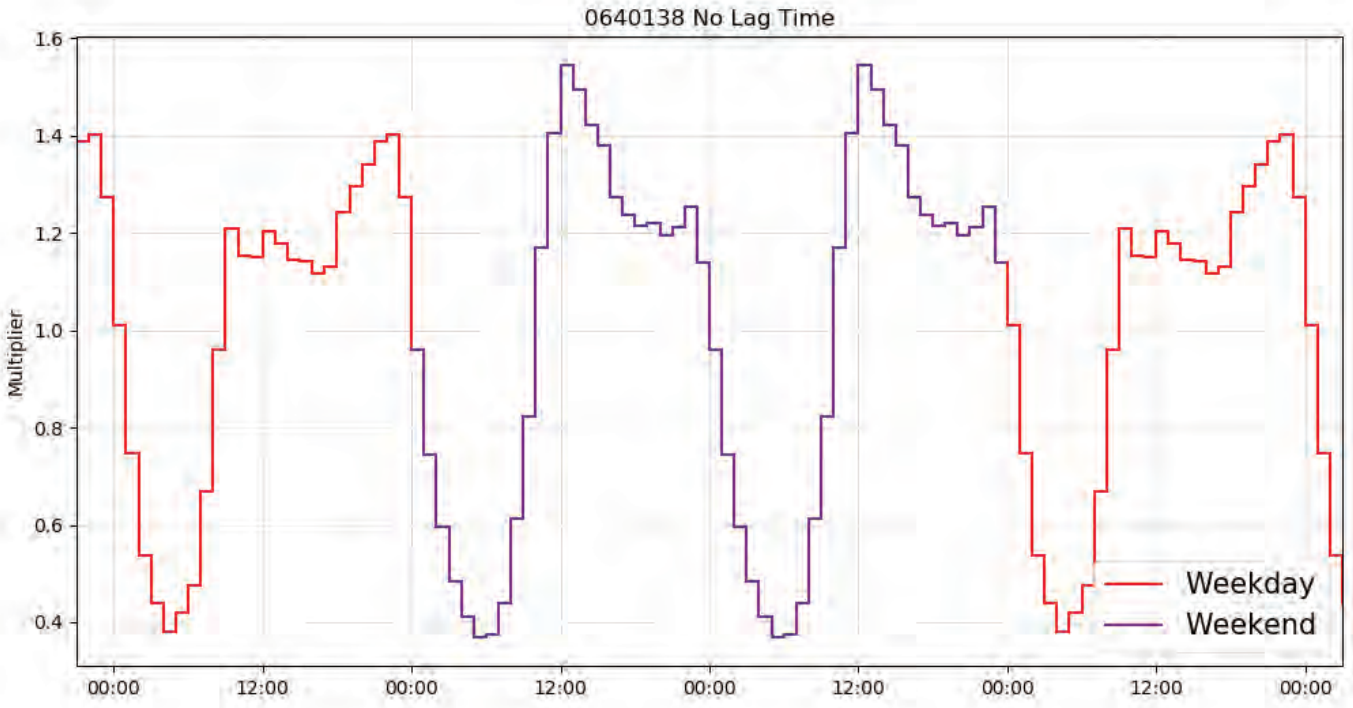

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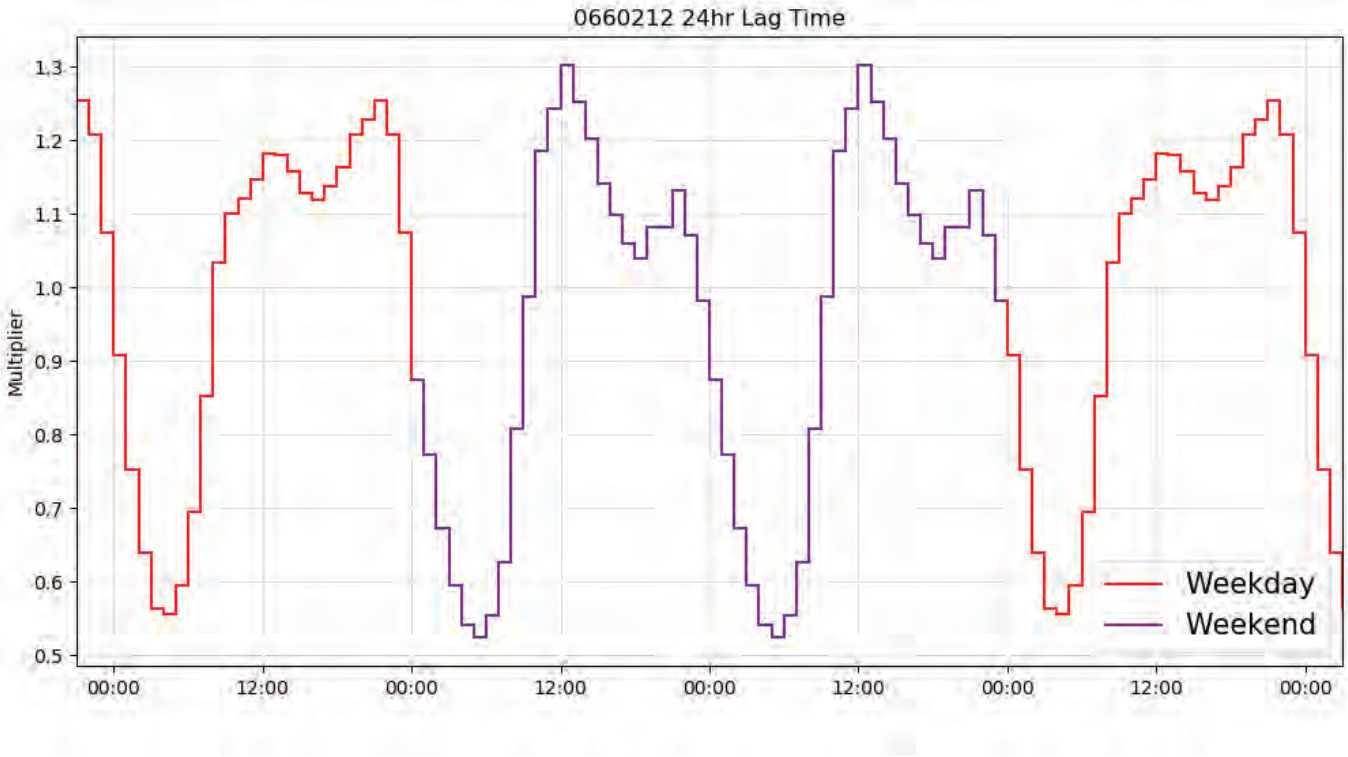

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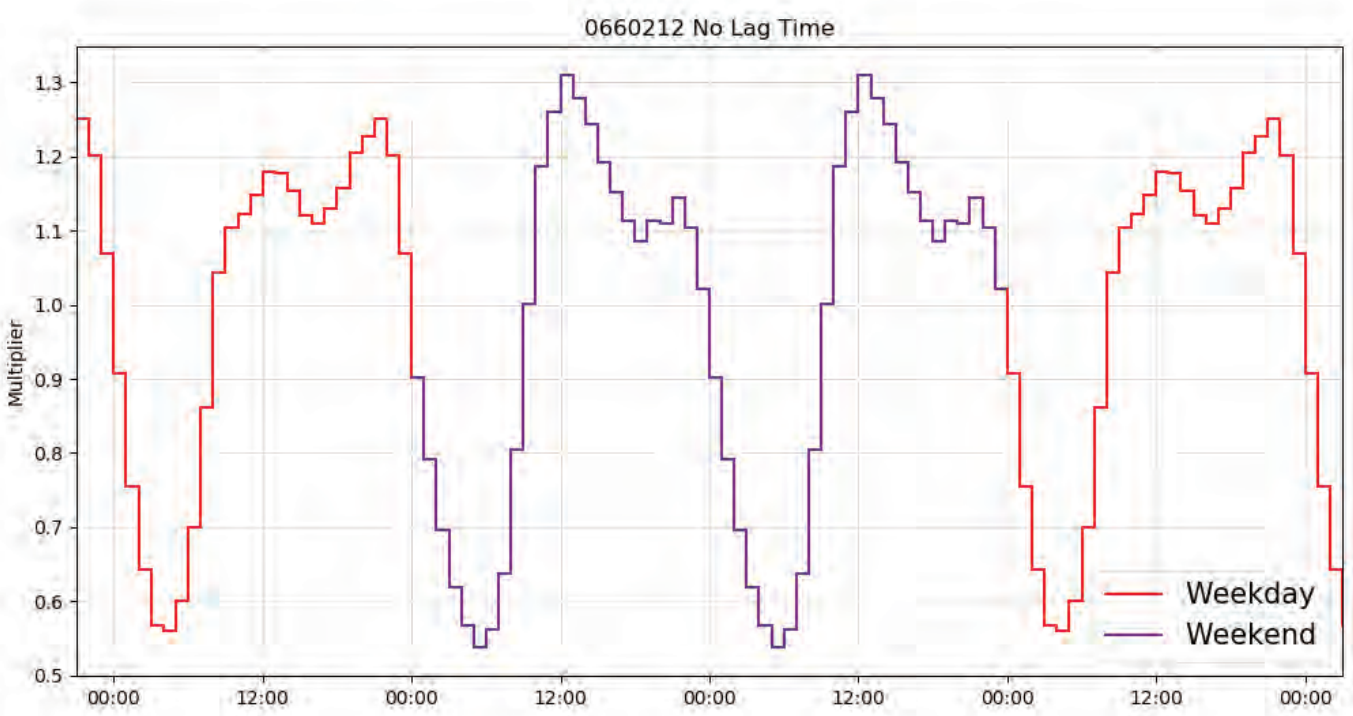

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Weekday
Weekend

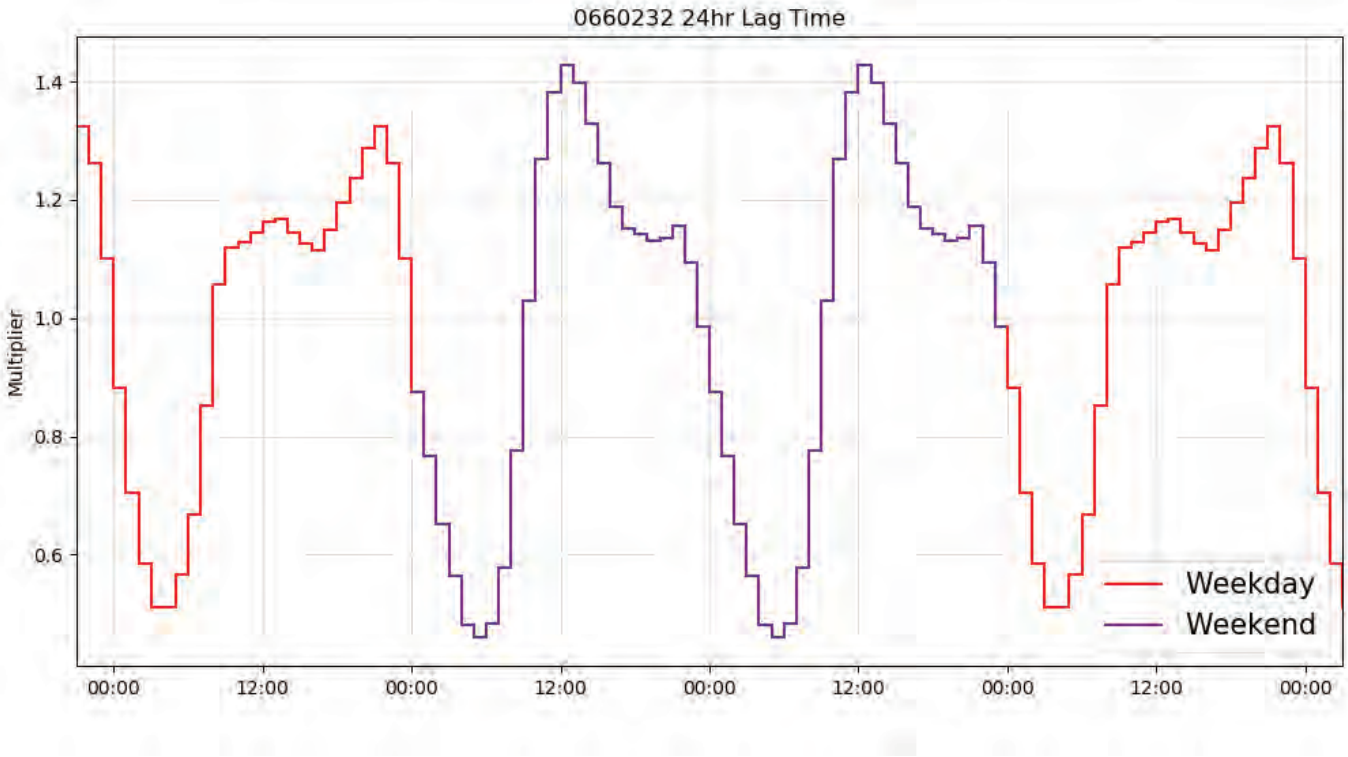

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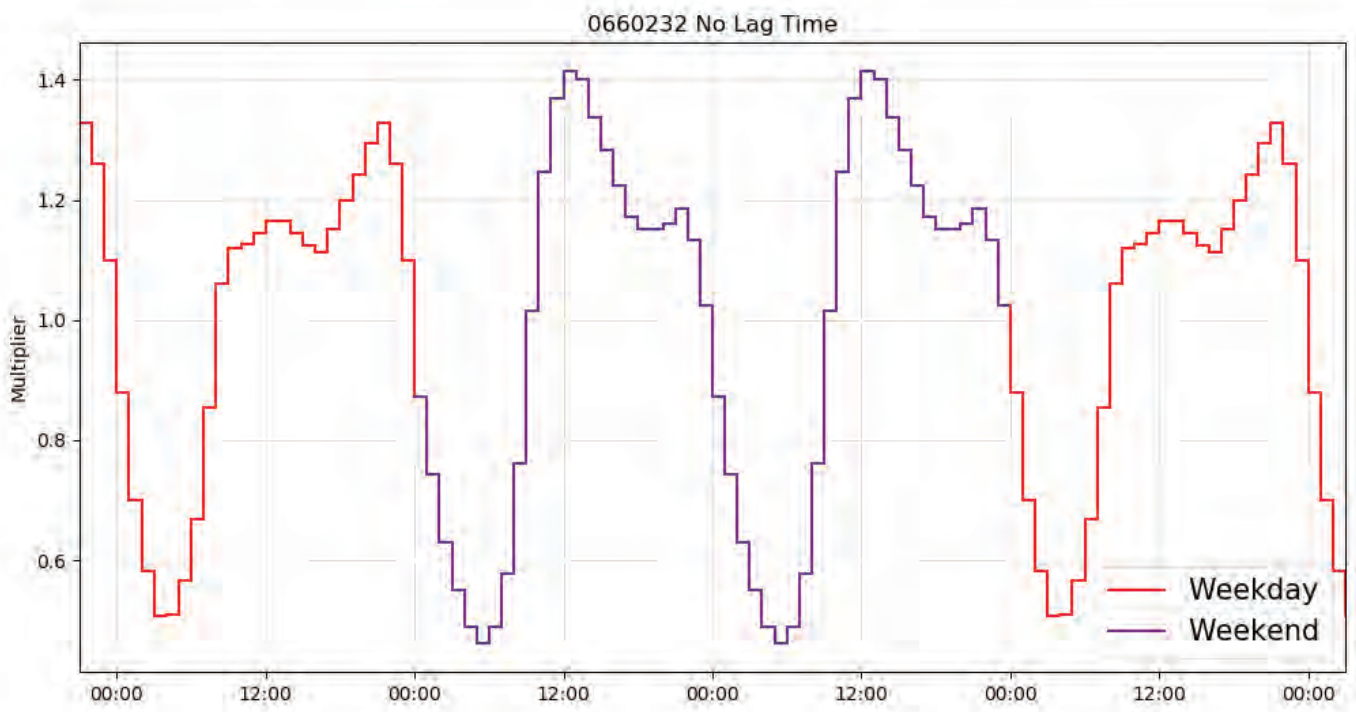

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Weekday
Weekend

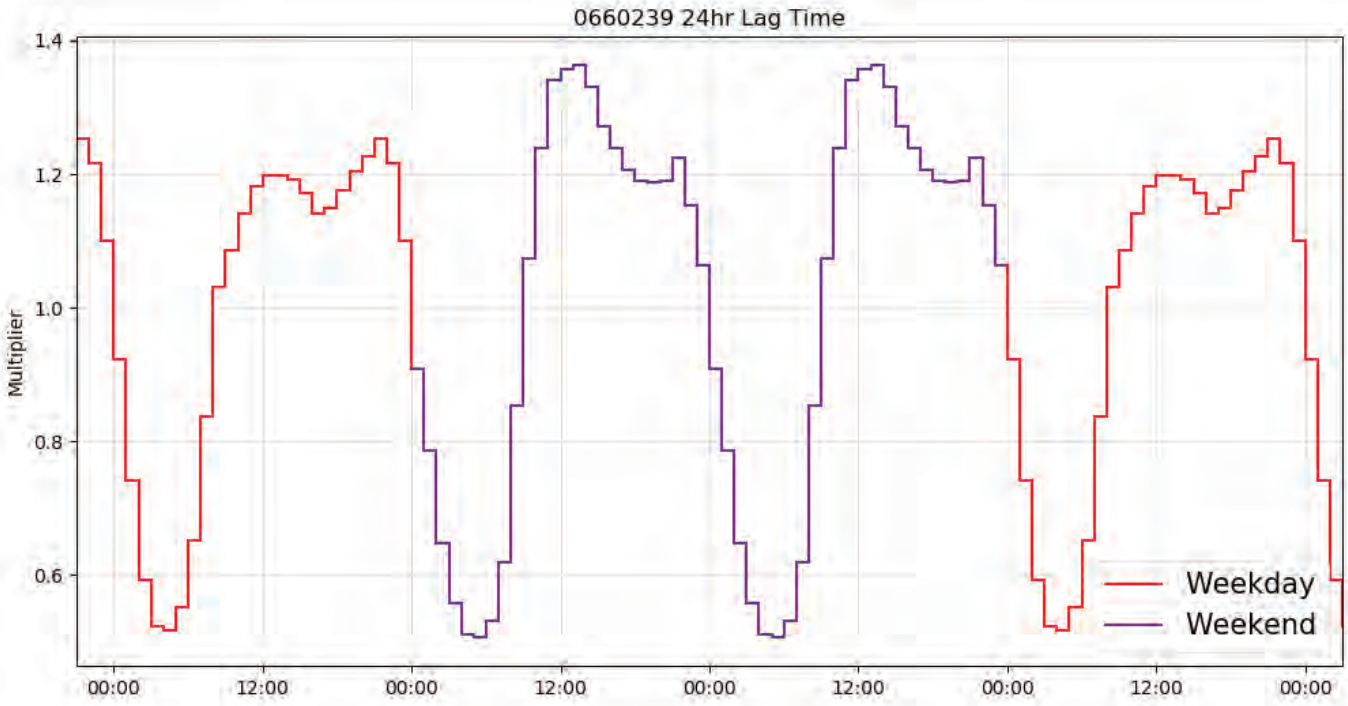

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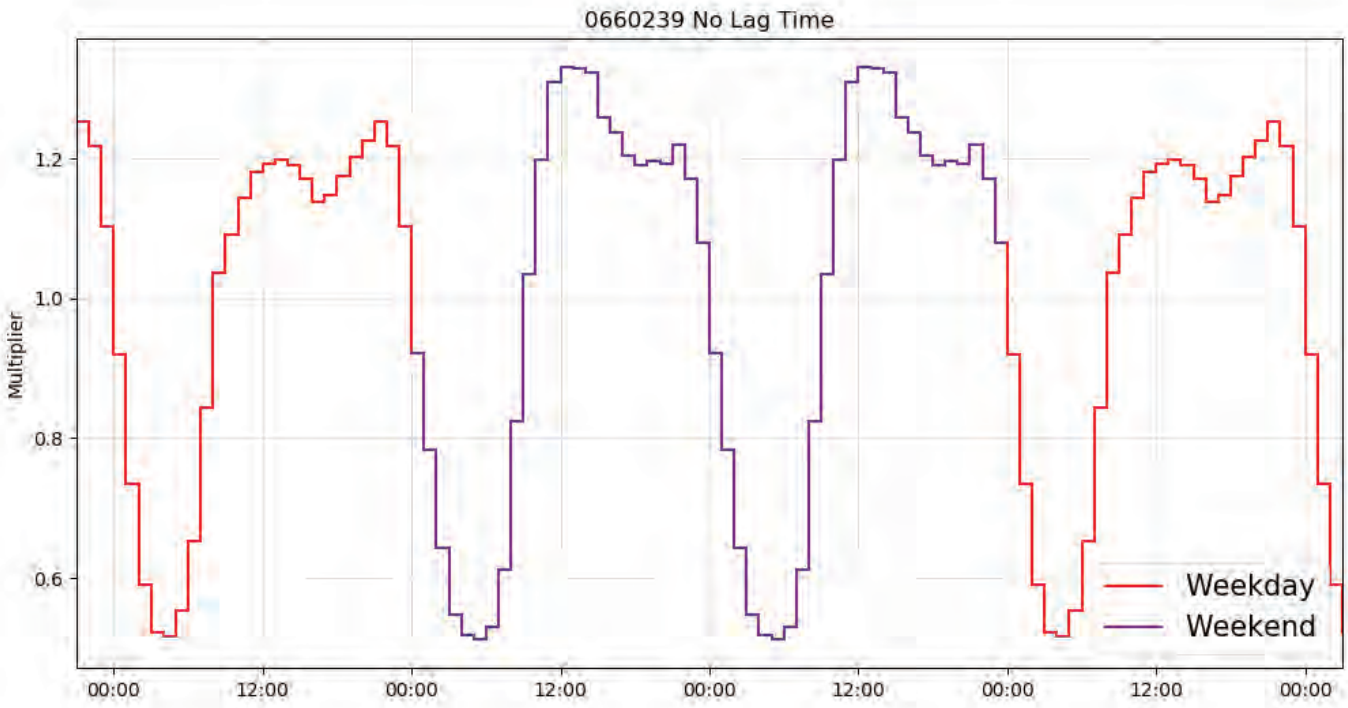

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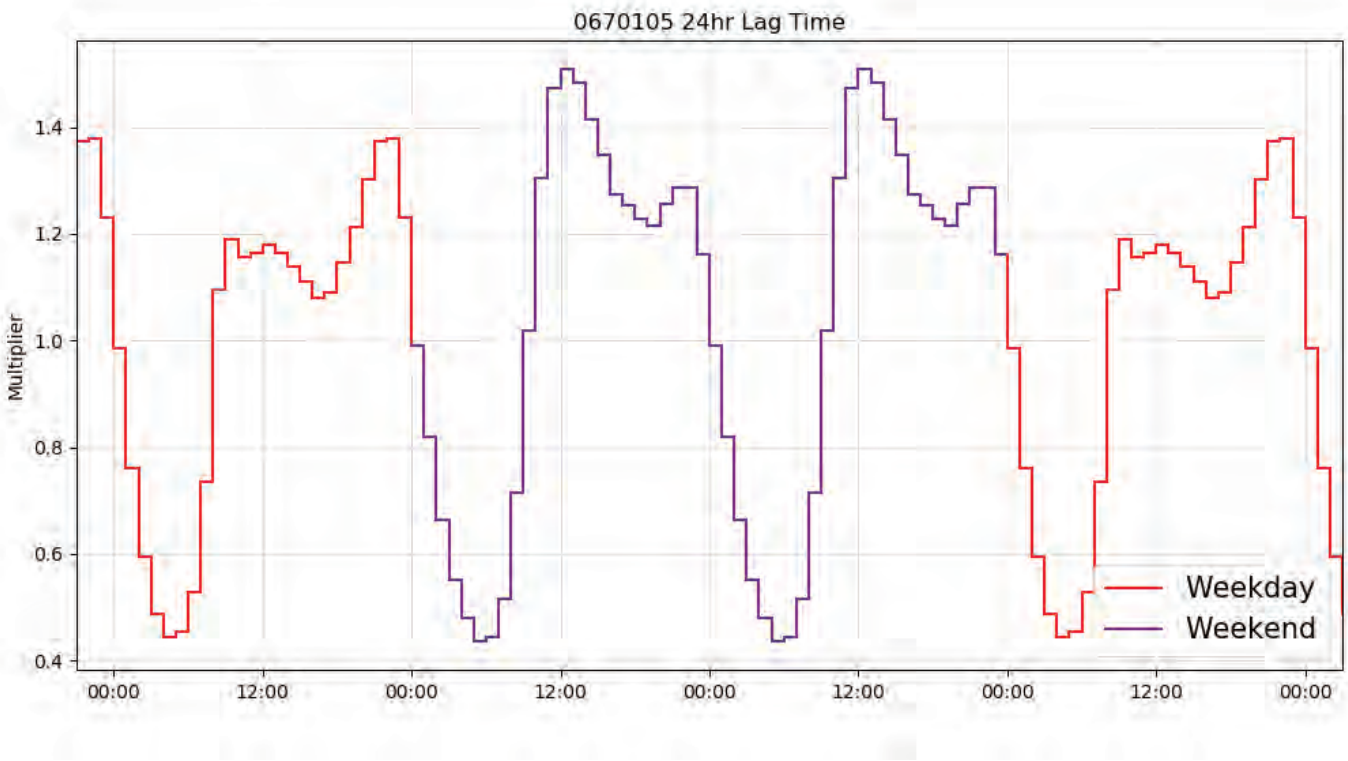

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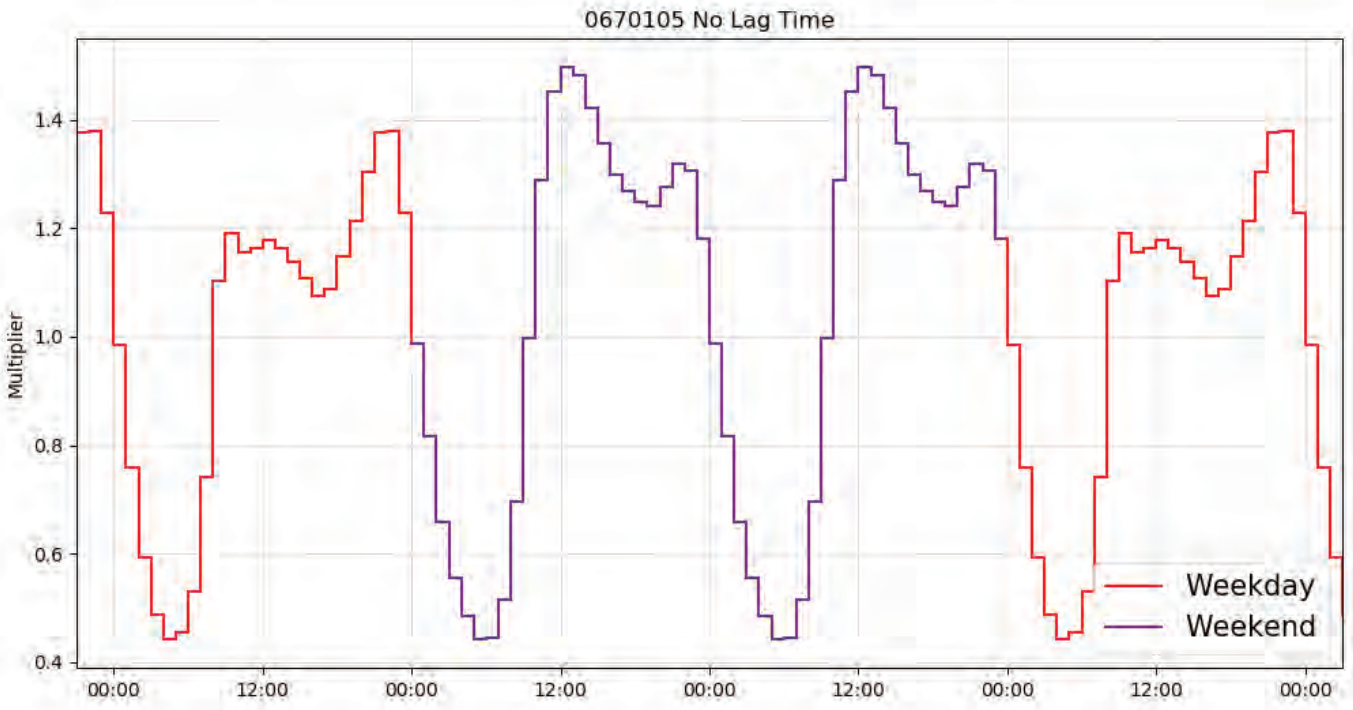

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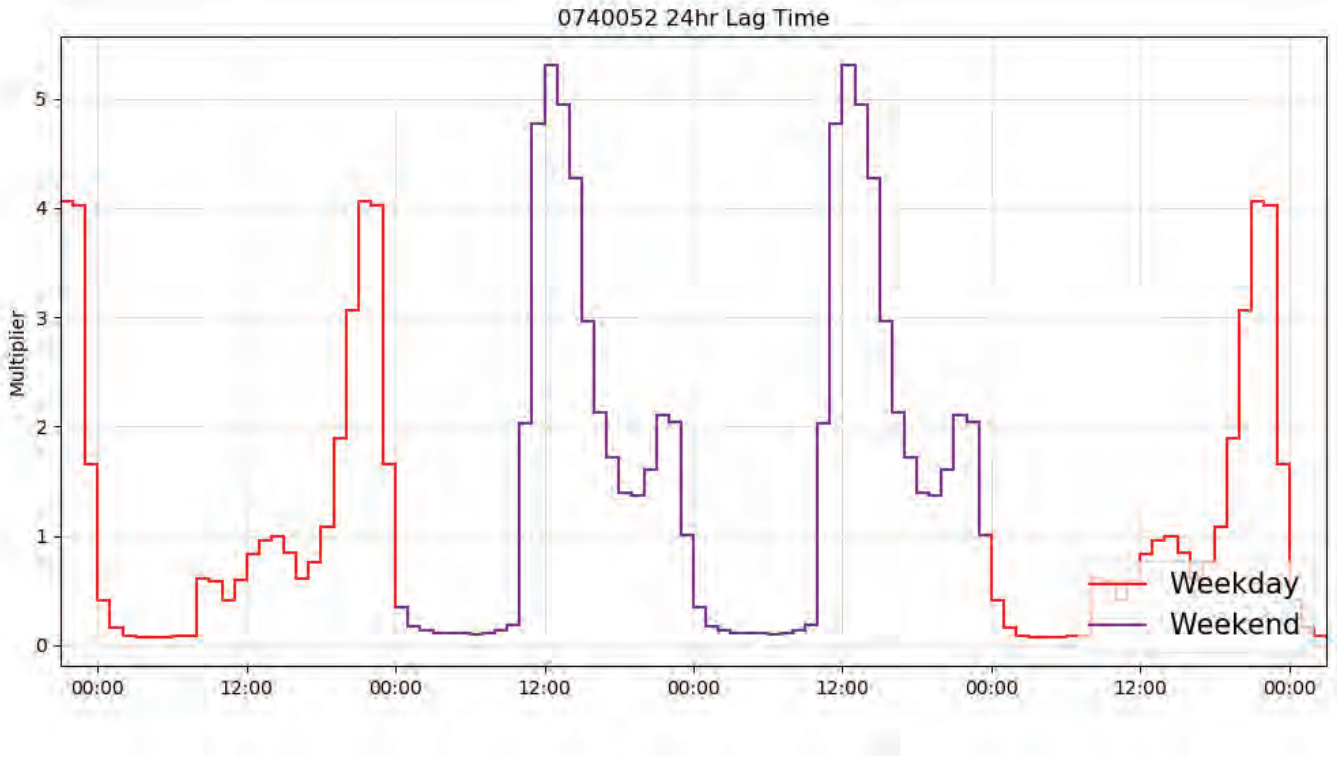

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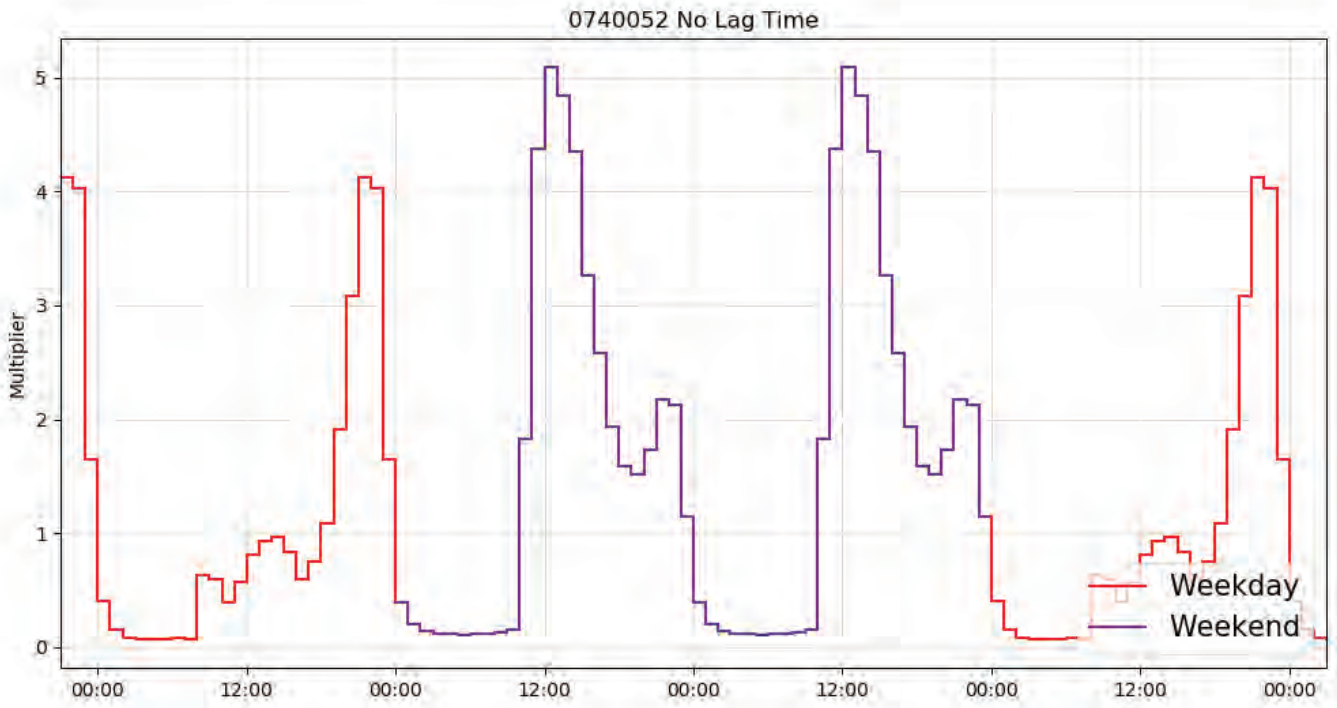

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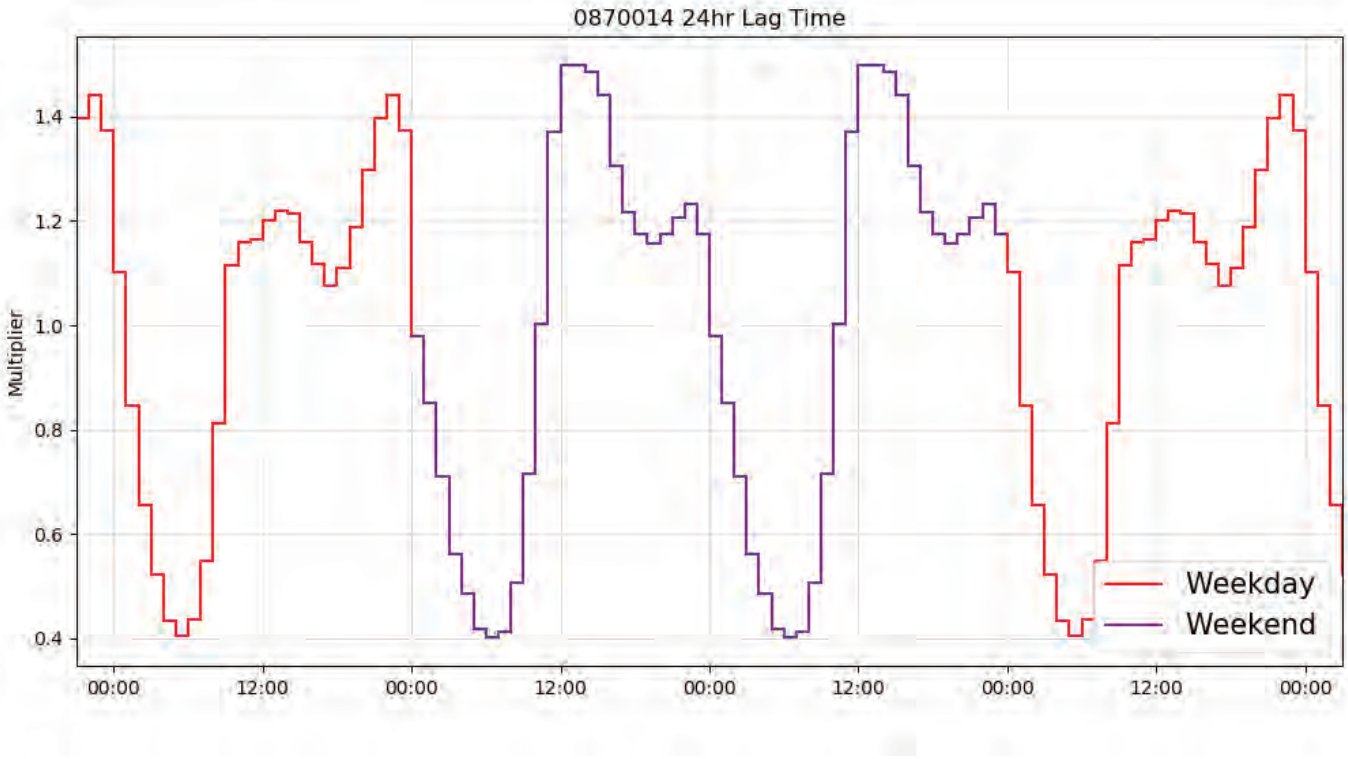

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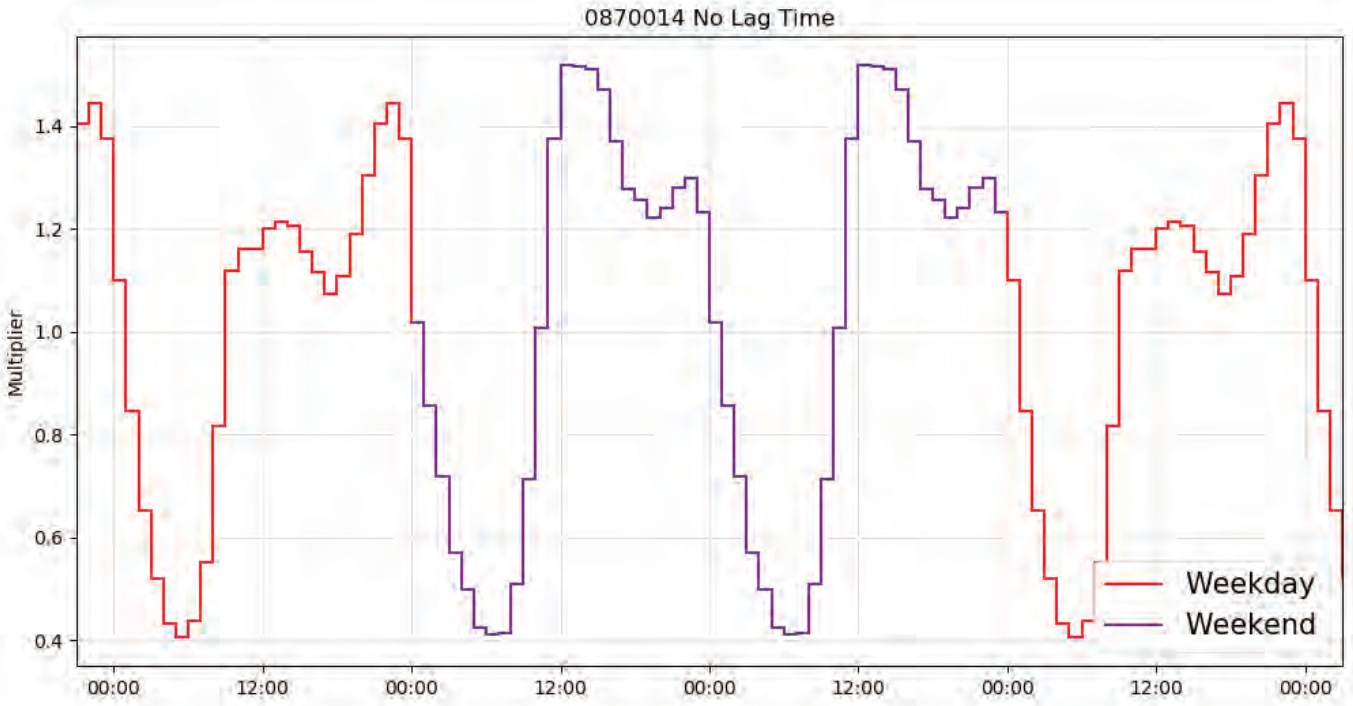

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Weekday
Weekend


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Weekday
Weekend


0740052 24hr Lag Time
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Weekday
Weekend


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Weekend


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Weekday
Weekend


0870014 No Lag Time
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APPENDIX D

LARGER MODEL BUILD ASSUMPTIONS

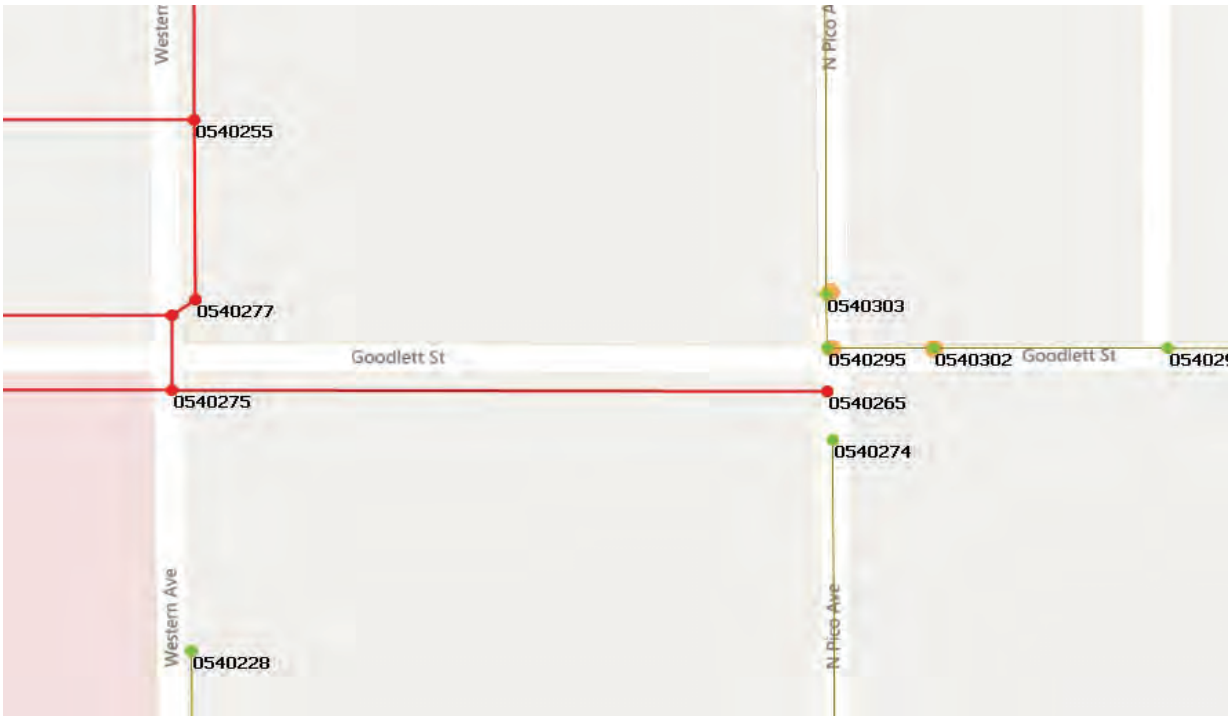
Subnetwork Connectivity

SBMWD Model 6/18/2019

Blue lines are imported pipes; Green nodes are imported maintenance holes; Orange circles are TKE survey points

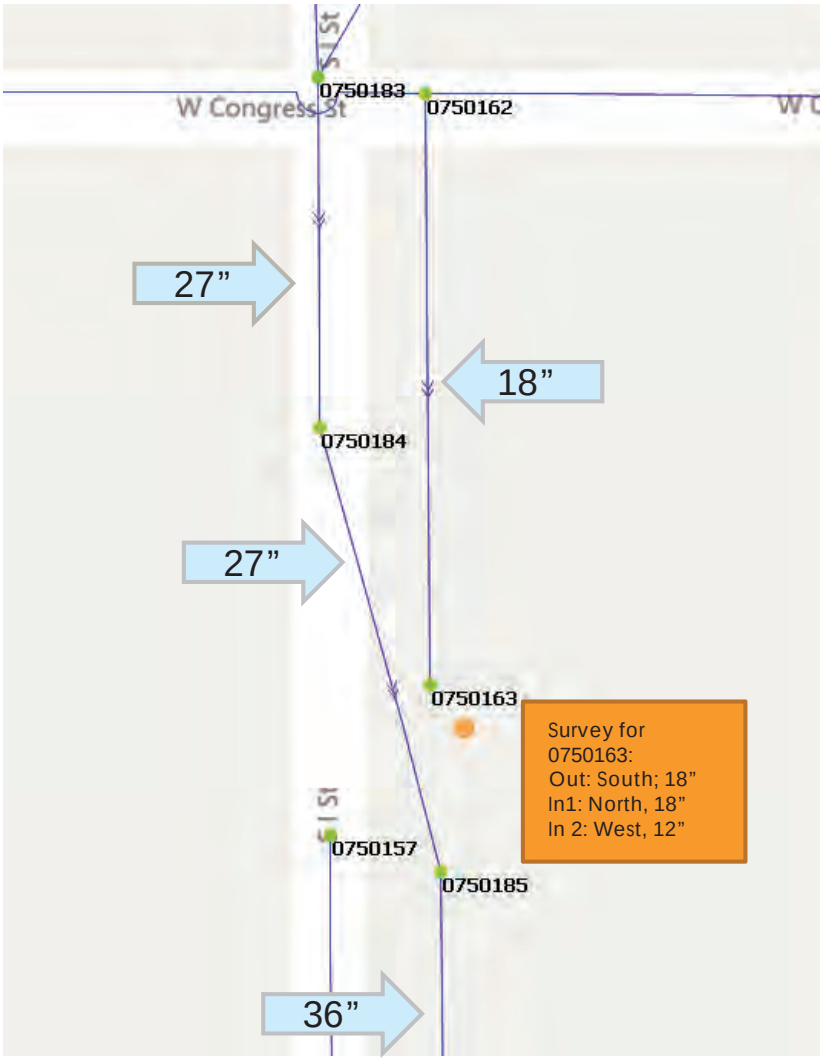
Intended for Informational Purposes Only, per meeting 6/17/19 discussion

1. Goodlett St at N Pico Ave – SMH 0540265. This example was shown in the 6/17/19 workshop as an example of subnetwork connectivity. Survey information does not show SMH 0540295 connected to a pipe to the south. **Assume SMH 0540265 runs south on N Pico Ave with a pipe connecting from SMH 0540265 to SMH 0540274.**



Intended for Informational Purposes Only, per meeting 6/17/19 discussion

2. W Congress St and S I St – It looks like the survey data does not appear to match with the GIS currently. SMH0750163 should have an incoming pipe to the west (18”) and connect south bound to an 18”. After comparing google street view images we suspect that SMH 0750184 may not exist. **Modeling assumption will be to connect SMH 0750163 to SMH** 0750185**.**



Intended for Informational Purposes Only, per meeting 6/17/19 discussion

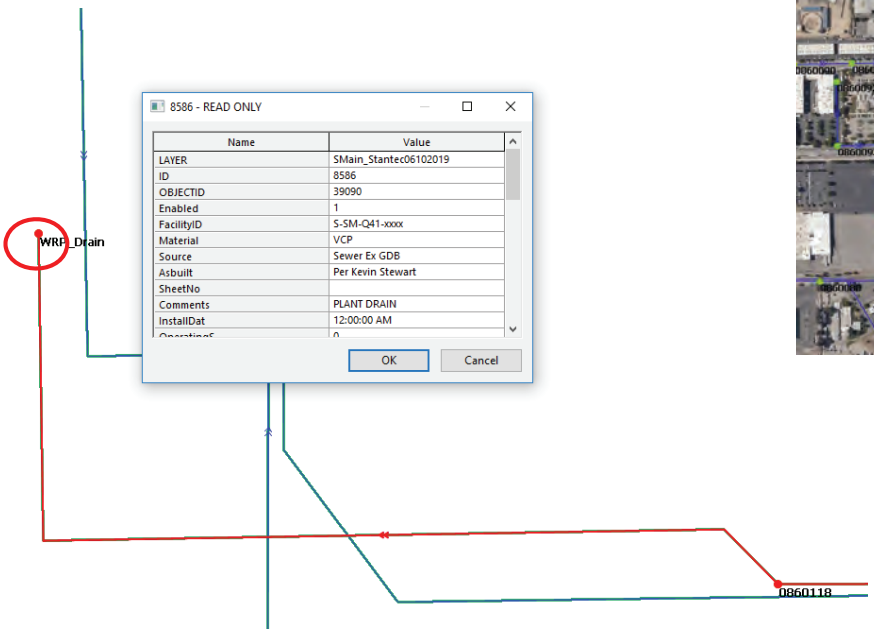
1. W Congress St and S I St – Associated Survey Photos





Intended for Informational Purposes Only, per meeting 6/17/19 discussion

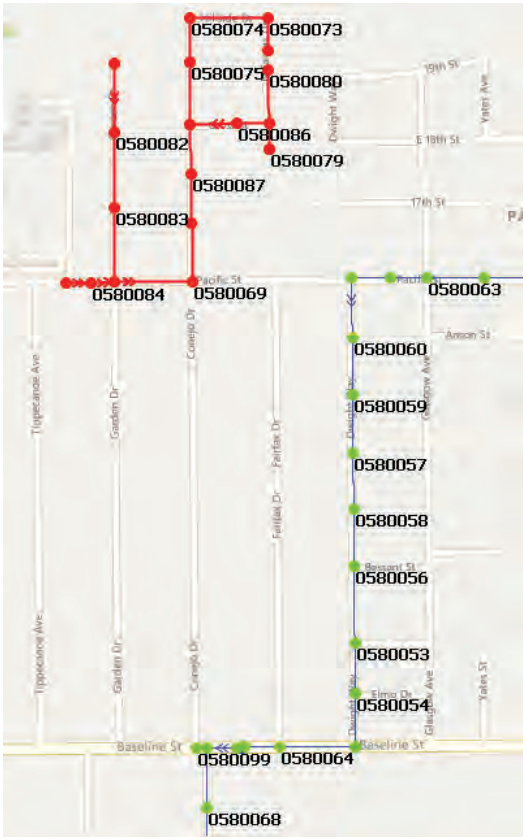
3. Plant Drain – GIS notes that this line is a Plant Drain line, but it looks to also be conveying flow from other maintenance holes. Can you provide more information about this line?

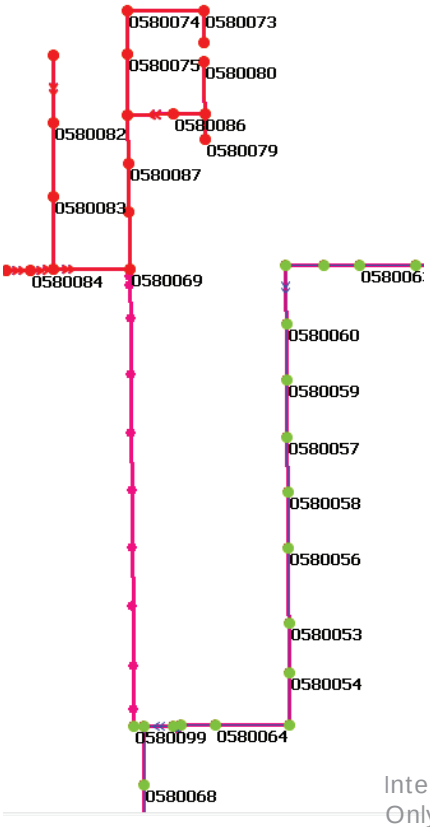




Intended for Informational Purposes Only, per meeting 6/17/19 discussion

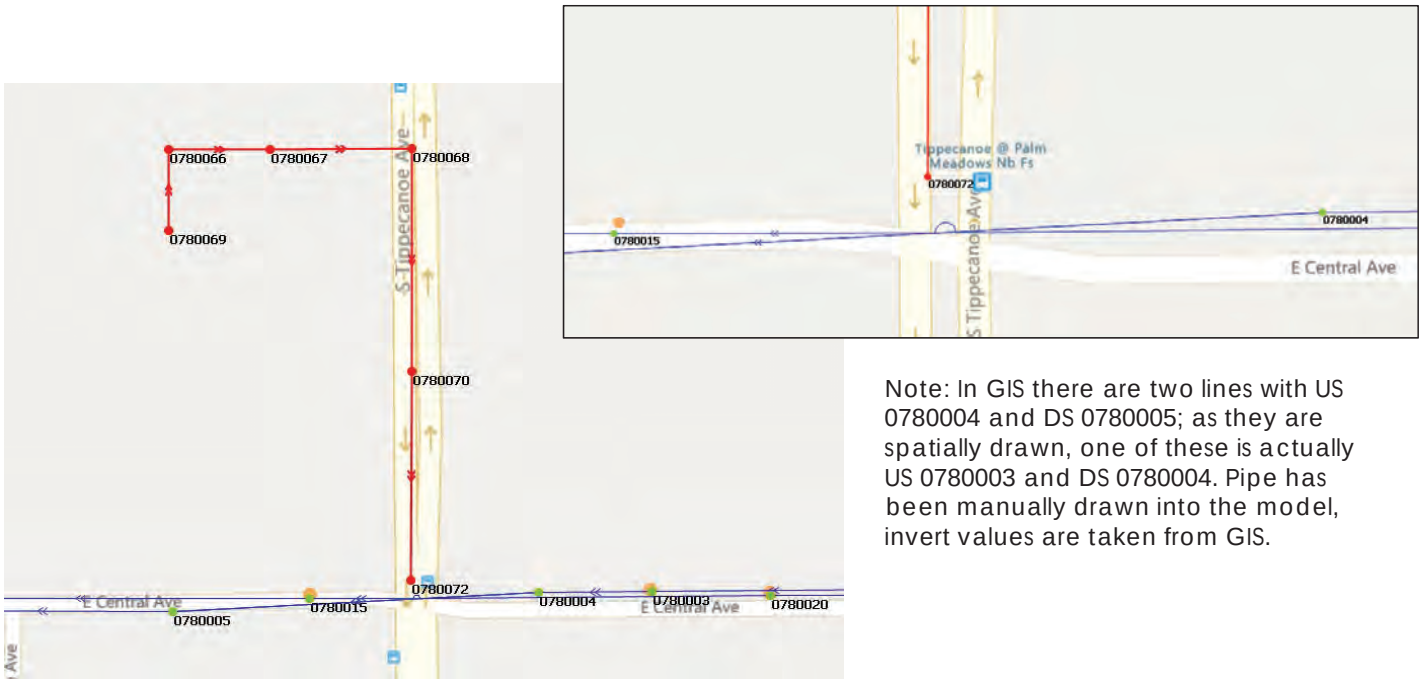
4. Pacific St and Conejo Dr – Subnetwork ends at 0580069. GIS shows pipes and a series of maintenance holes and pipes connecting 0580069 to 0580099 but all maintenance holes and pipes are owned by “Others” and do not have an SMH/Pipe ID.





Intended for Informational Purposes Only, per meeting 6/17/19 discussion

4. Central Ave and S Tippecanoe Ave – Survey of 0780015 only contains rim elevation, with note of "Effluent water". The "effluent water" line seems to trace directly to the flow split box at the WRP, is there a reason for the dedicated line? **Assuming 0780072 connects to line associated with SMH 0780004 (non-effluent water line)**



Note: In GIS there are two lines with US 0780004 and DS 0780005; as they are spatially drawn, one of these is actually US 0780003 and DS 0780004. Pipe has been manually drawn into the model, invert values are taken from GIS.

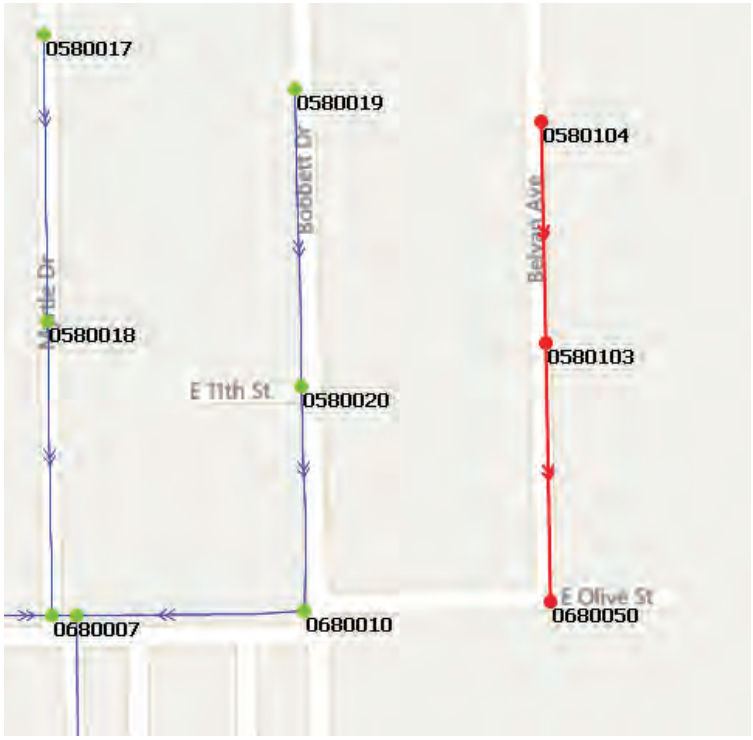
Intended for Informational Purposes Only, per meeting 6/17/19 discussion

4. Glenview St and W 16 th St – Survey of 0540200 shows that there should be a line going east from the maintenance hole though there does not appear to be one in GIS. **Assume there is a line from SMH 0540200 to 0540202 to connect this subnetwork to the rest of the system.**



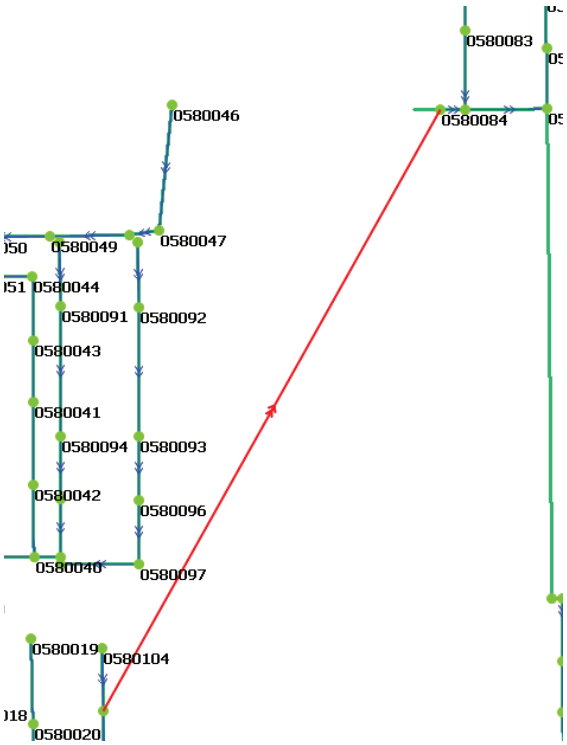
Intended for Informational Purposes Only, per meeting 6/17/19 discussion

4. E Olive St and Belvan Ave – Floating segment of pipes and maintenance holes. **Assume that 0680050 connects to 0680010.**



Intended for Informational Purposes Only, per meeting 6/17/19 discussion

Duplicate Clean Outs and SMH Causing Issues



Intended for Informational Purposes Only, per meeting 6/17/19 discussion

Larger Assumptions

SBMWD Model Build Task

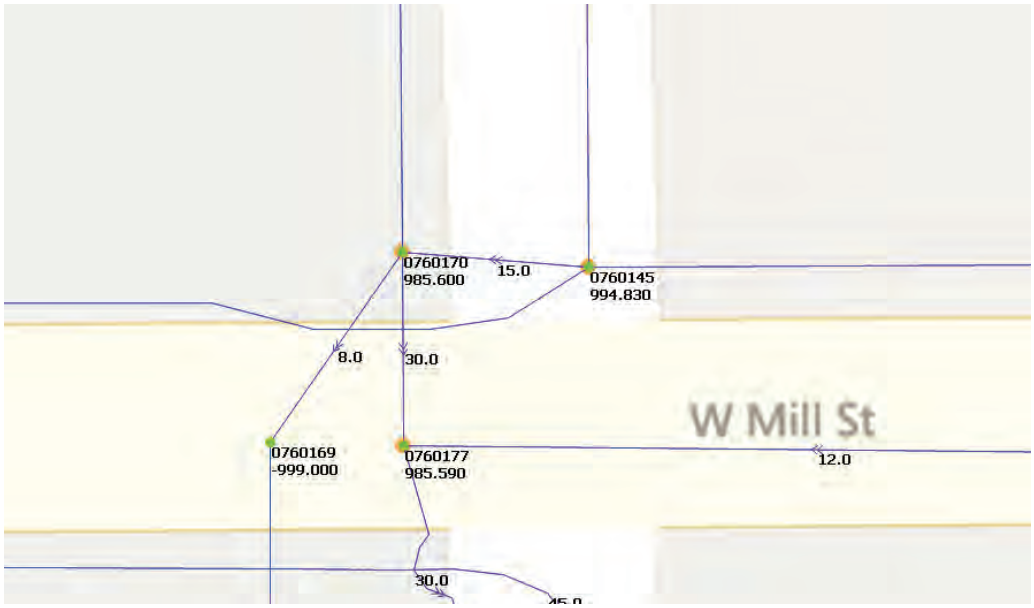
7/24/2019

1. Confirm Conduit Location



No information about extension of 21” pipe crossing the channel. Map book only shows SMH 0880098 and downstream. Assuming extension went in with bridge?

2. Arrowhead Ave at W Mill St



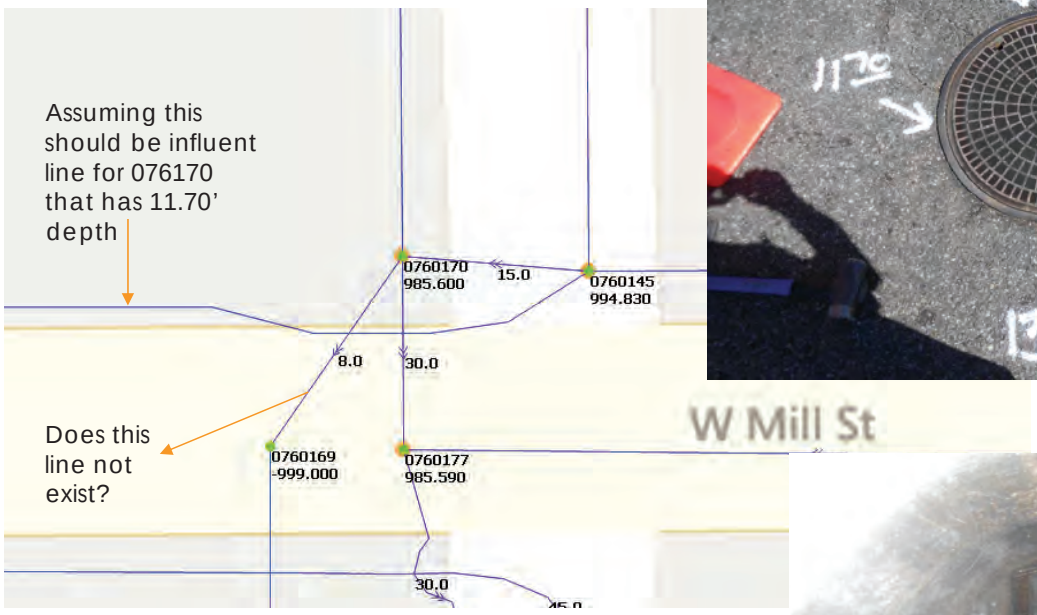
- Multiple questions:

1) SMH 0760170 survey does not show 8" outflow line continuing southwest
2) Photos for SMH 0760170 show a shallow ~5 depth pipe – potential overflow line?
3) SMH 0760170 is missing an influent line in GIS?
4) SMH 0760145 does not have line from south as currently shown

Assume line that connects to SMH 076145 from south is the missing influent line for 0760170

2a. SMH 076170



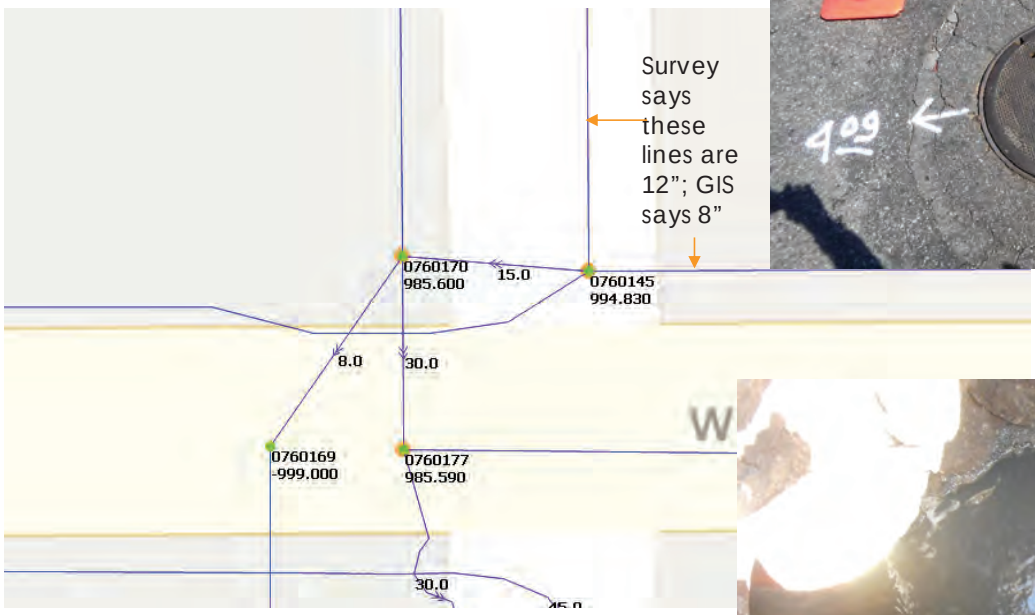




1) SMH 0760170 survey does not show 8" outflow line continuing southwest – assume this line doesn't connect to 0760169
2) Photos for SMH 0760170 show a drop manhole not indicated on GIS
3) SMH 0760170 is missing an influent line in GIS

2b. SMH 076145

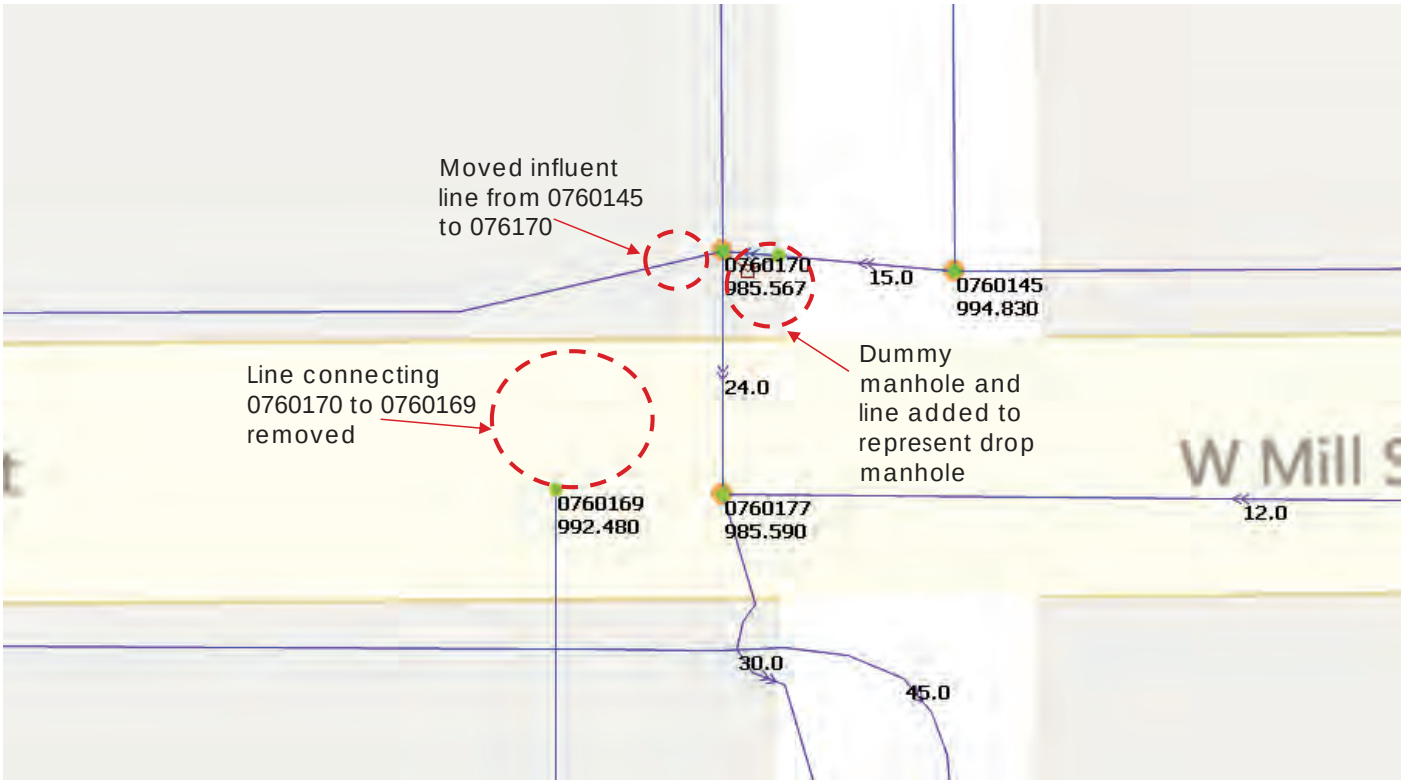






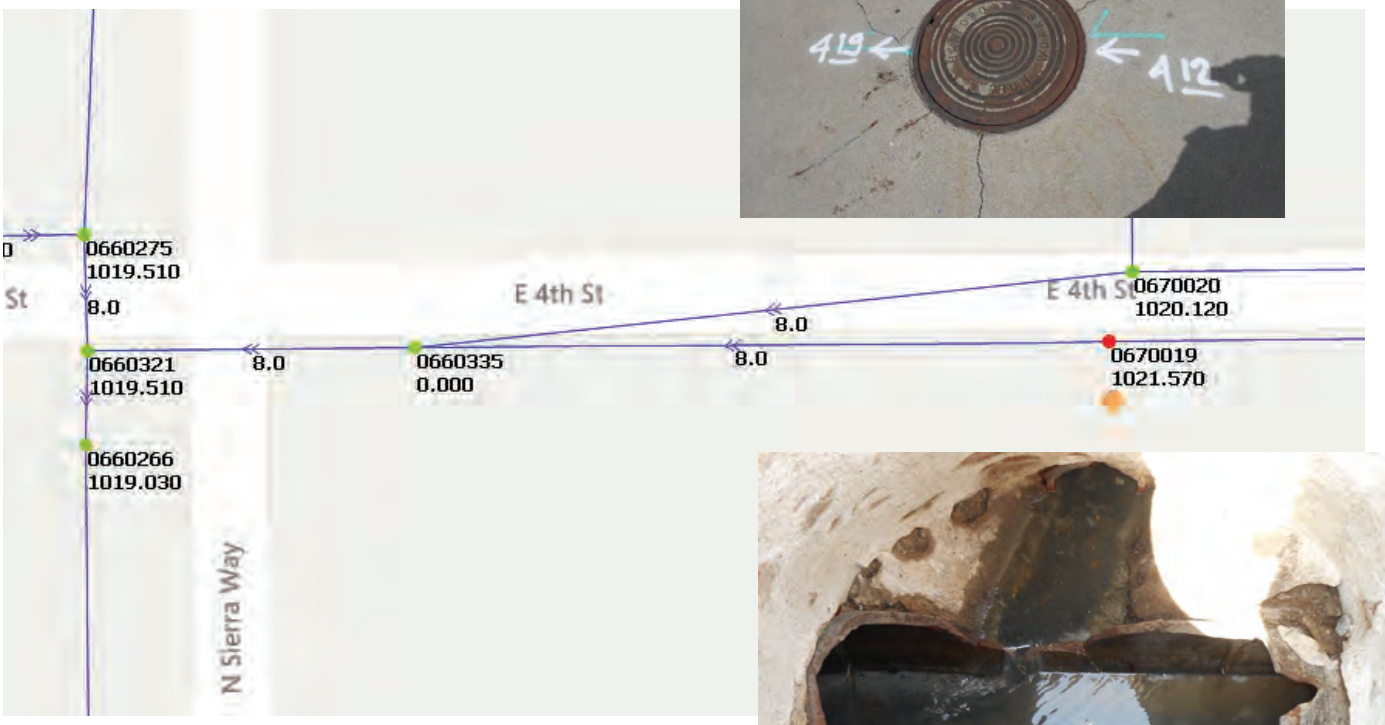
1) SMH 0760145 does not have line from south as currently shown
2) Suspect that southern line is actually connected to 076170 as the "missing" influent line?

2c. Assumptions Made in Model



3. SMH 0670019

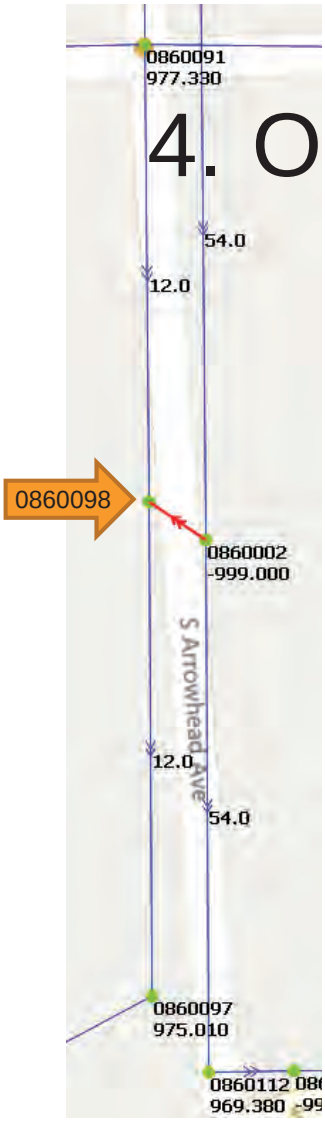






1) Missing influent line from the north for SMH 0670019?
2) Does pipe from 0670020 connect to 0670019 instead of 0660335? **(Assuming it does)**

4. Overflow from 12” to 54”

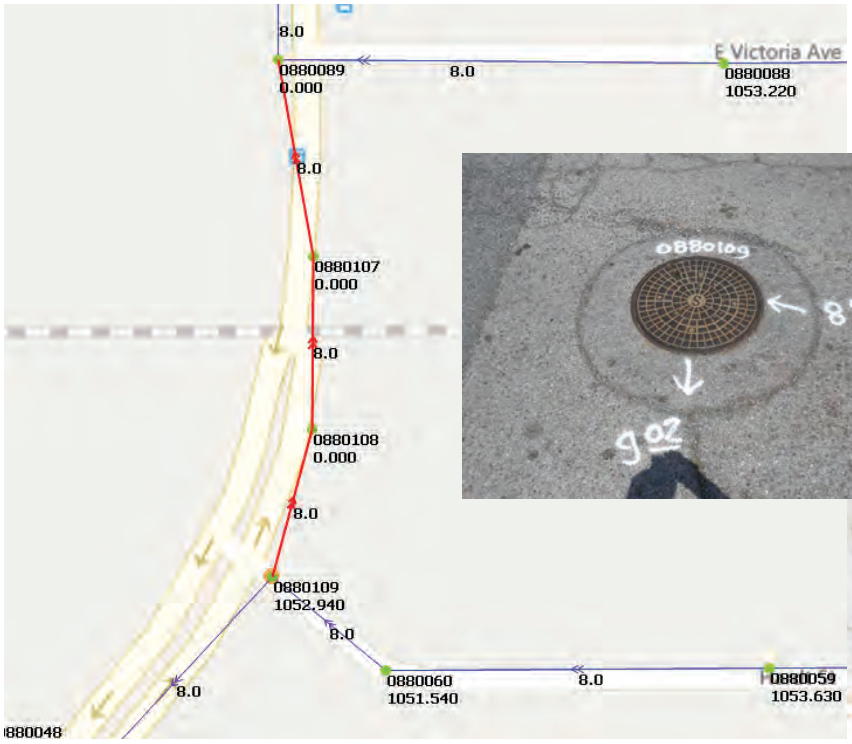


Based on GIS:

- Overflow pipe runs from 54” to 12” → *Based on invert elevations from 0860097 and 0860112 it seems like the overflow is from 12” to 54”*
- GIS inverts at SMH 0860098 imply that flow split is 50/50 → *Likely not a 50/50 split if it’s an intended overflow?*



5. Abandoned Line?

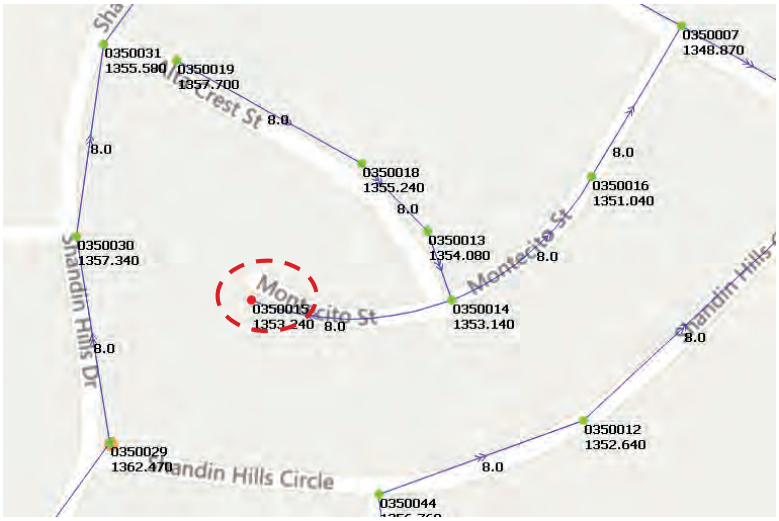


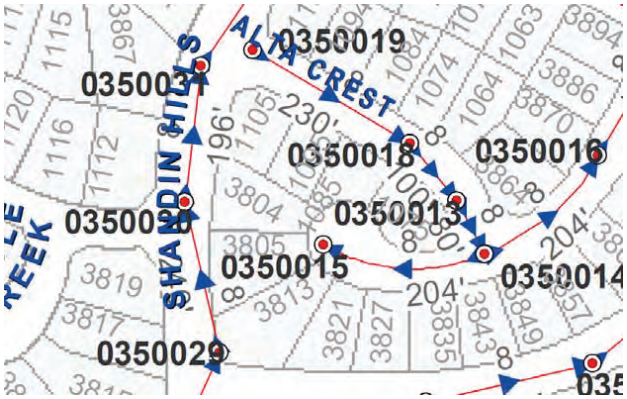


- Segment between SMH 0880109 and 0880089 is not shown in sewer map book Also not recorded in survey of 0880109, which shows 1 inflow and 1 outflow. **Assumed line in question does not exist**



6. Dead end line

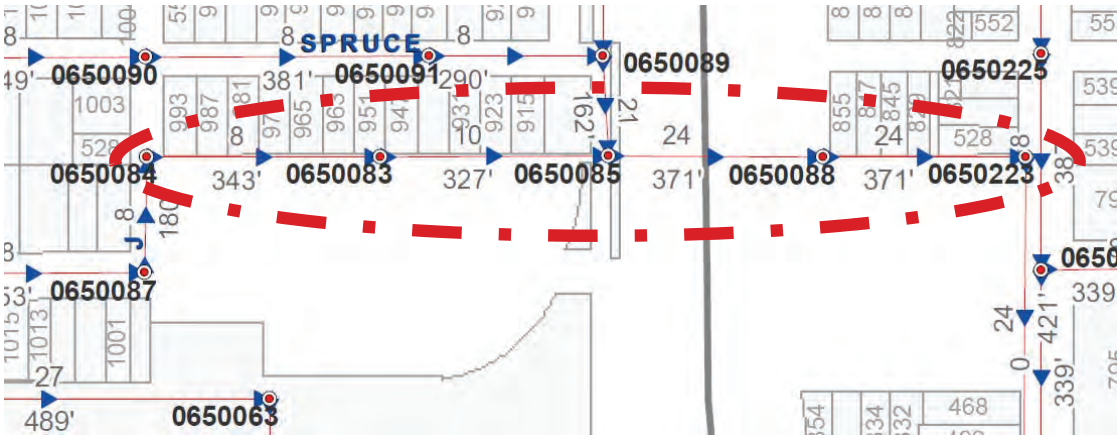




Line comes to a dead end at 0350015 according to GIS and sewer map book. **Assume flow goes from 0350015 to 0350014.**

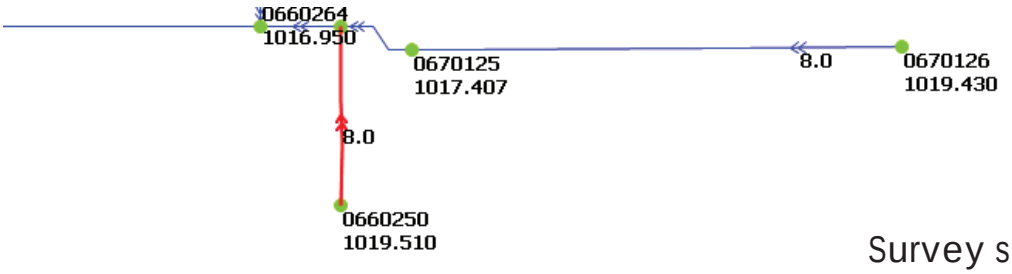
7. Missing Line?





Map book shows a line that is missing in the GIS? Map book does not also show double lines on Spruce St, so it map book could be outdated. **Assumed 0650085 connects to 0650223.**

8. Missing Line?



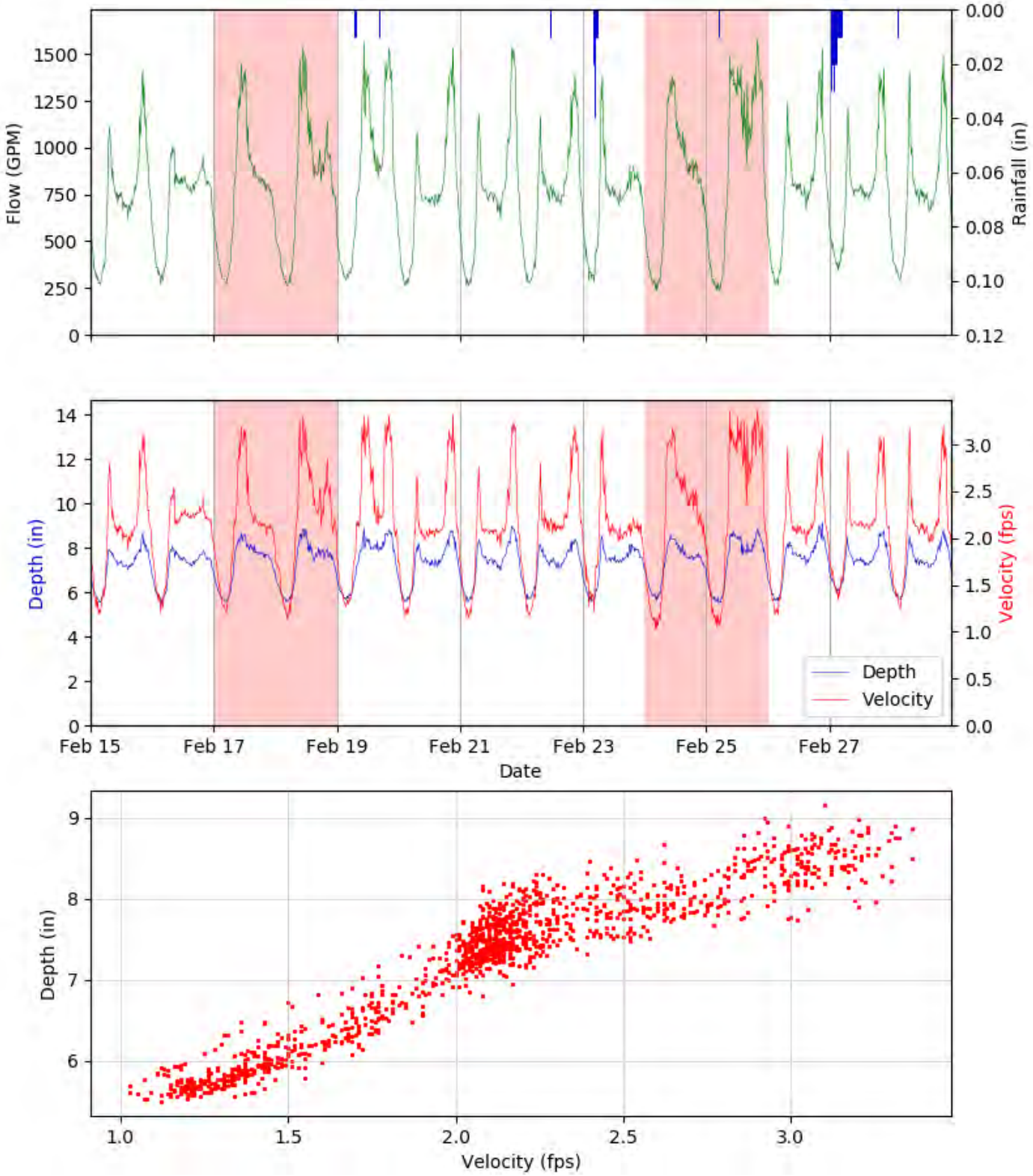


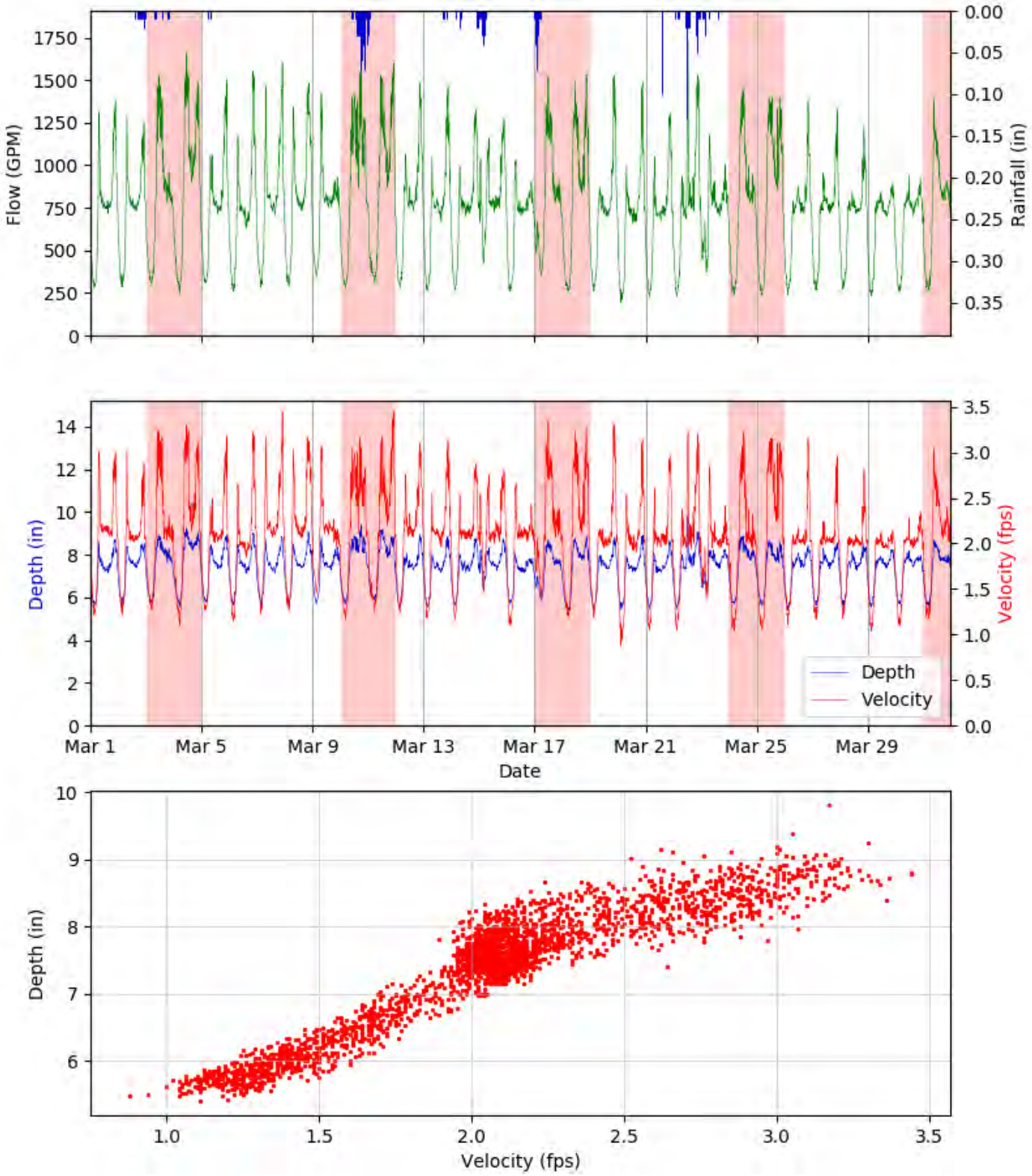
Survey shows two additional influent lines to this maintenance hole that do not appear in GIS. Note that maintenance hole is very shallow.

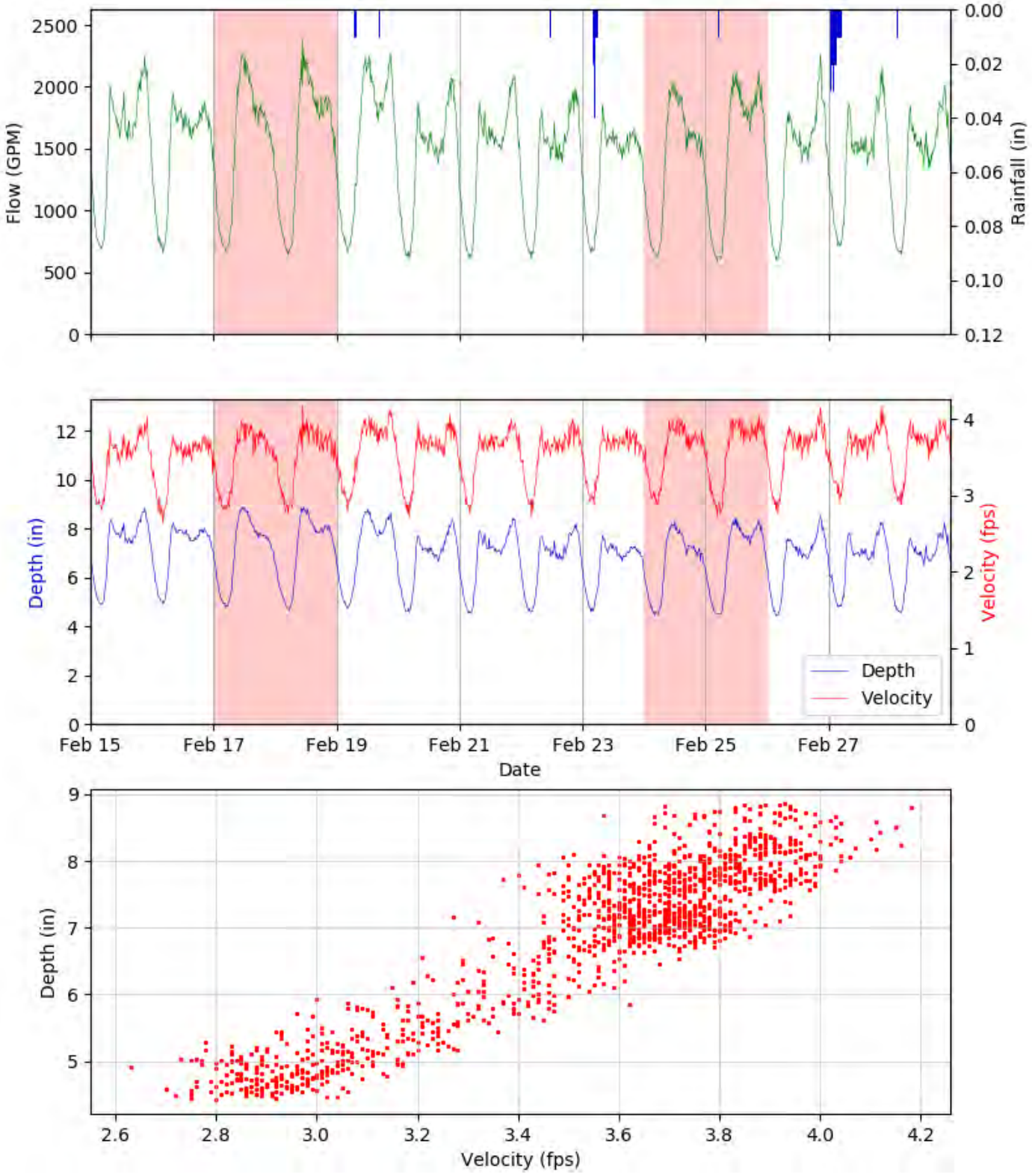
APPENDIX E

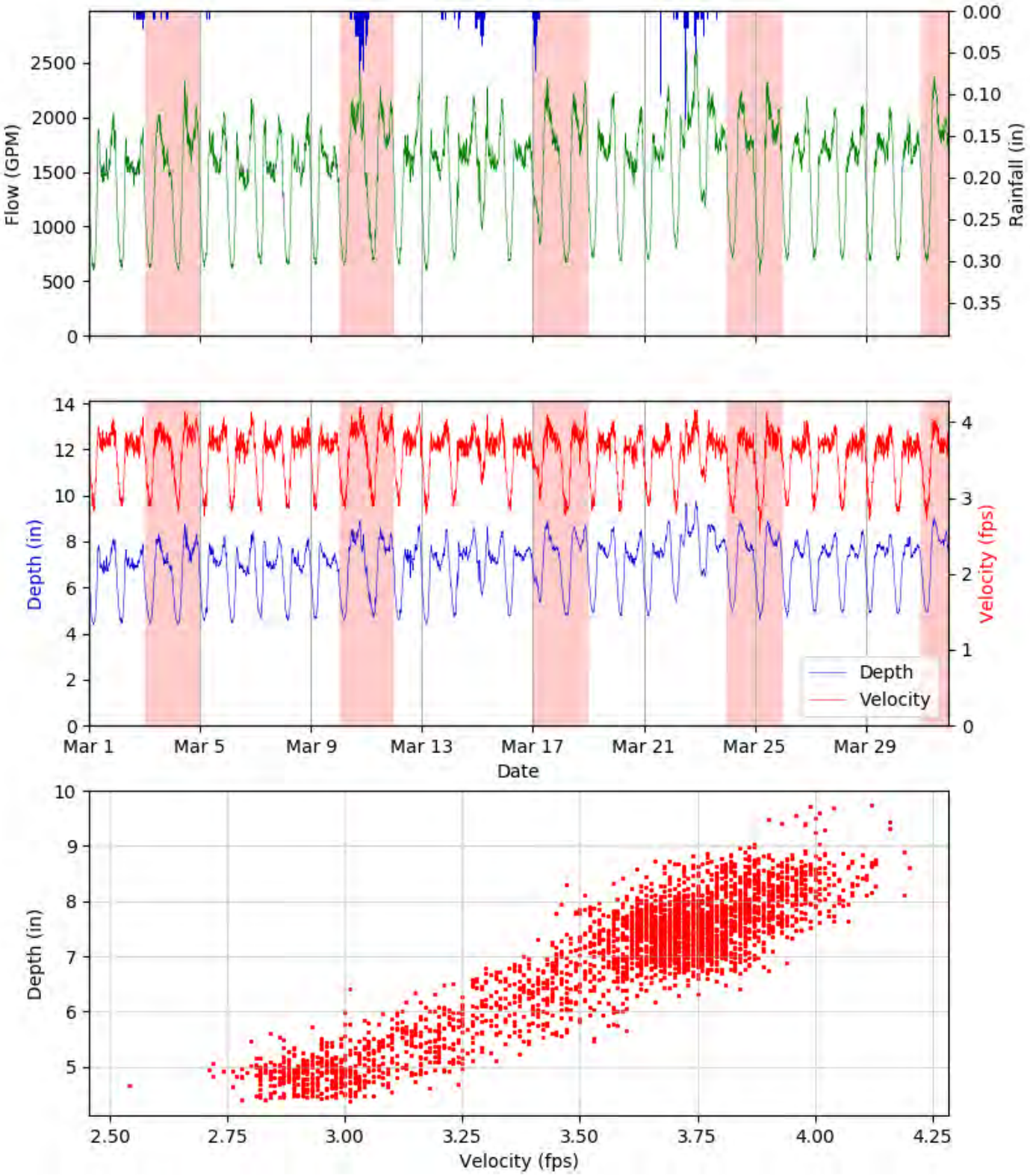
FLOW MONITORING PLOTS

FLOW MONITORING PLOTS
PHASE 1

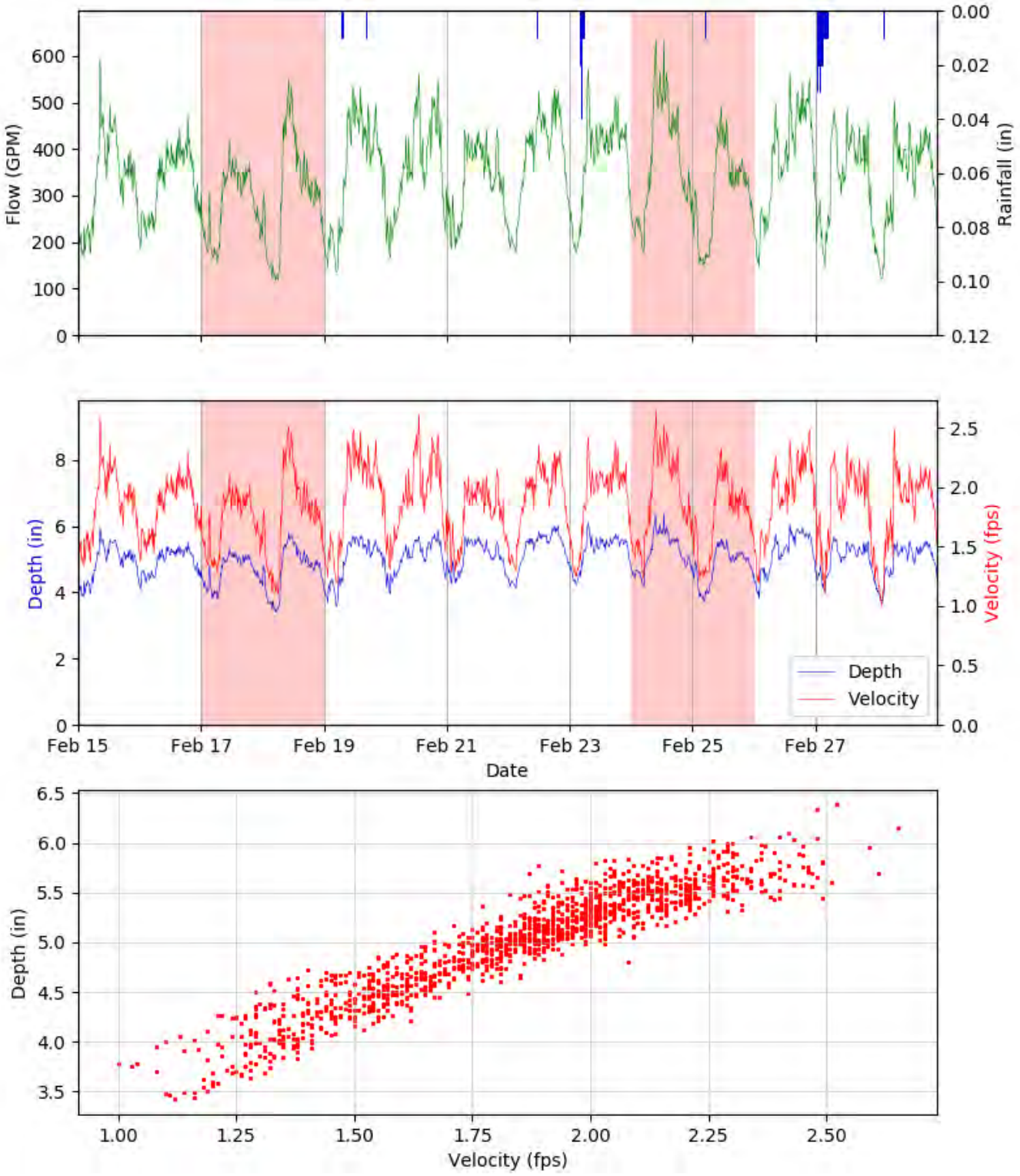

0330064 Feb
Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Date
Depth (in)
Velocity (fps)


0330064 Mar
Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Mar 1
Mar 5
Mar 9
Mar 13
Mar 17
Mar 21
Mar 25
Mar 29
Date
Depth (in)
Velocity (fps)

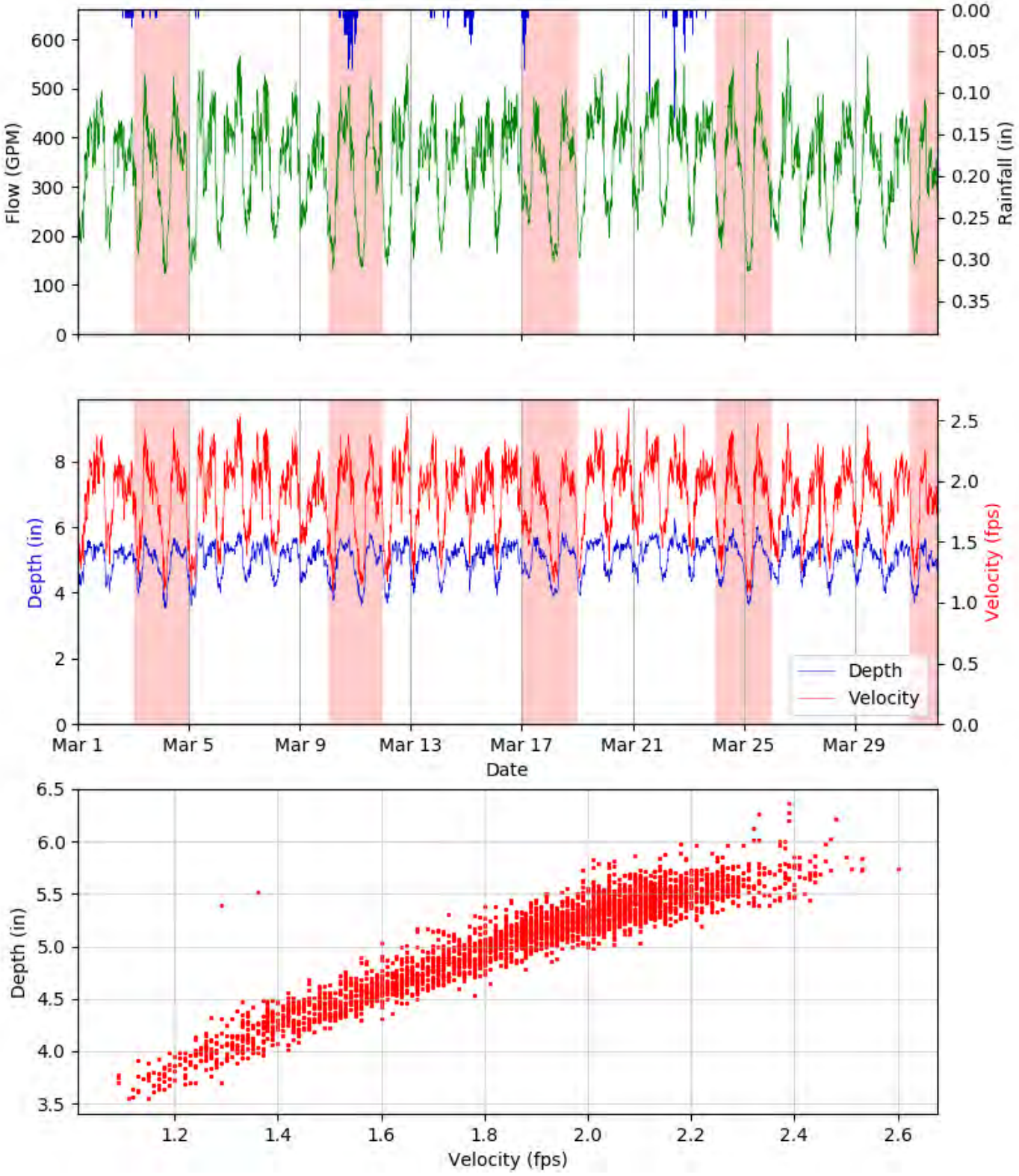

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Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Date
Depth (in)
Velocity (fps)


0360154 Mar
Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Mar 1
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Mar 13
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Mar 25
Mar 29
Date
Depth (in)
Velocity (fps)

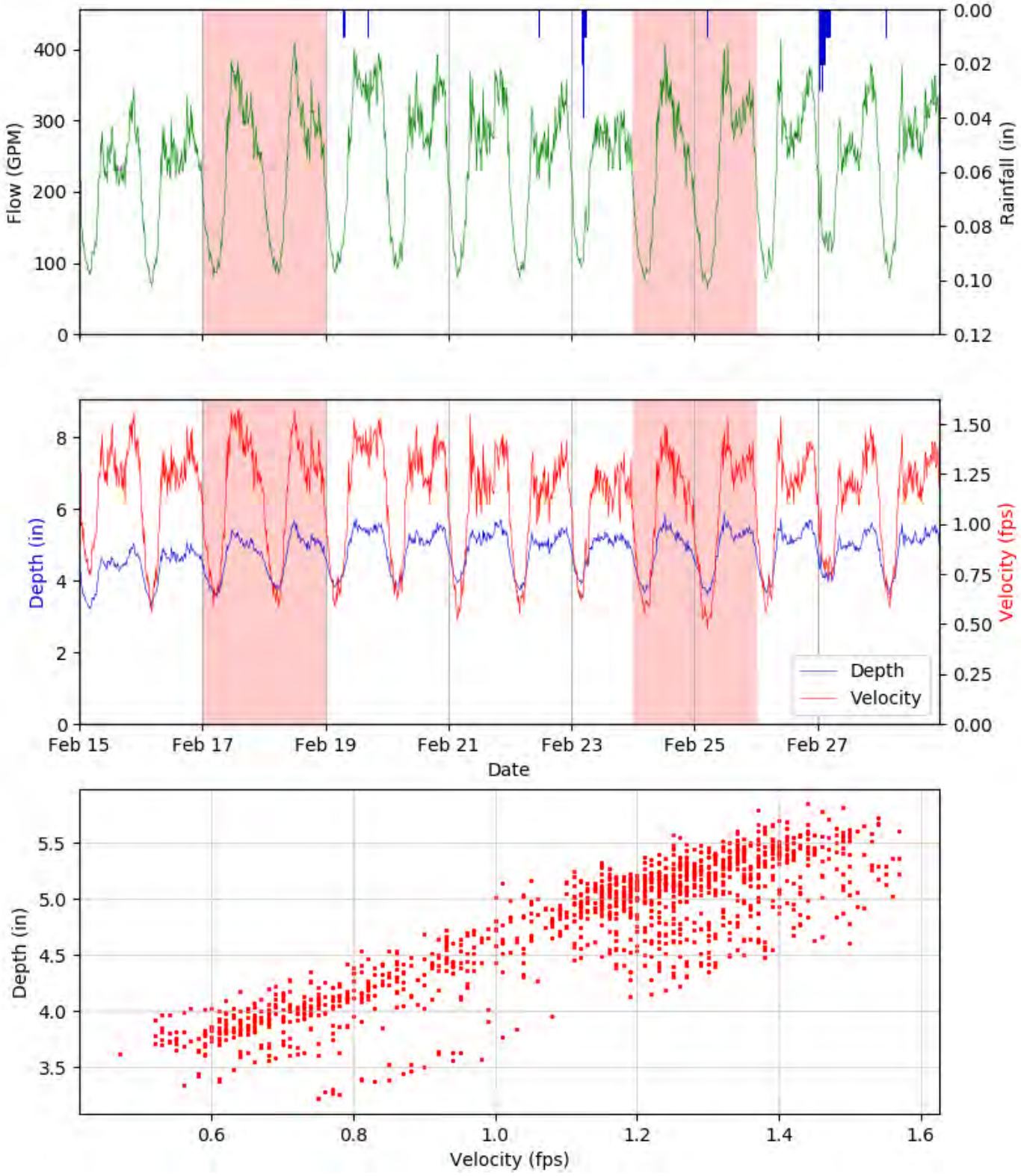
0450083 Feb

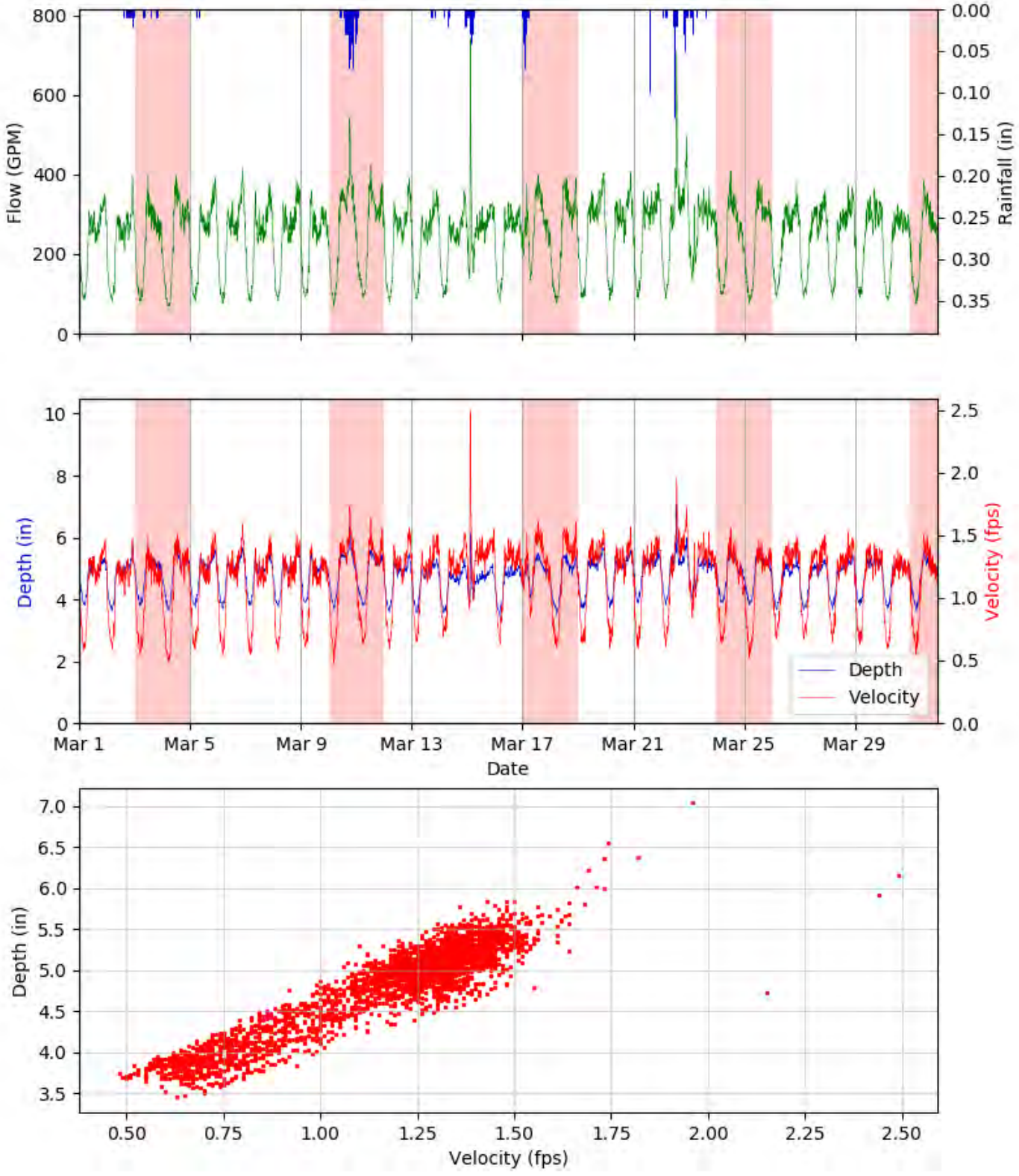

Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Date
Depth (in)
Velocity (fps)

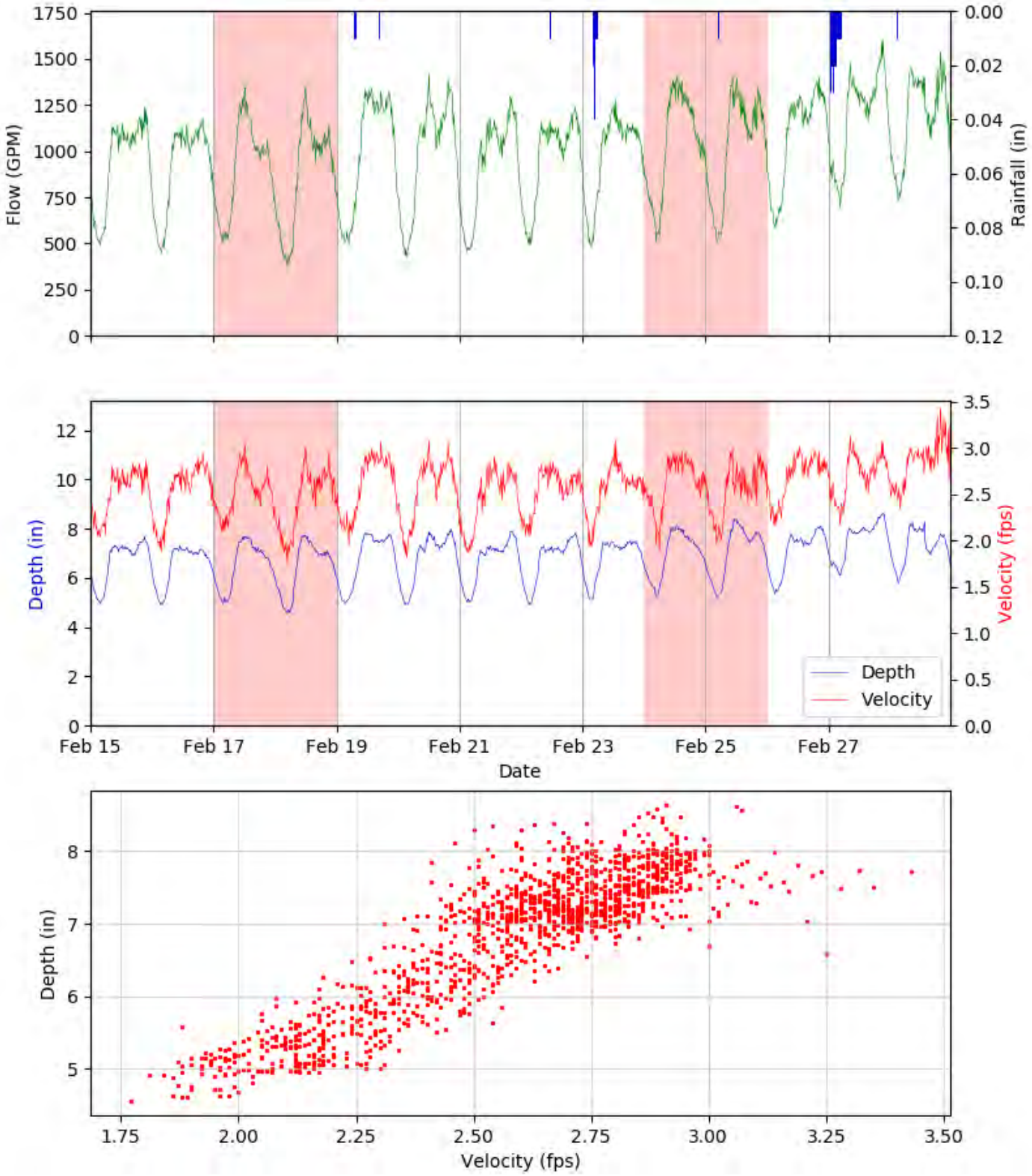
0450083 Mar


Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Mar 1
Mar 5
Mar 9
Mar 13
Mar 17
Mar 21
Mar 25
Mar 29
Date
Depth (in)
Velocity (fps)

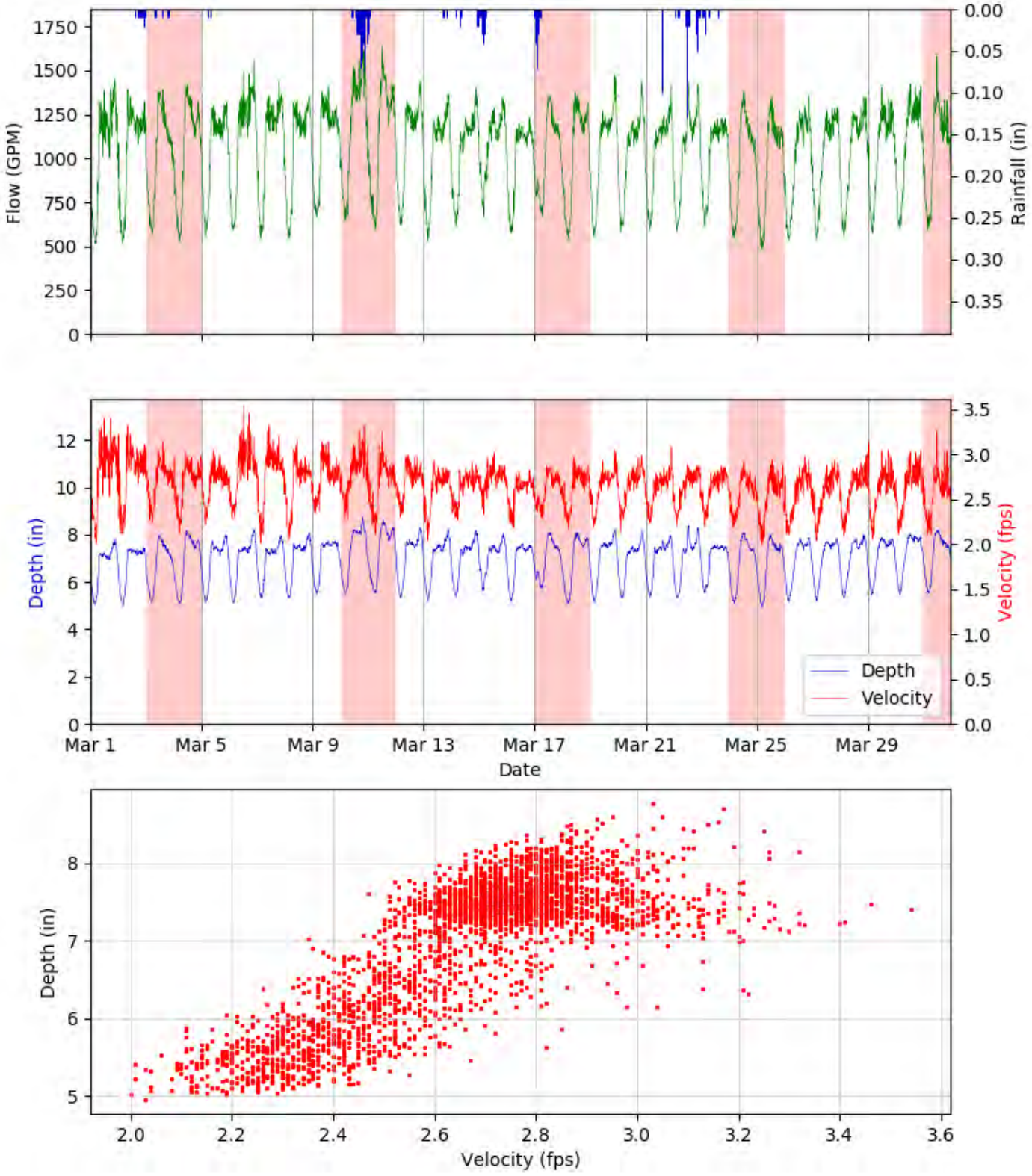
0640138 Feb

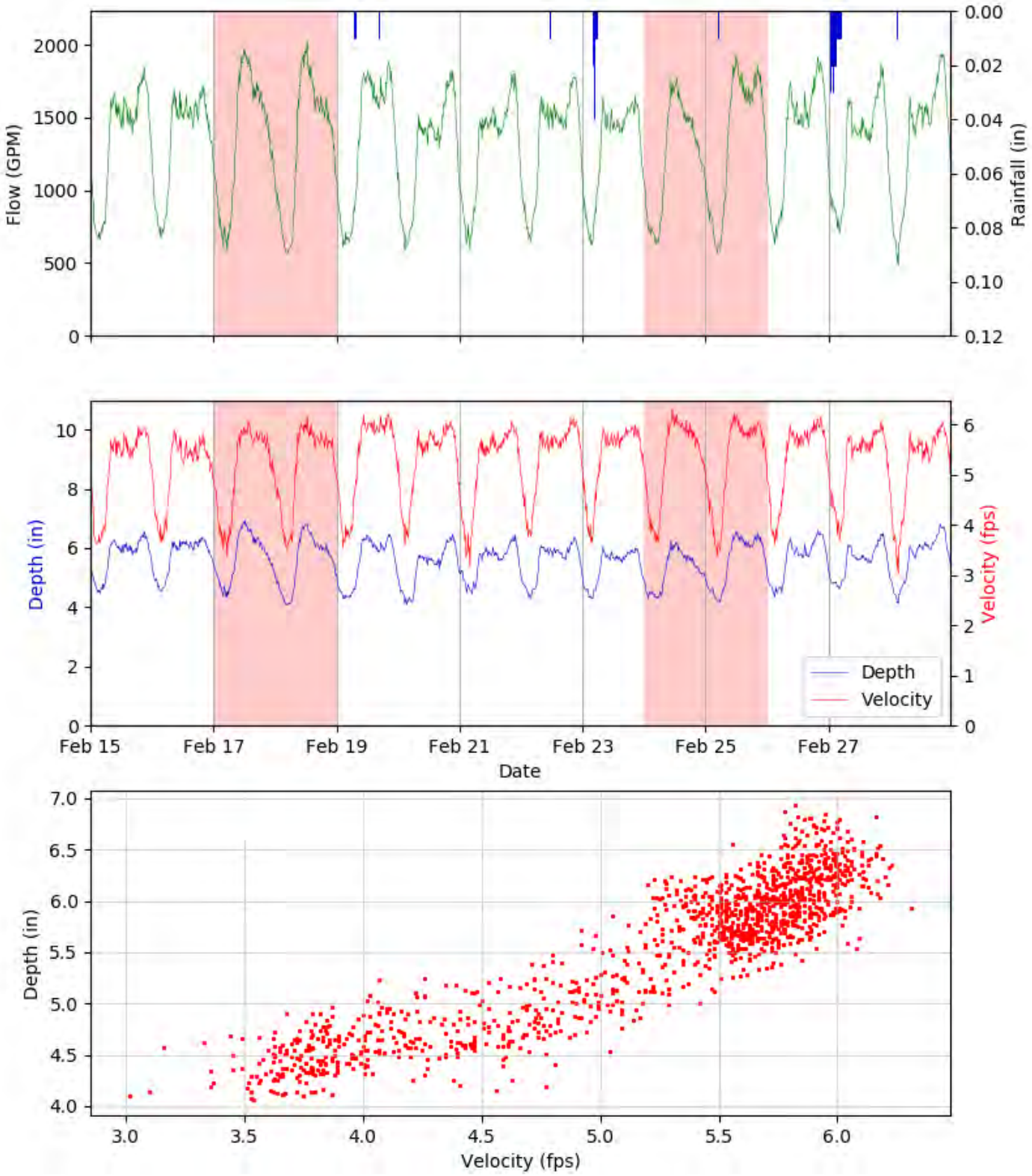

Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Feb 15
Feb 17
Feb 19
Feb 21
Feb 23
Feb 25
Feb 27
Date
Depth (in)
Velocity (fps)


0640138 Mar
Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
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Velocity
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Mar 13
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Date
Depth (in)
Velocity (fps)

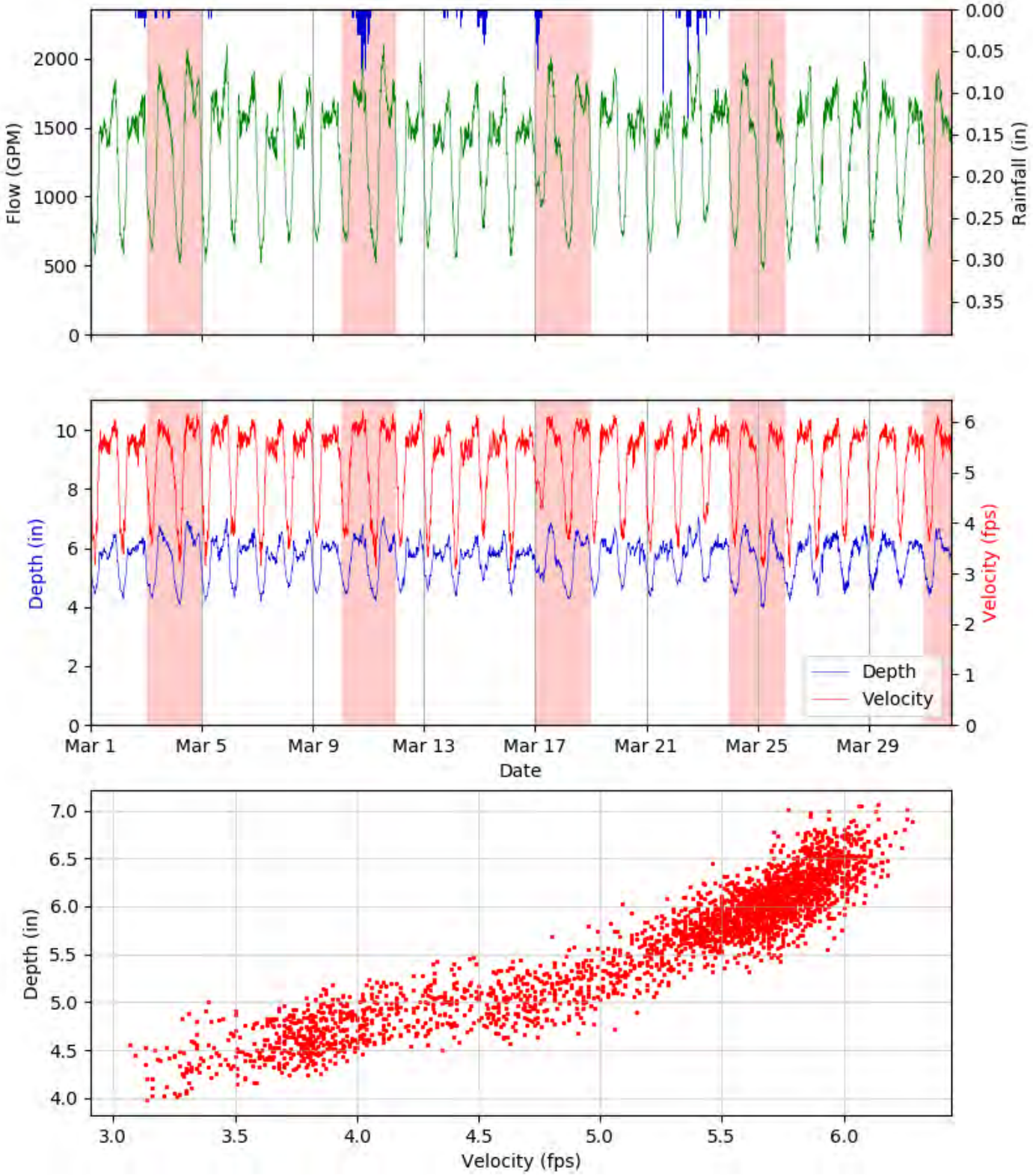

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Velocity (fps)
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Velocity
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Feb 25
Feb 27
Date
Depth (in)
Velocity (fps)

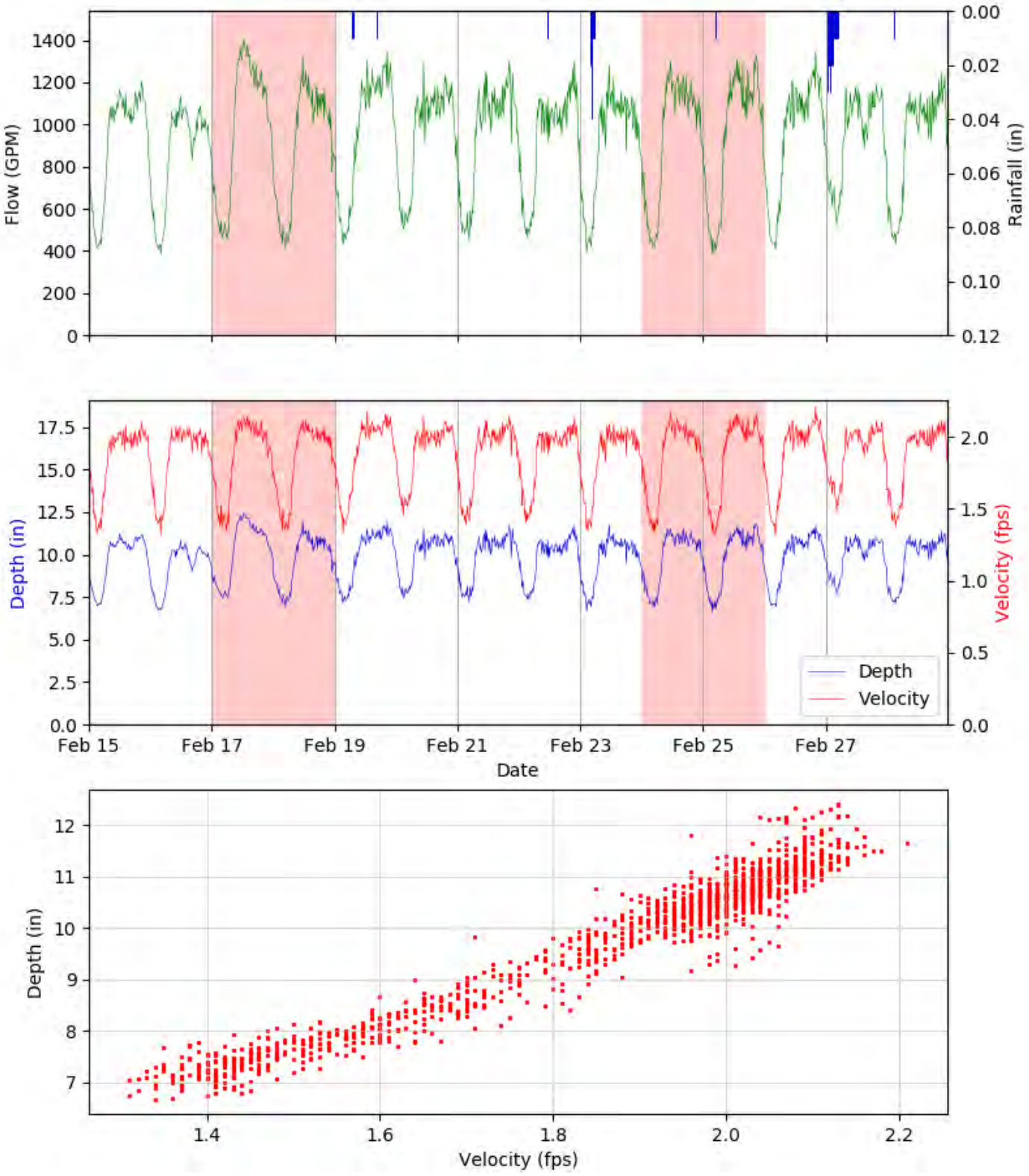
0660212 Mar

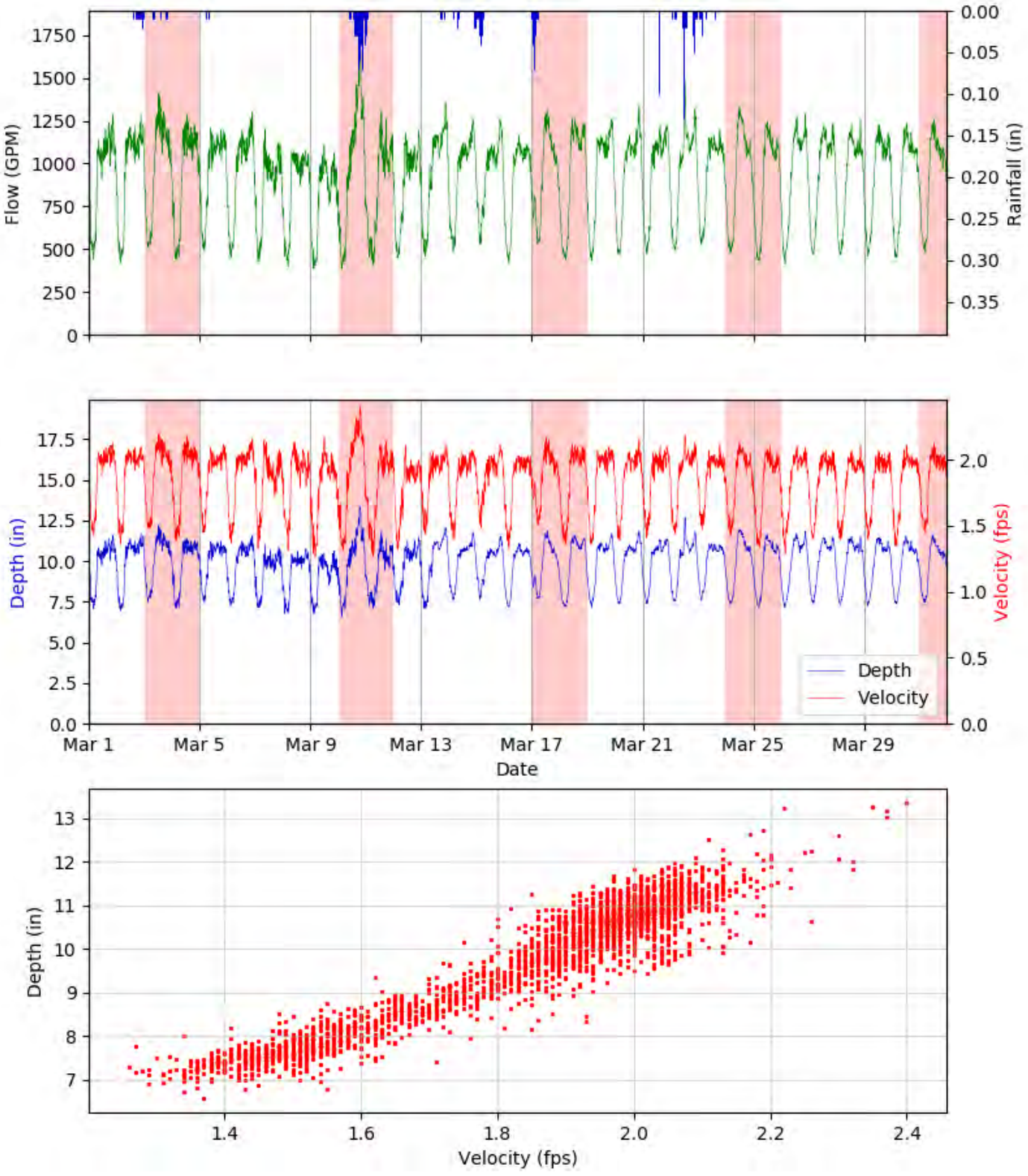

Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Mar 1
Mar 5
Mar 9
Mar 13
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Mar 25
Mar 29
Date
Depth (in)
Velocity (fps)

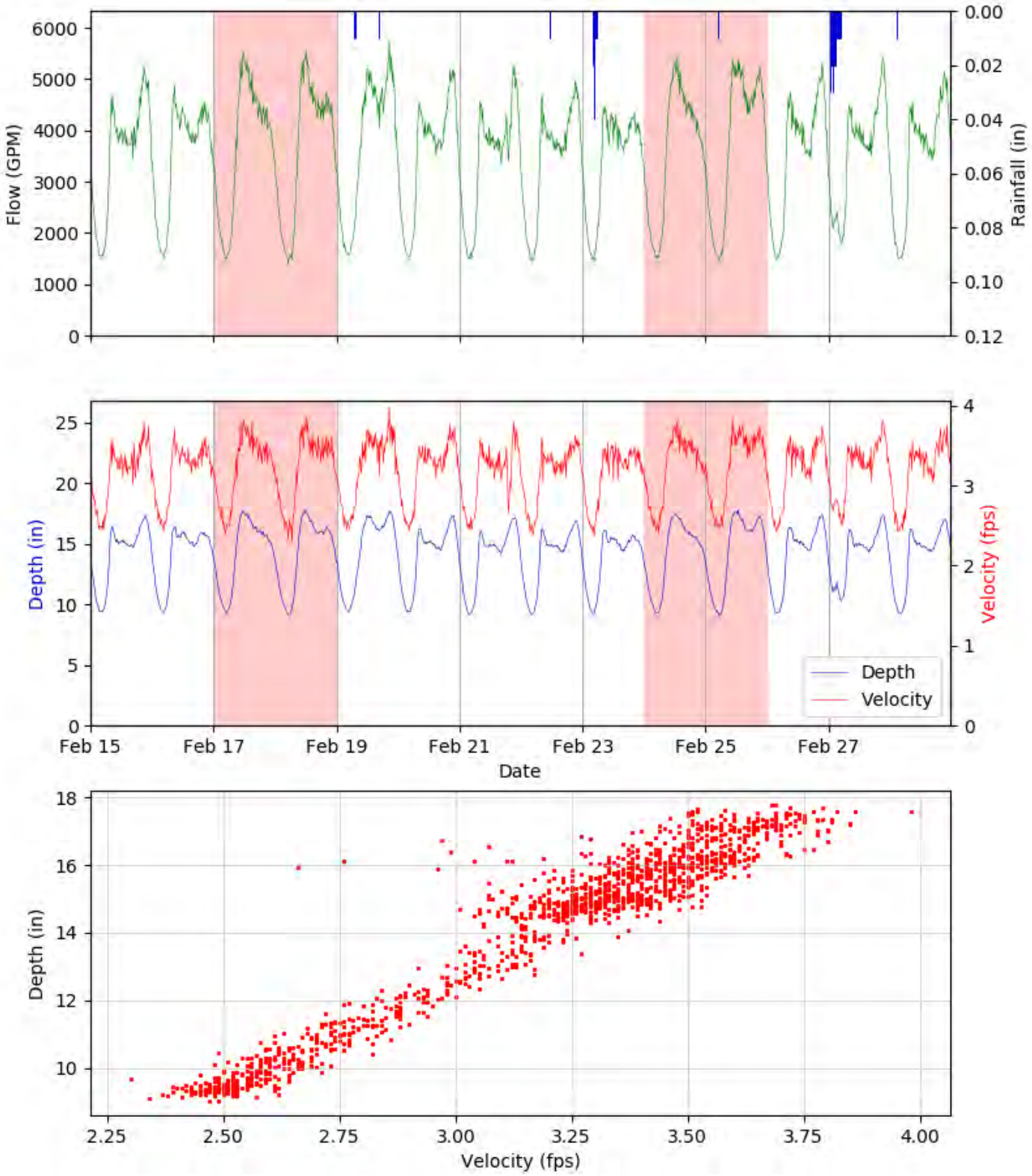

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Depth (in)
Velocity (fps)
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Velocity
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Date
Depth (in)
Velocity (fps)

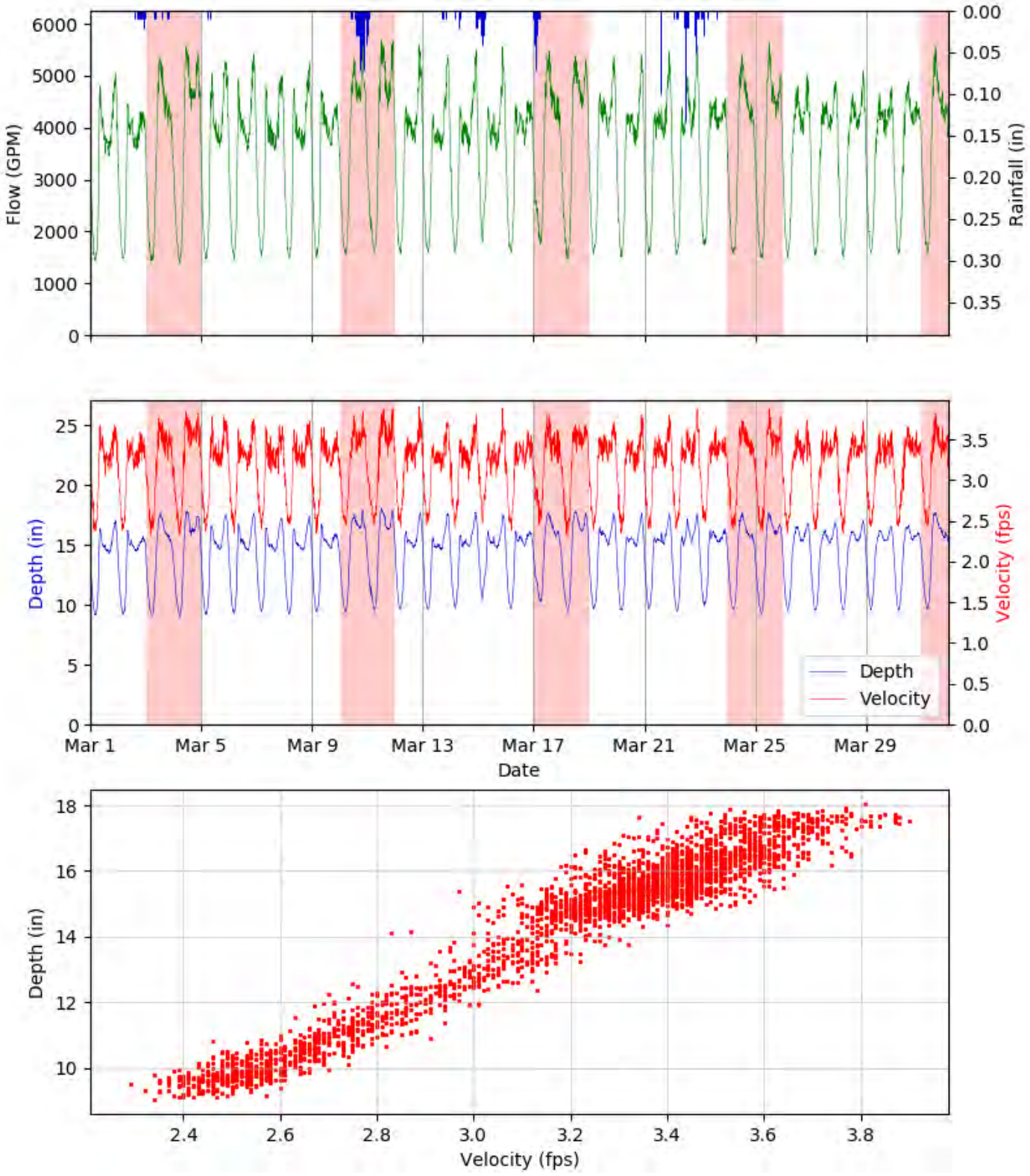
0660232 Mar


Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
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Velocity
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Date
Depth (in)
Velocity (fps)

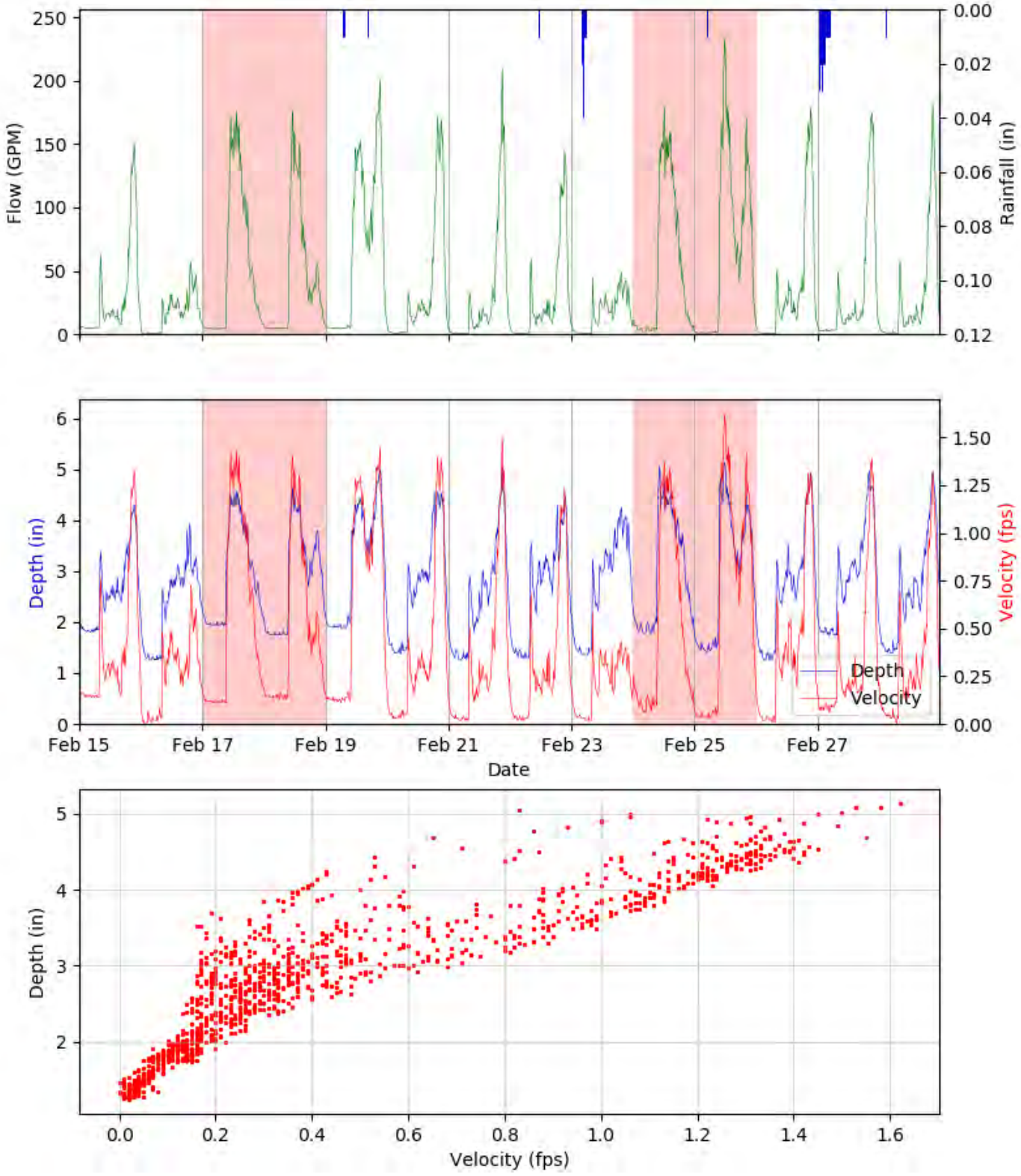

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Velocity (fps)
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Velocity
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Feb 23
Feb 25
Feb 27
Depth (in)
Velocity (fps)


0660239 Mar
Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
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Velocity
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Depth (in)
Velocity (fps)

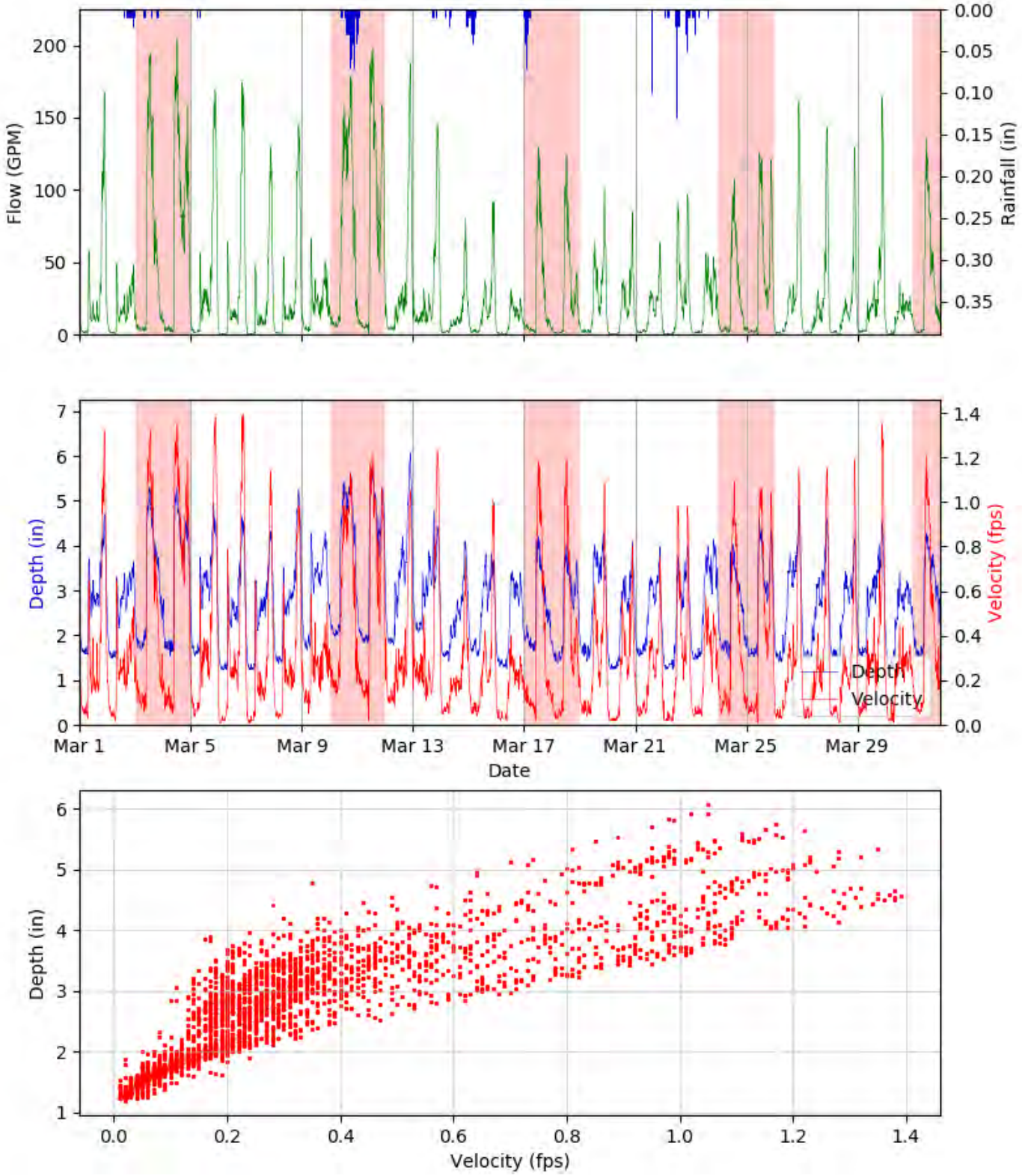

0670105 Feb
Flow (GPM)
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Velocity (fps)
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Velocity
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Feb 23
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Depth (in)
Velocity (fps)


0670105 Mar
Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
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Date
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Velocity (fps)

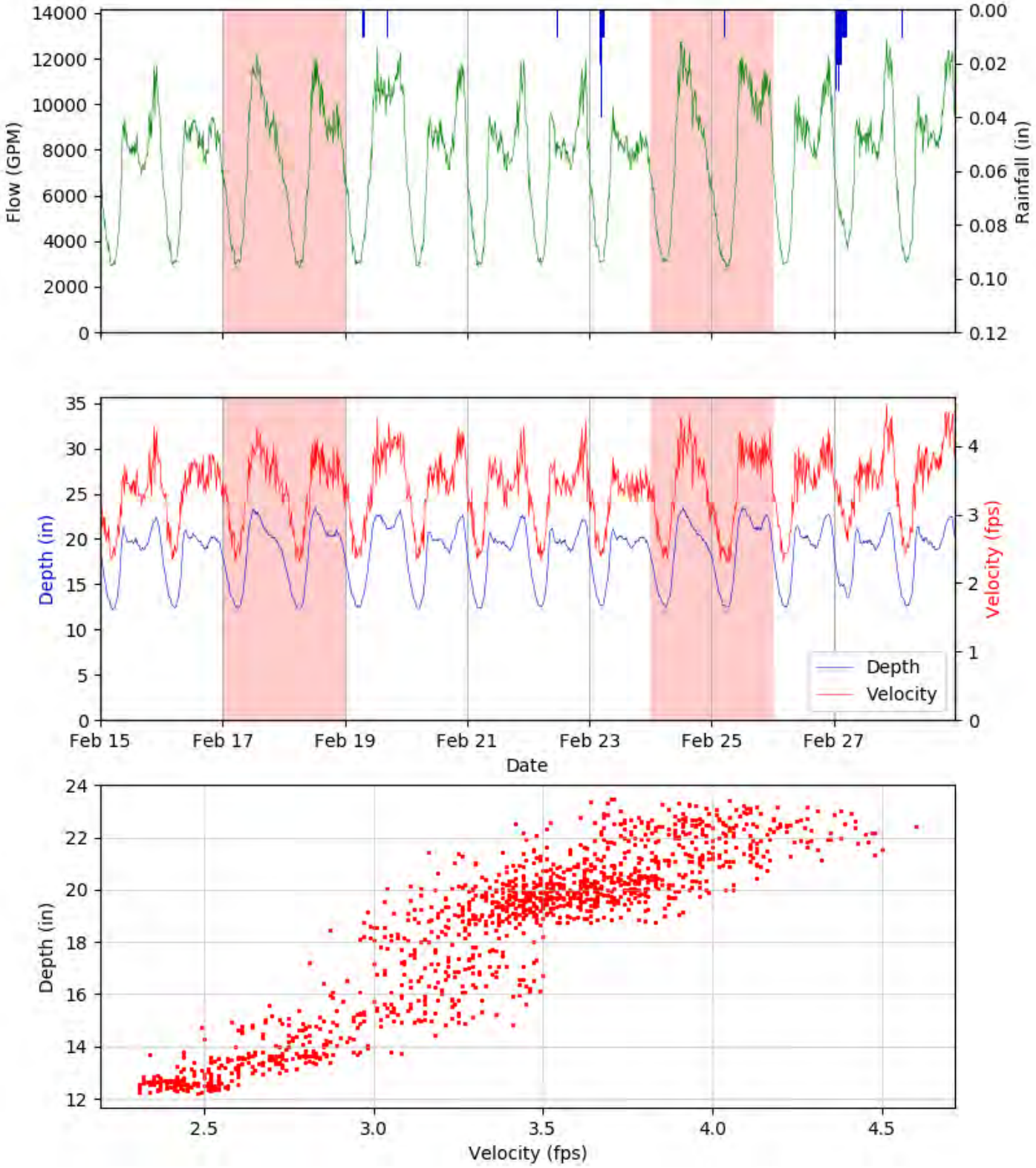
0740052 Feb

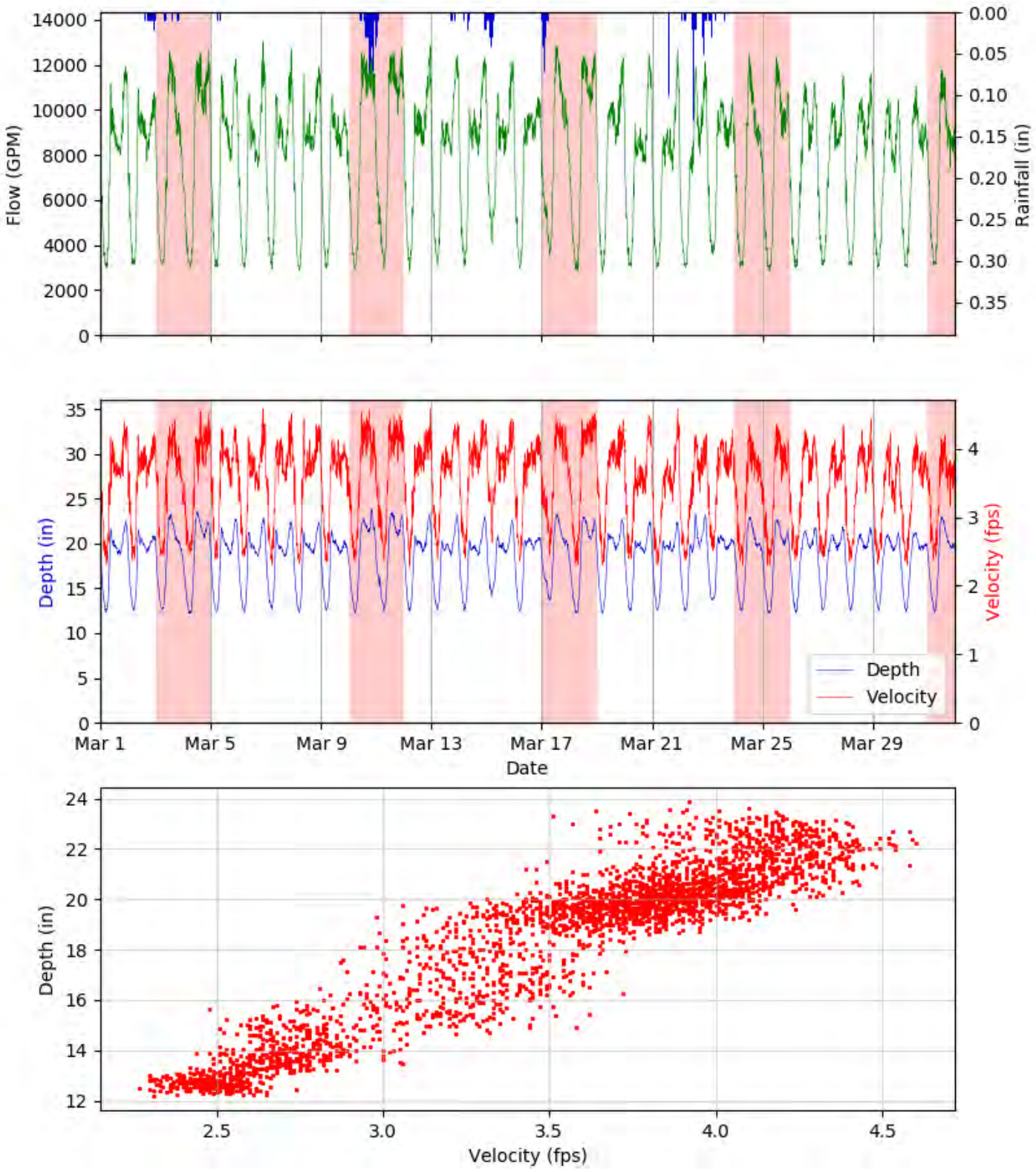

Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
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Feb 25
Feb 27
Date
Depth (in)
Velocity (fps)

0740052 Mar


Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Mar 1
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Mar 25
Mar 29
Date
Depth (in)
Velocity (fps)

0870014 Feb


Flow (GPM)
Rainfall (in)
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Velocity (fps)
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Velocity
Date
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Feb 17
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Feb 21
Feb 23
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Feb 27
Depth (in)
Velocity (fps)

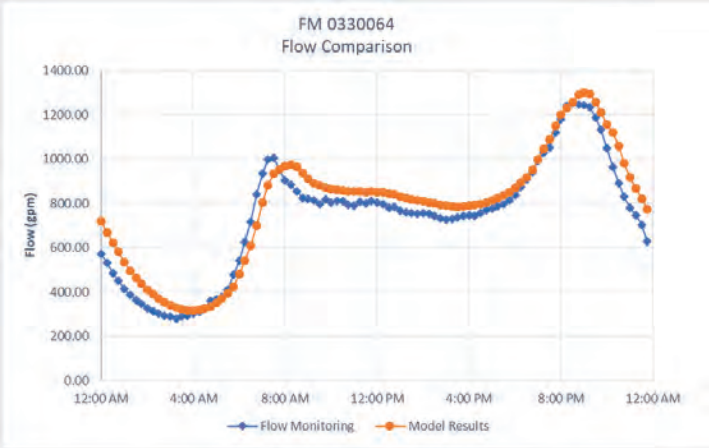

0870014 Mar
Flow (GPM)
Rainfall (in)
Depth (in)
Velocity (fps)
Depth
Velocity
Mar 1
Mar 5
Mar 9
Mar 13
Mar 17
Mar 21
Mar 25
Mar 29
Date
Depth (in)
Velocity (fps)

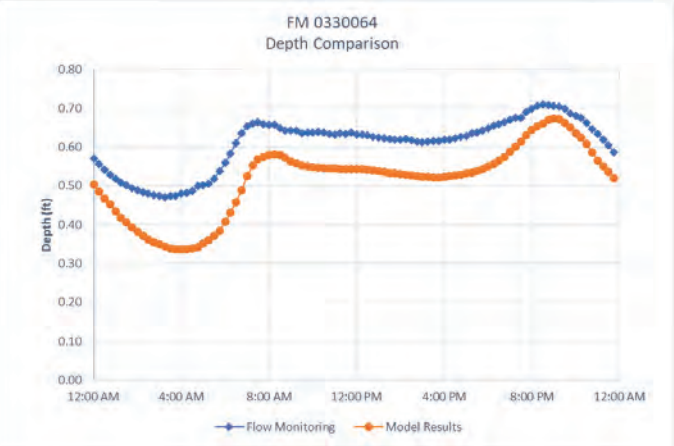
APPENDIX B

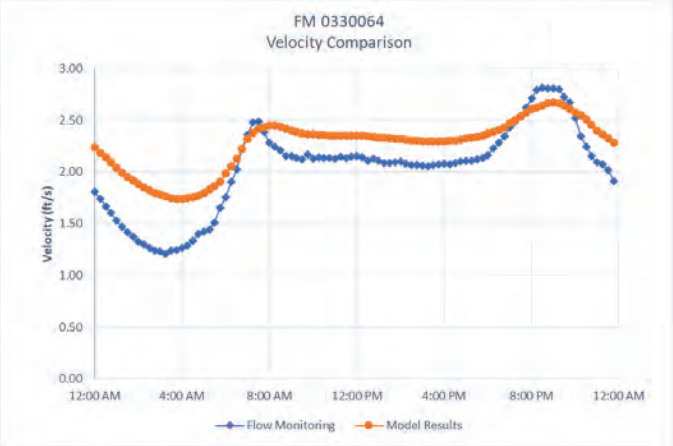
CALIBRATION PLOTS

DRY WEATHER

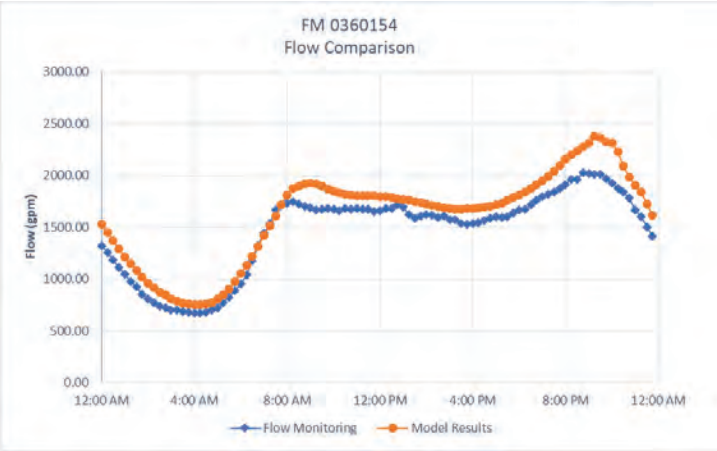
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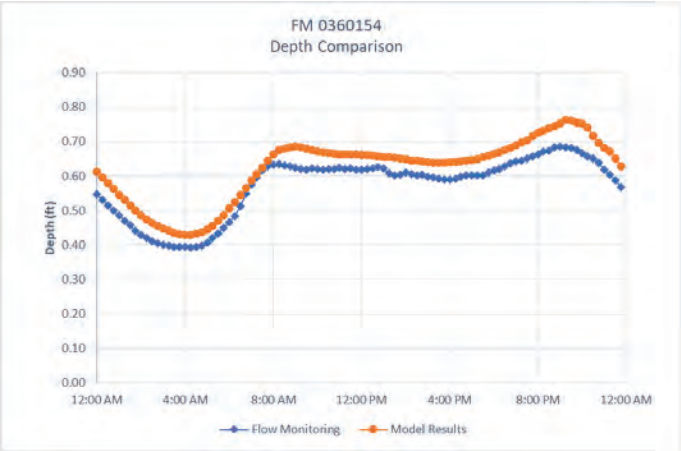


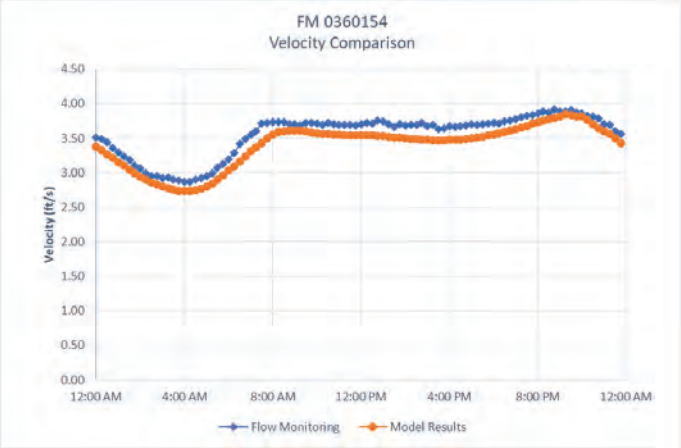




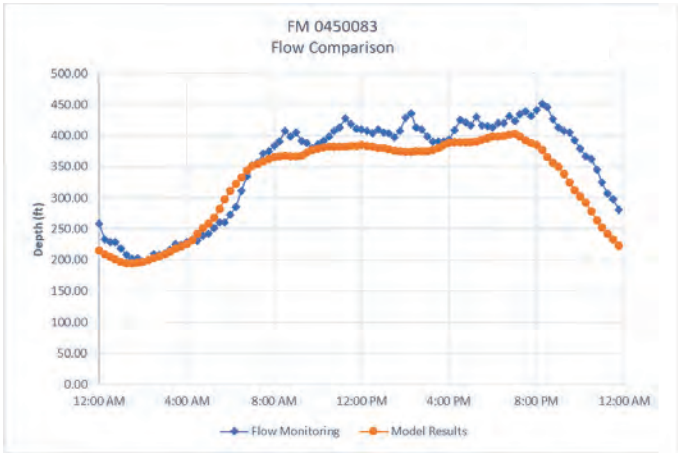
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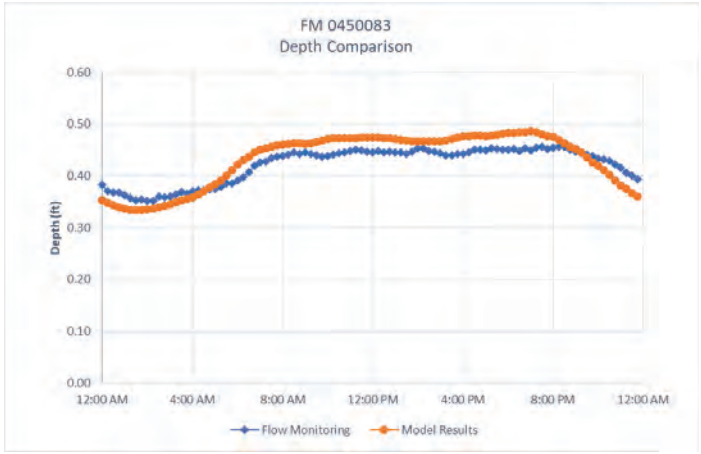


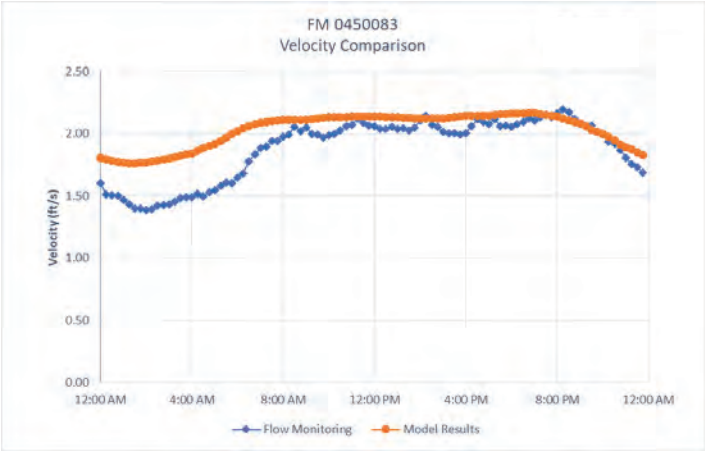




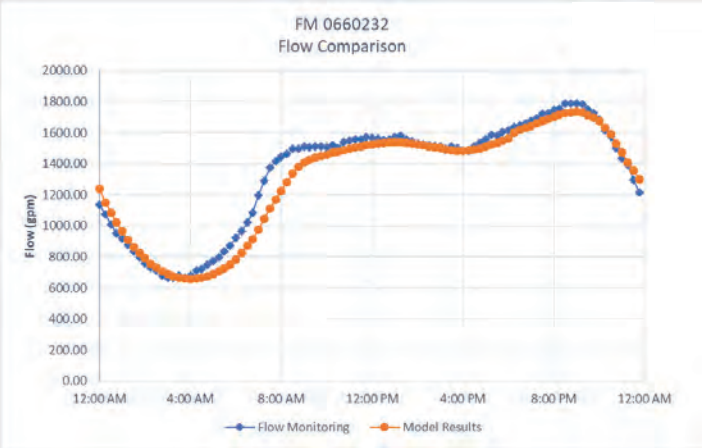
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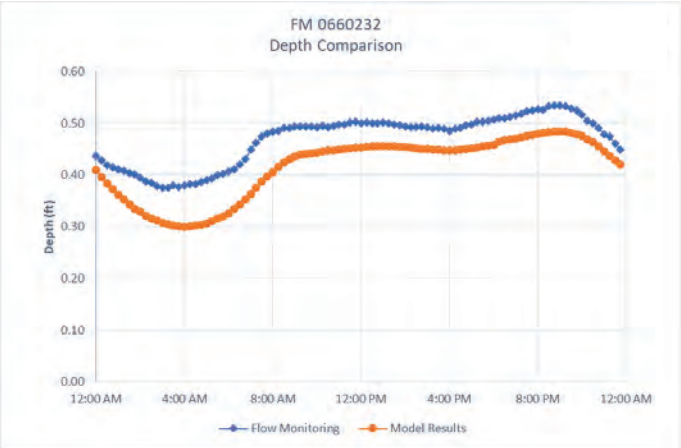


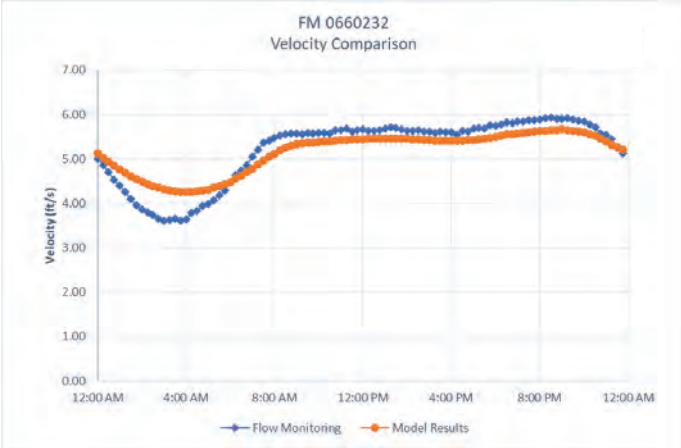




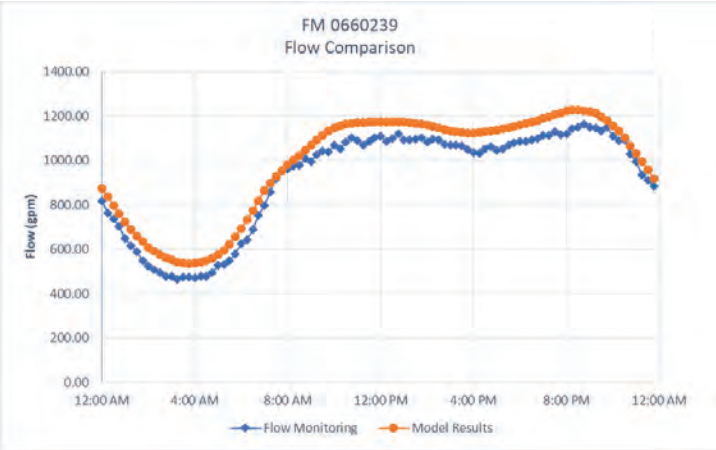
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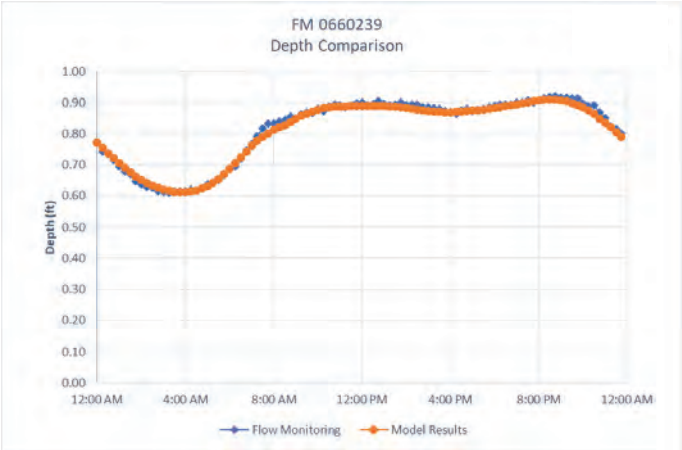


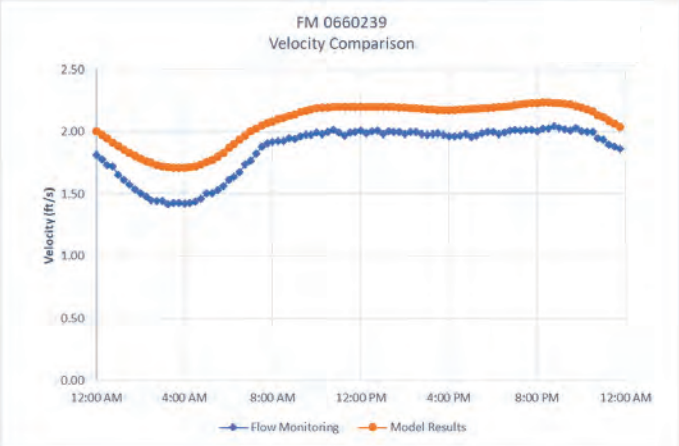




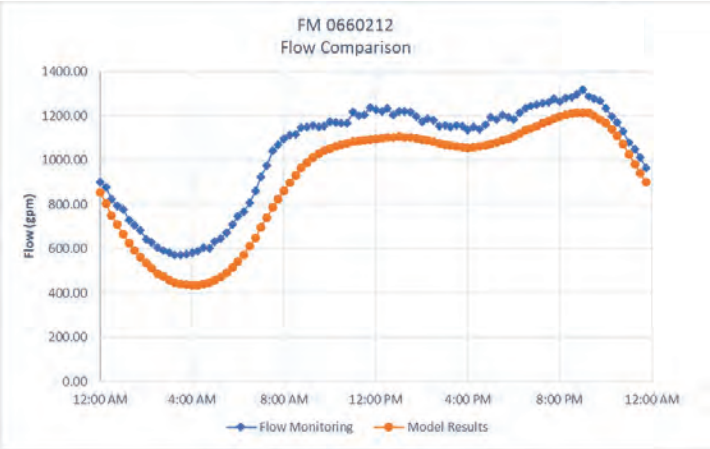
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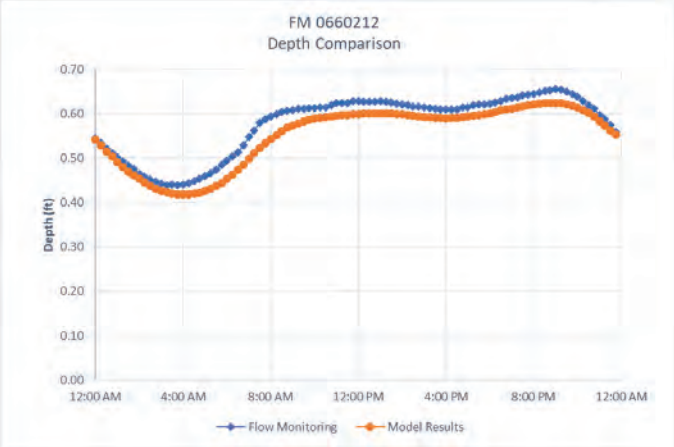


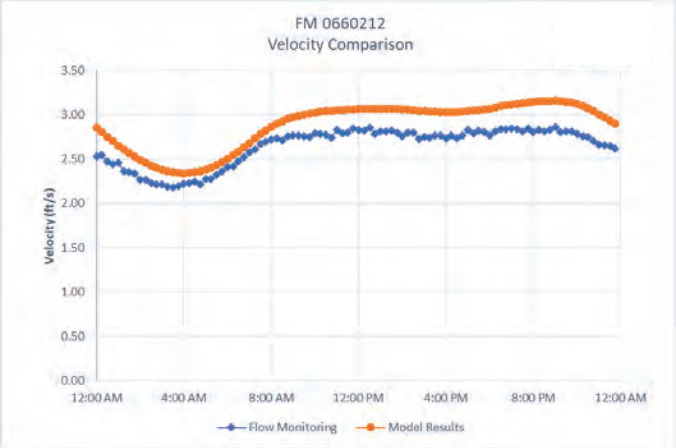




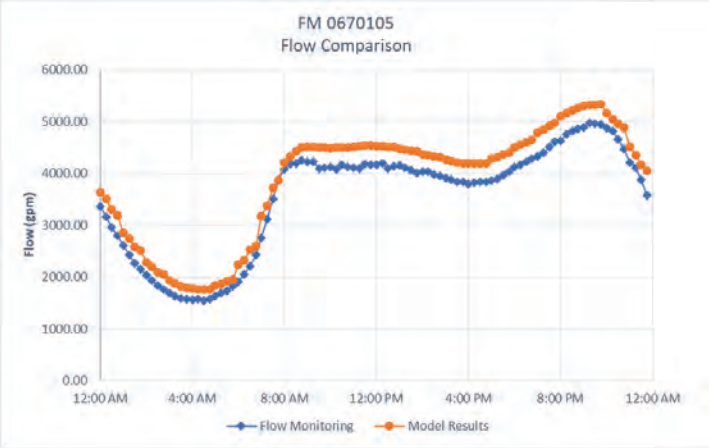
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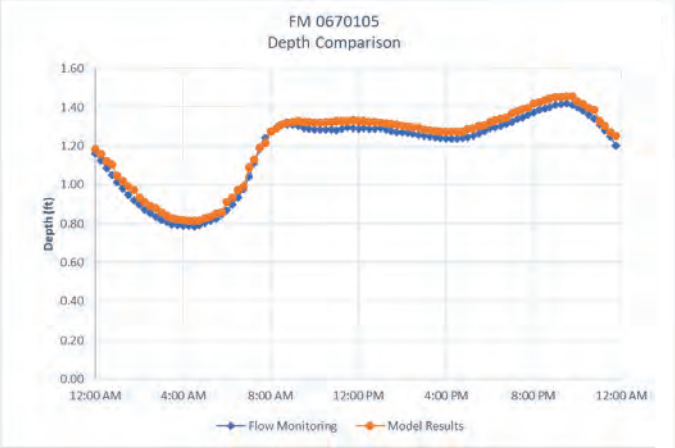


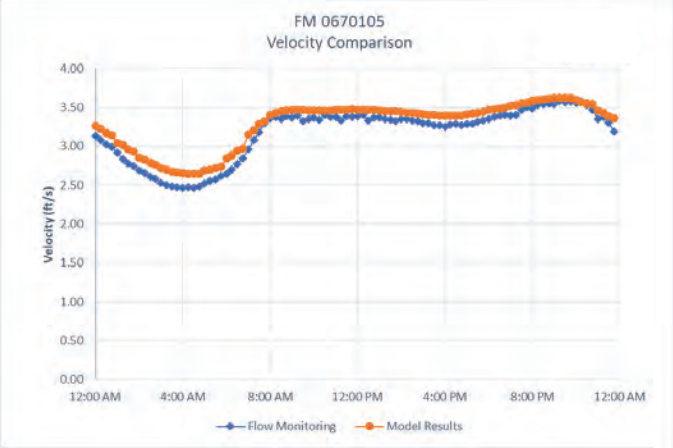




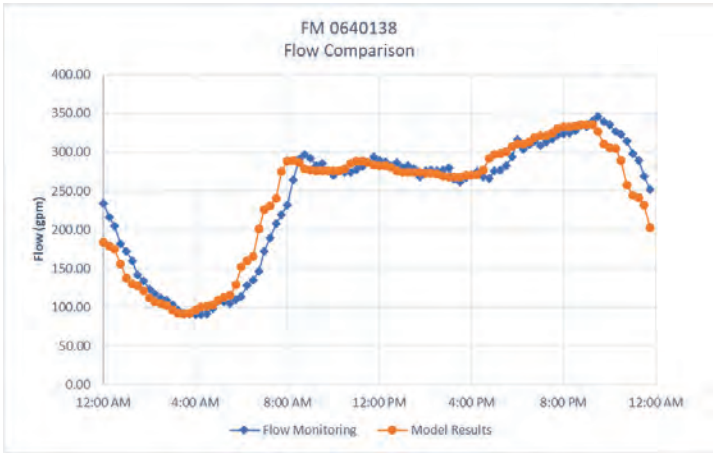
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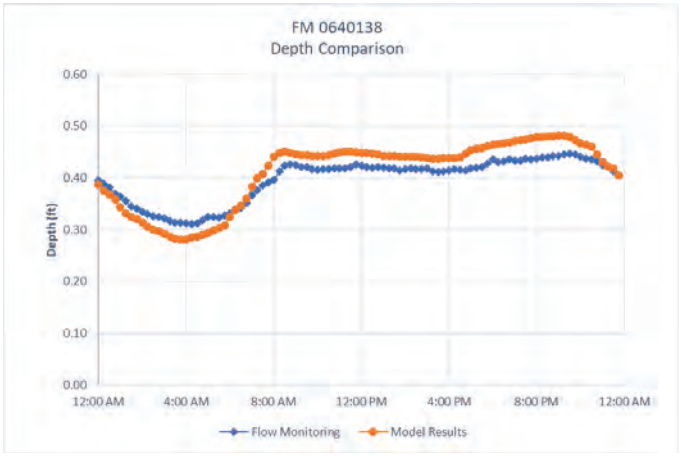


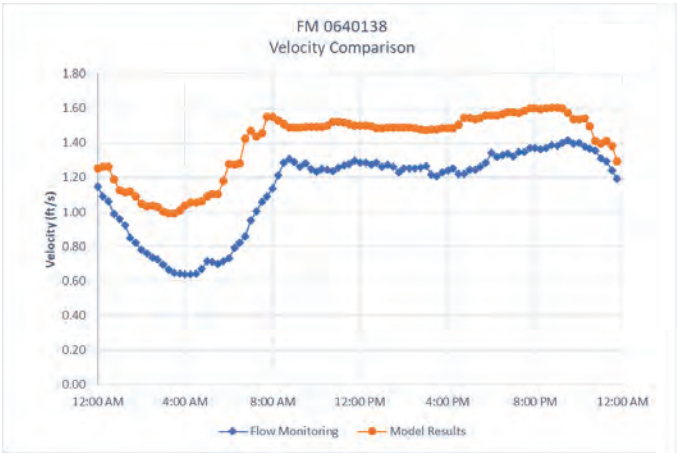




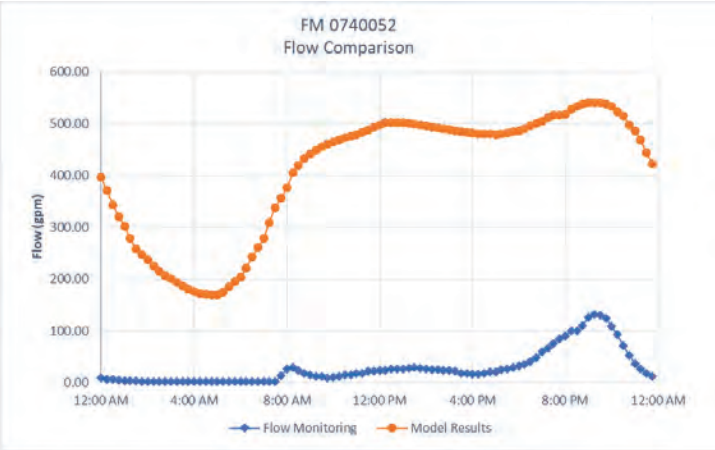
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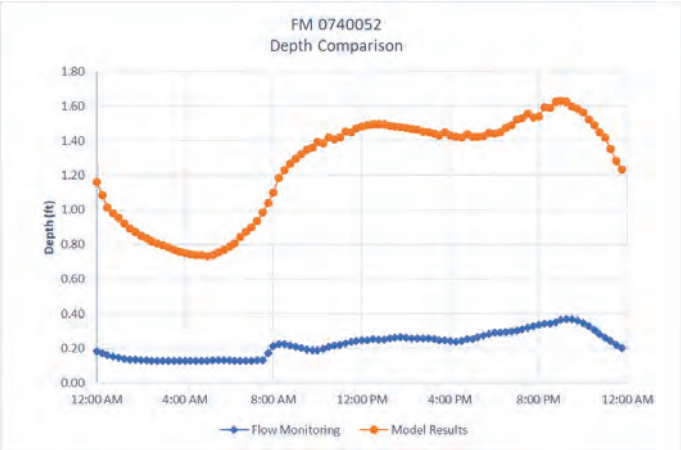


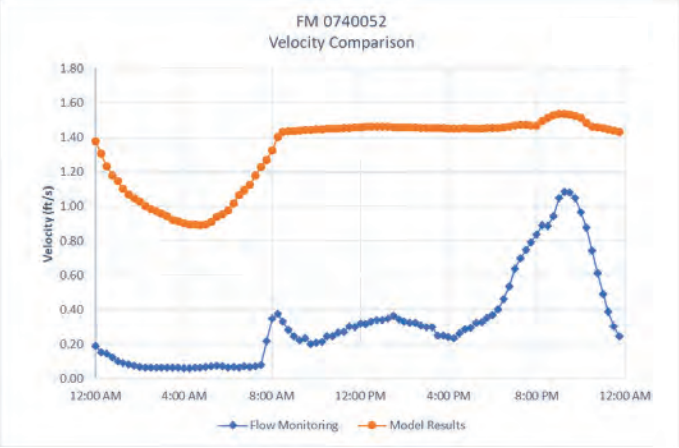




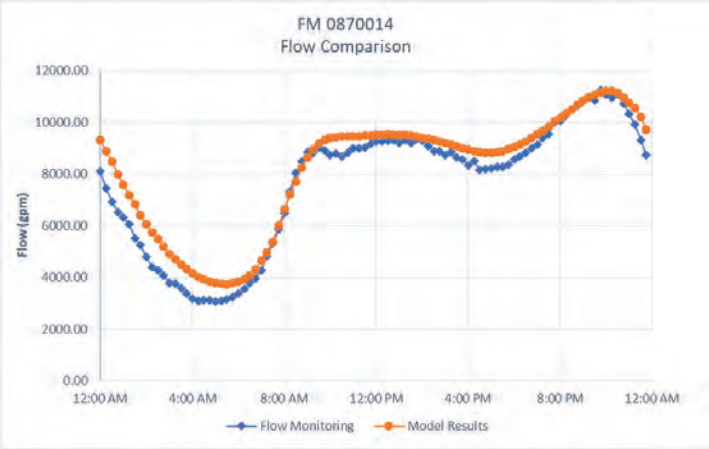
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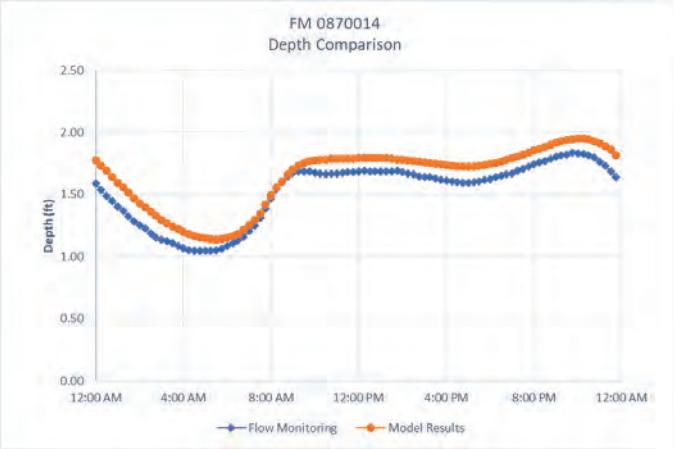


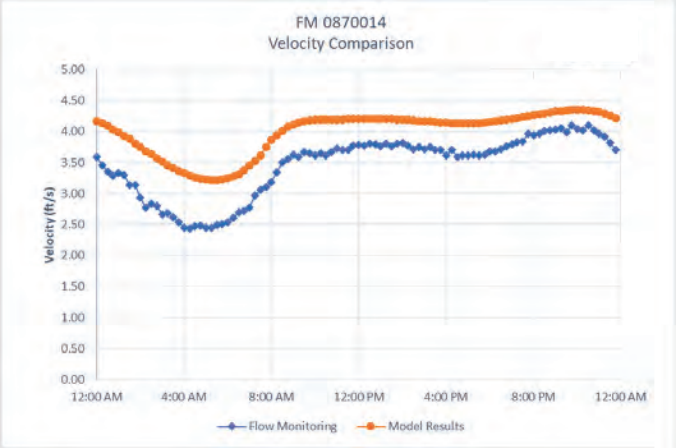




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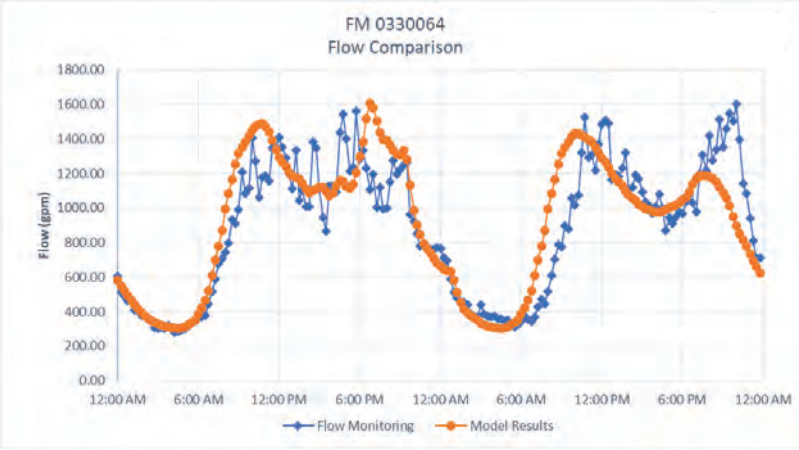


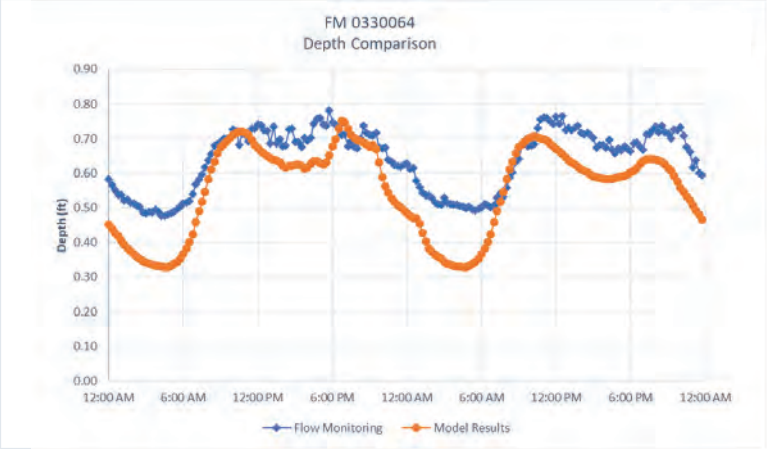


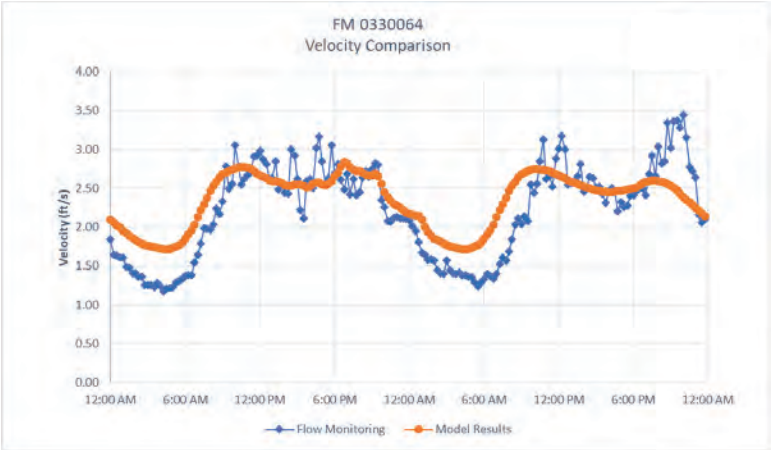


WET WEATHER

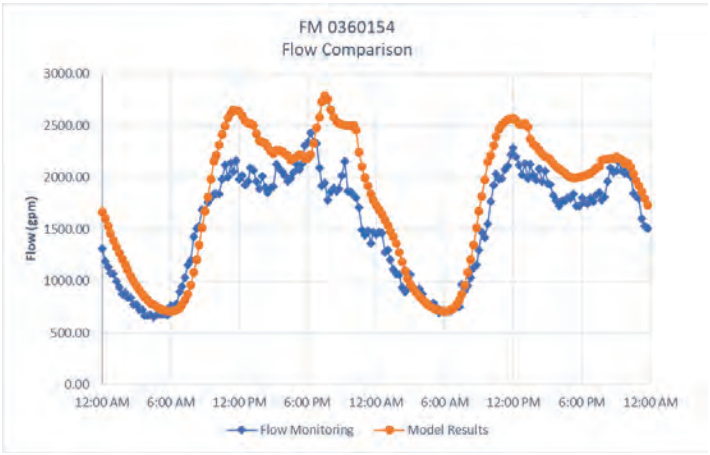
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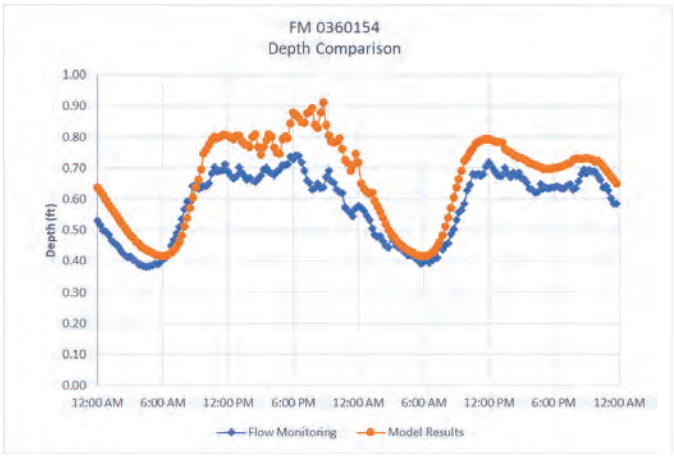


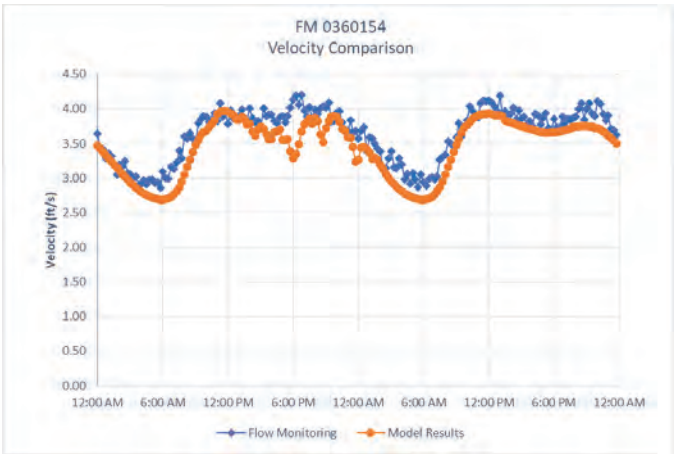




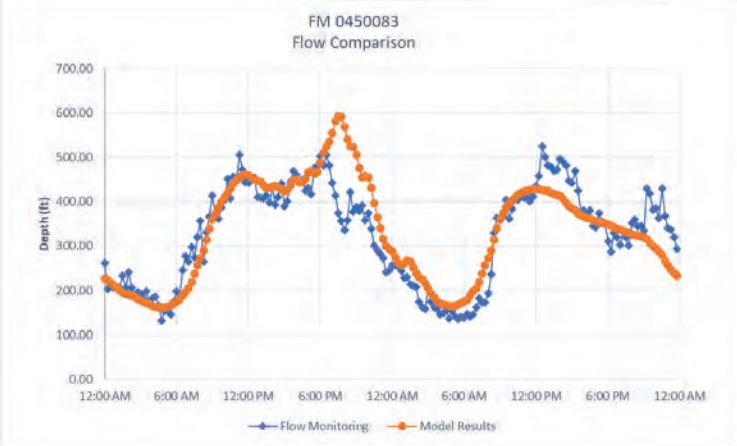
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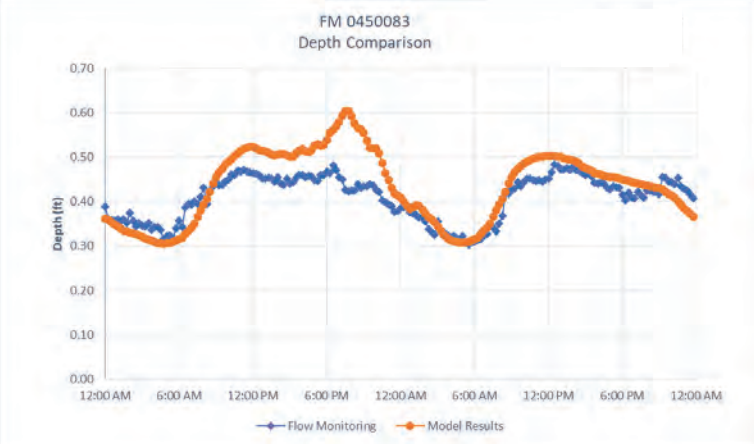


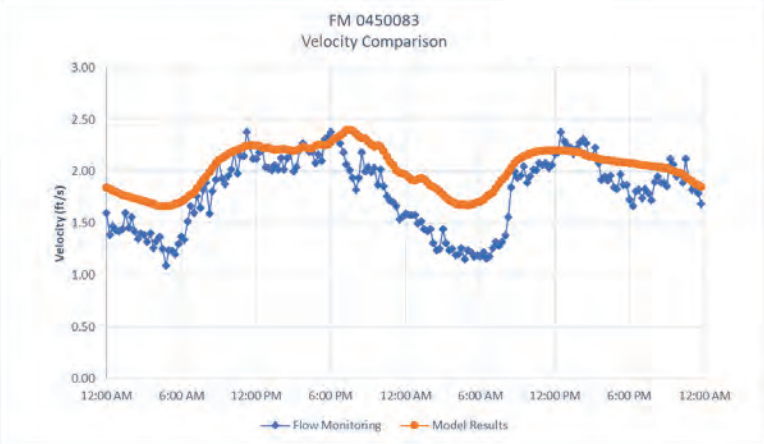




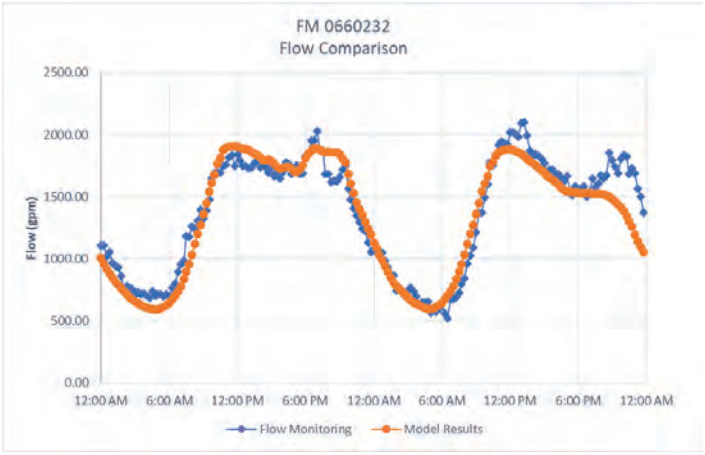
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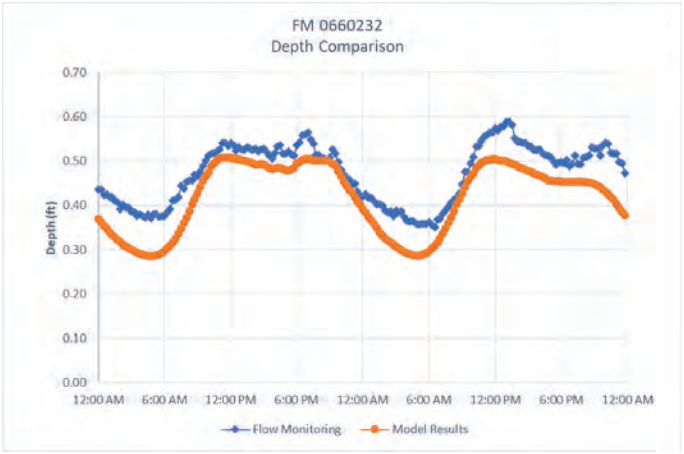


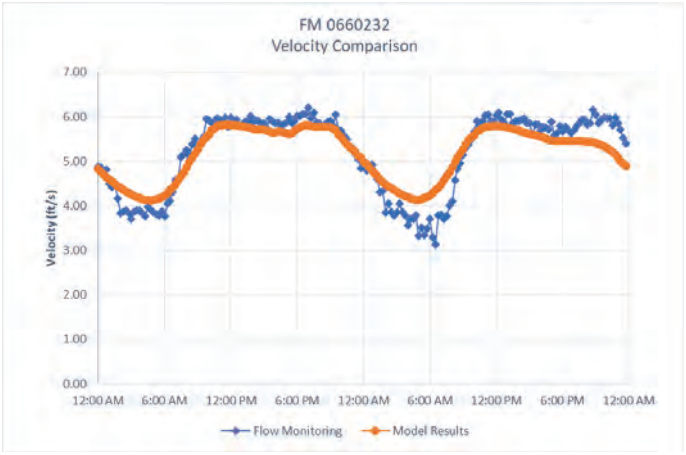




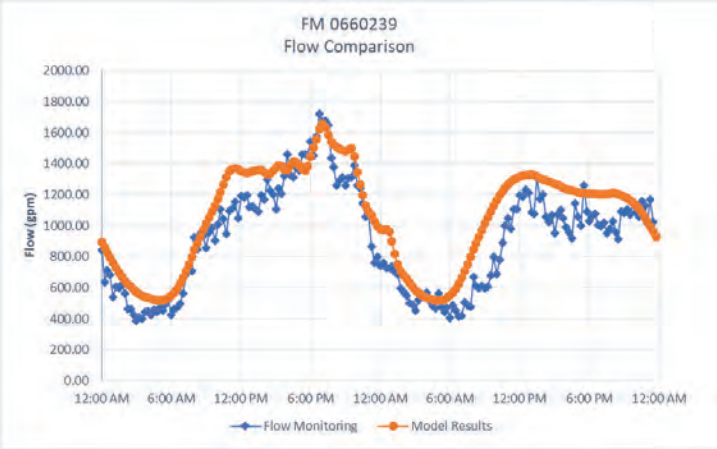
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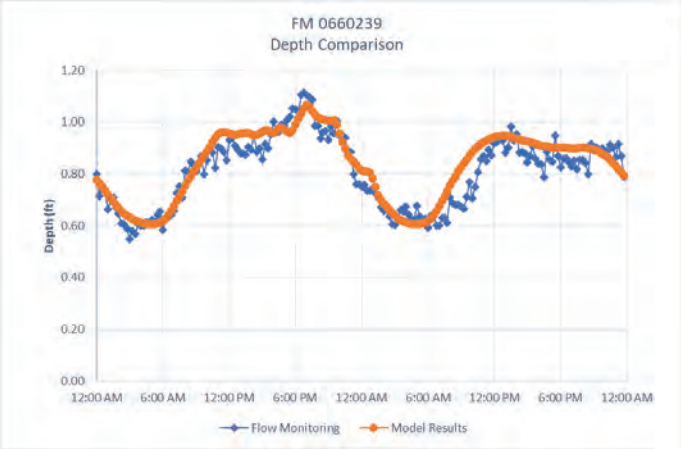


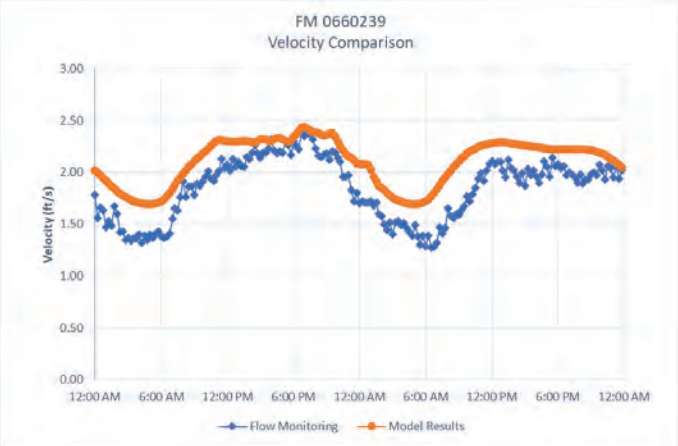




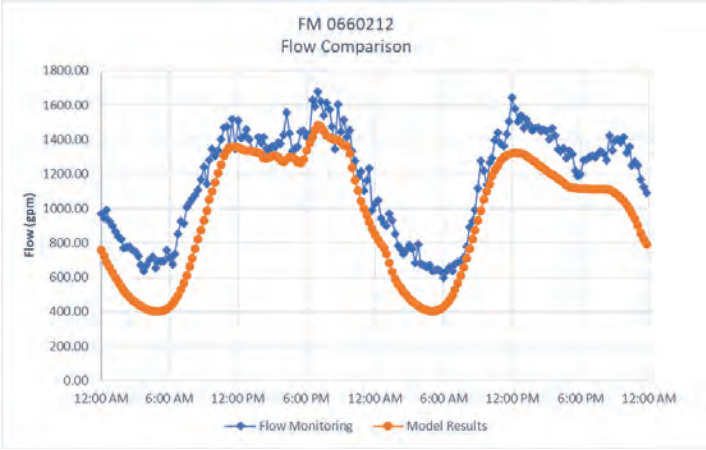
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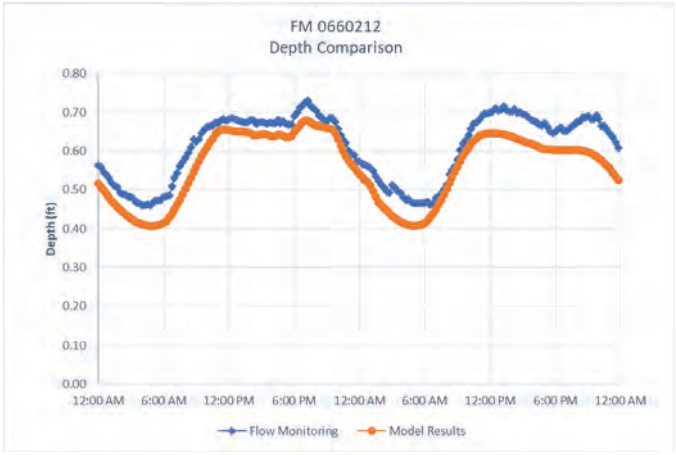


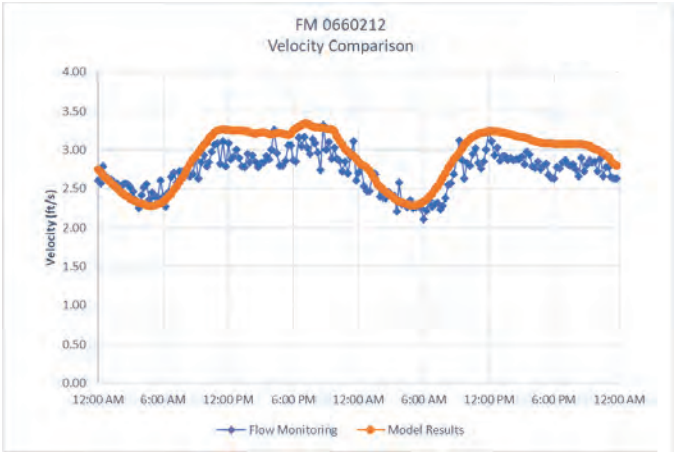




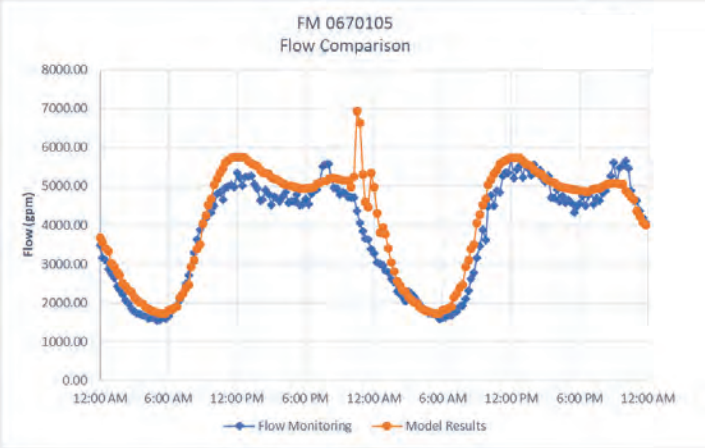
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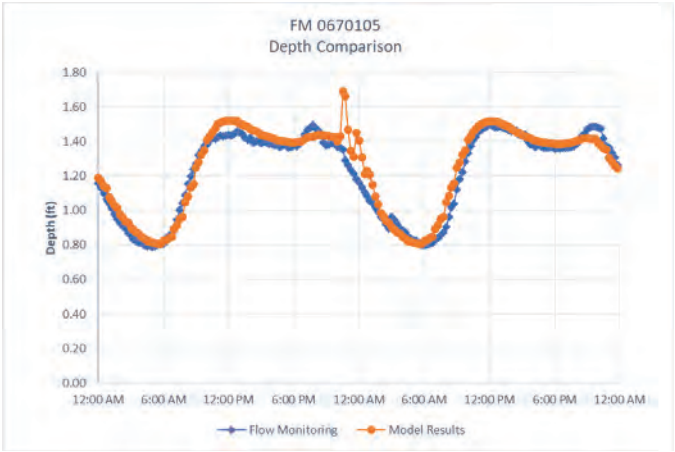


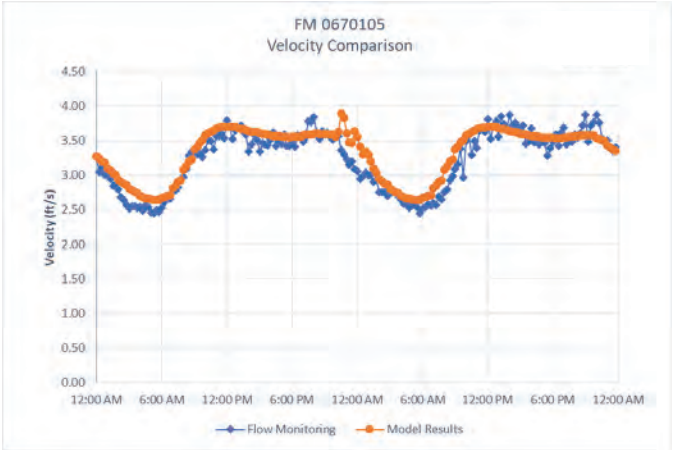




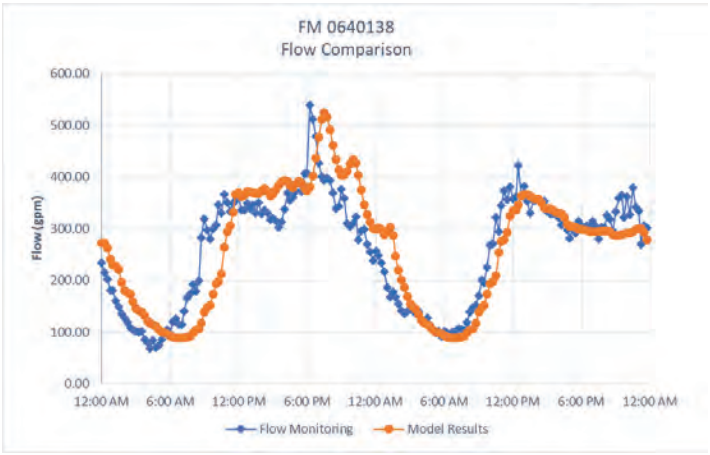
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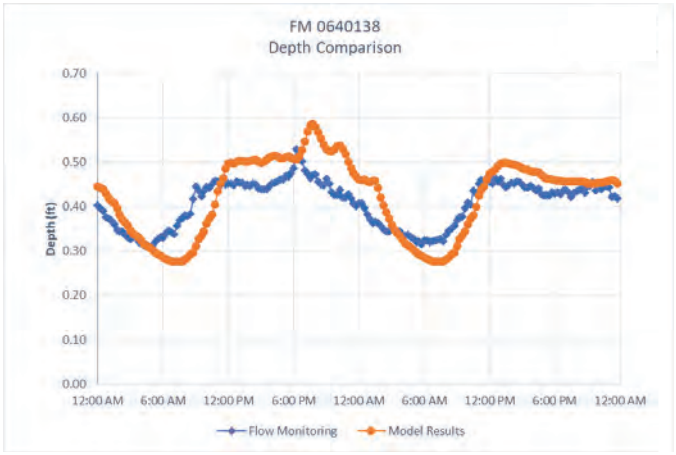


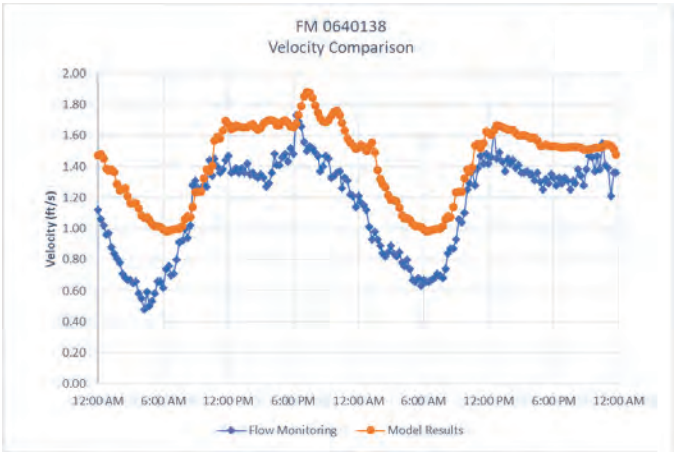




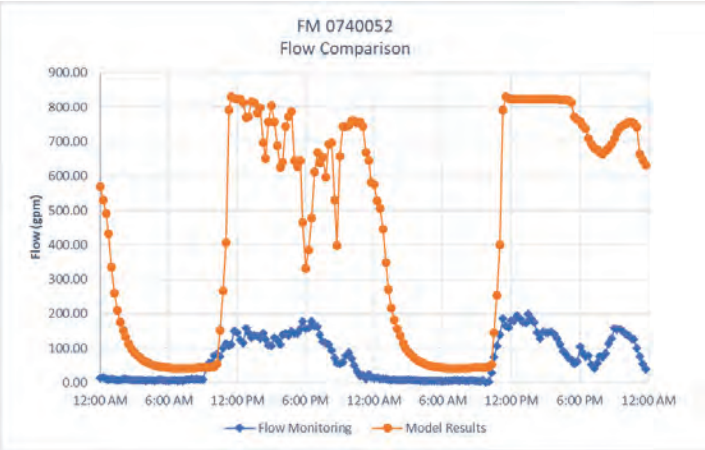
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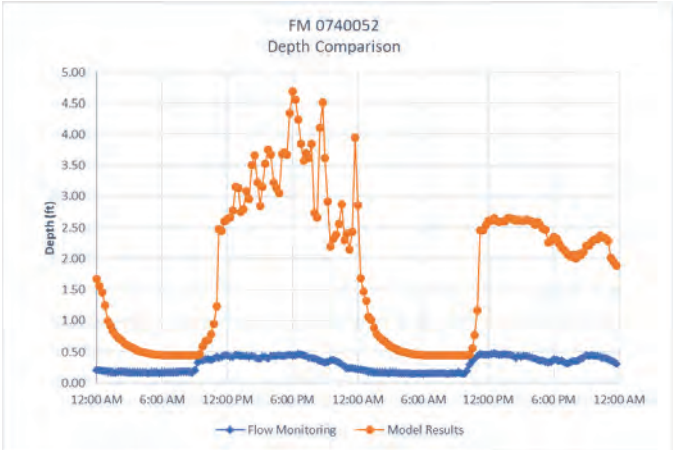


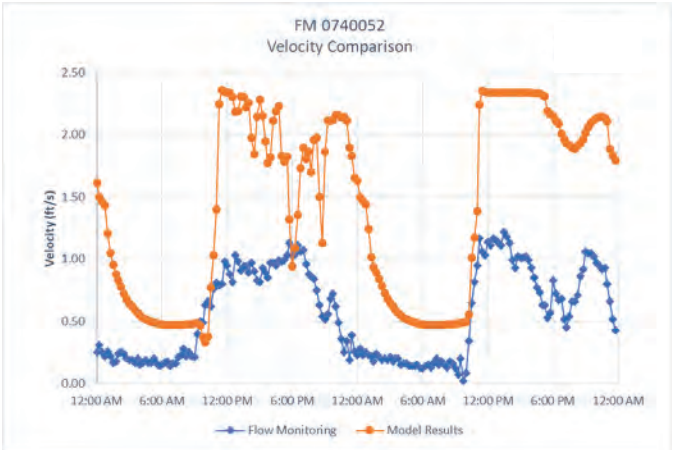




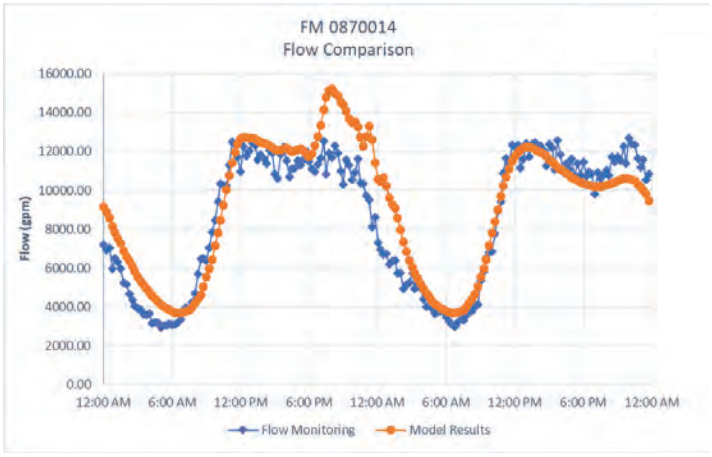
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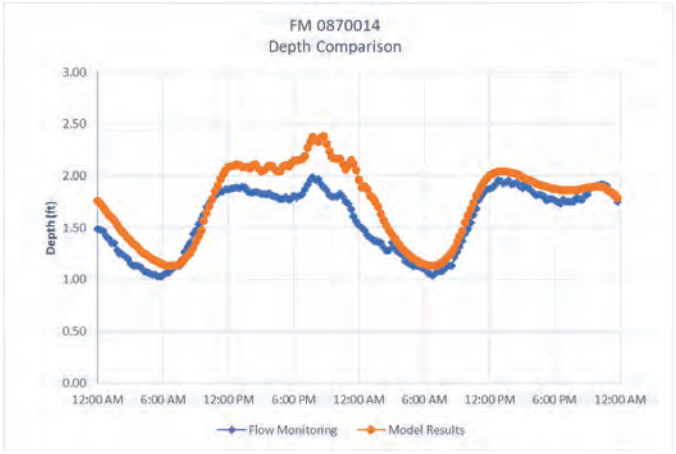


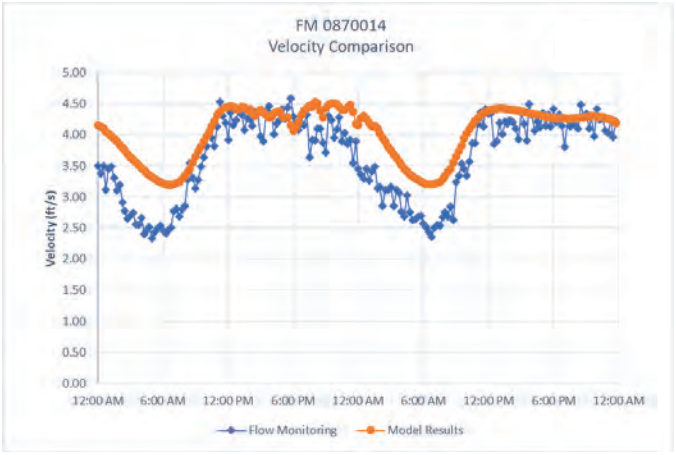




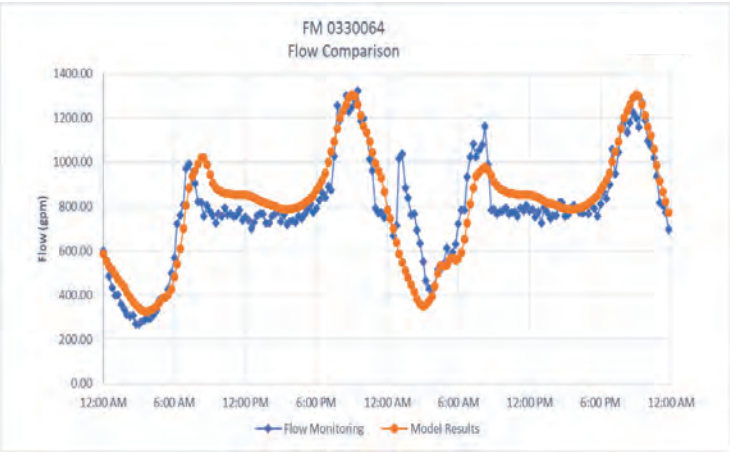
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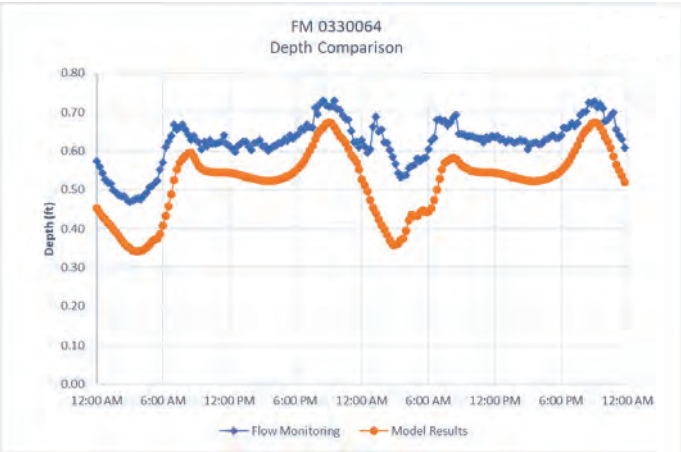


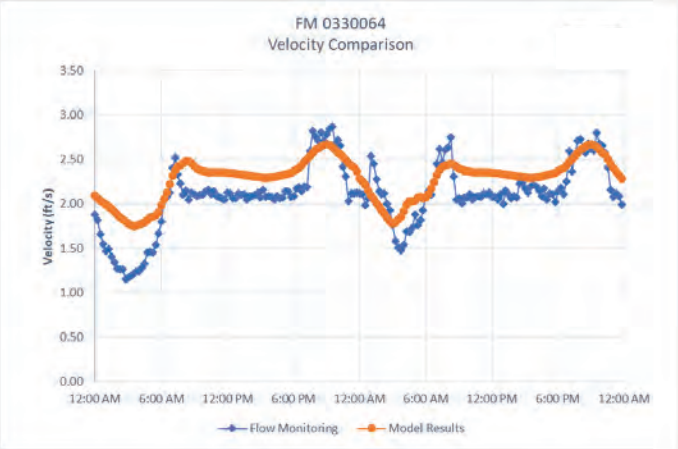




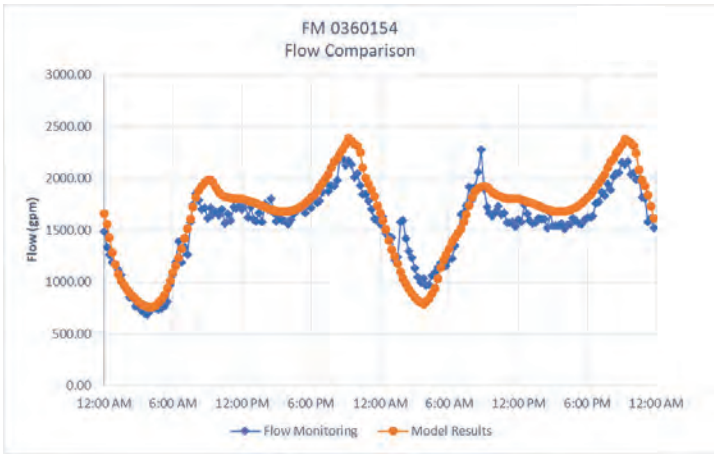
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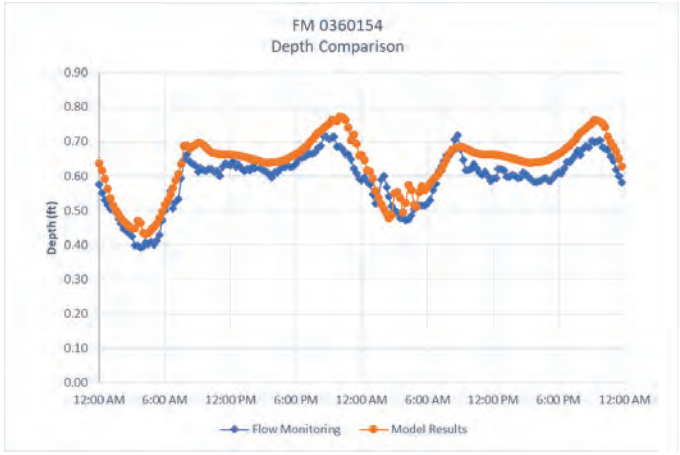


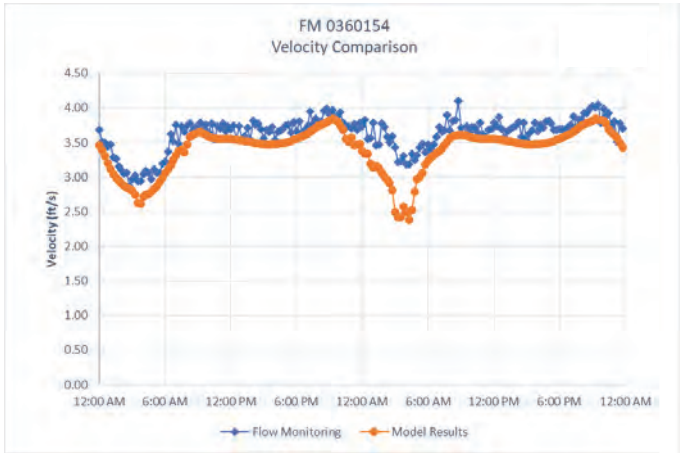




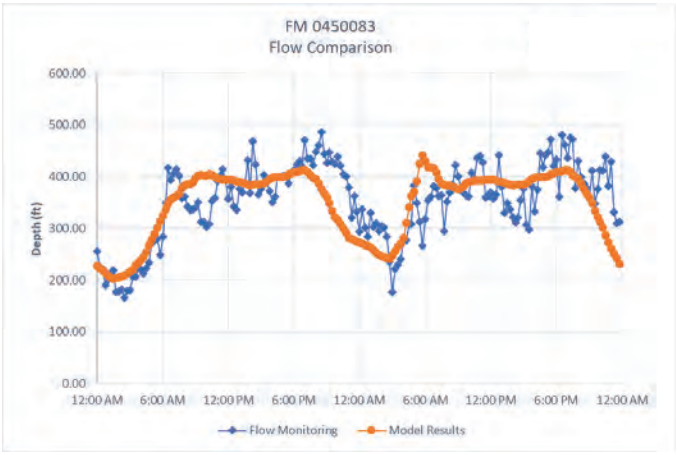
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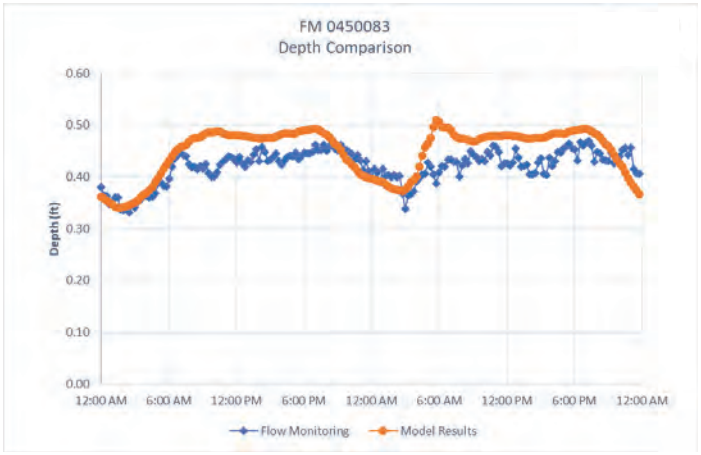


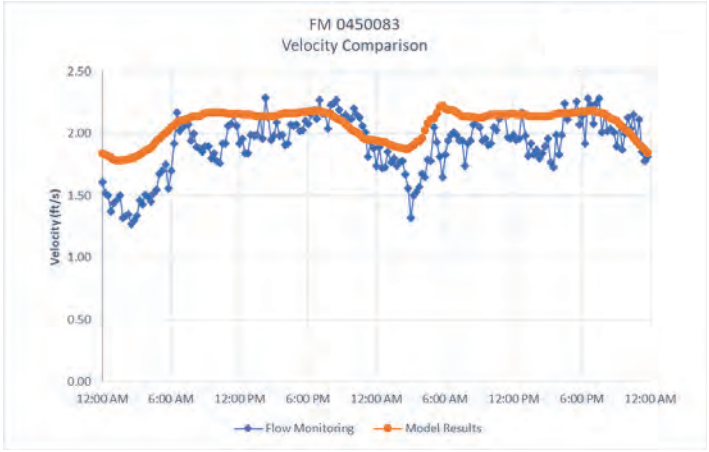




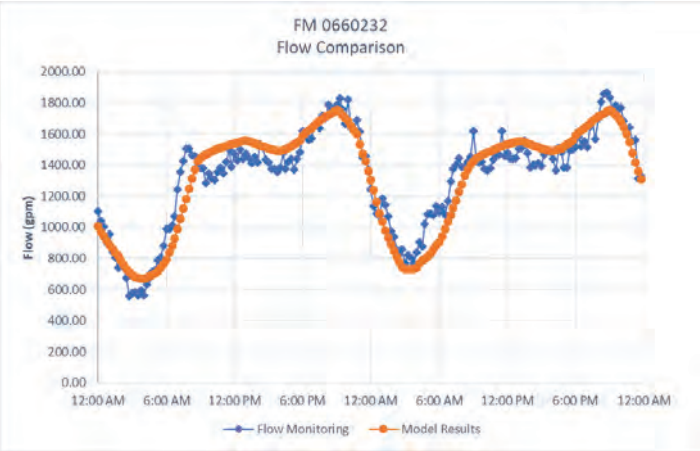
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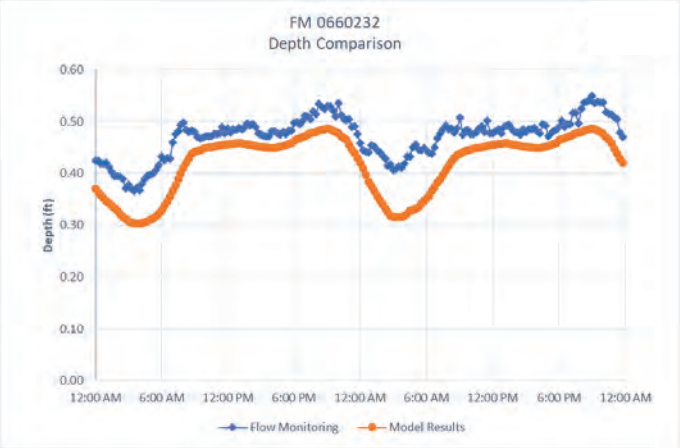


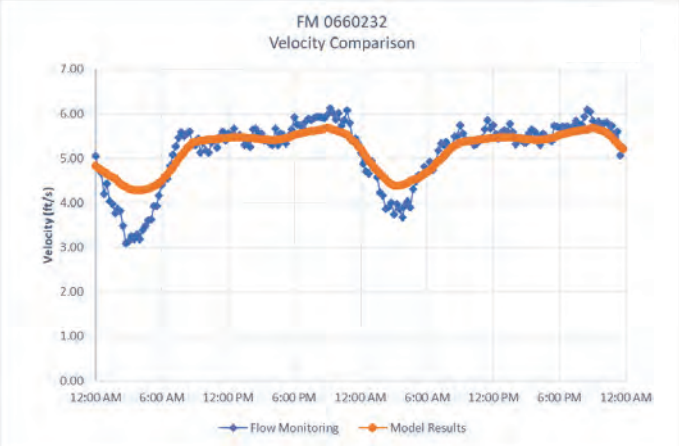




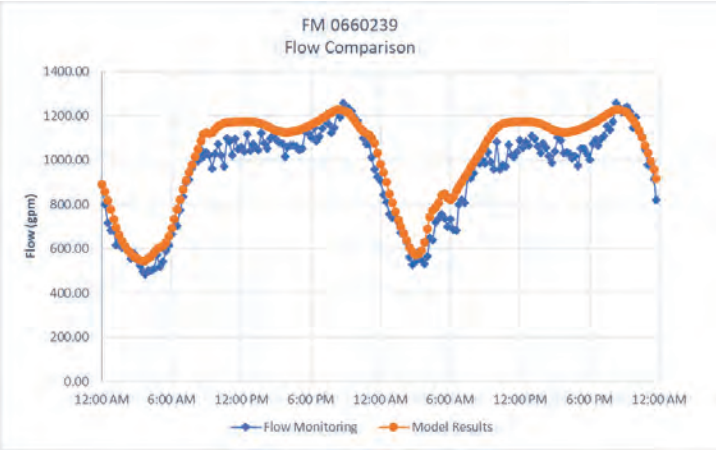
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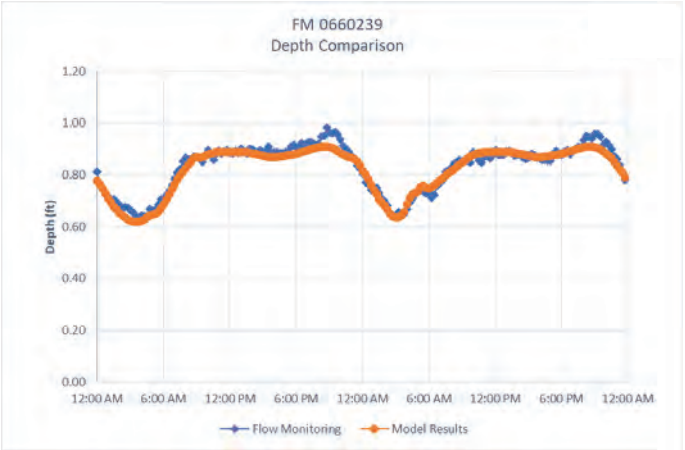


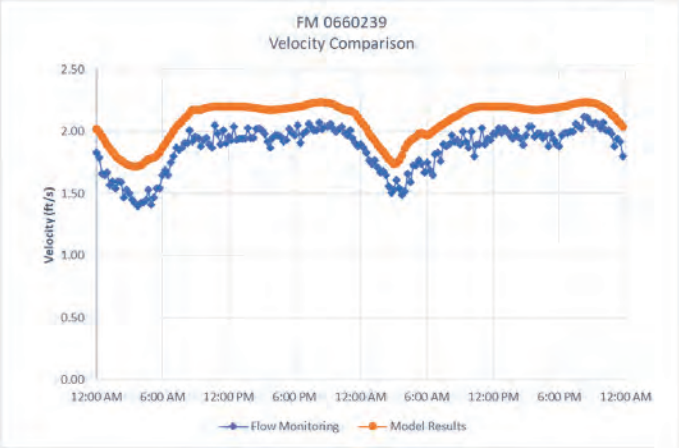




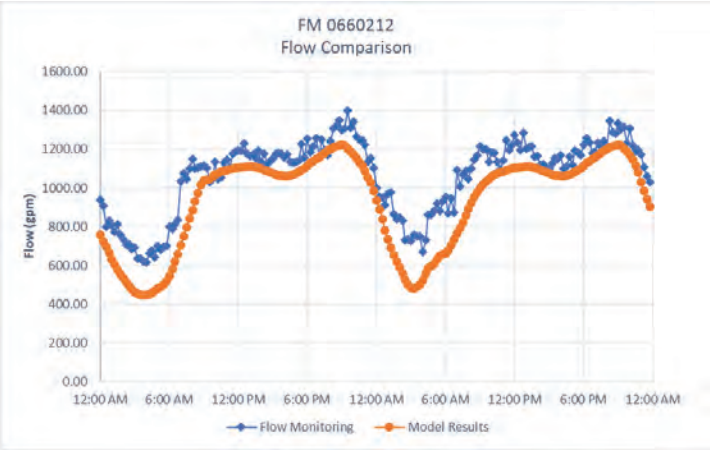
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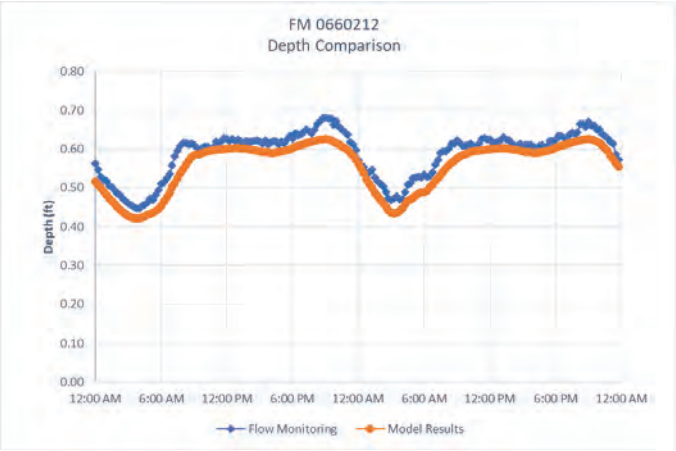


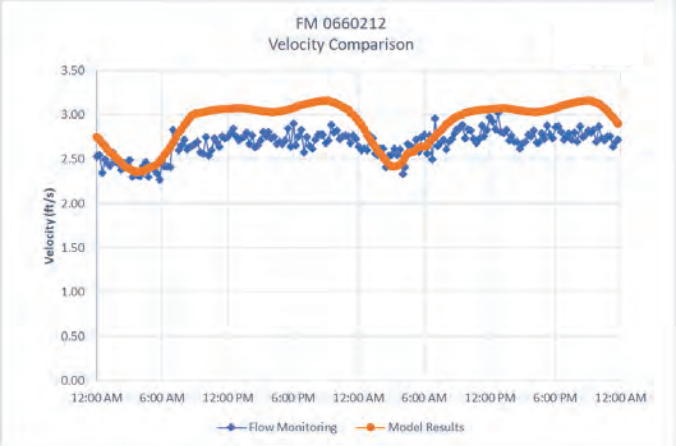




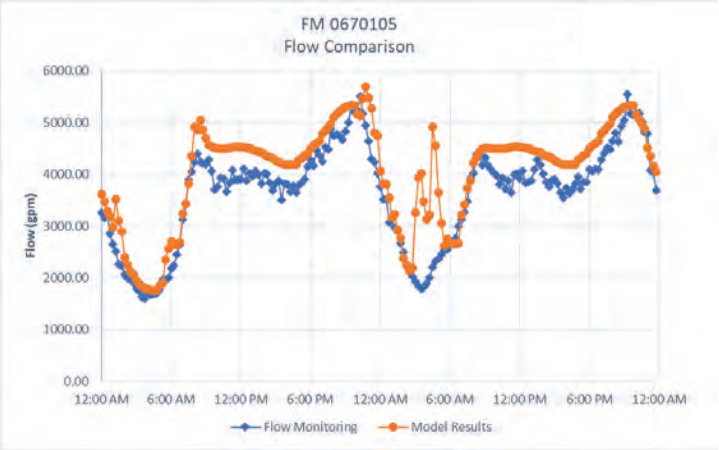
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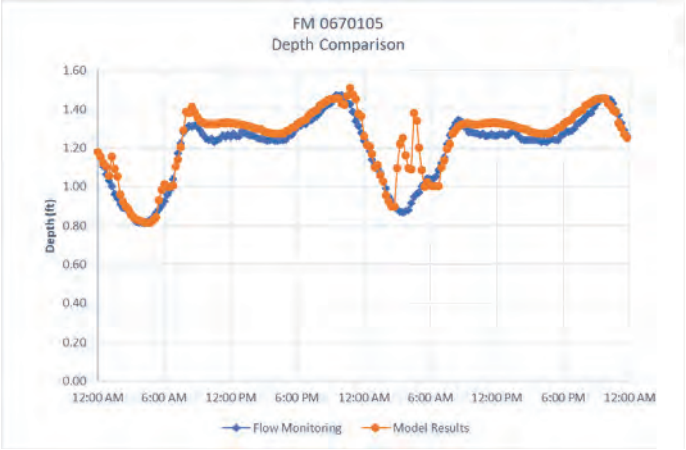


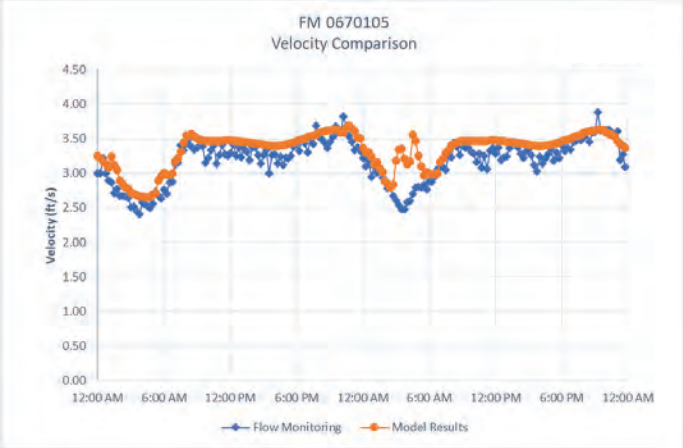




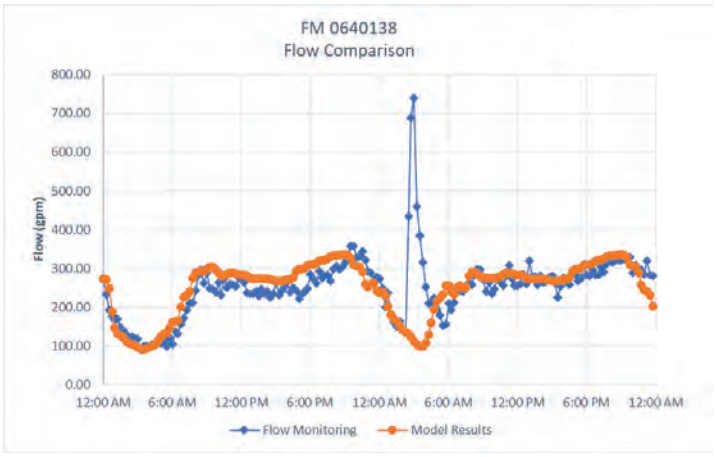
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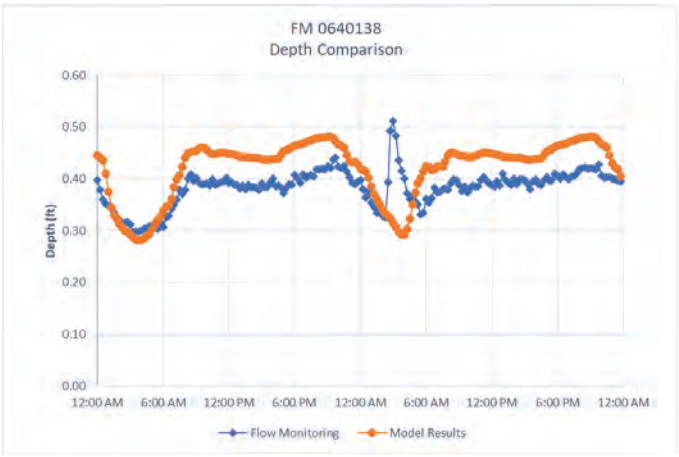


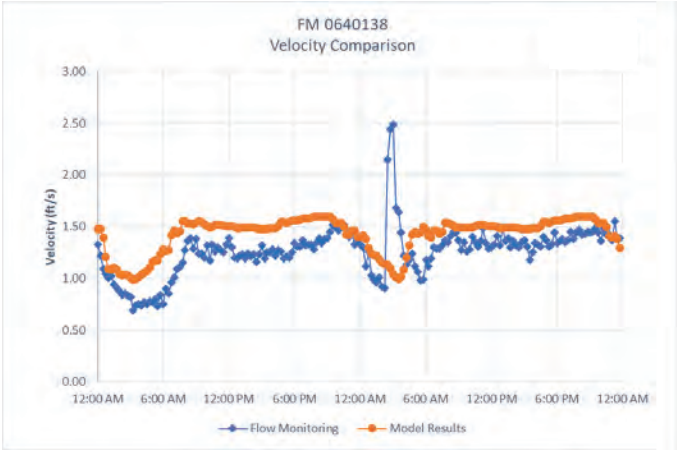




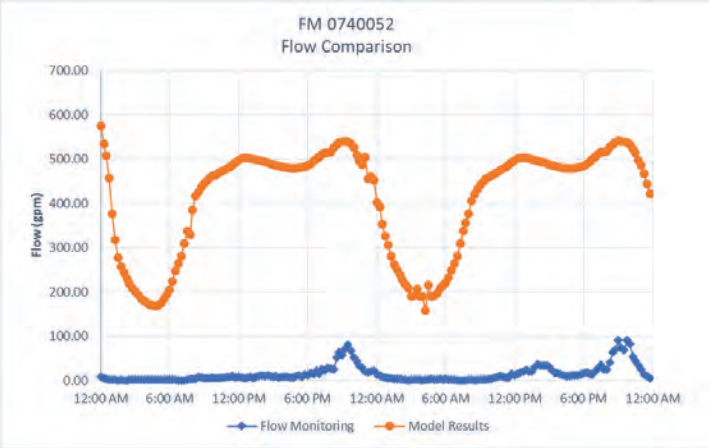
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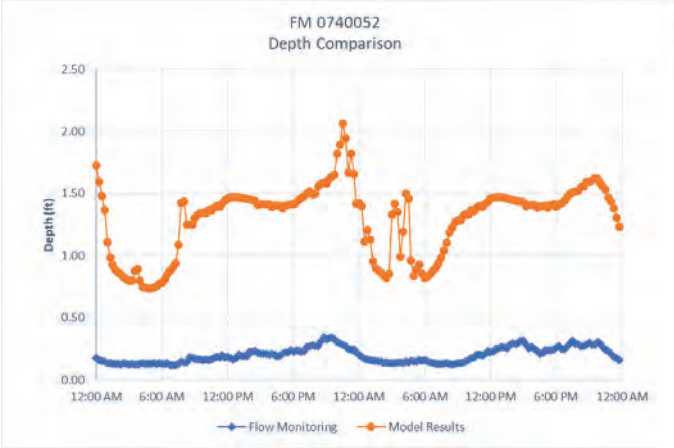


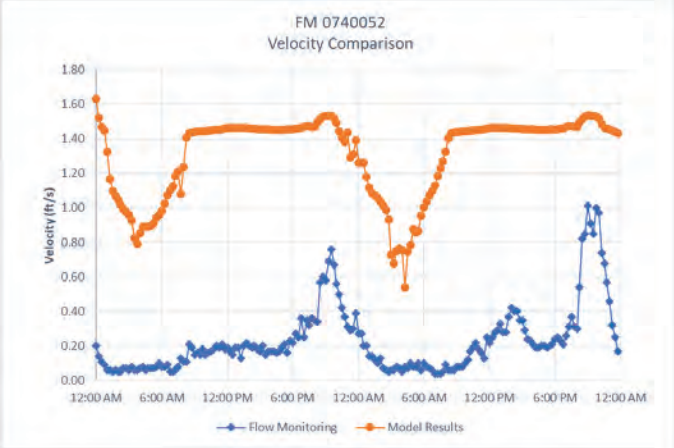




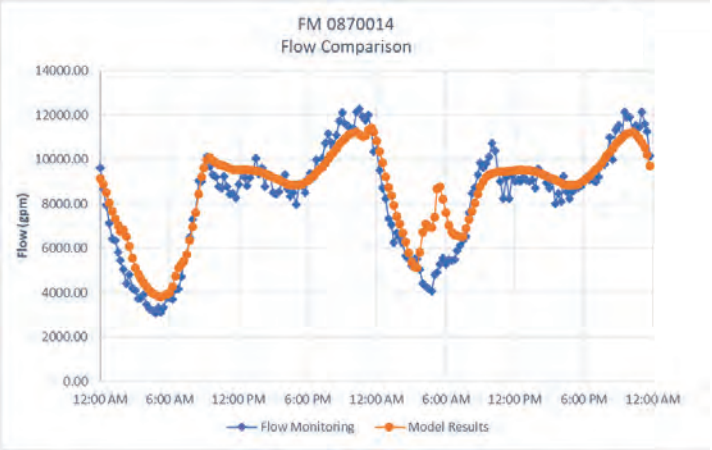
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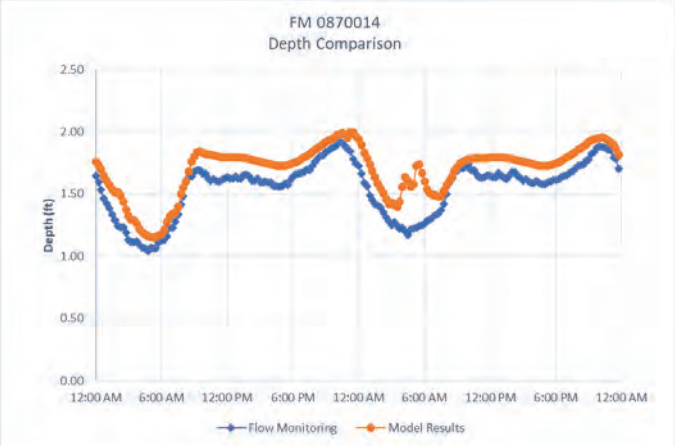


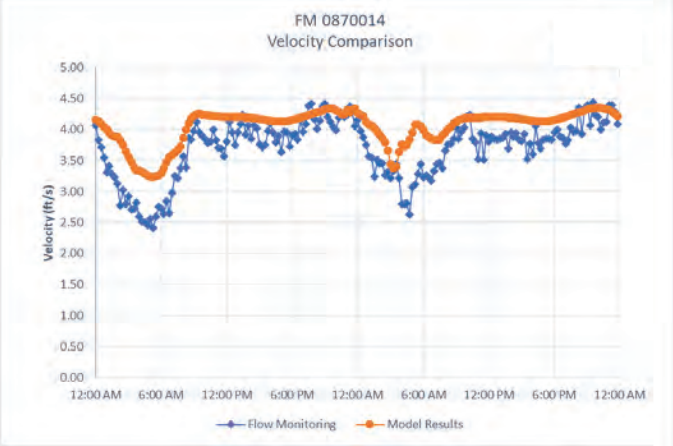




WW Event 4 - 0870014







APPENDIX G

HYDRAULIC PROFILES

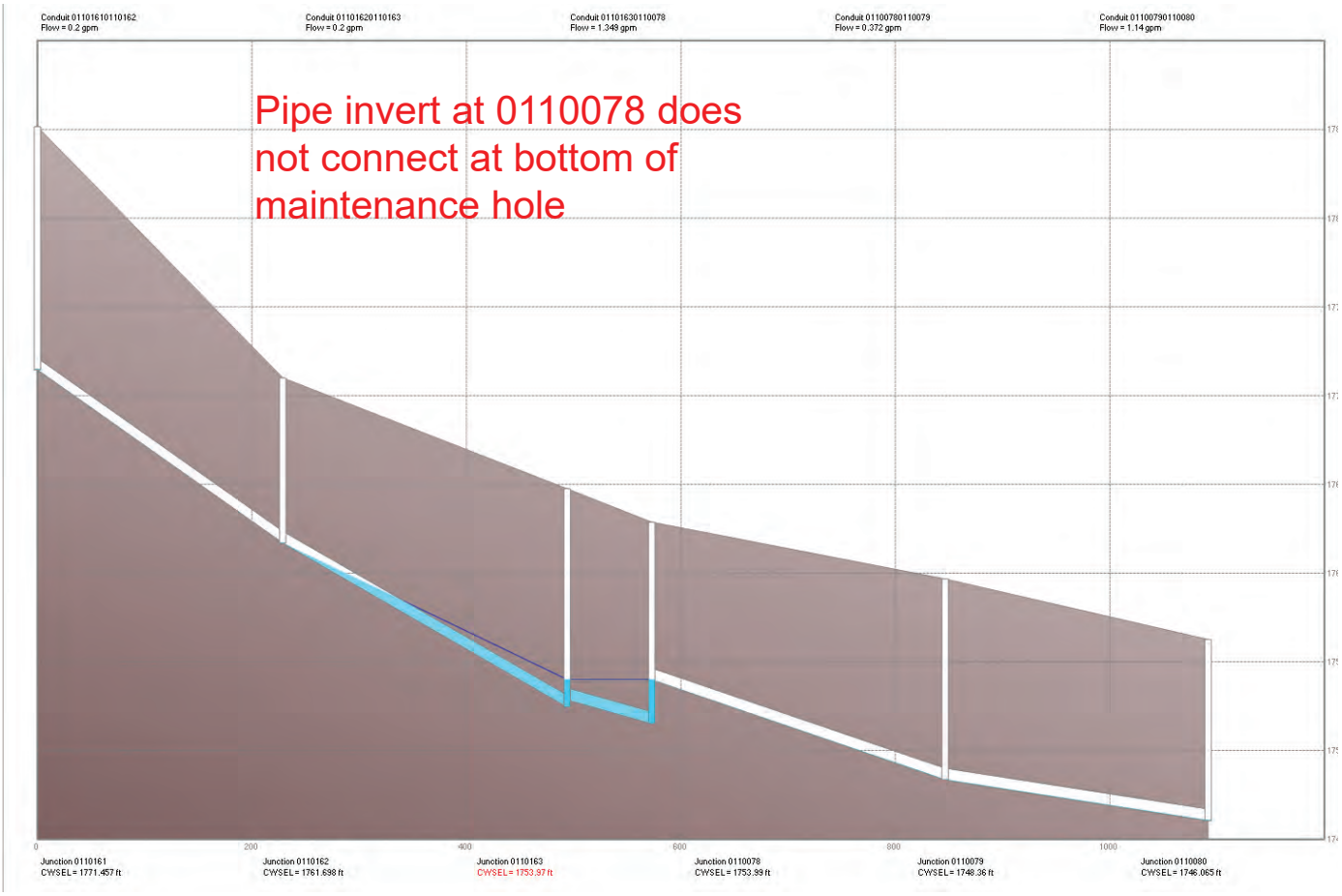
TYPES OF ISSUES

Issue Type	Description
1	GIS issue (disconnects, negative slopes, manhole invert, incorrect slope)
2	Real capacity issue
3	Pipe contraction (possible GIS issue)

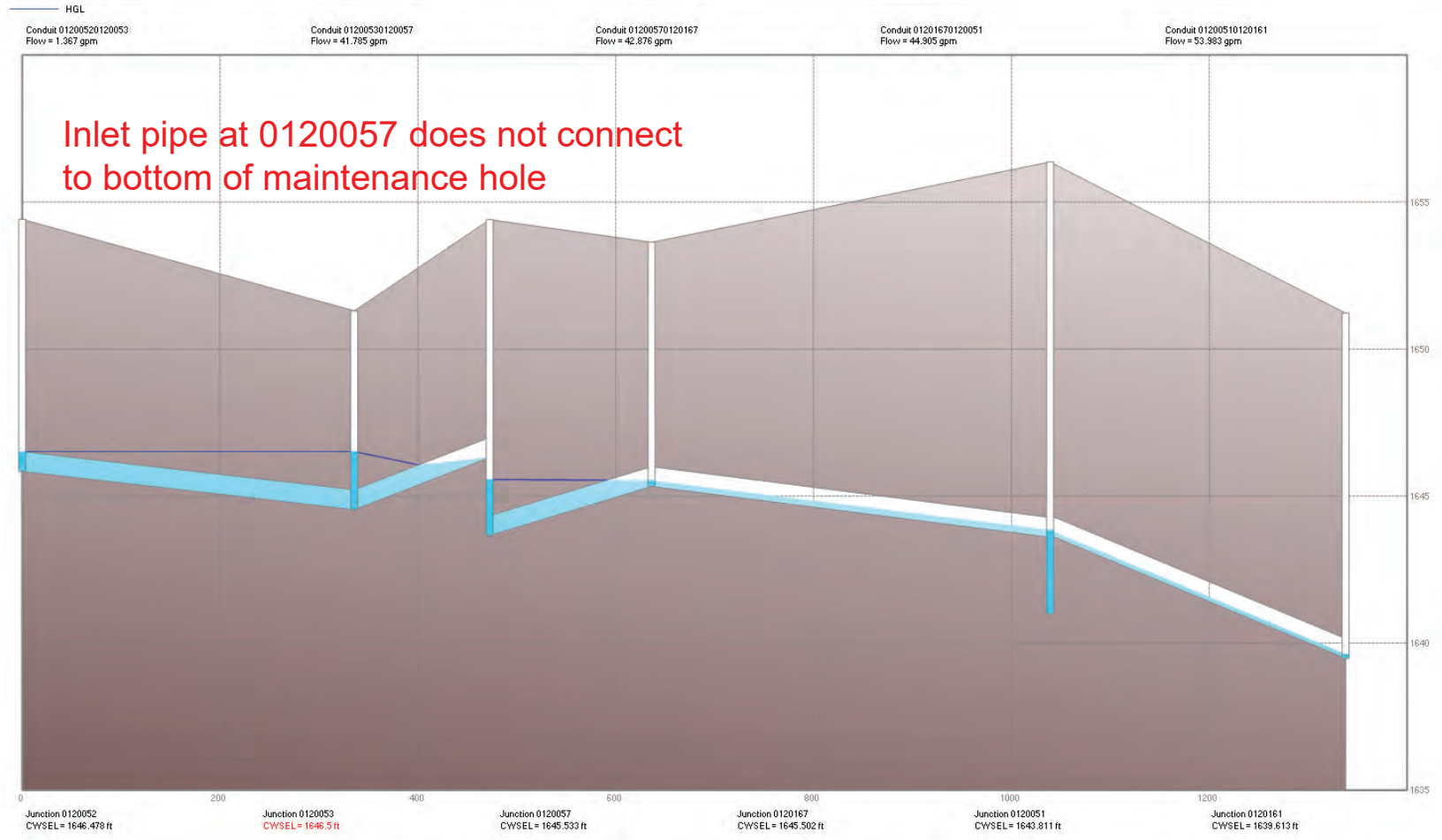
GIS ISSUE

TYPE 1

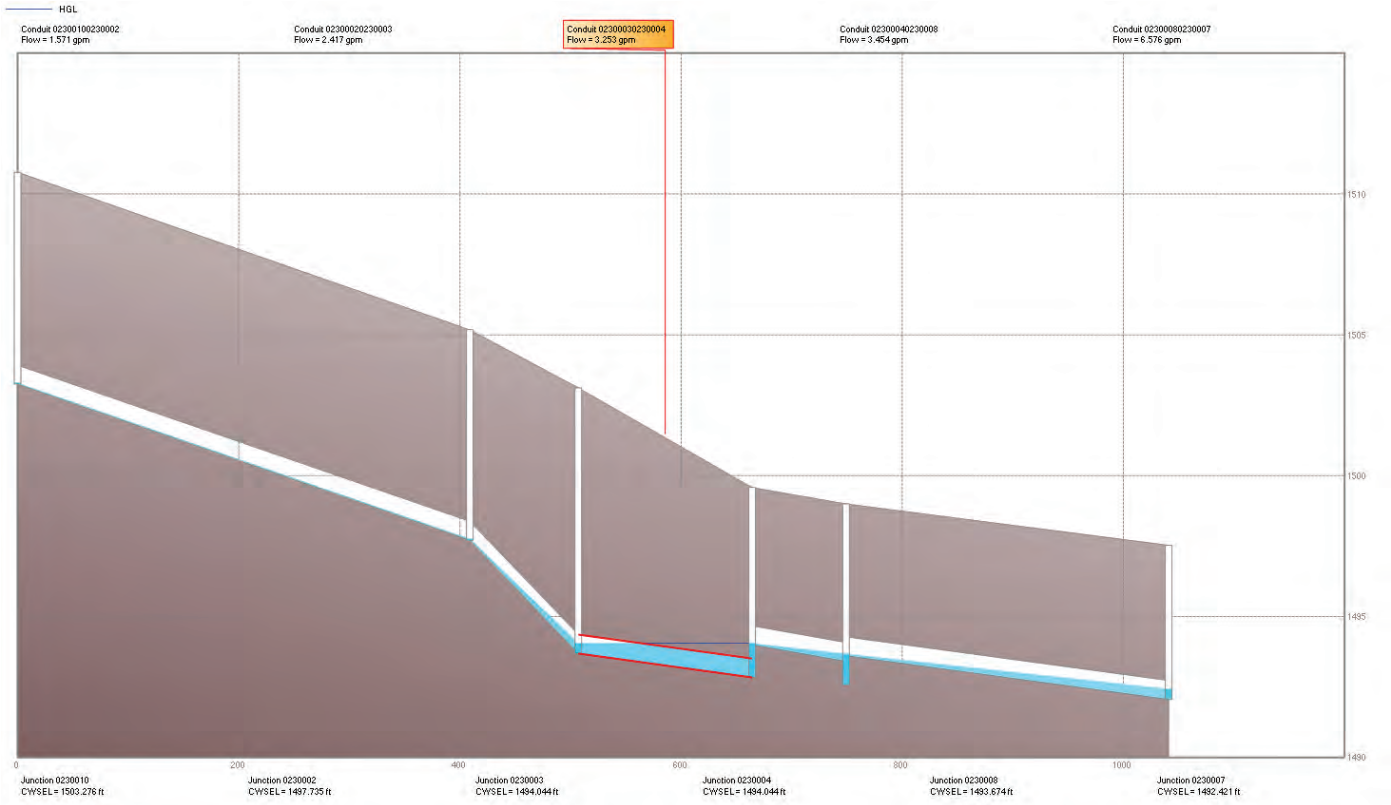
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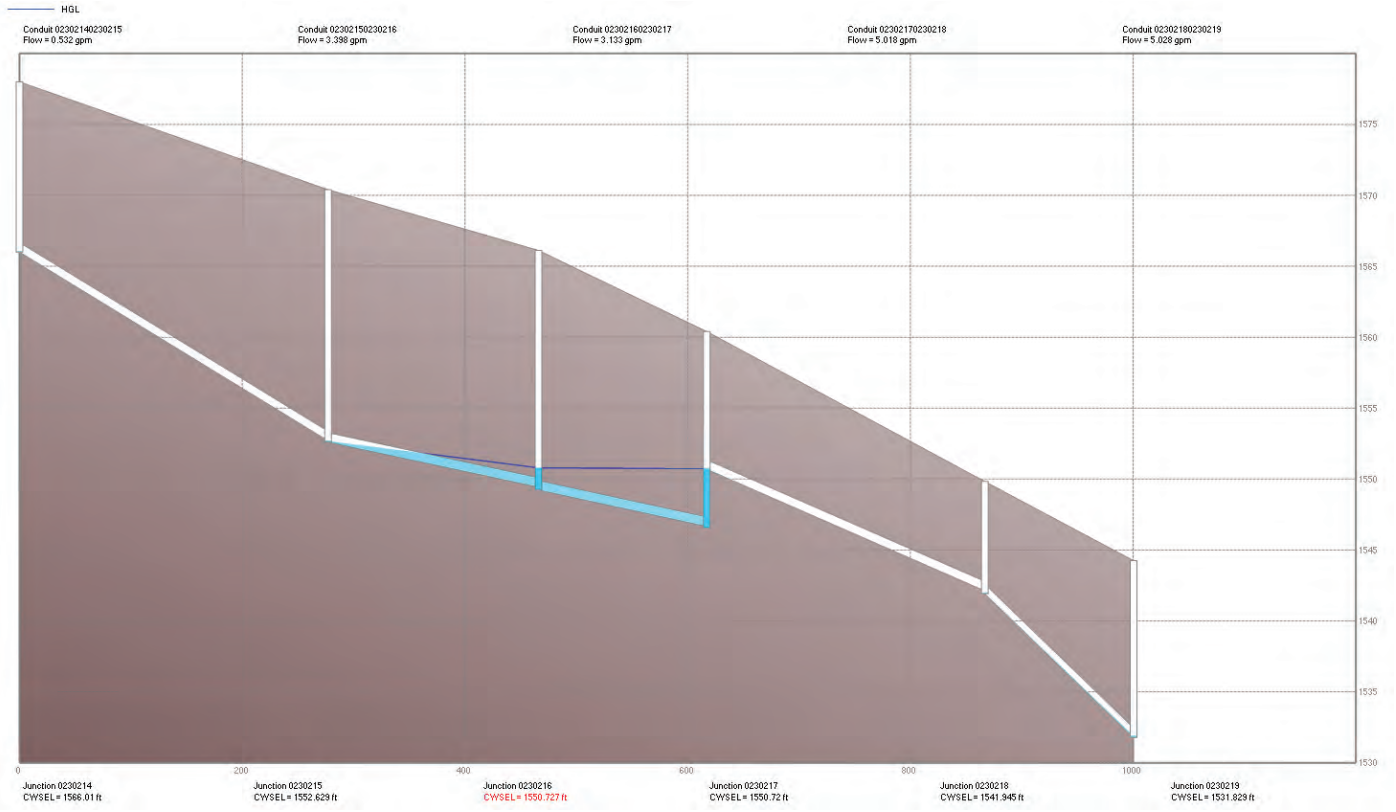
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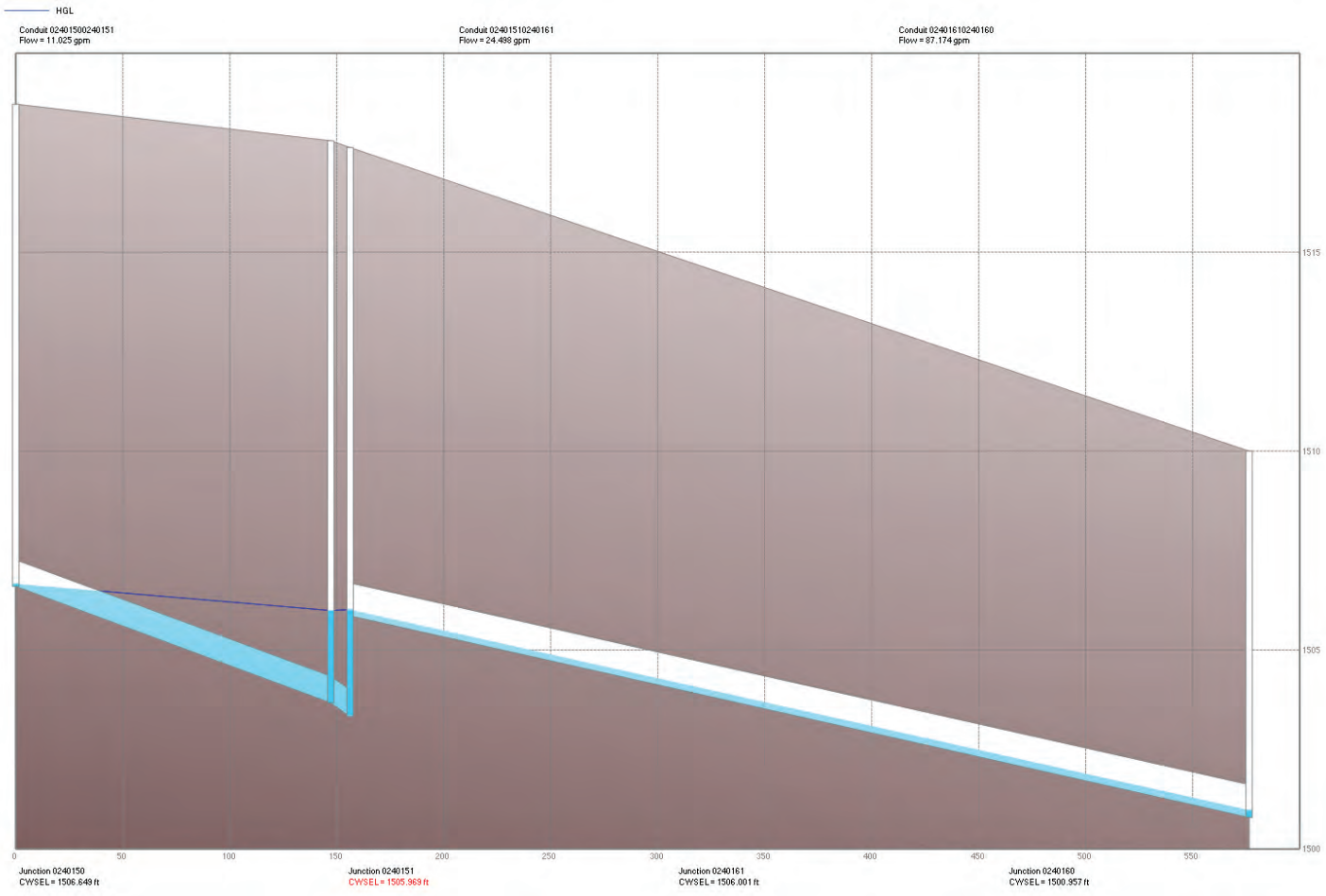
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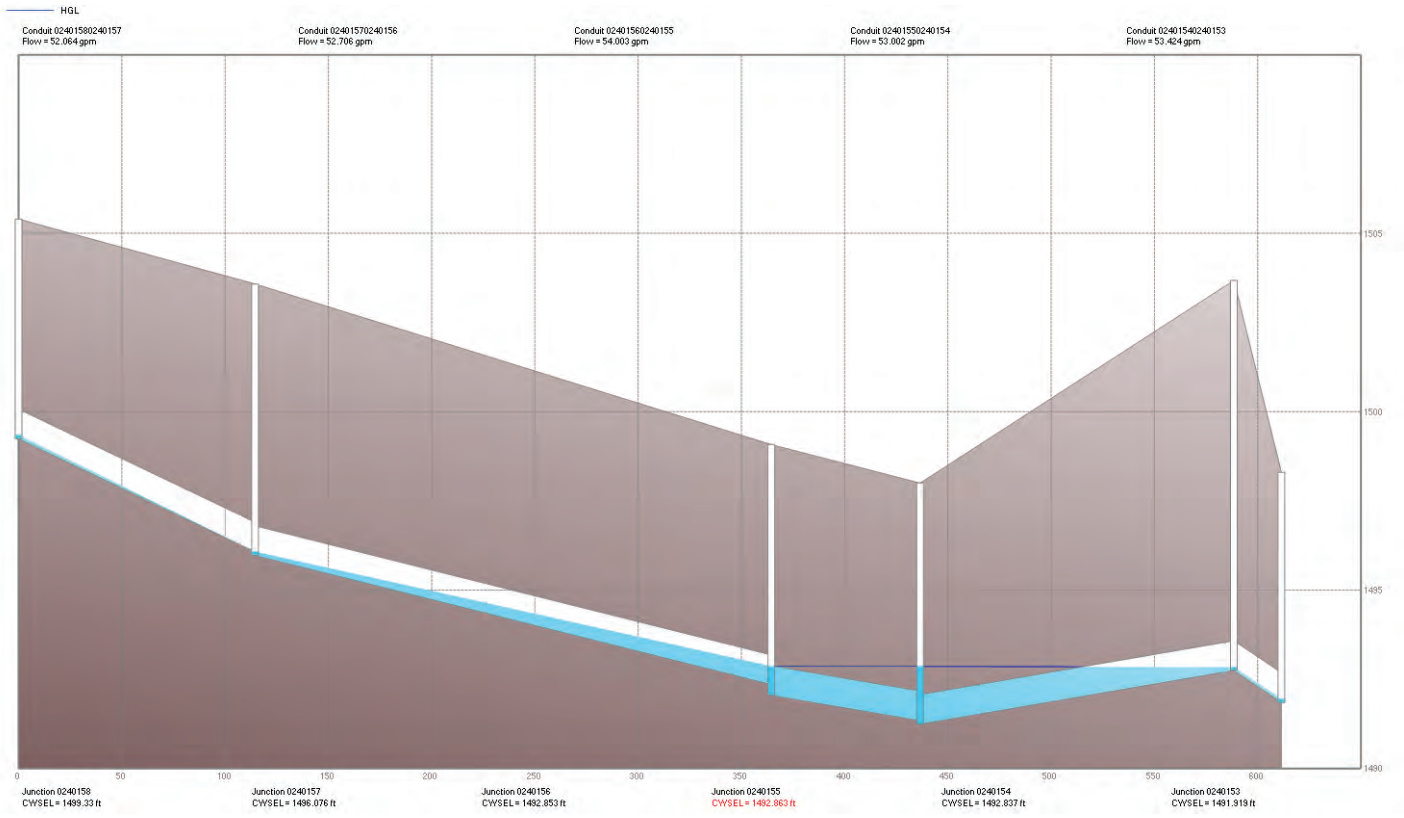
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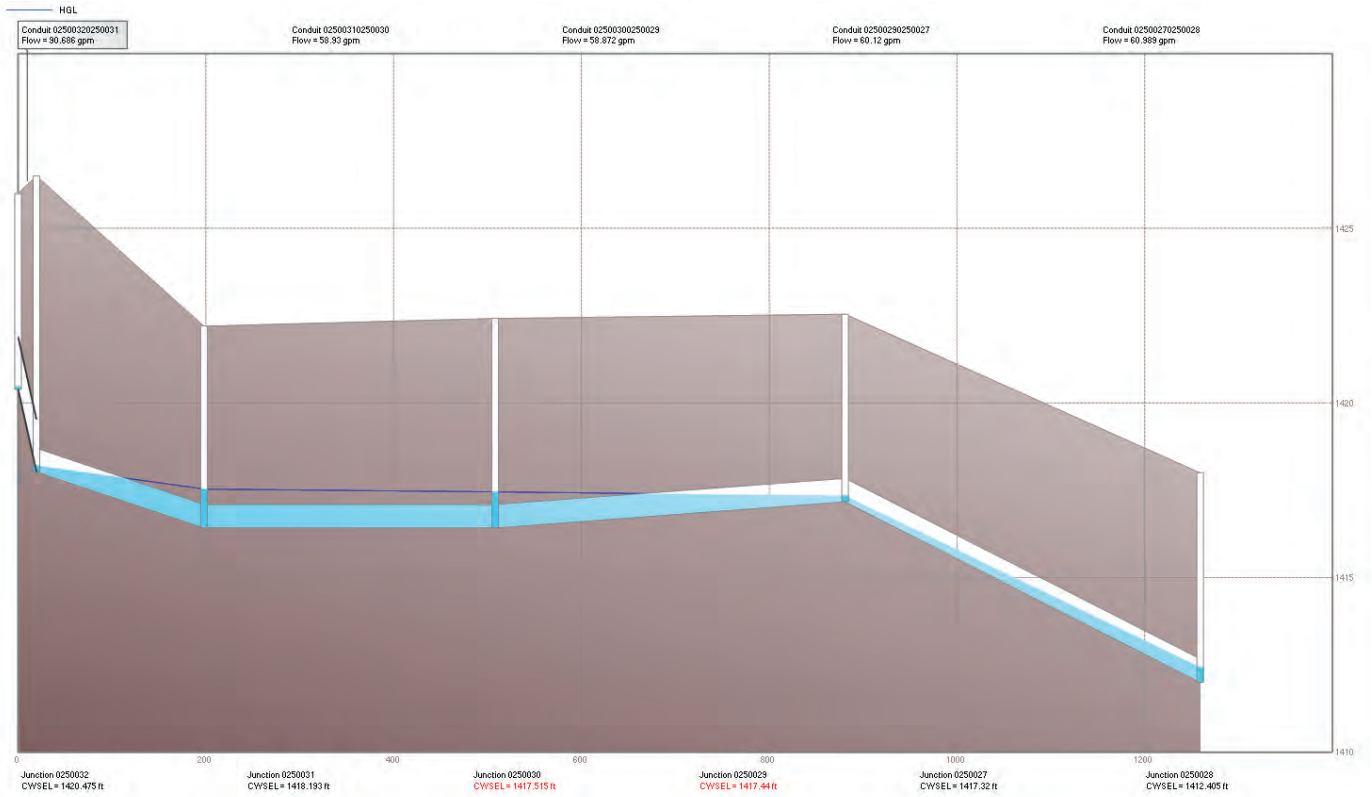
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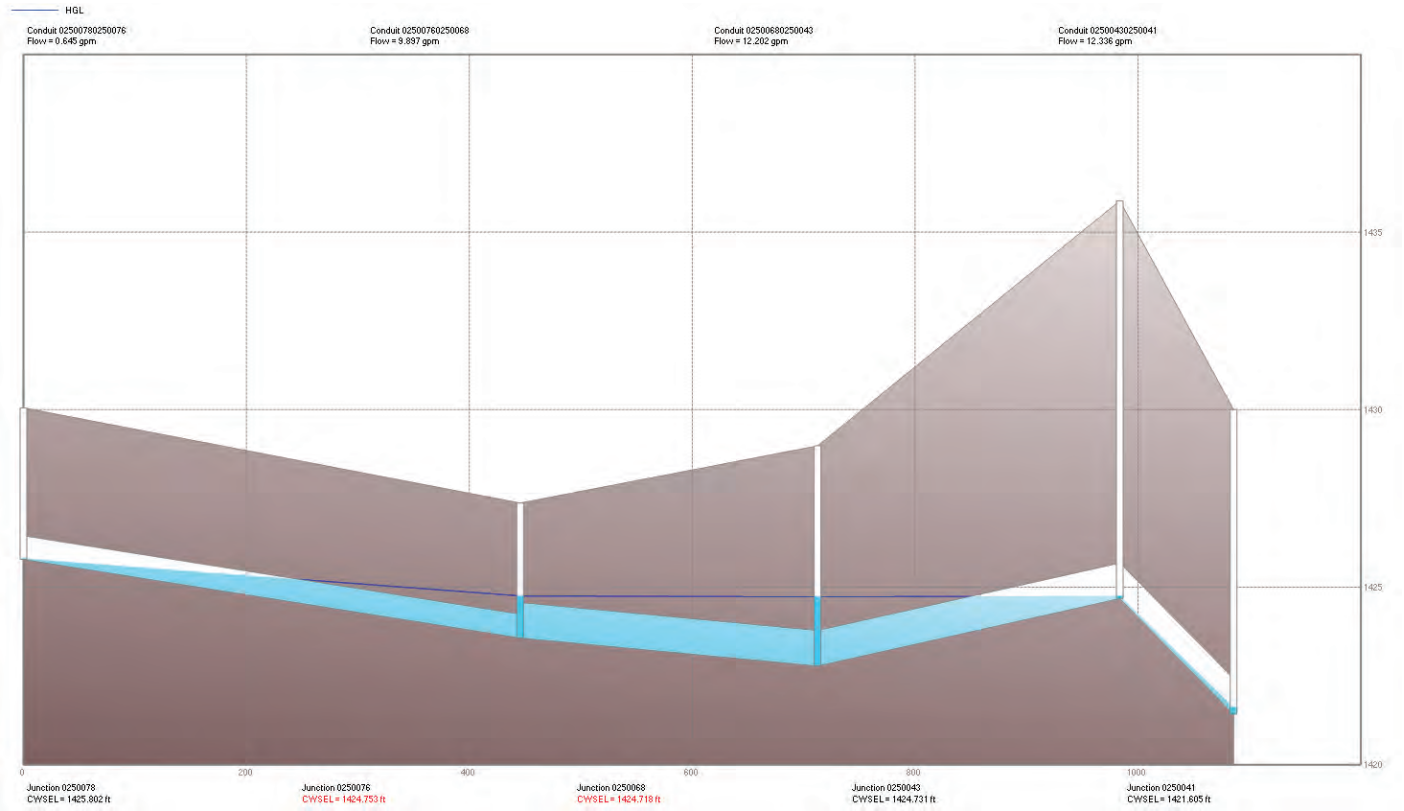
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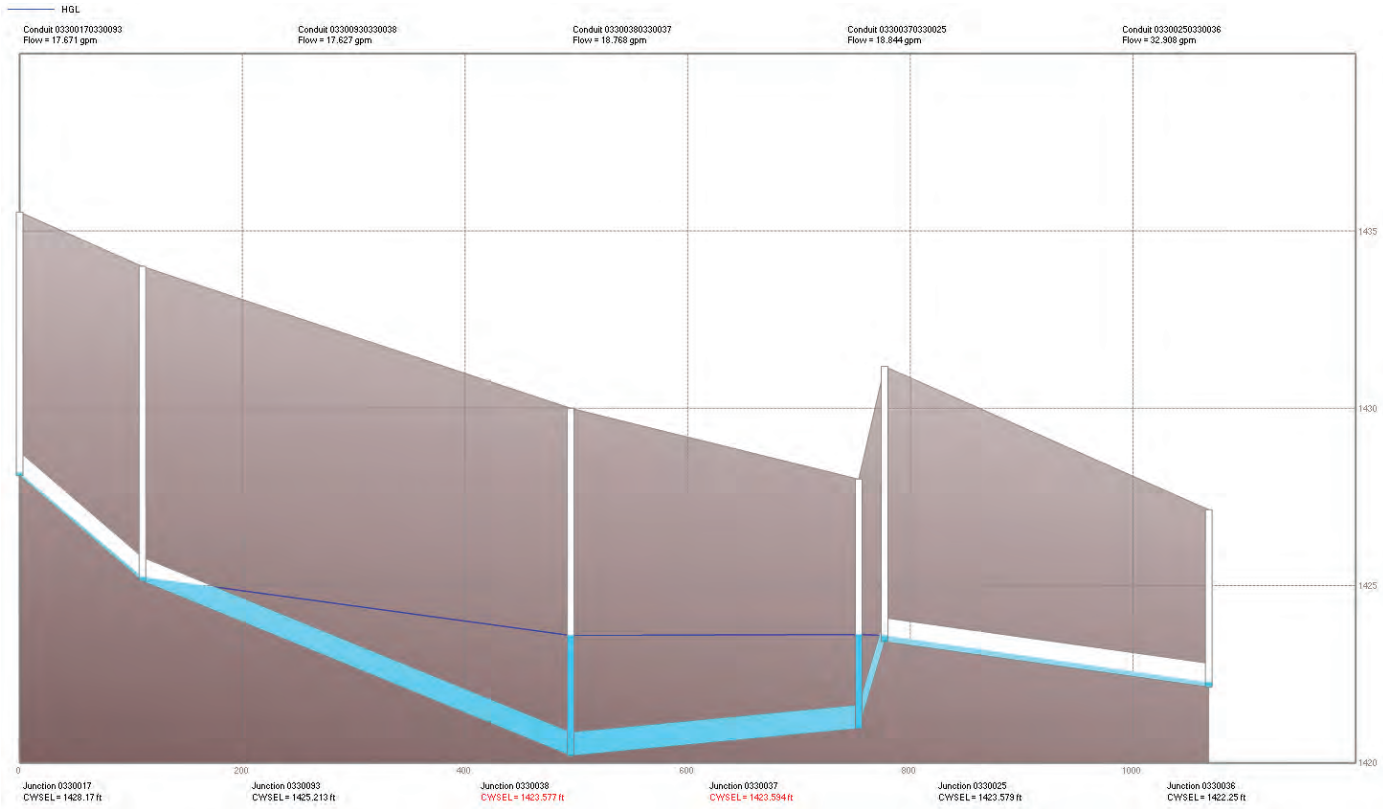
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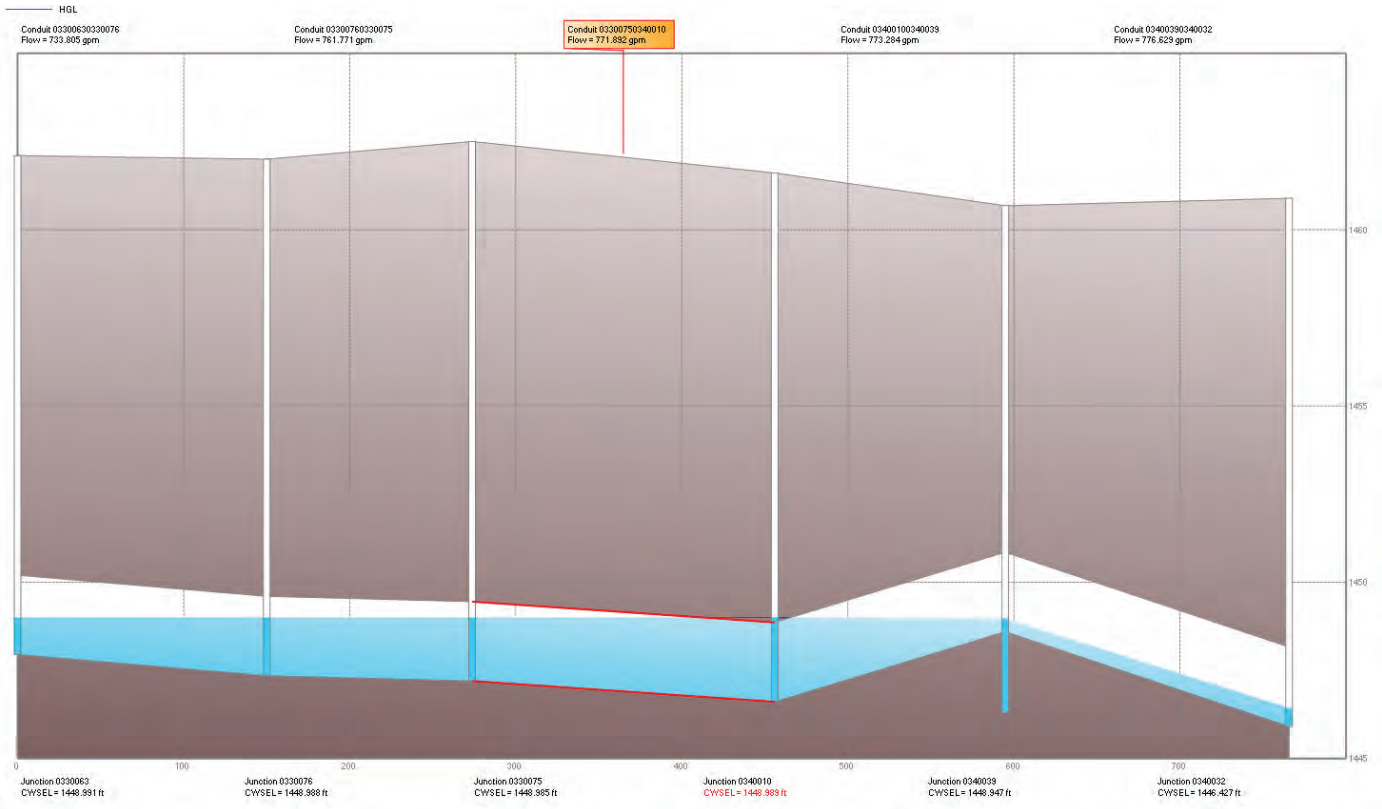
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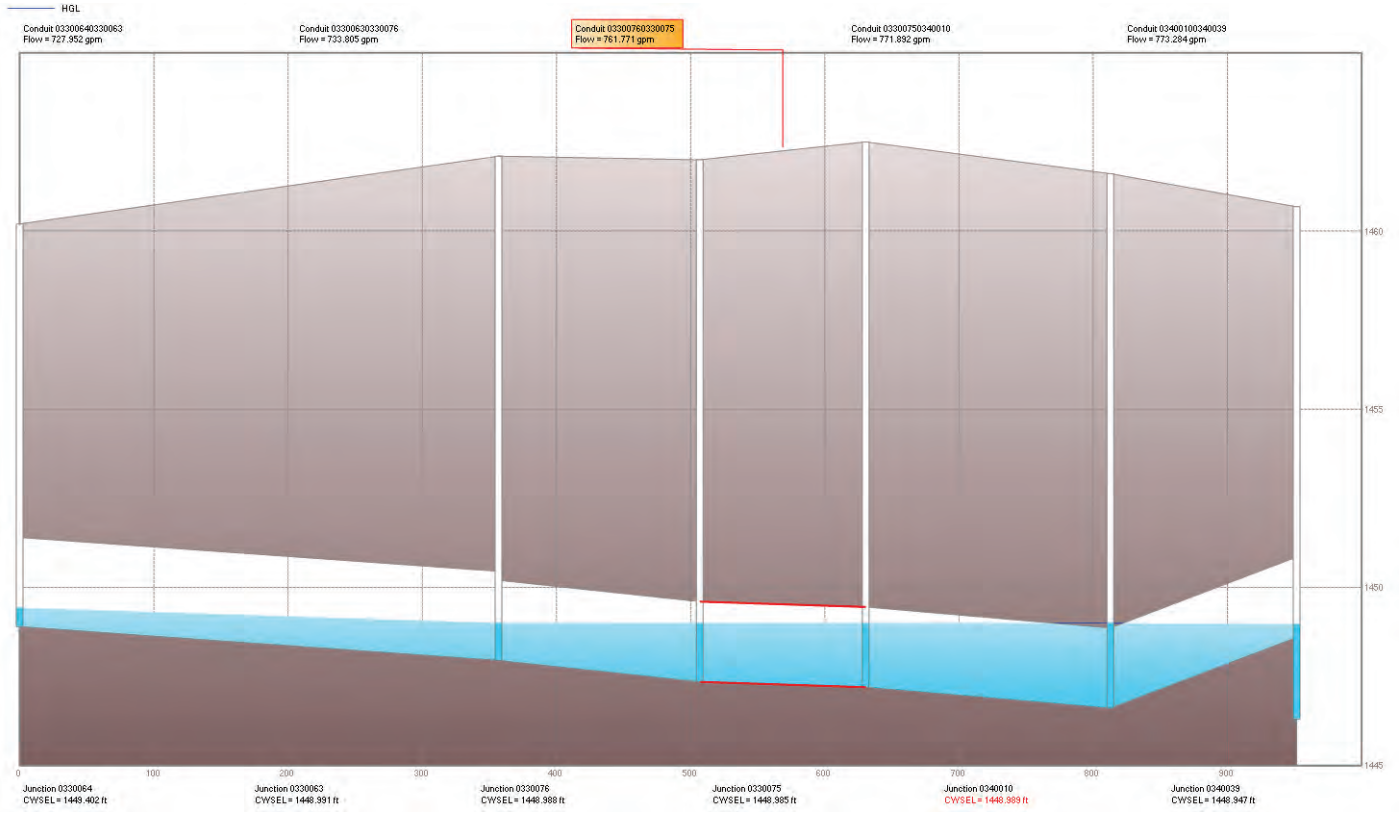
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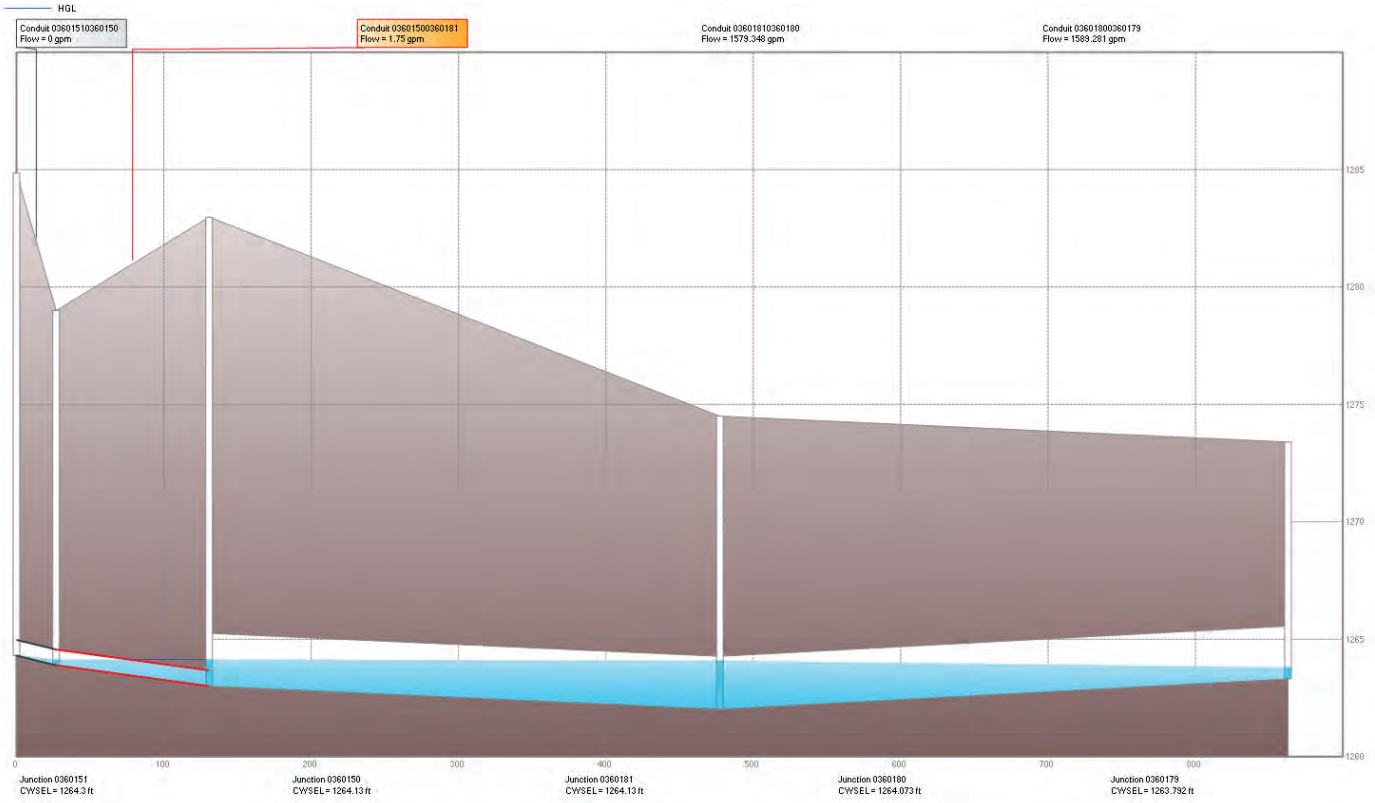
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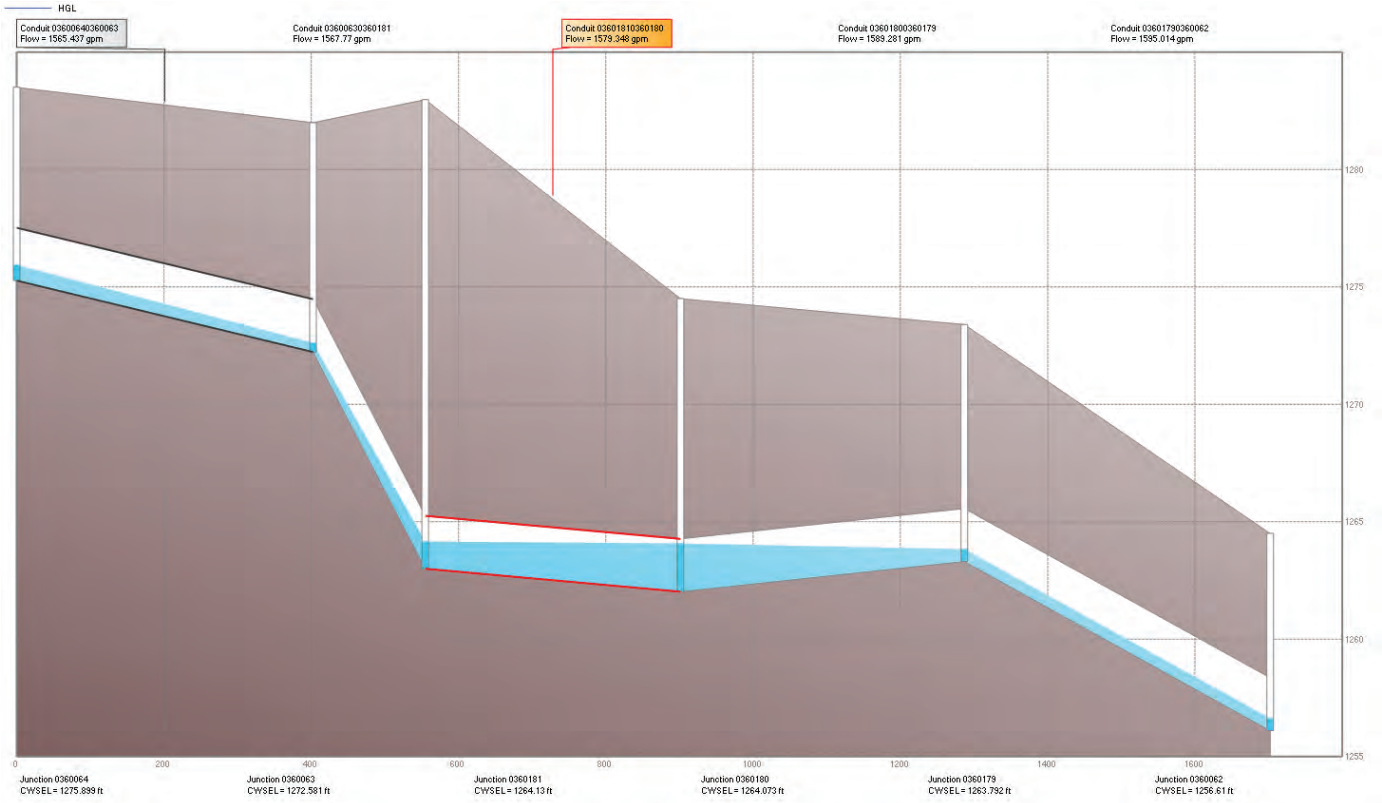
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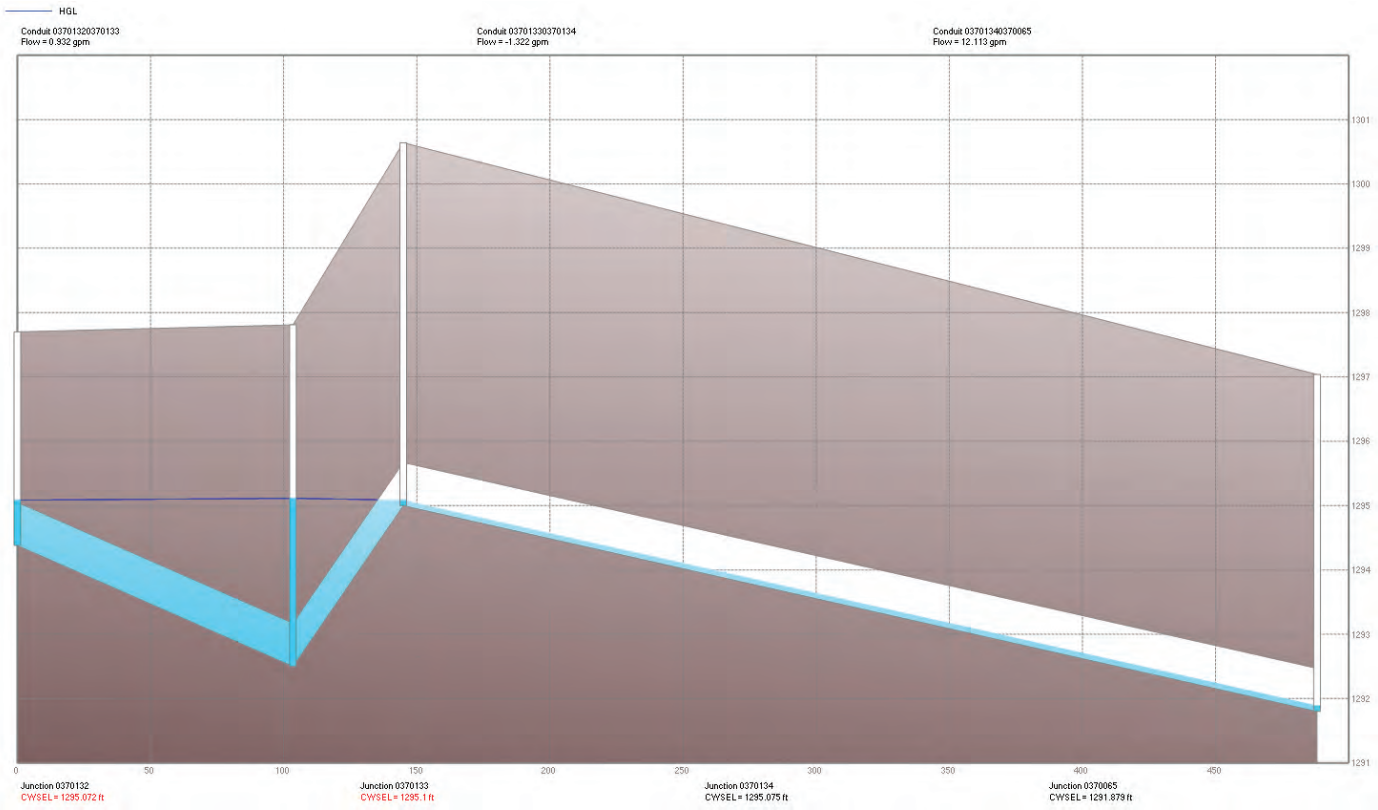
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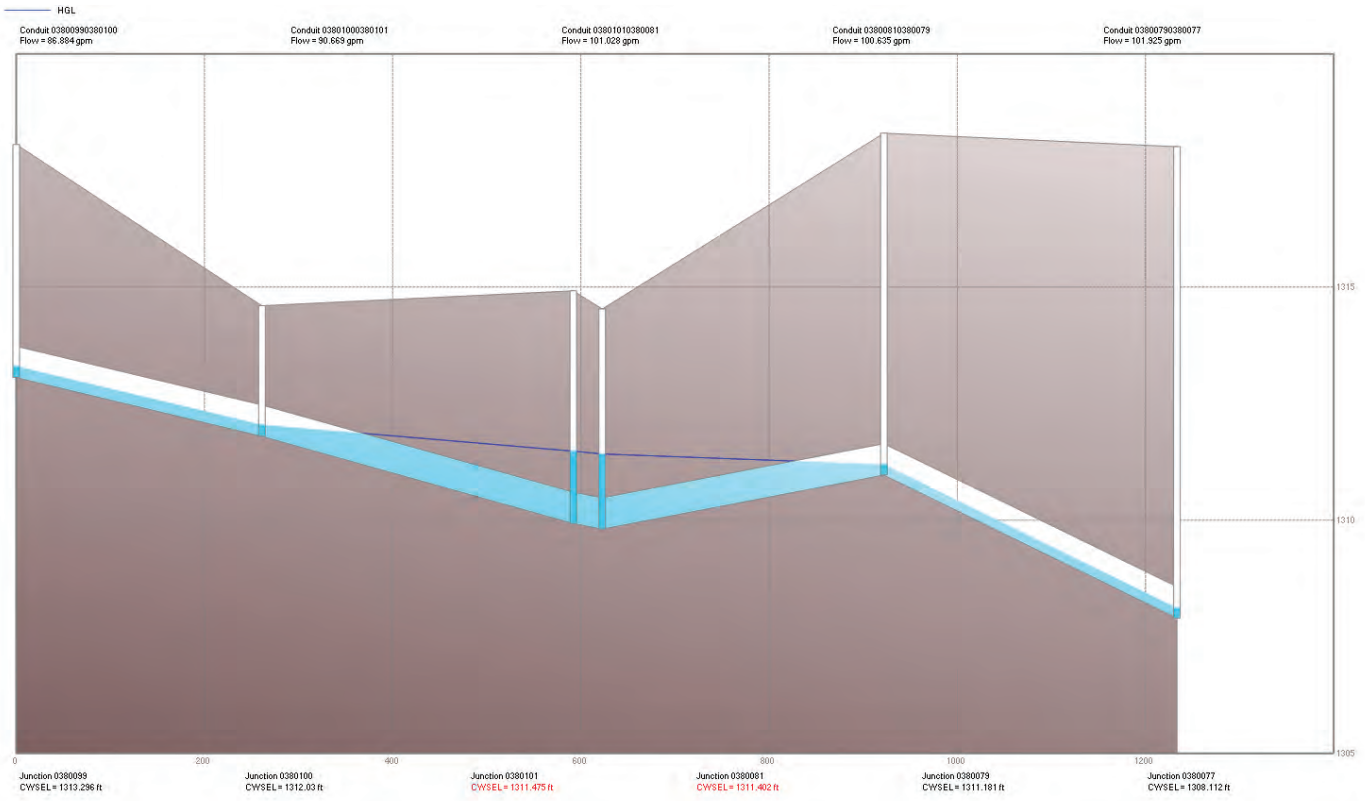
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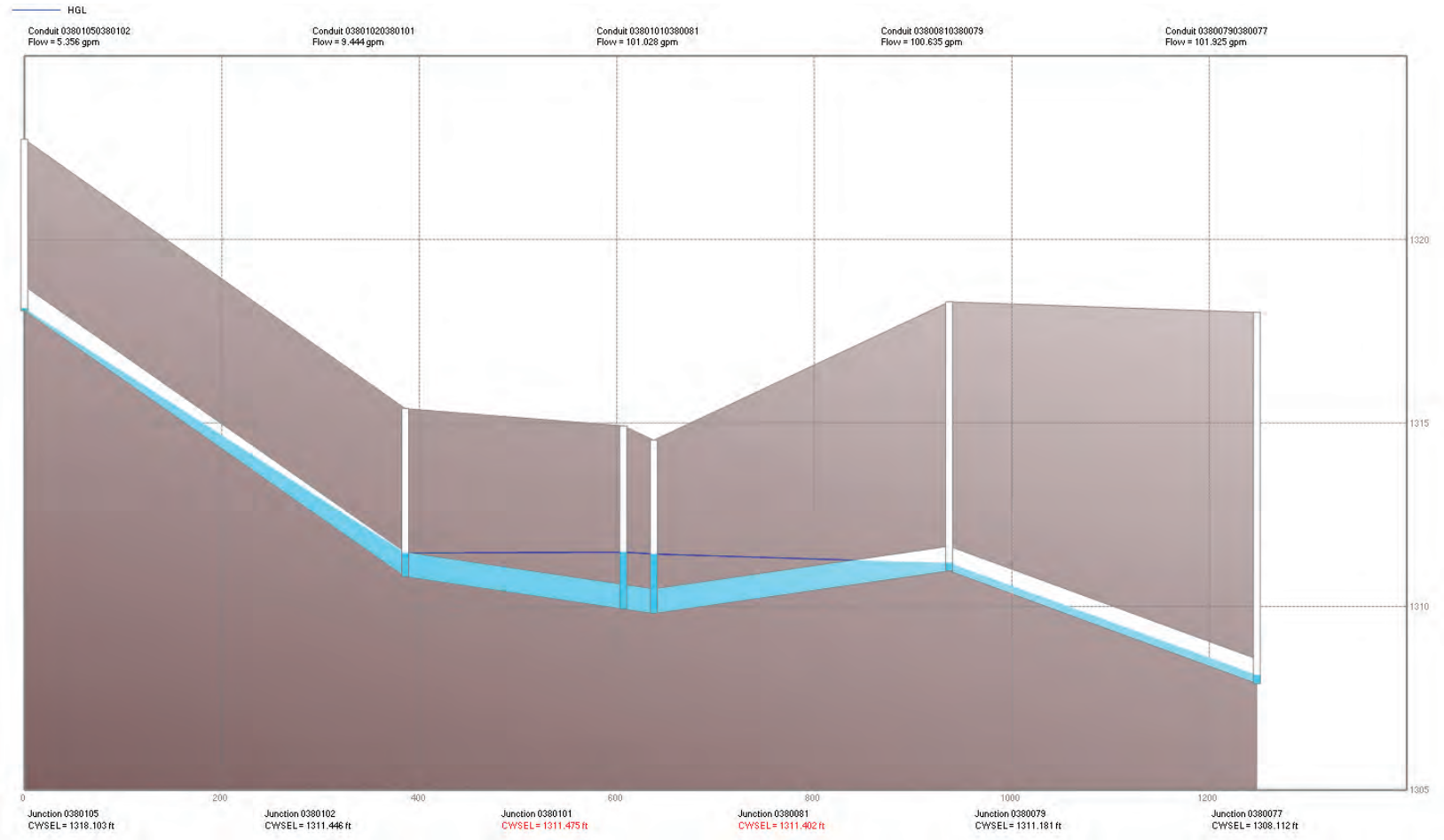
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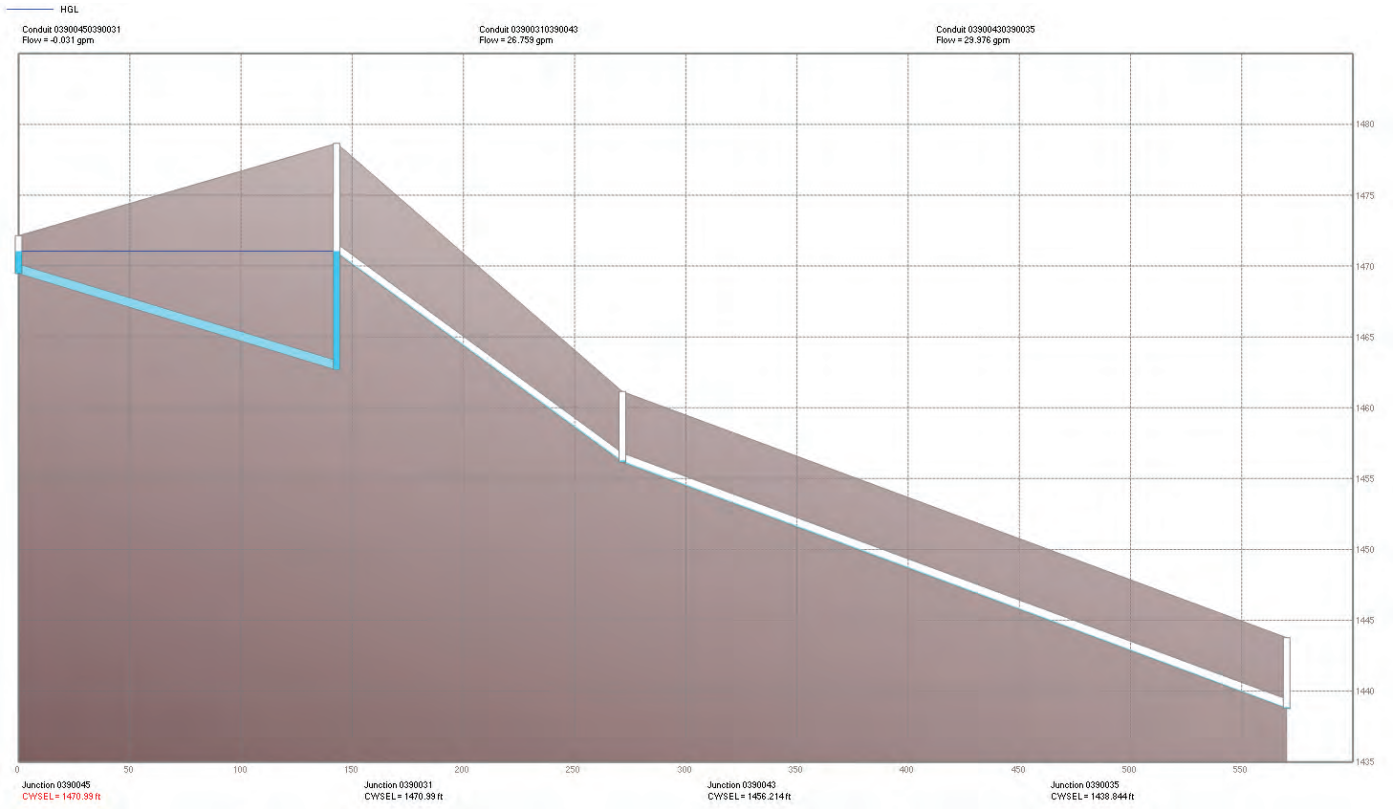
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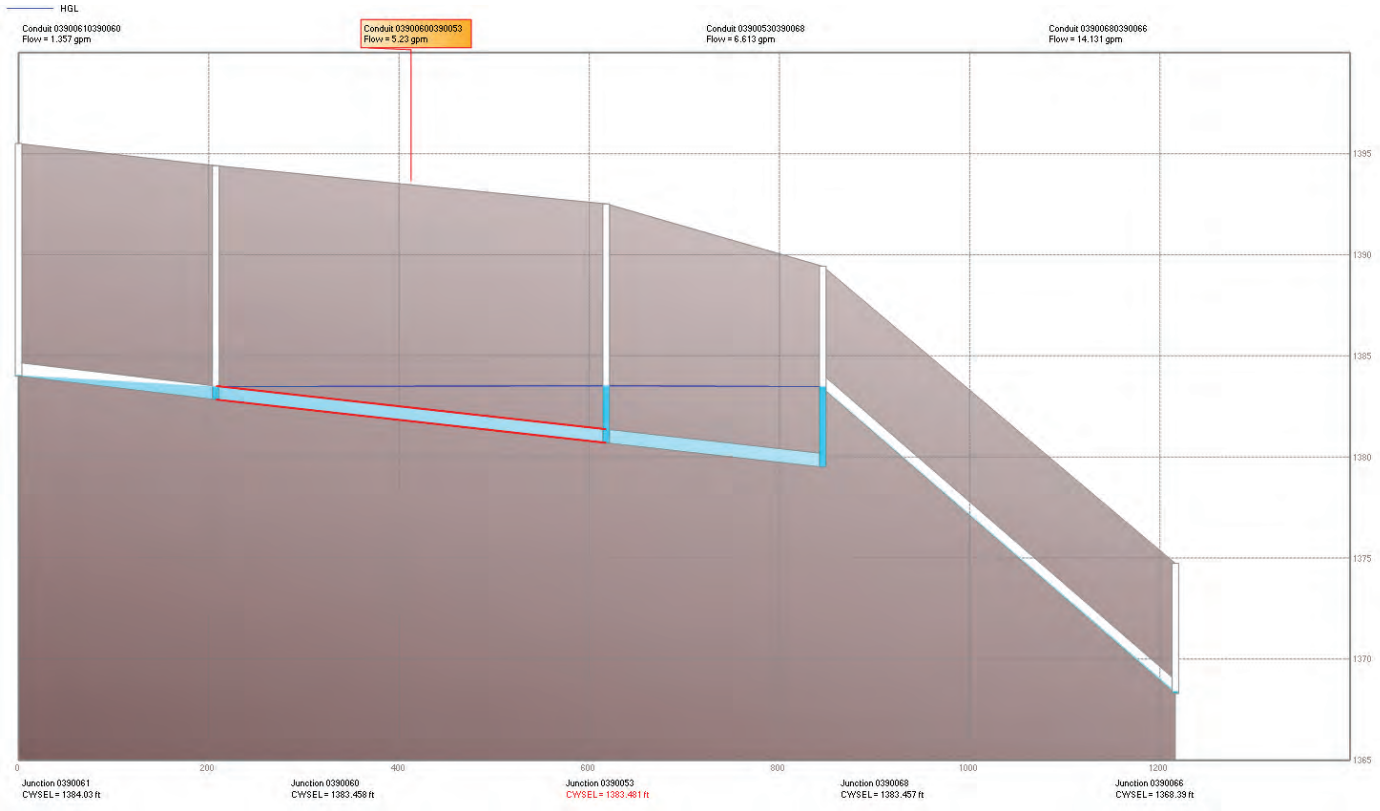
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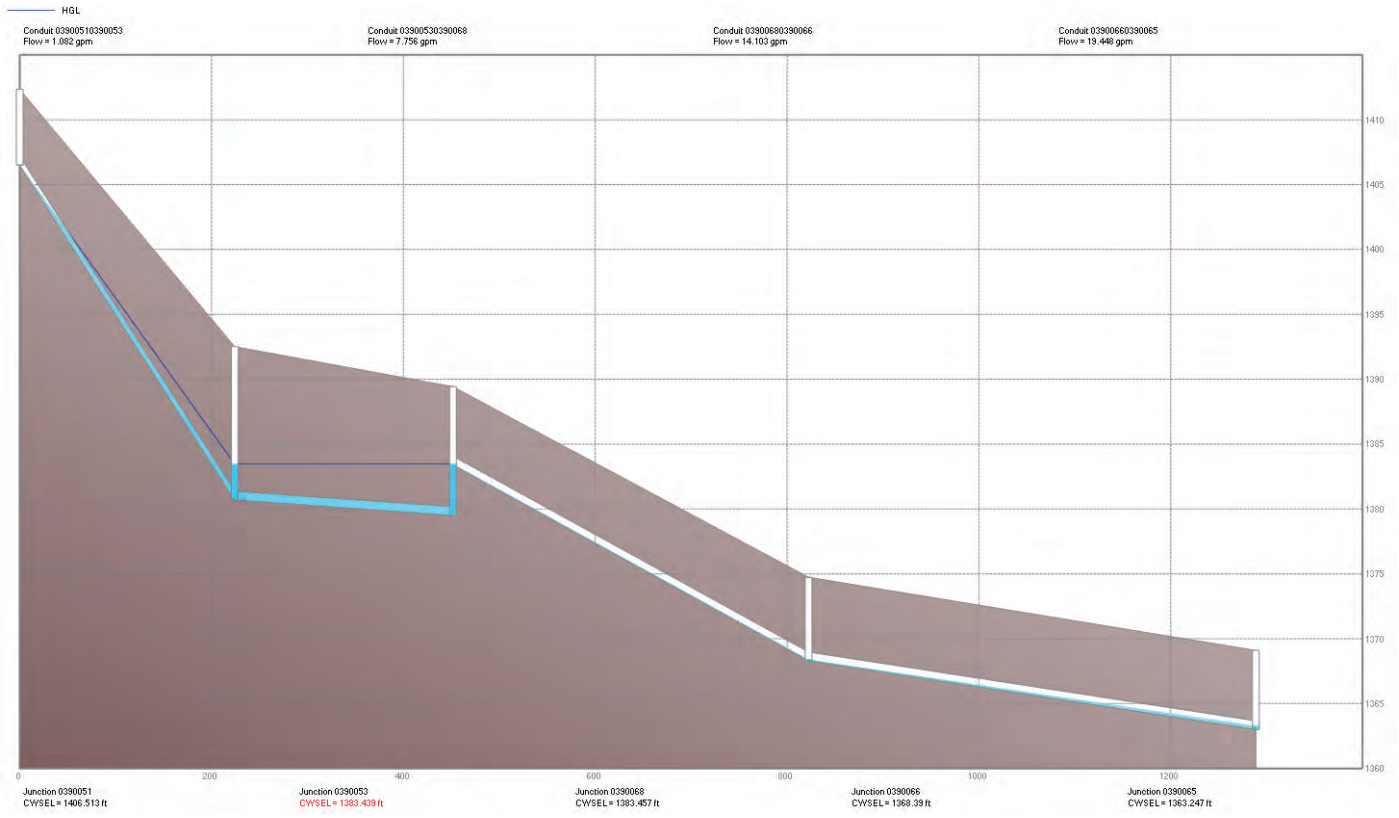
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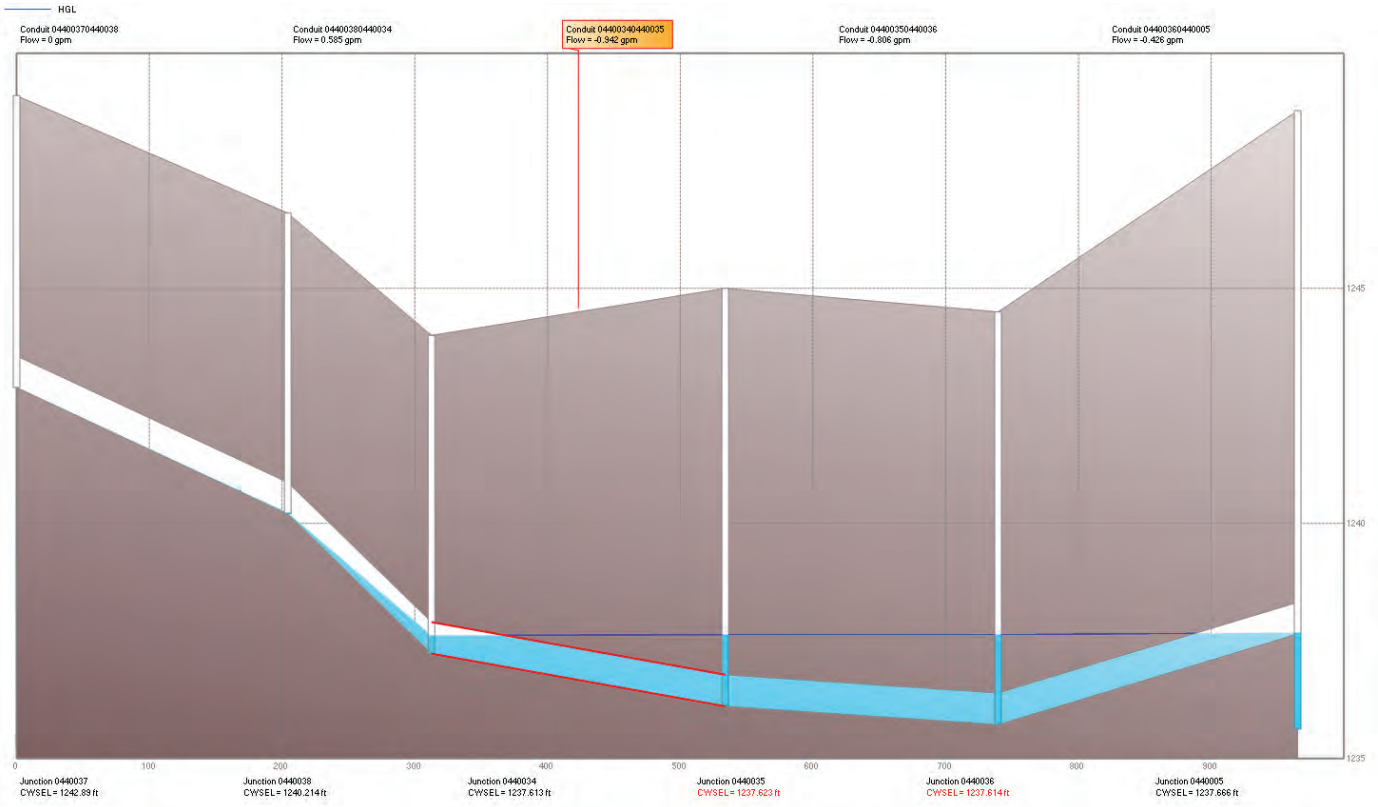
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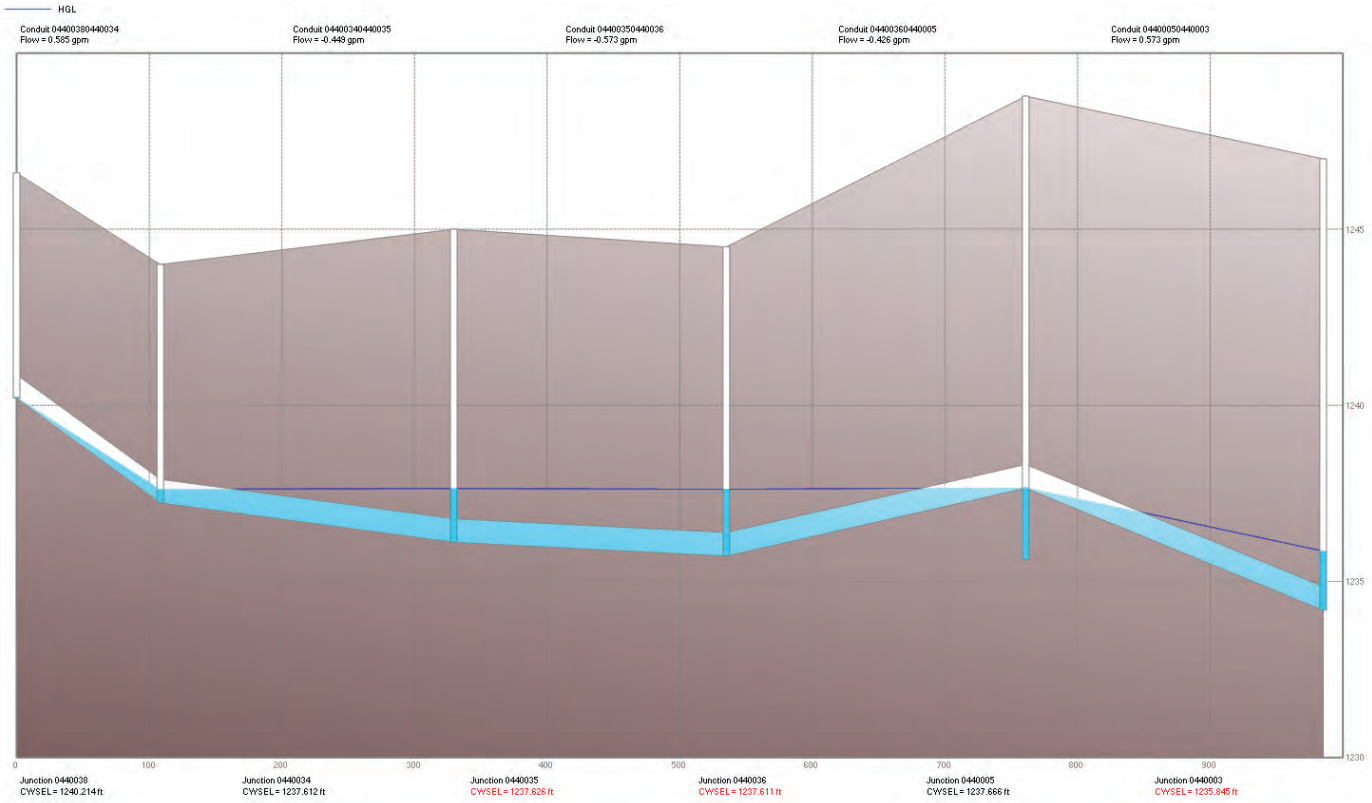
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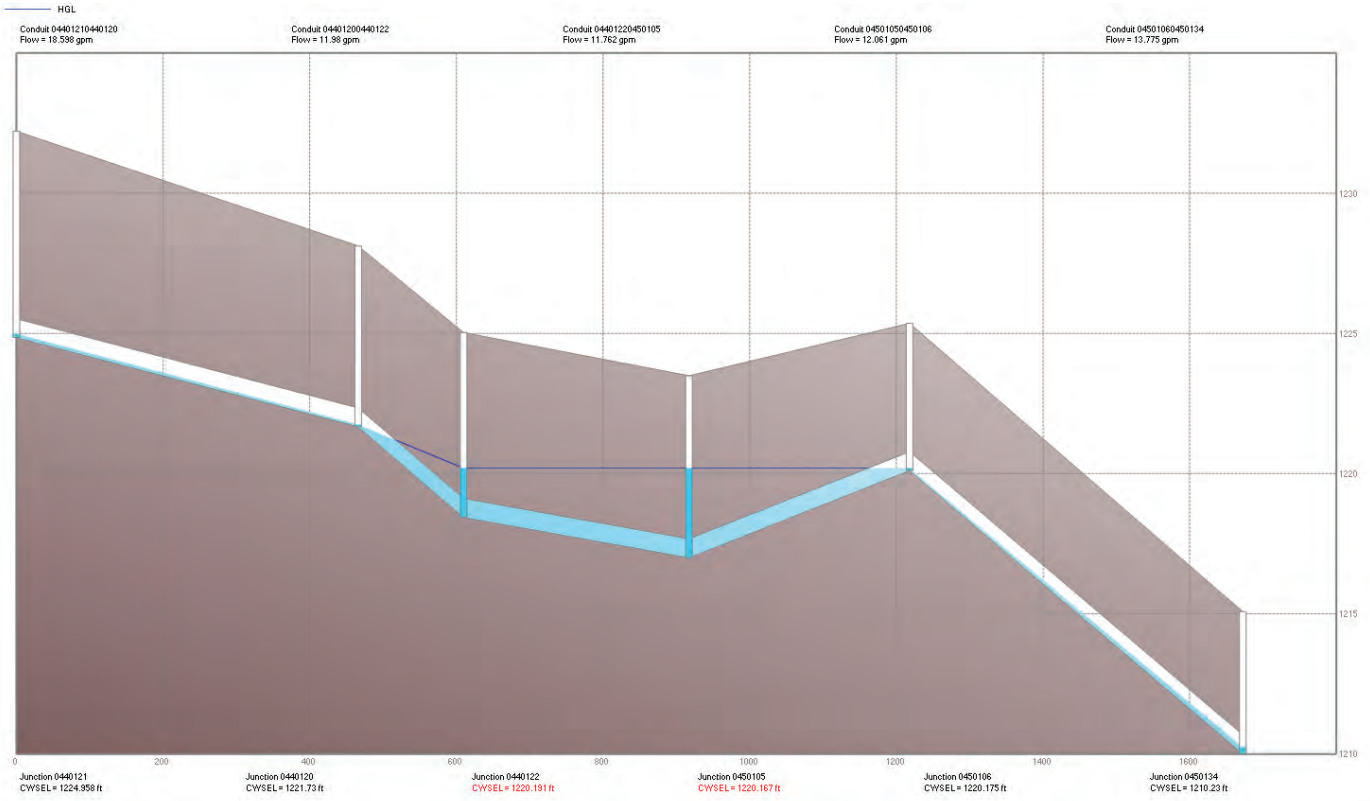
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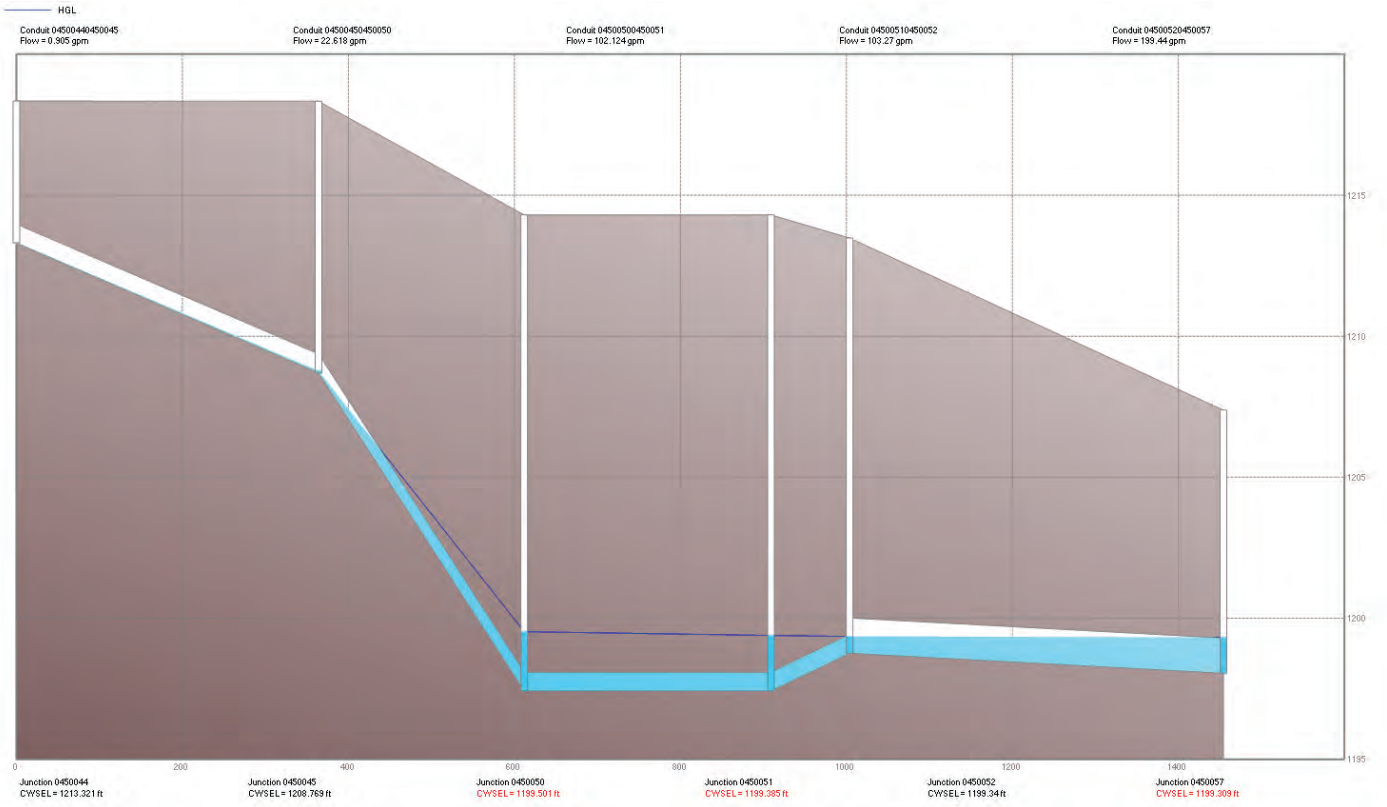
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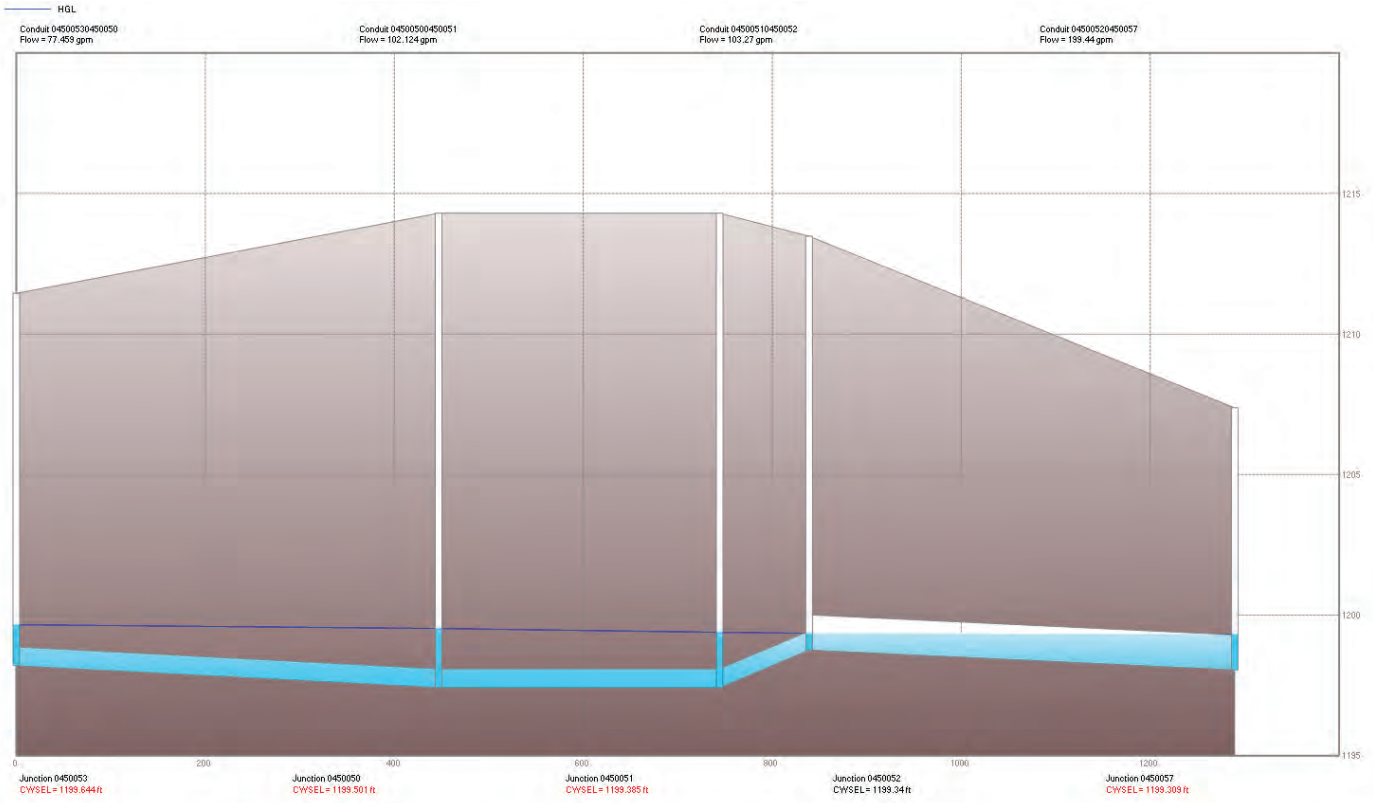
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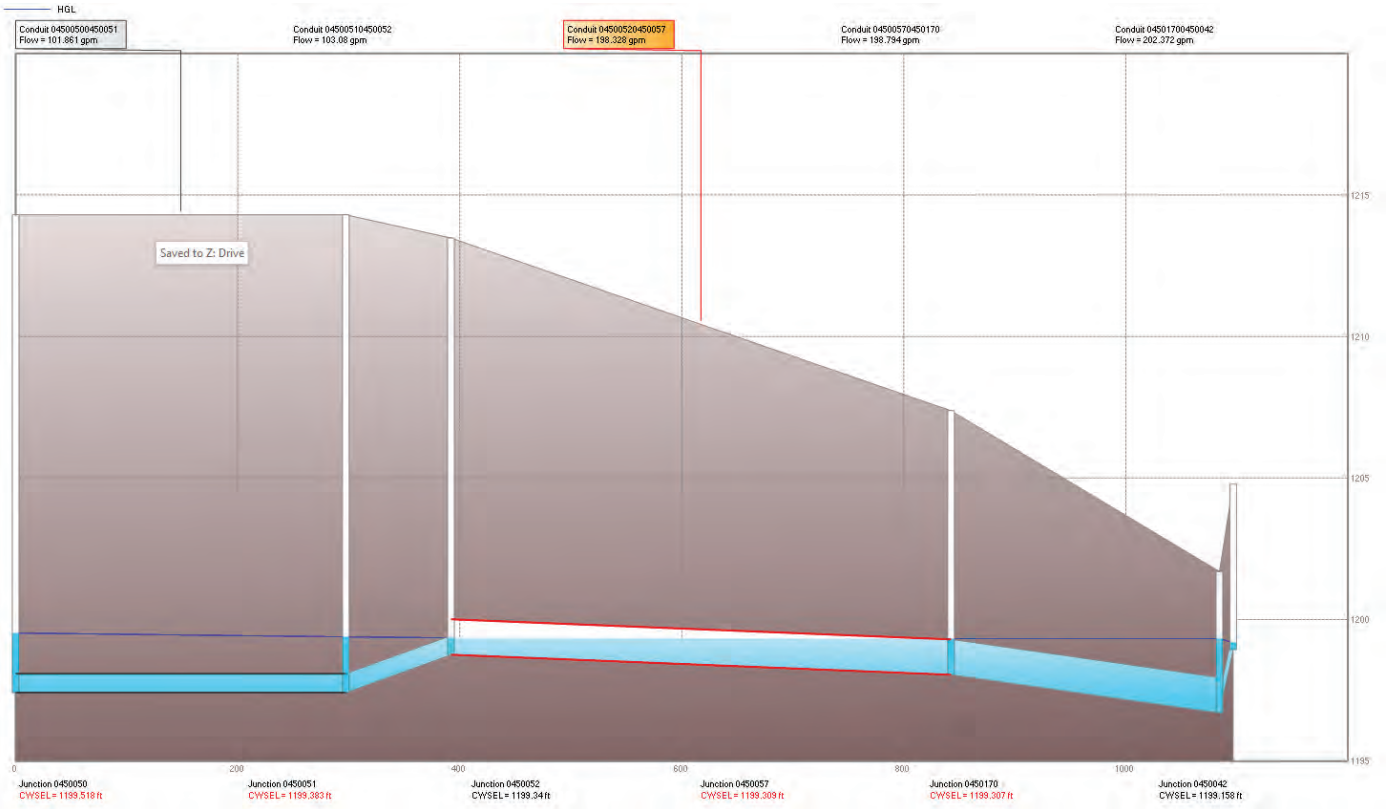
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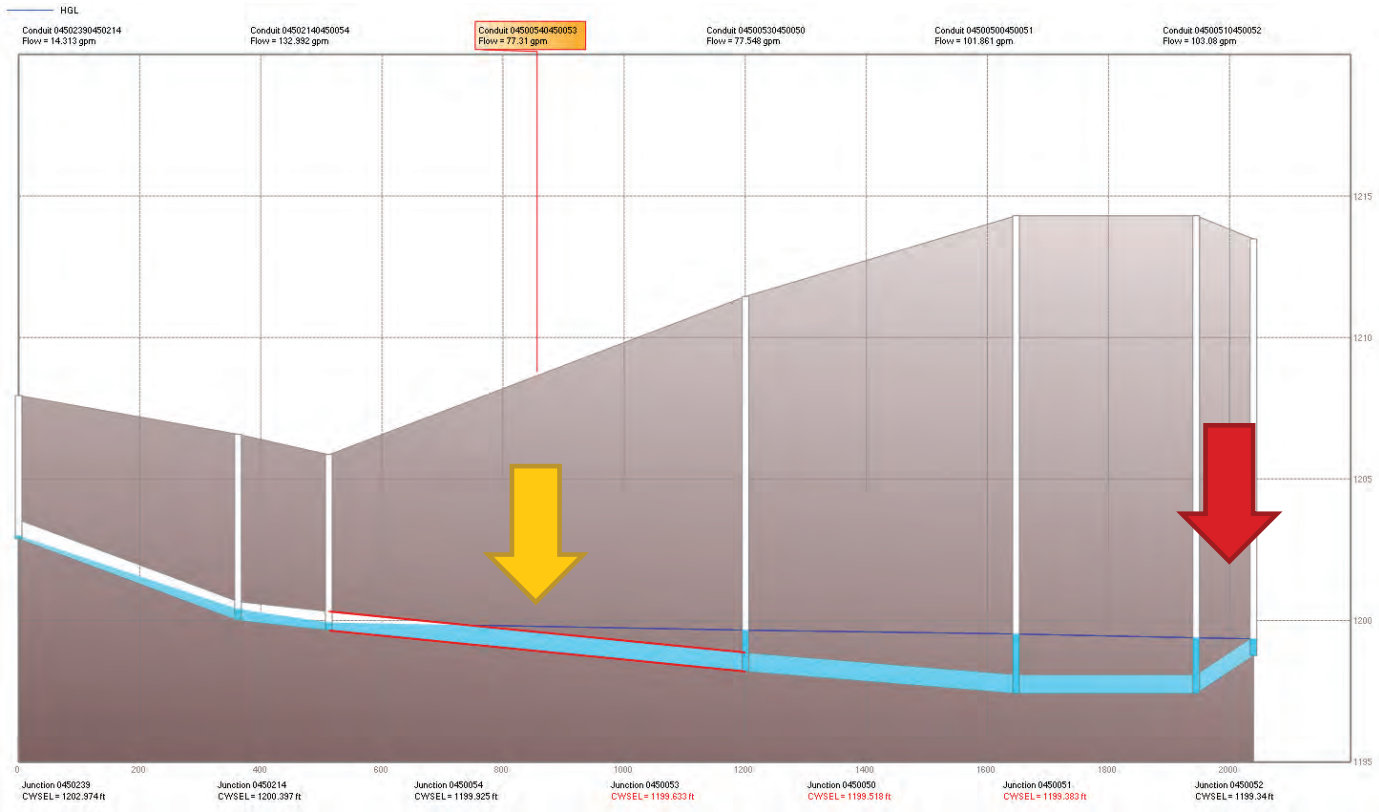
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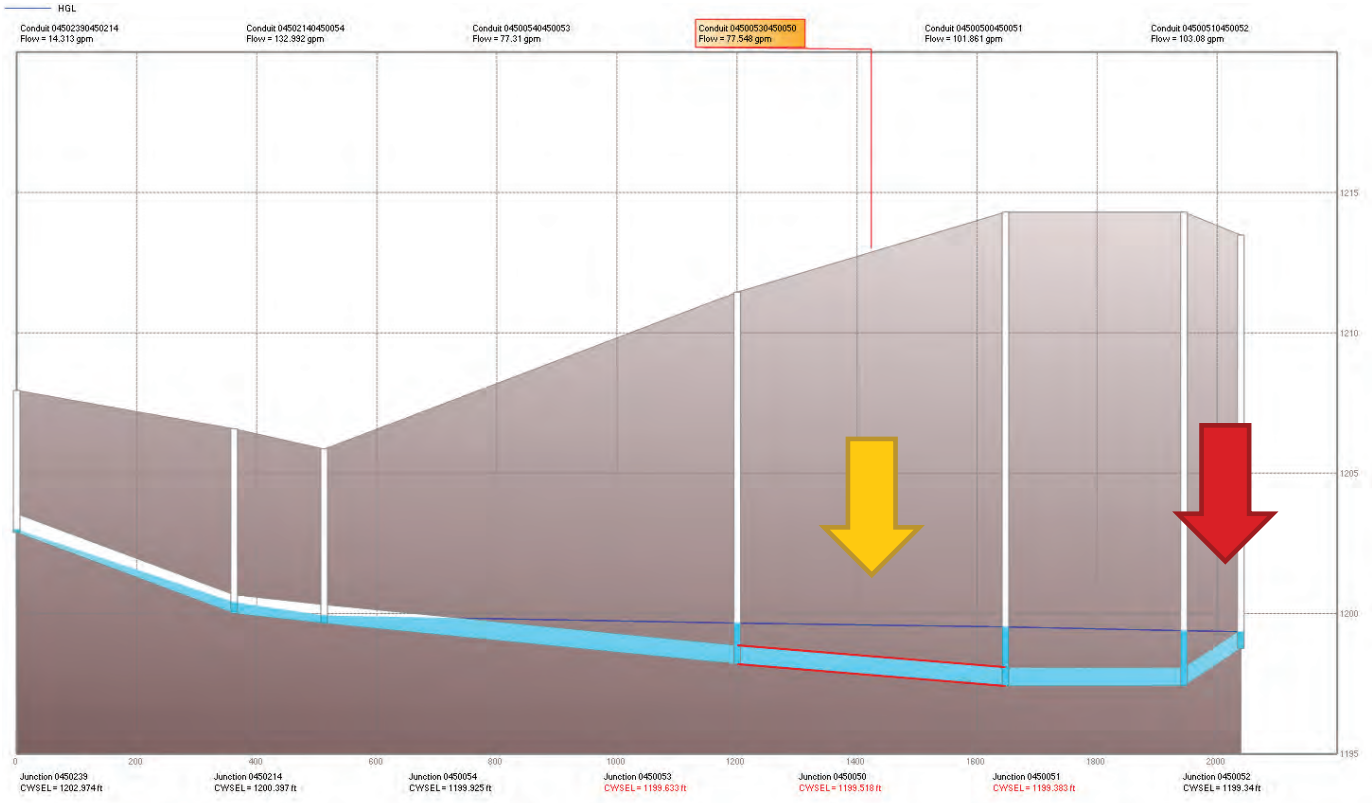
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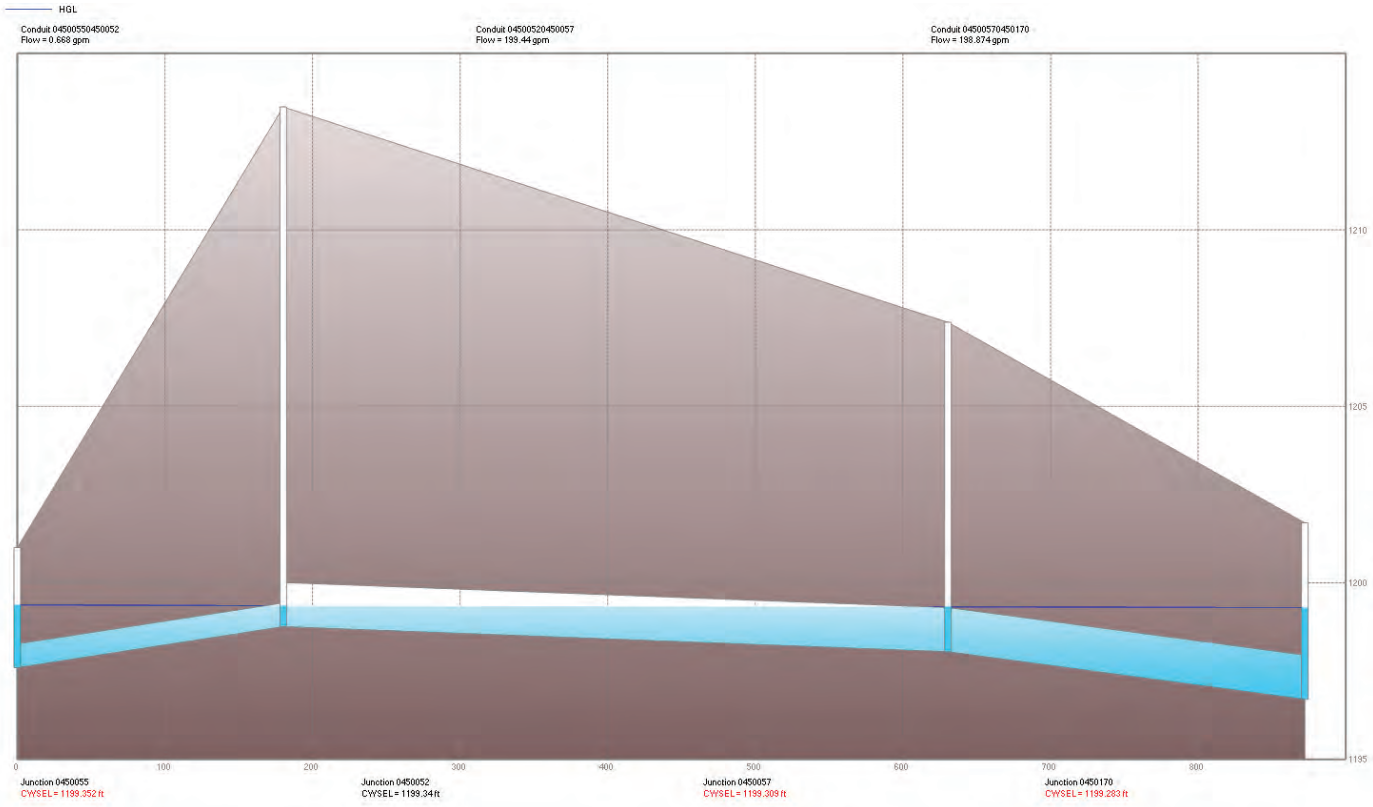
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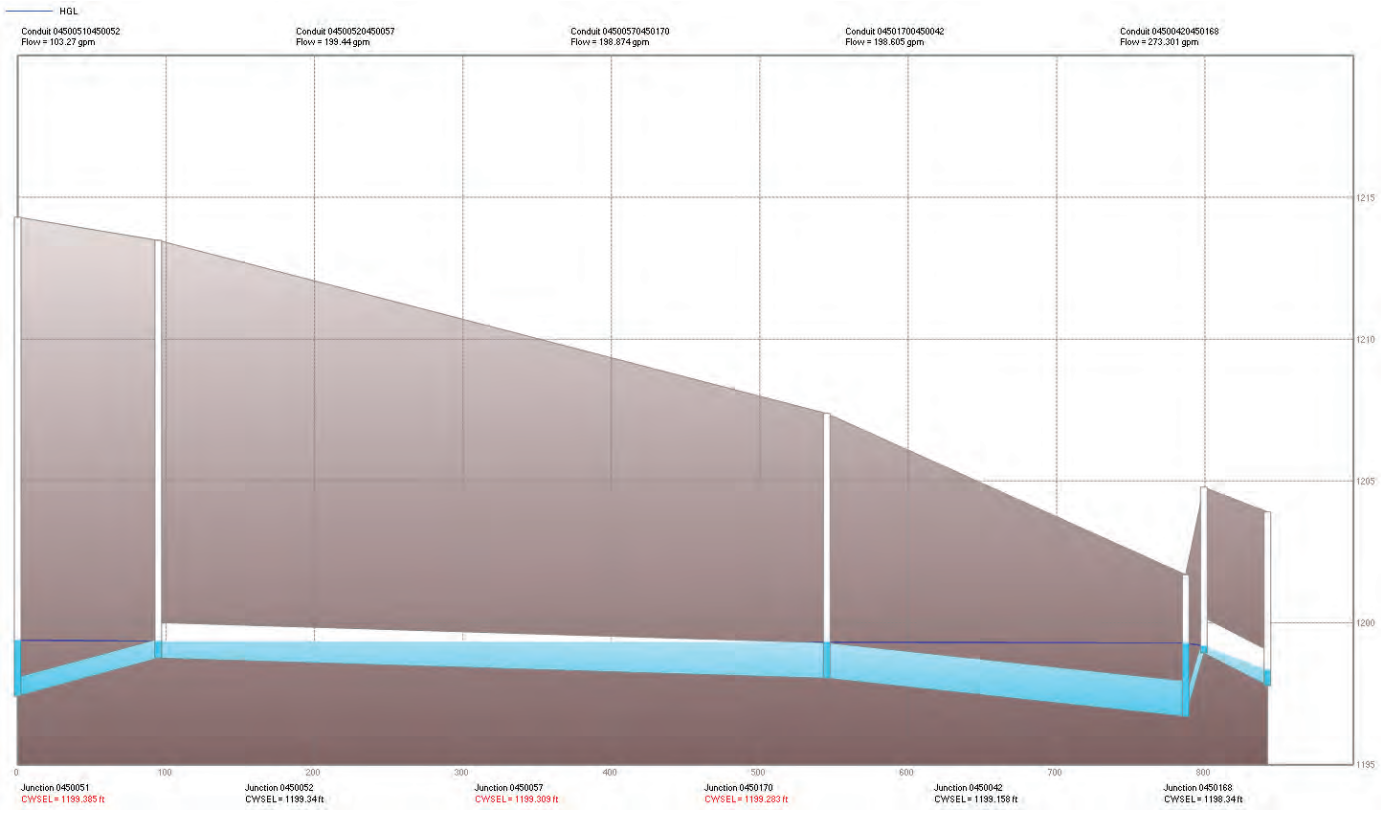
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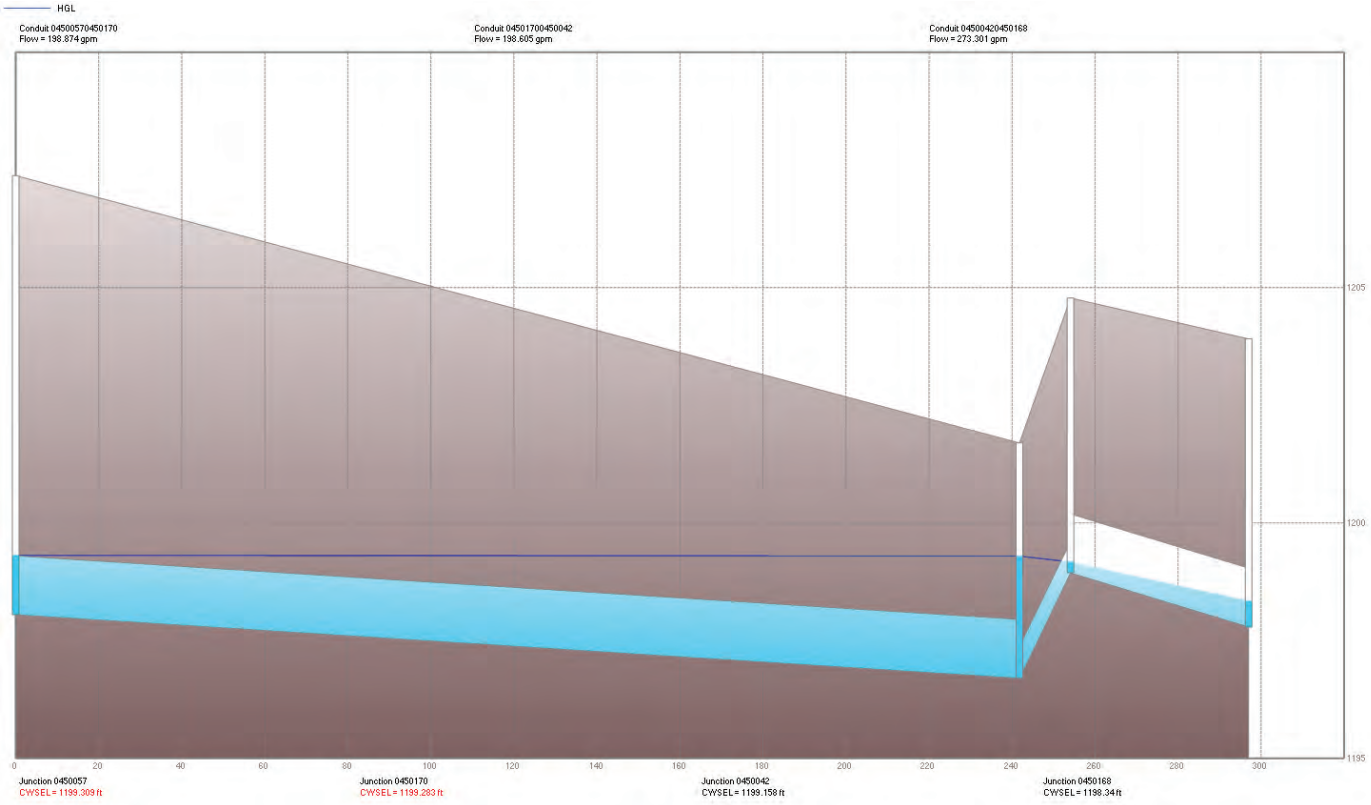
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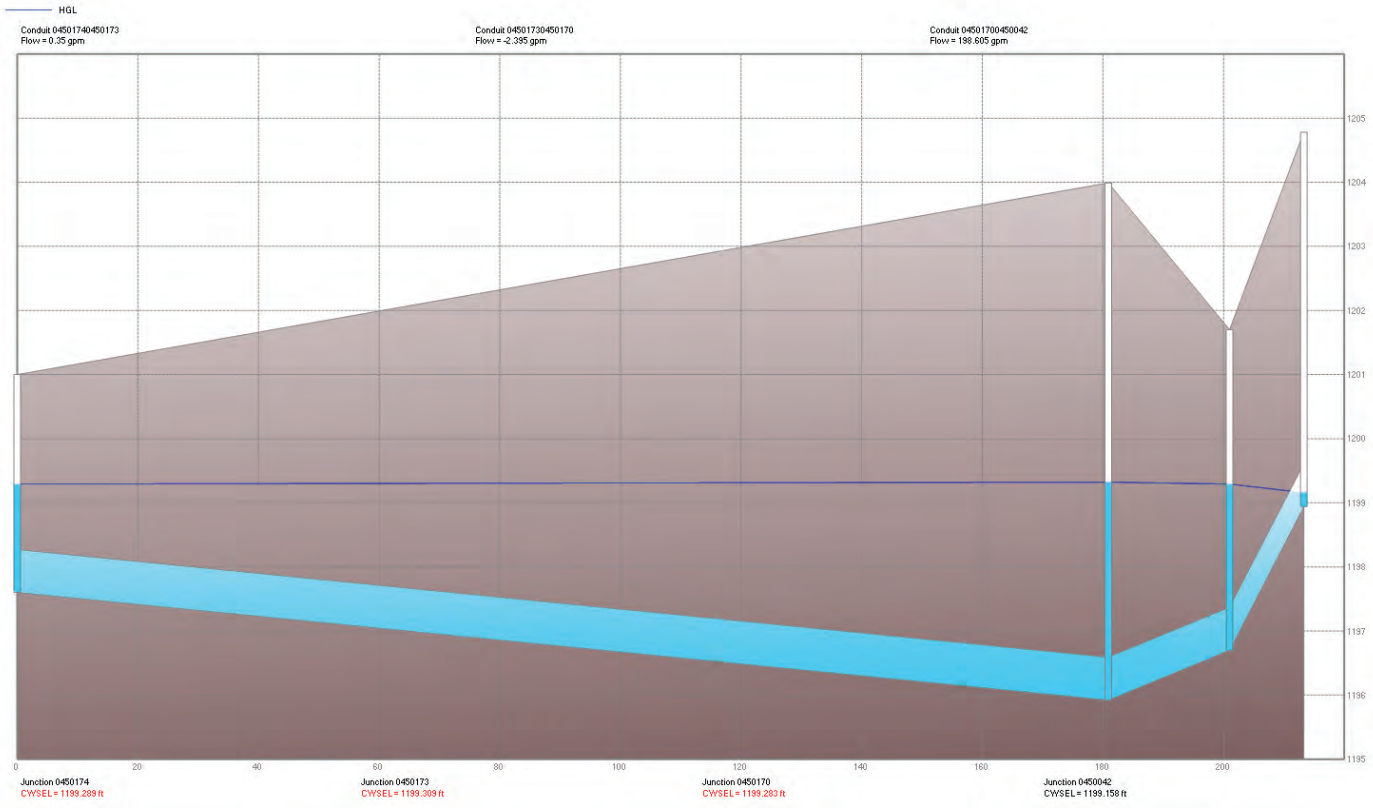
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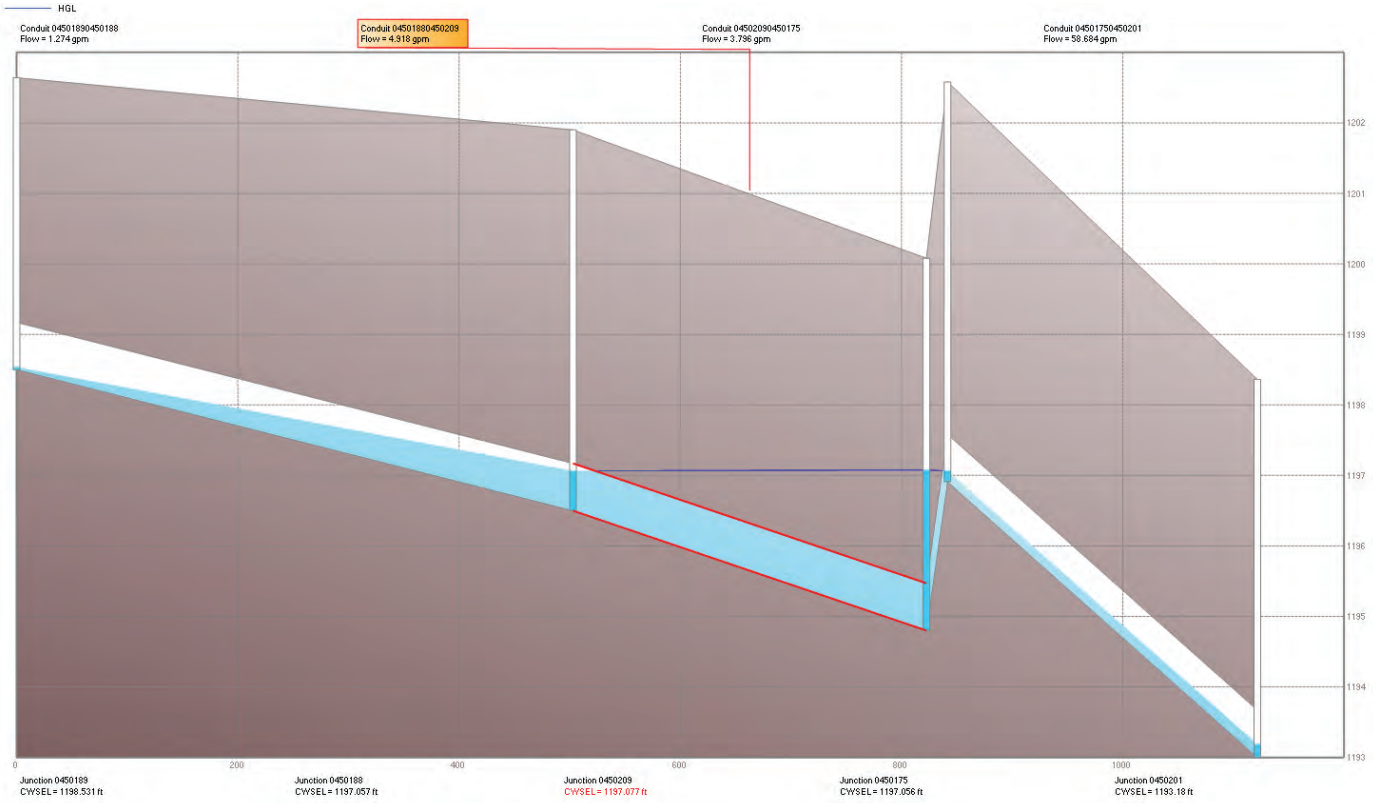
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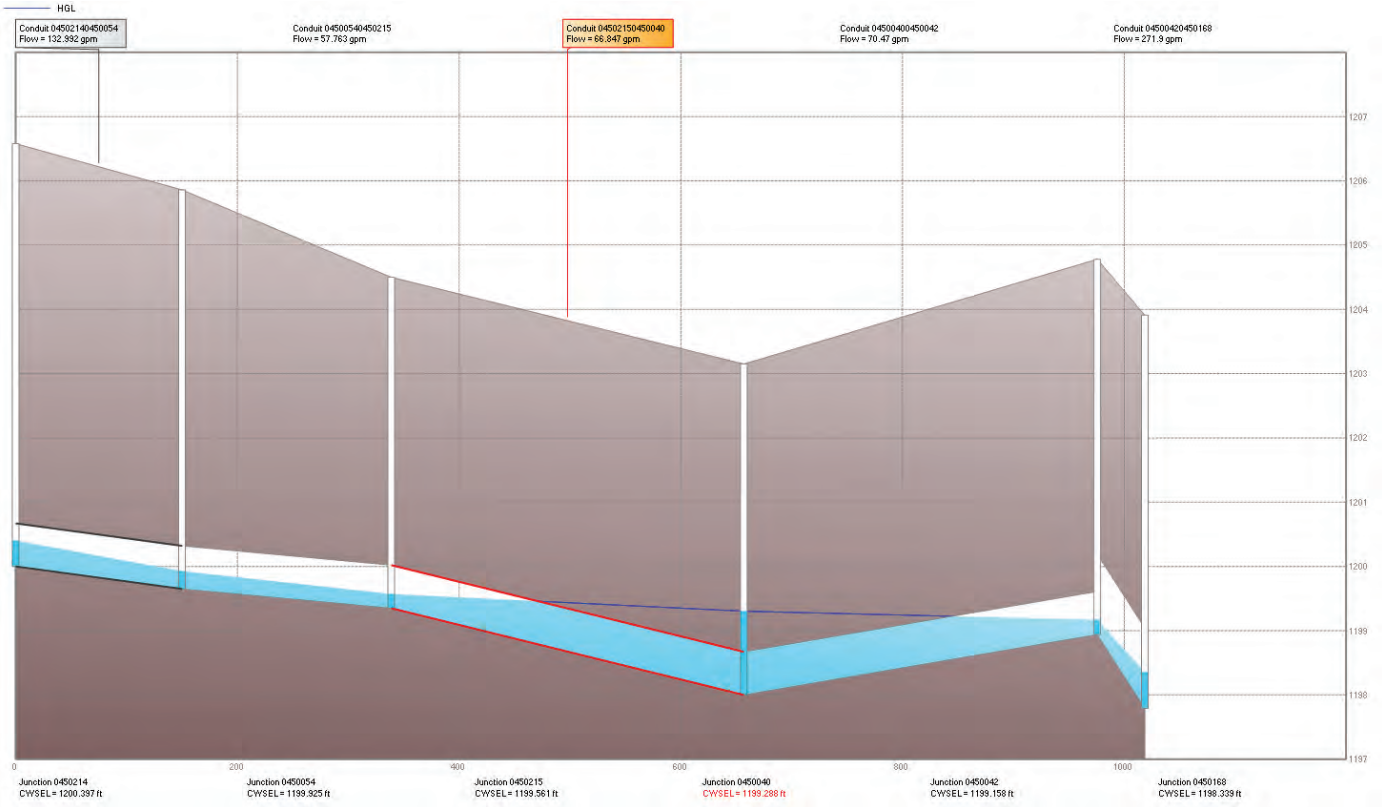
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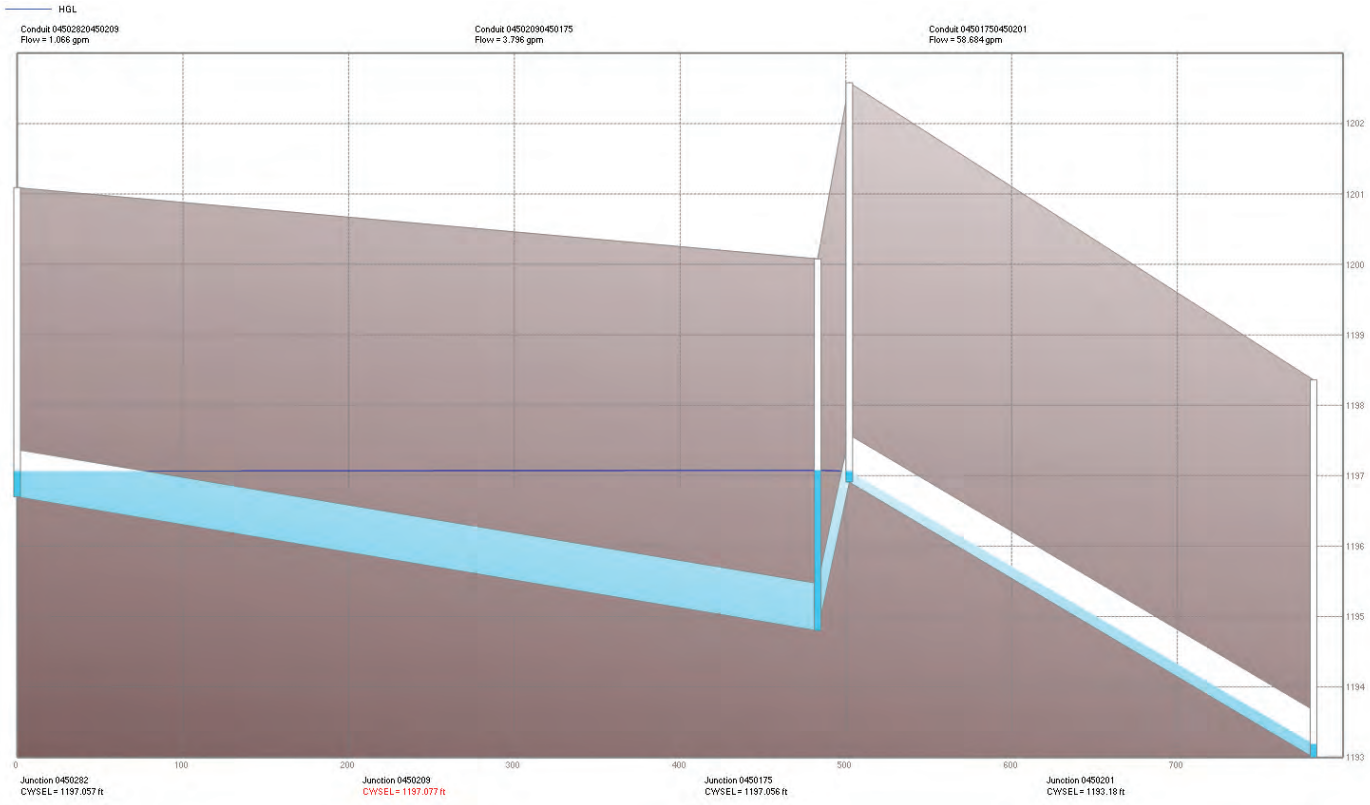
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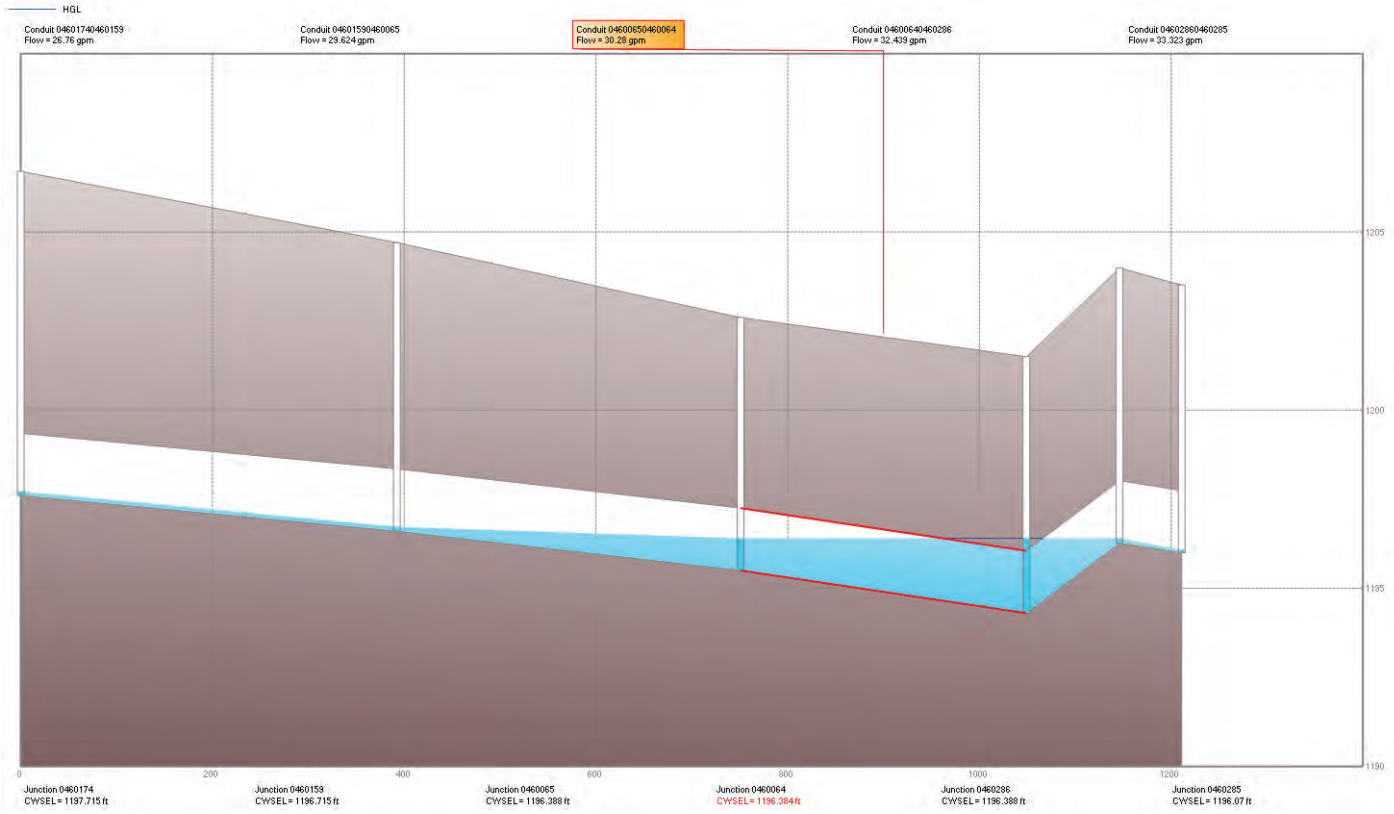
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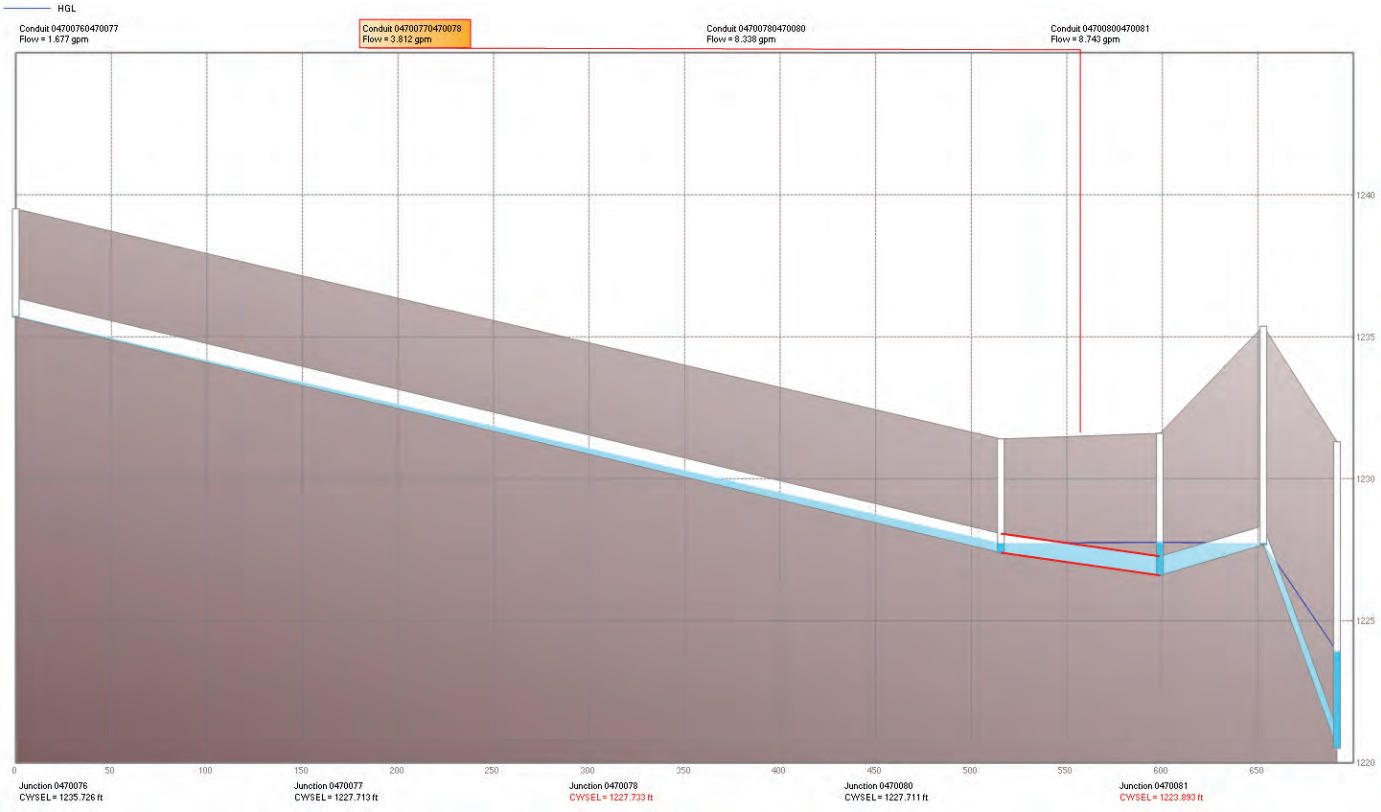
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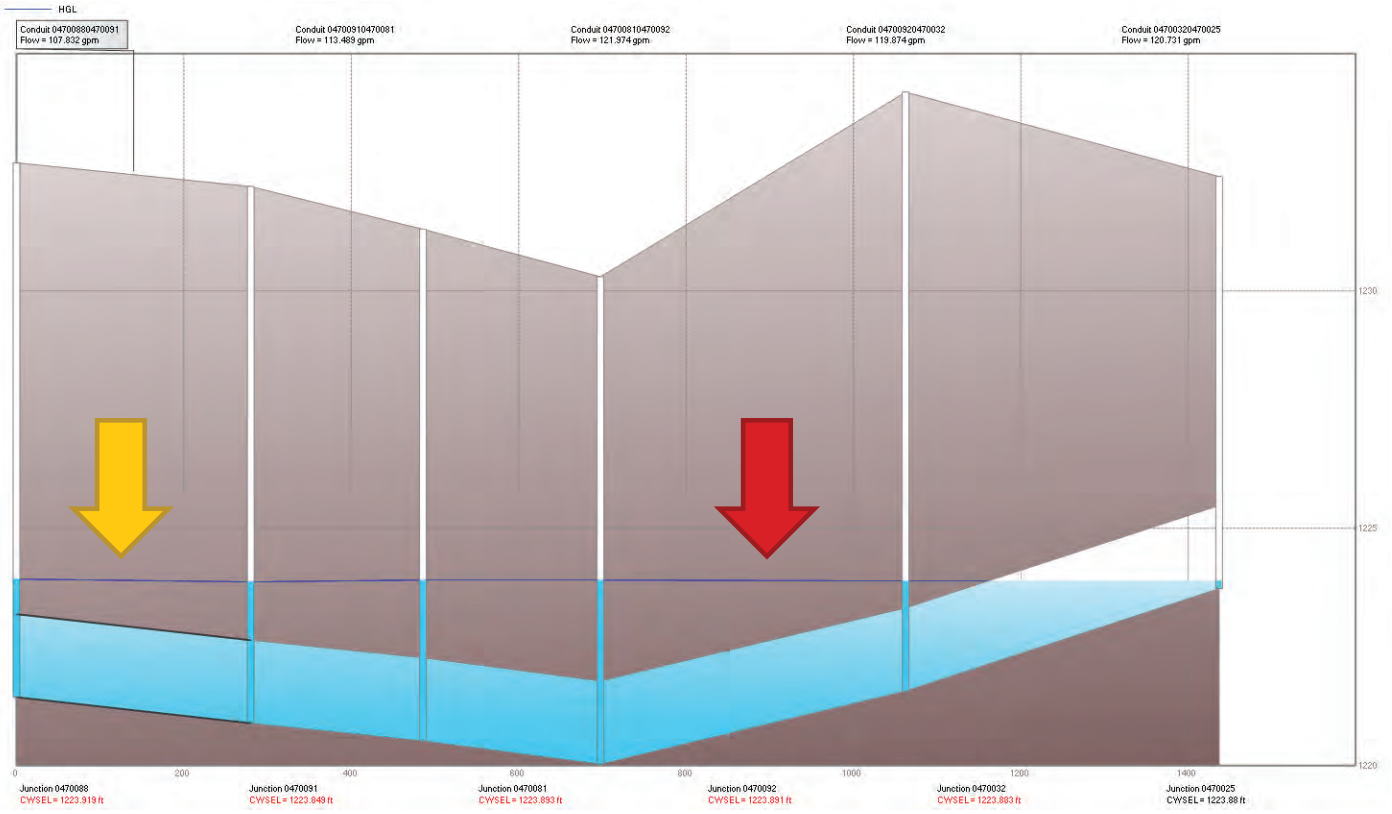
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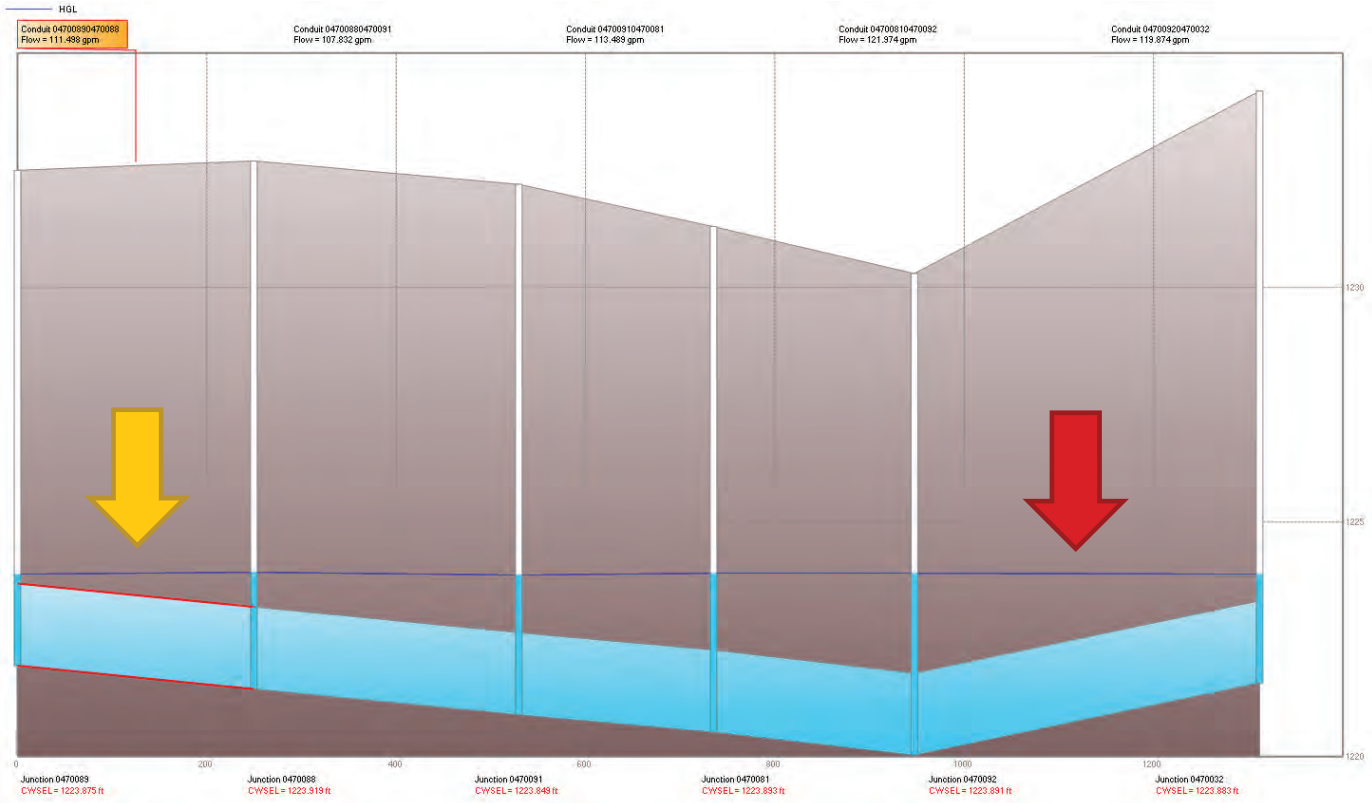
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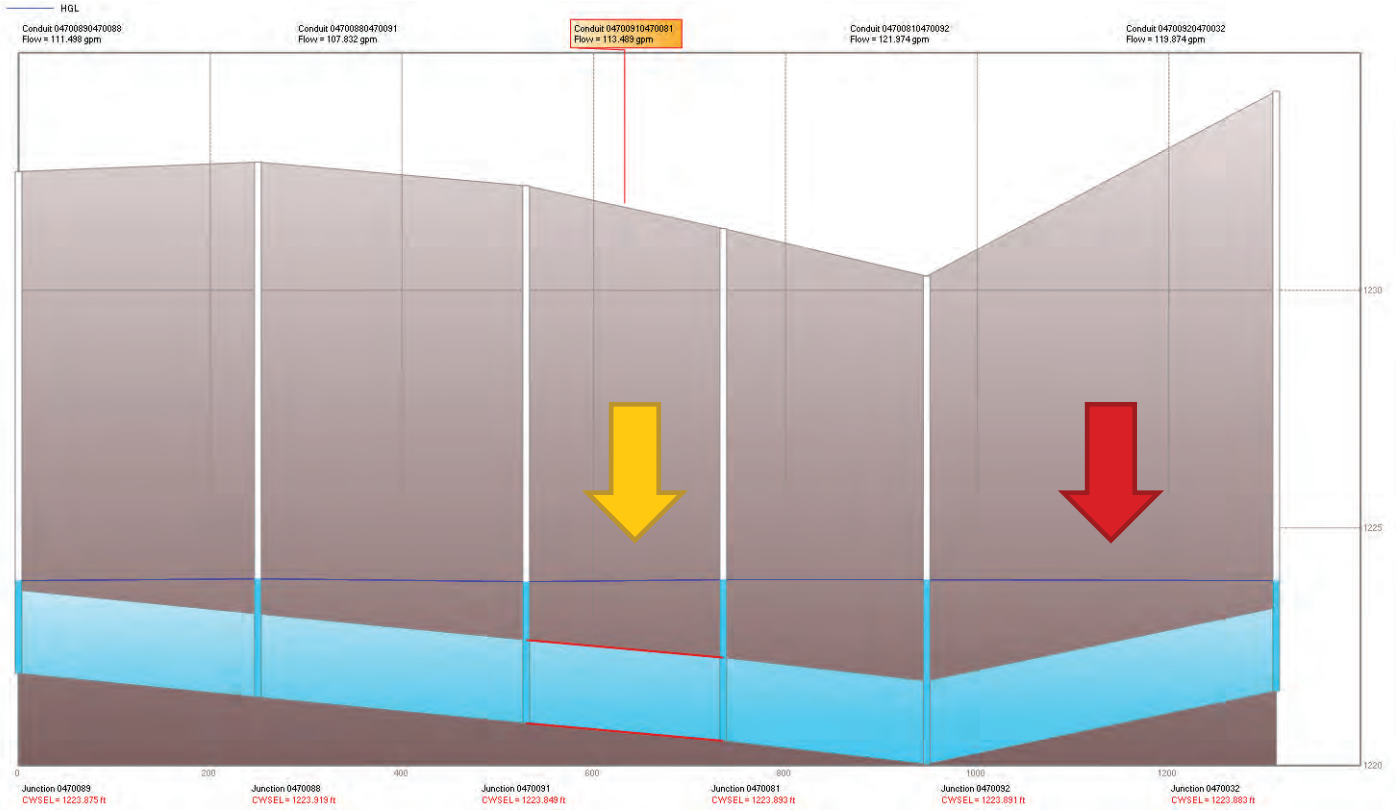
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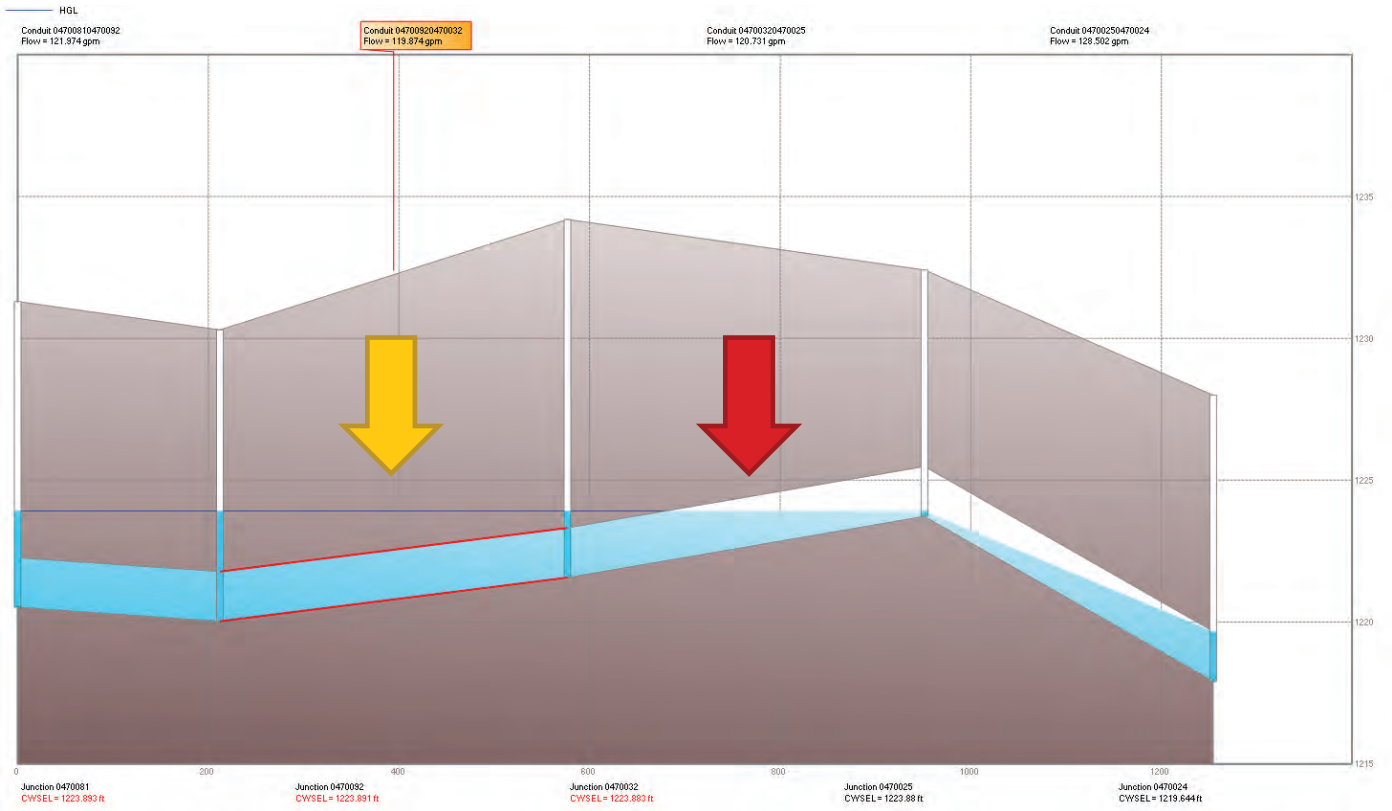
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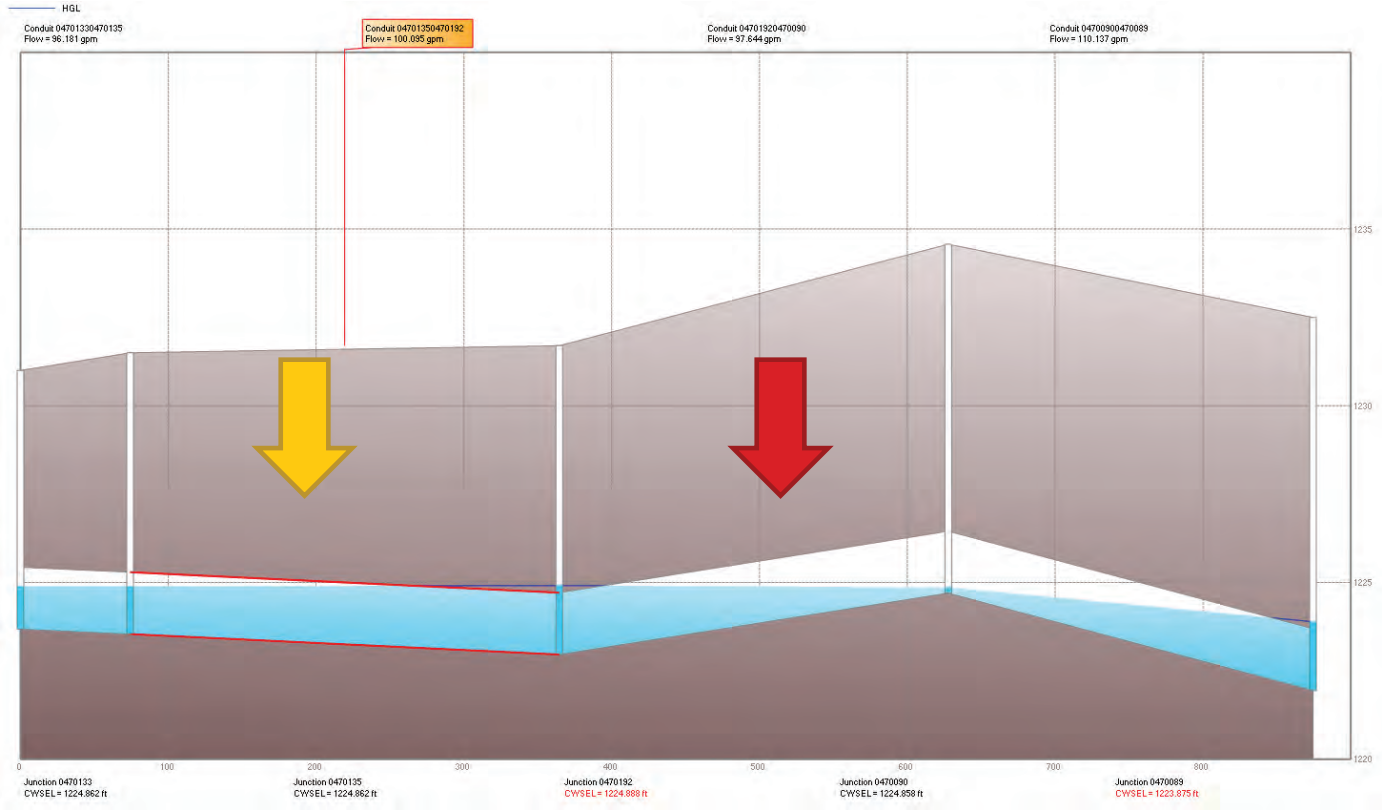
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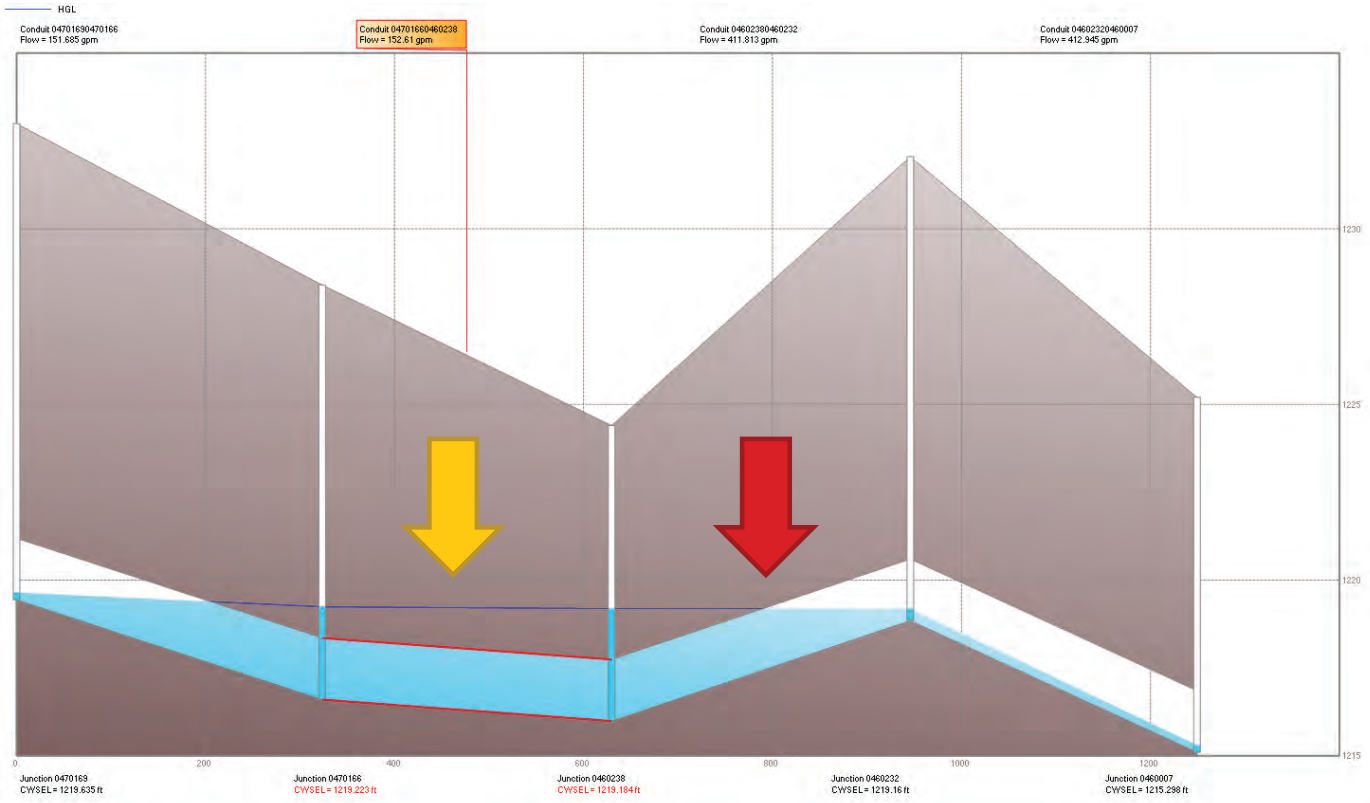
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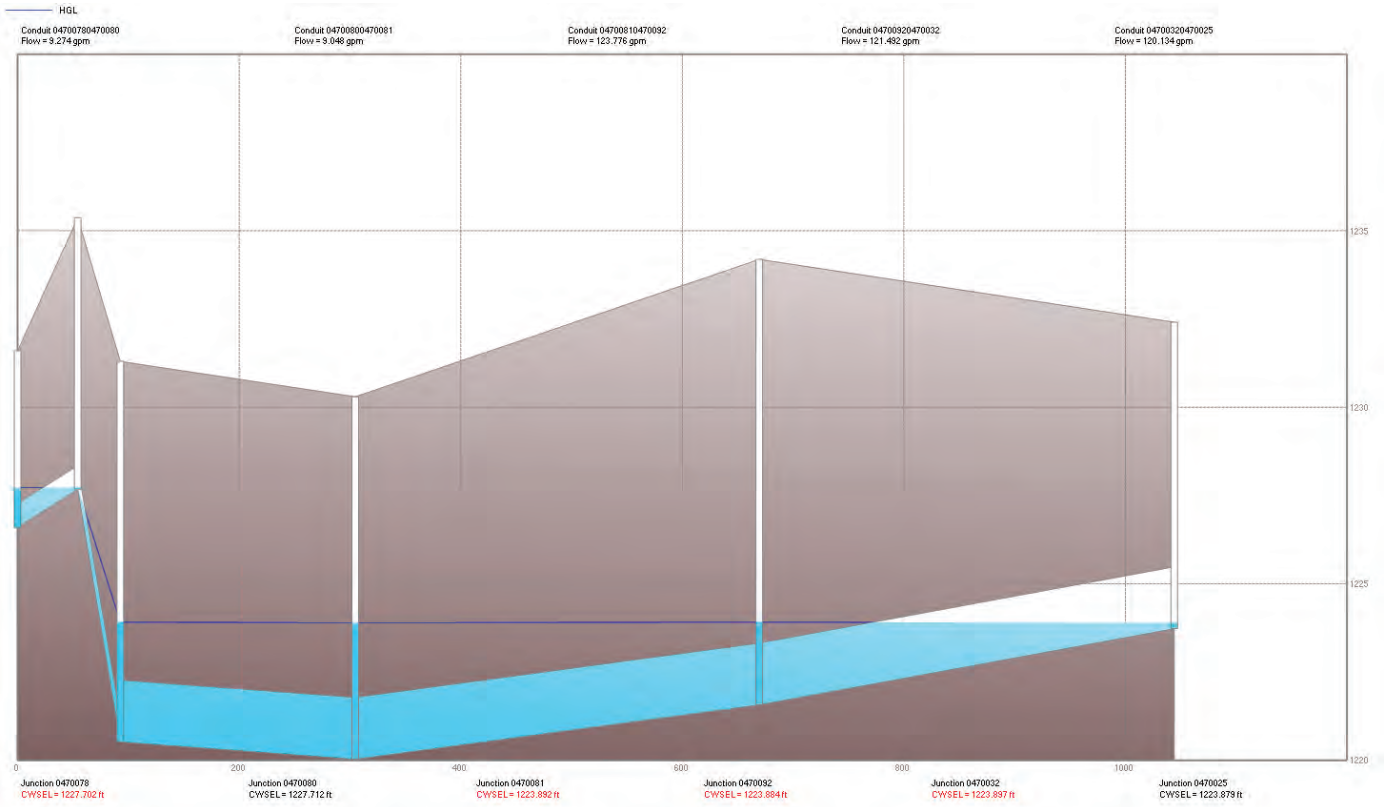
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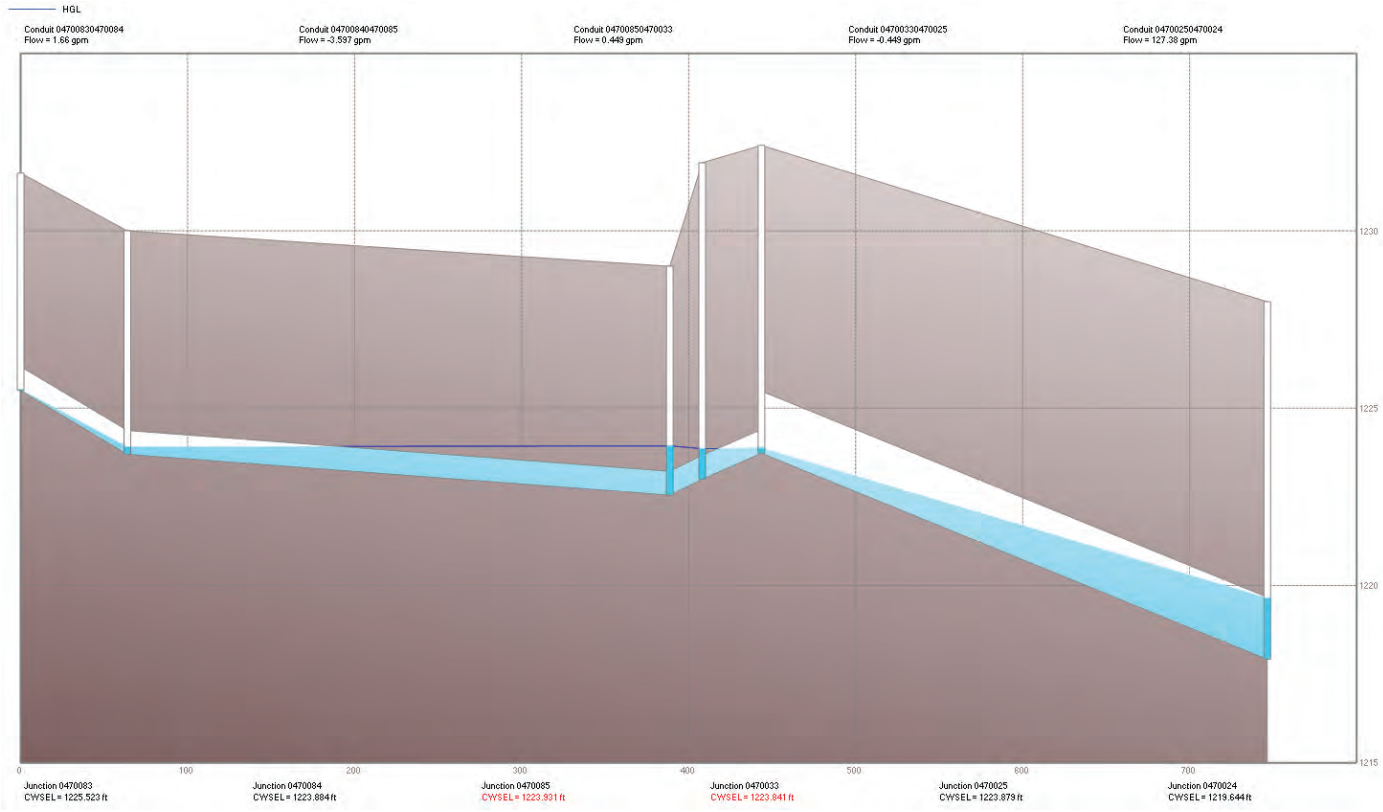
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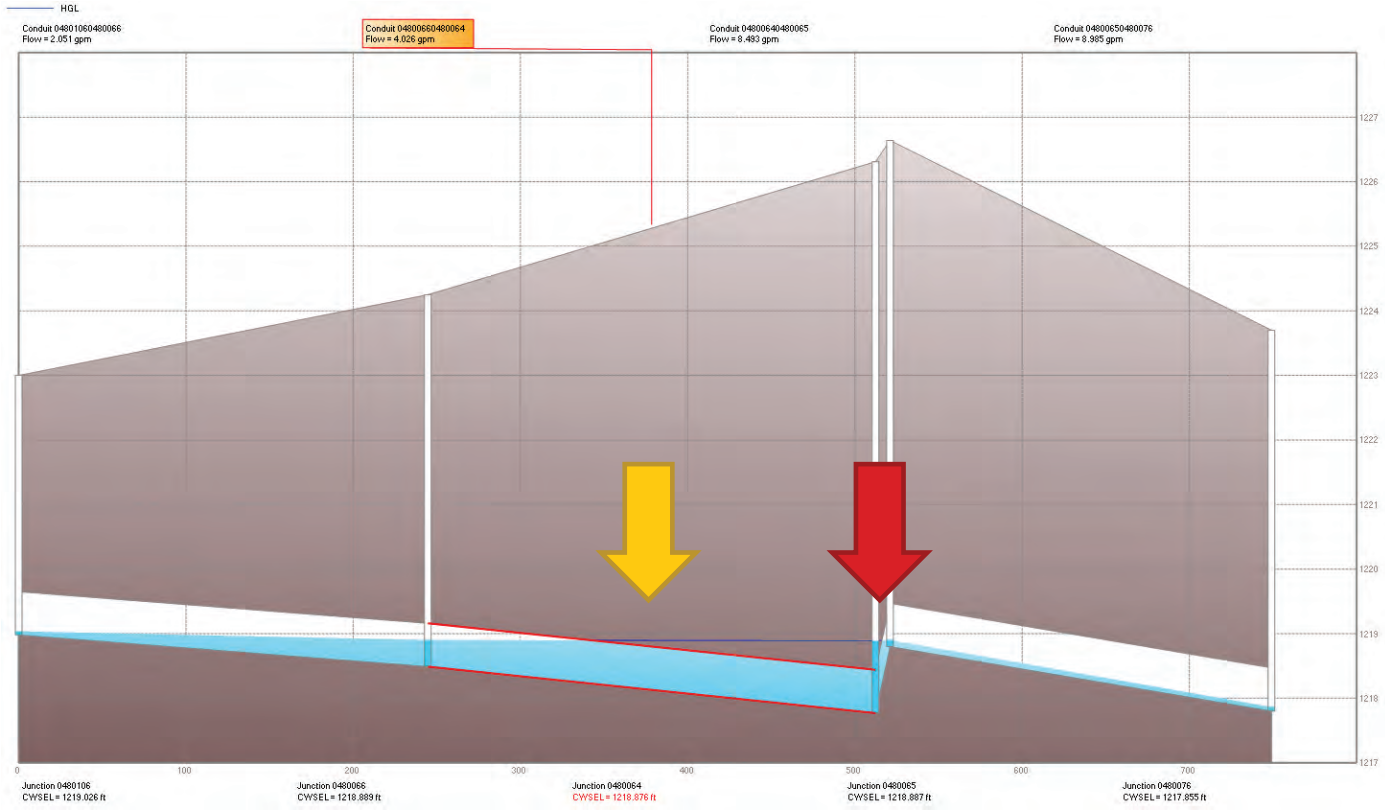
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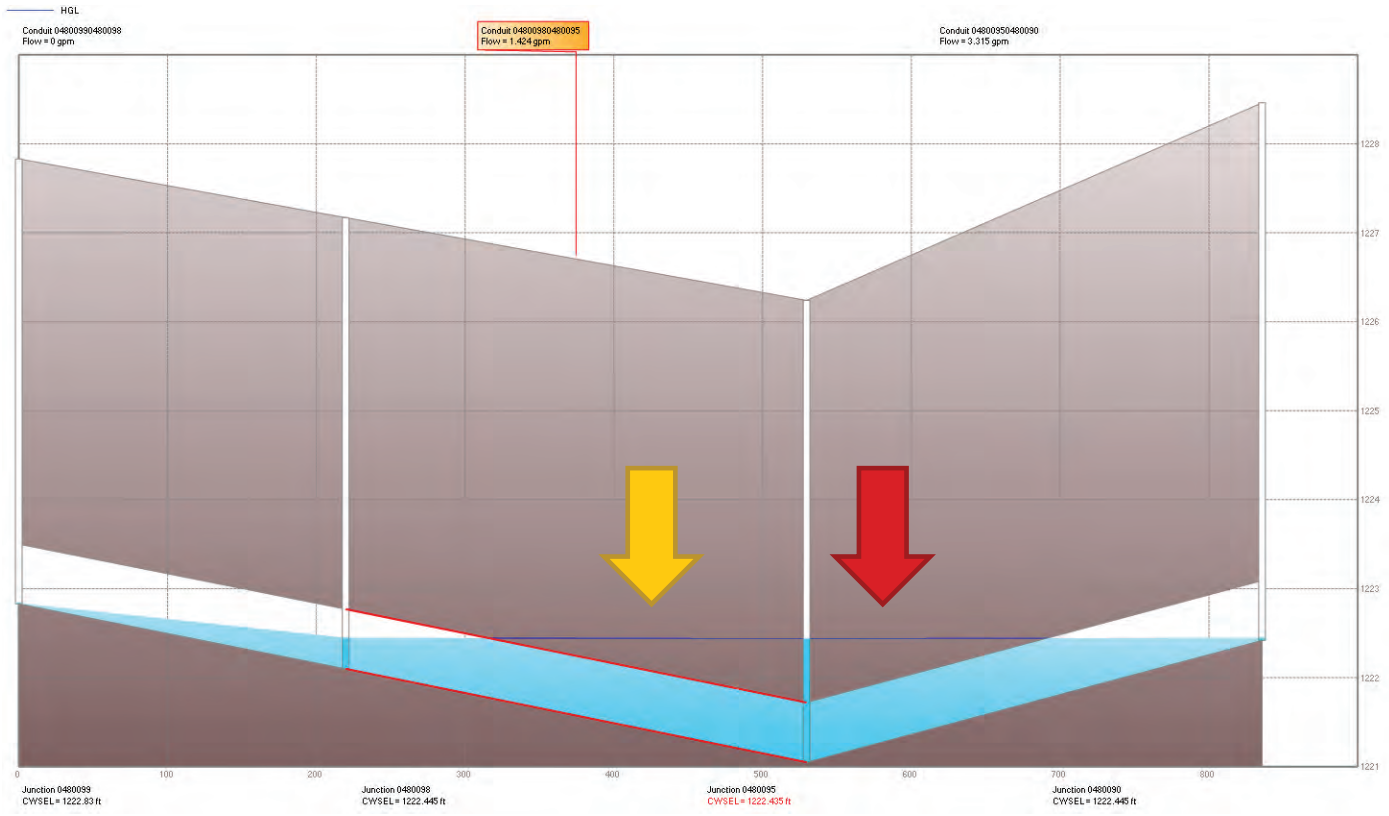
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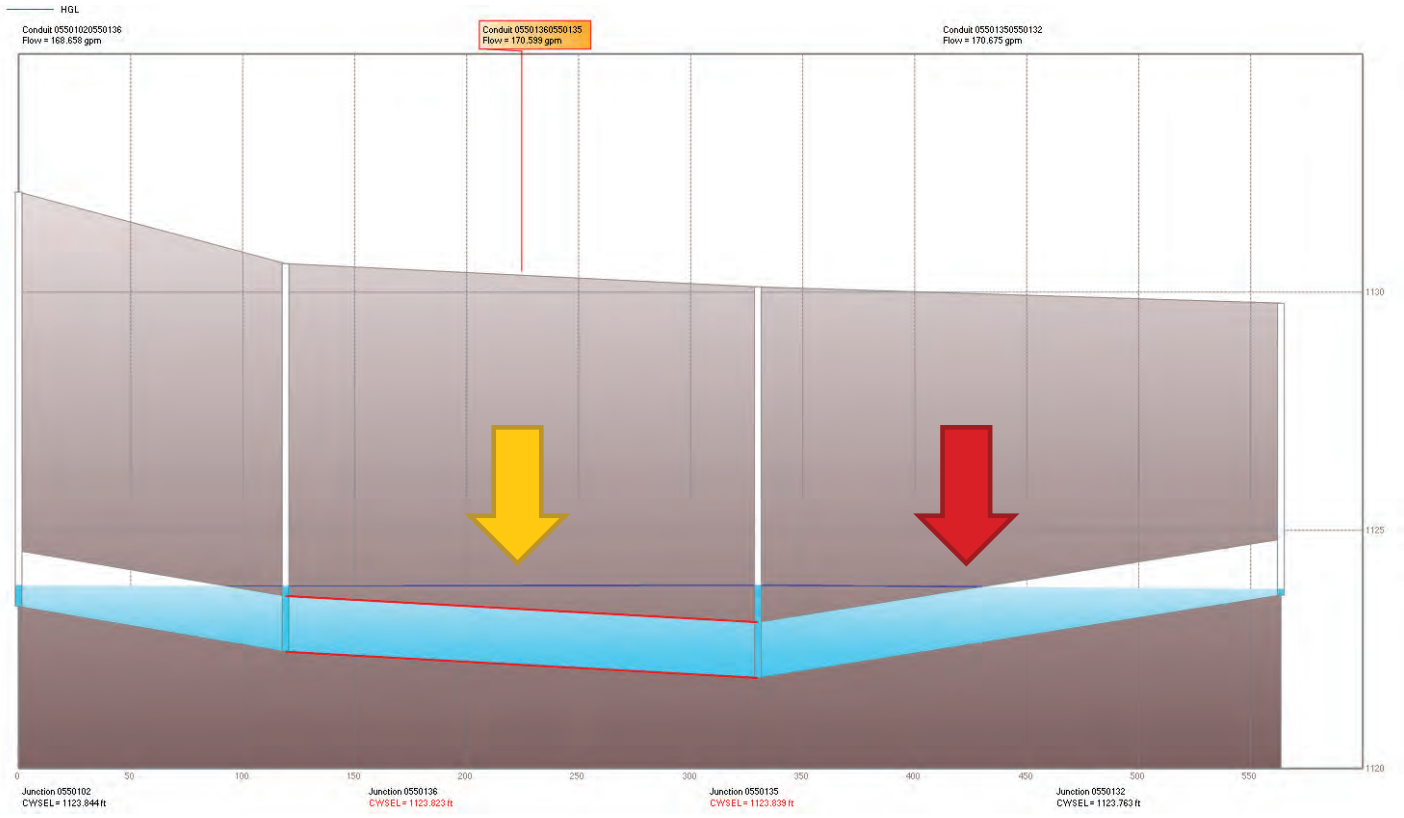
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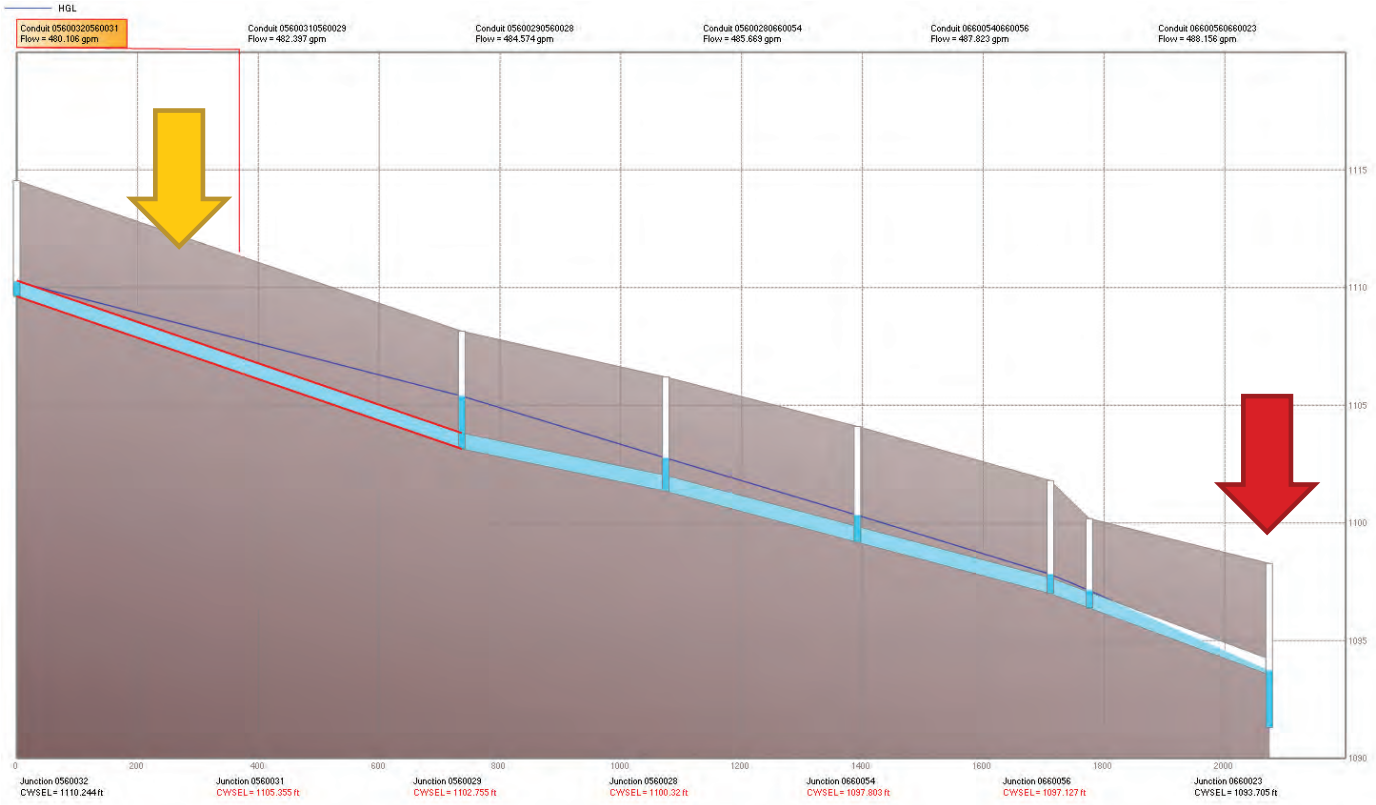
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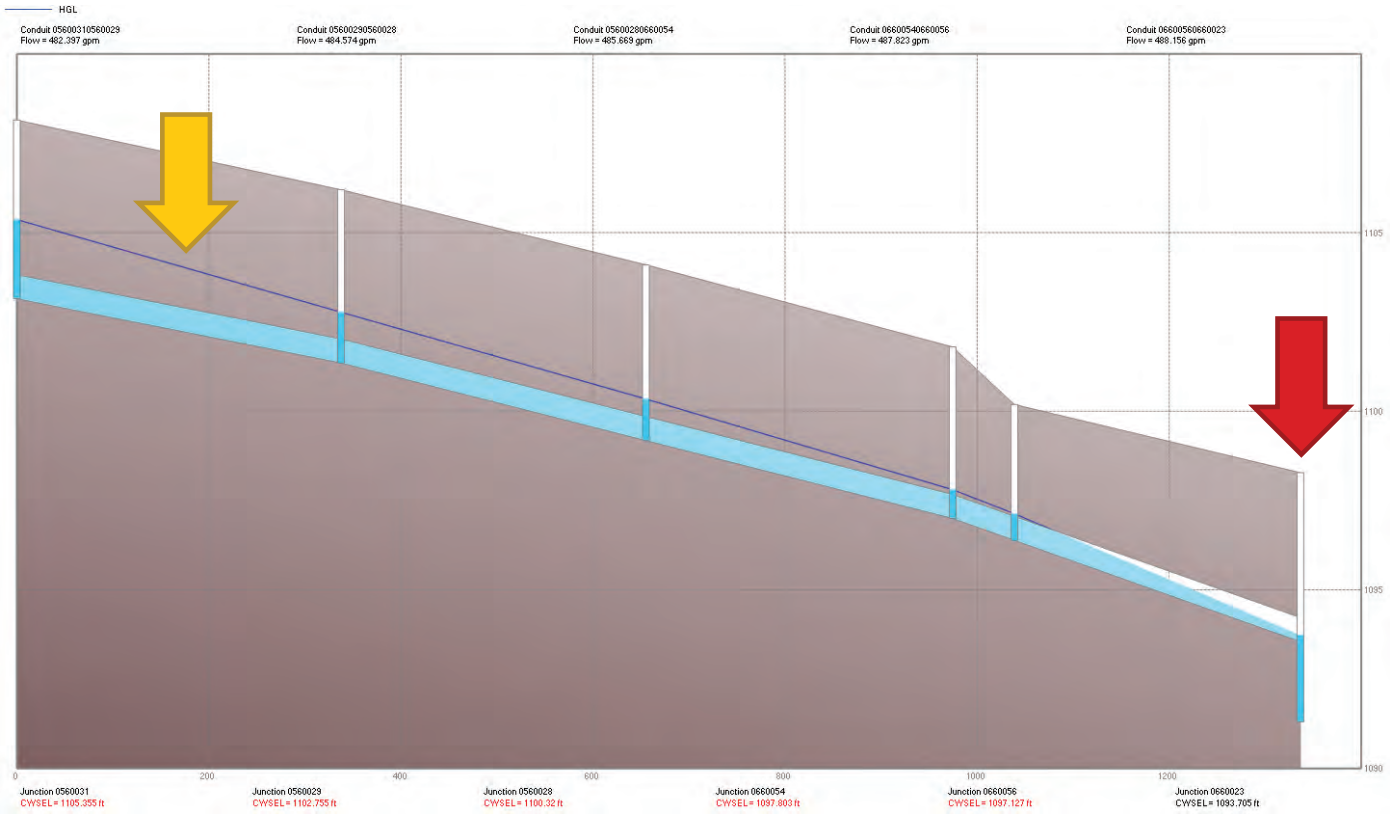
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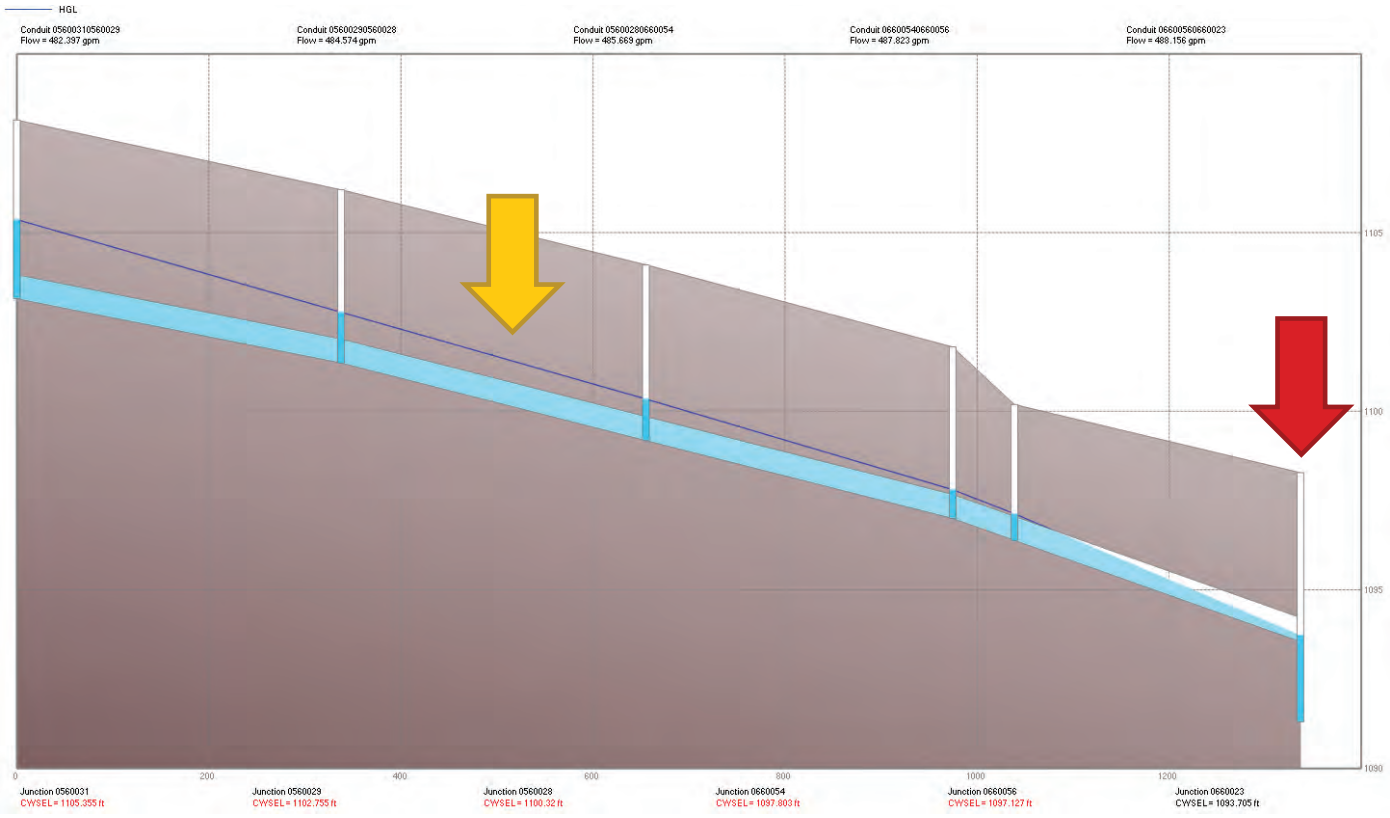
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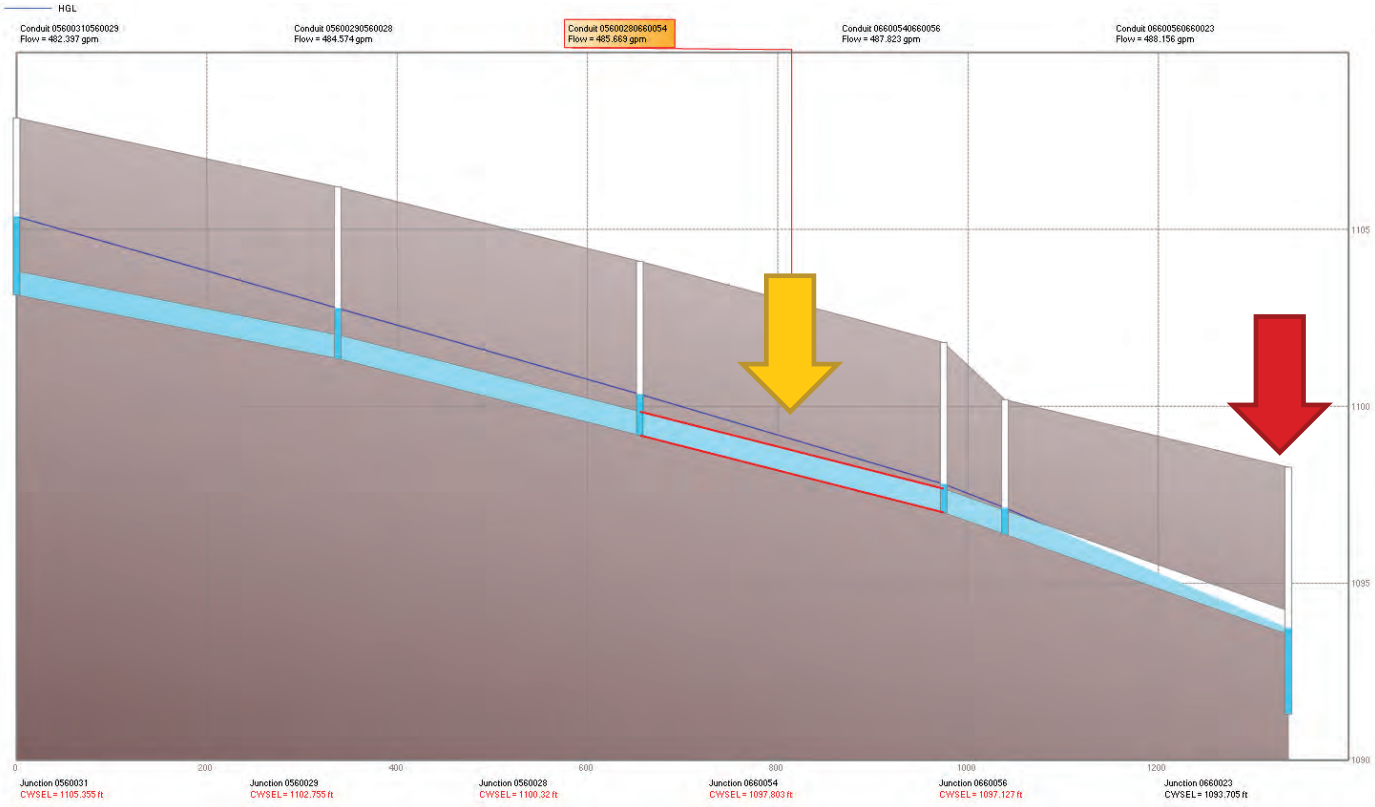
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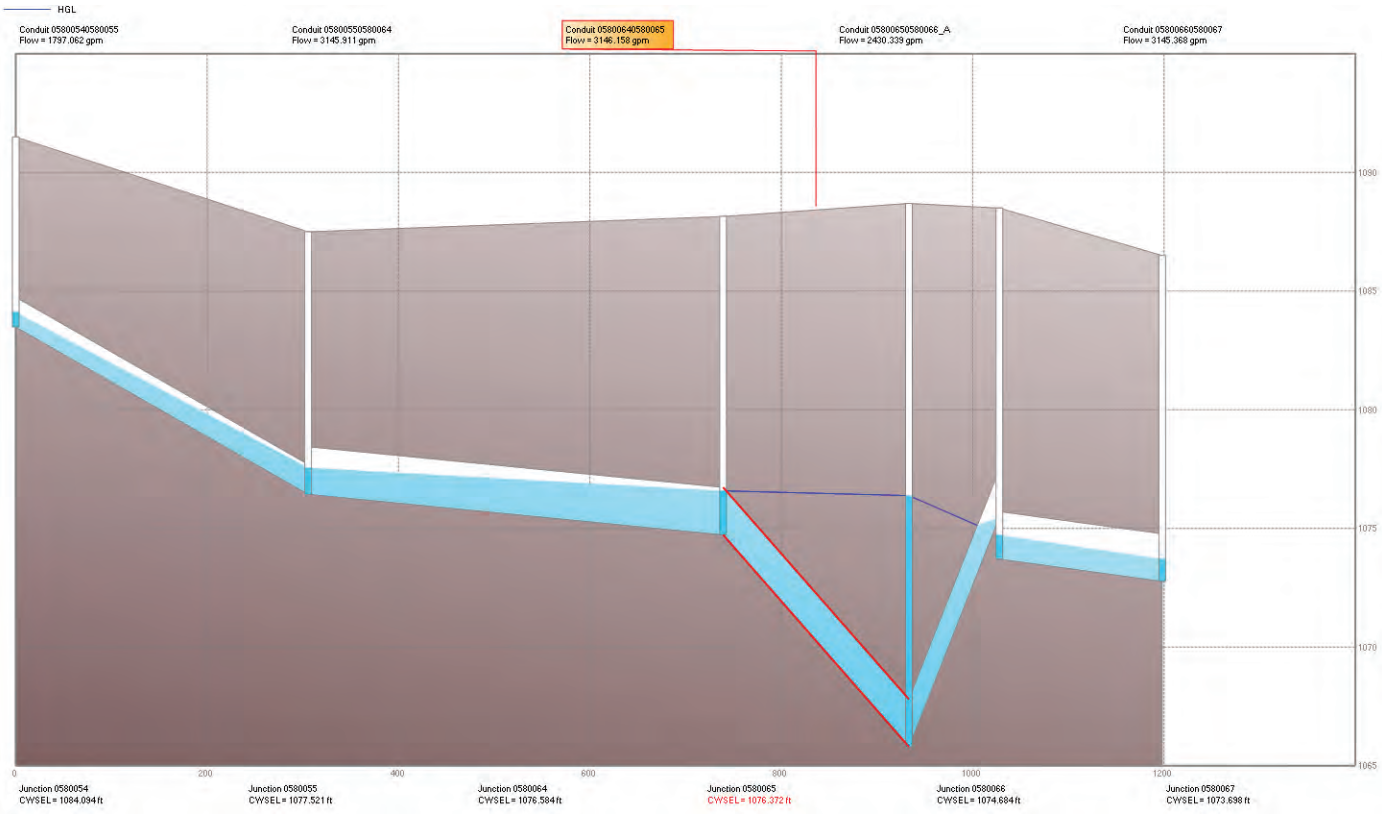
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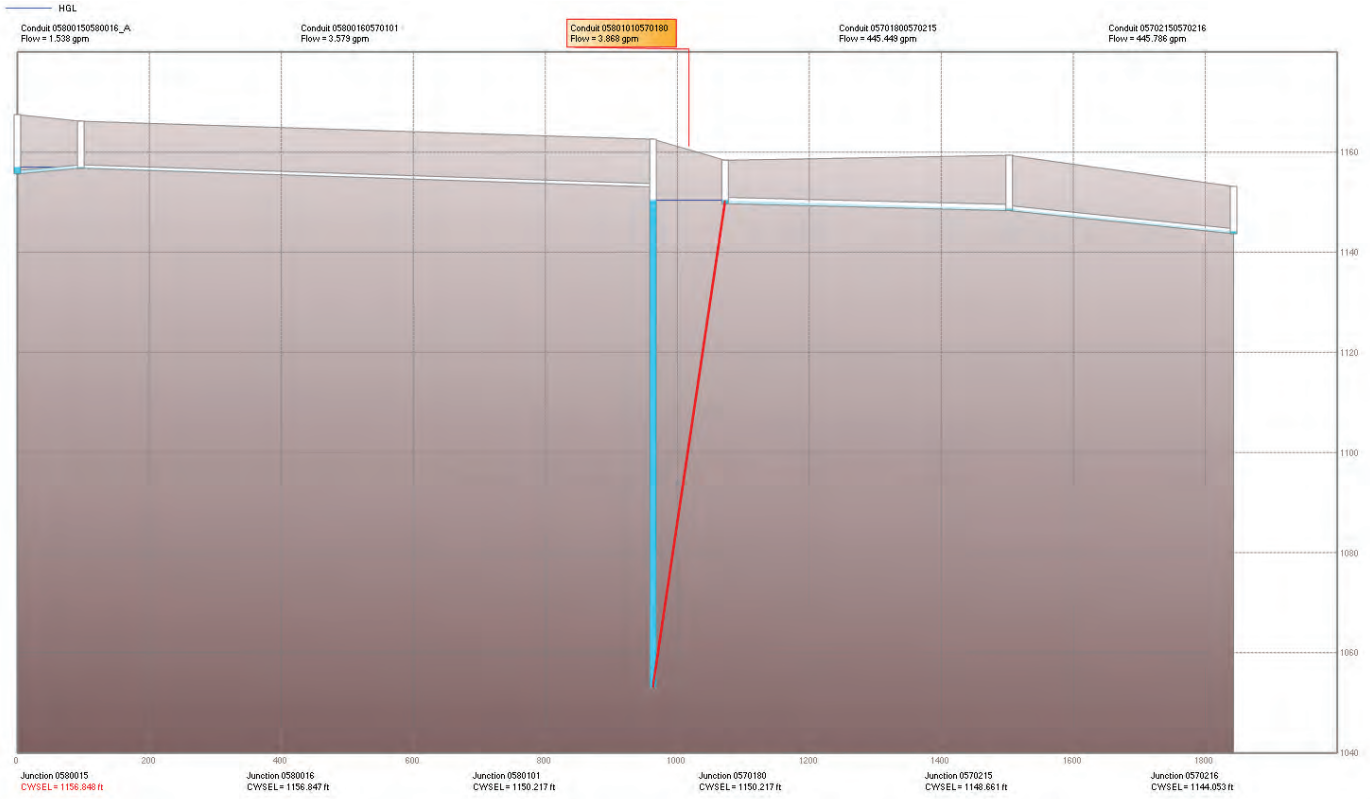
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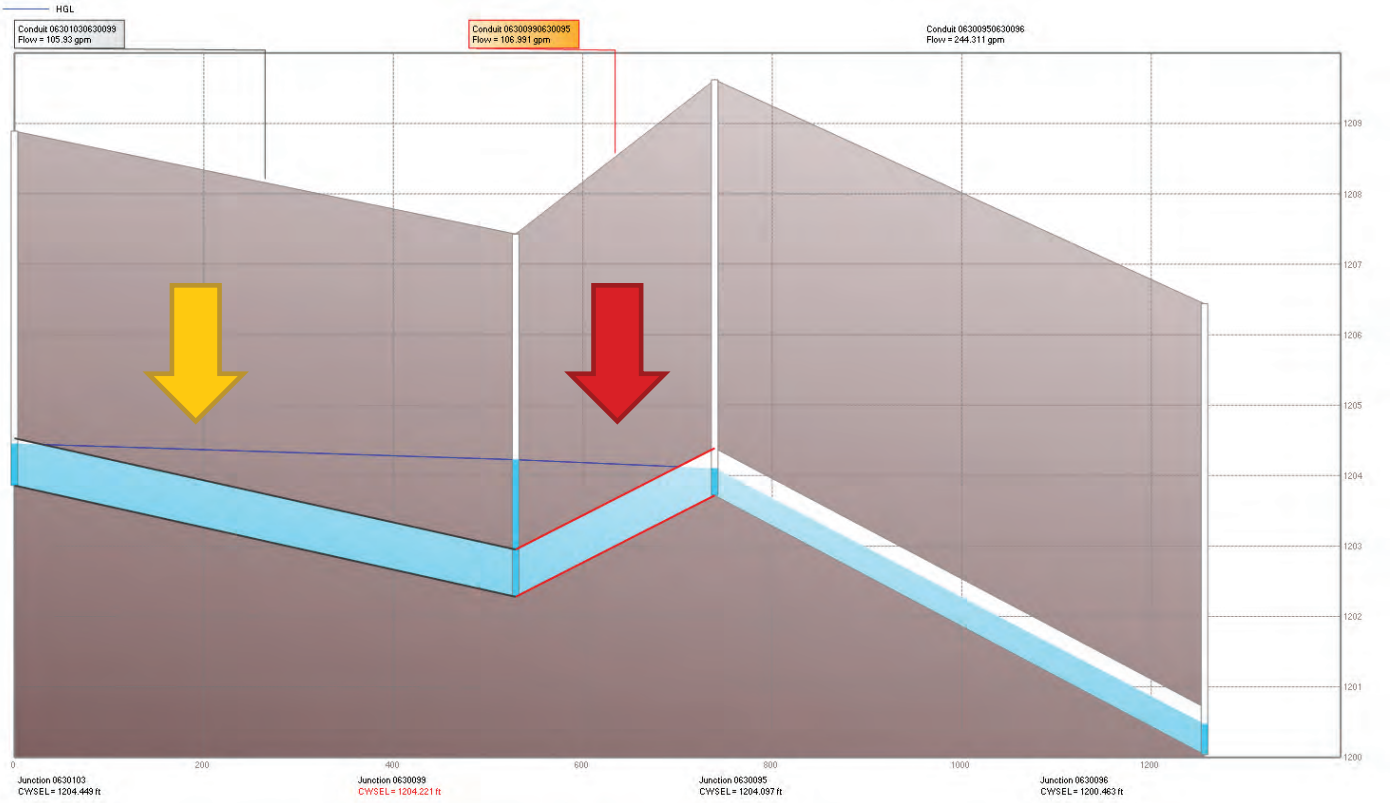
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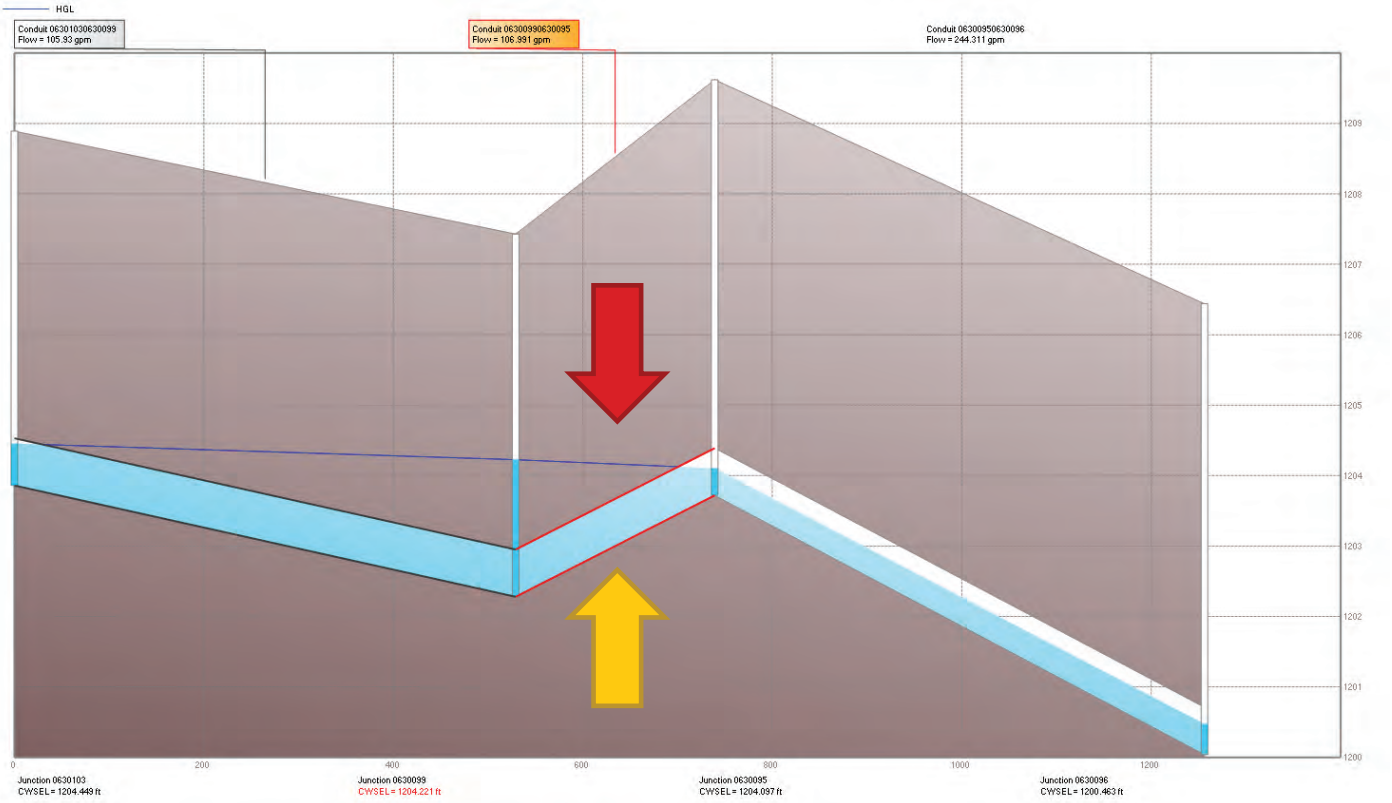
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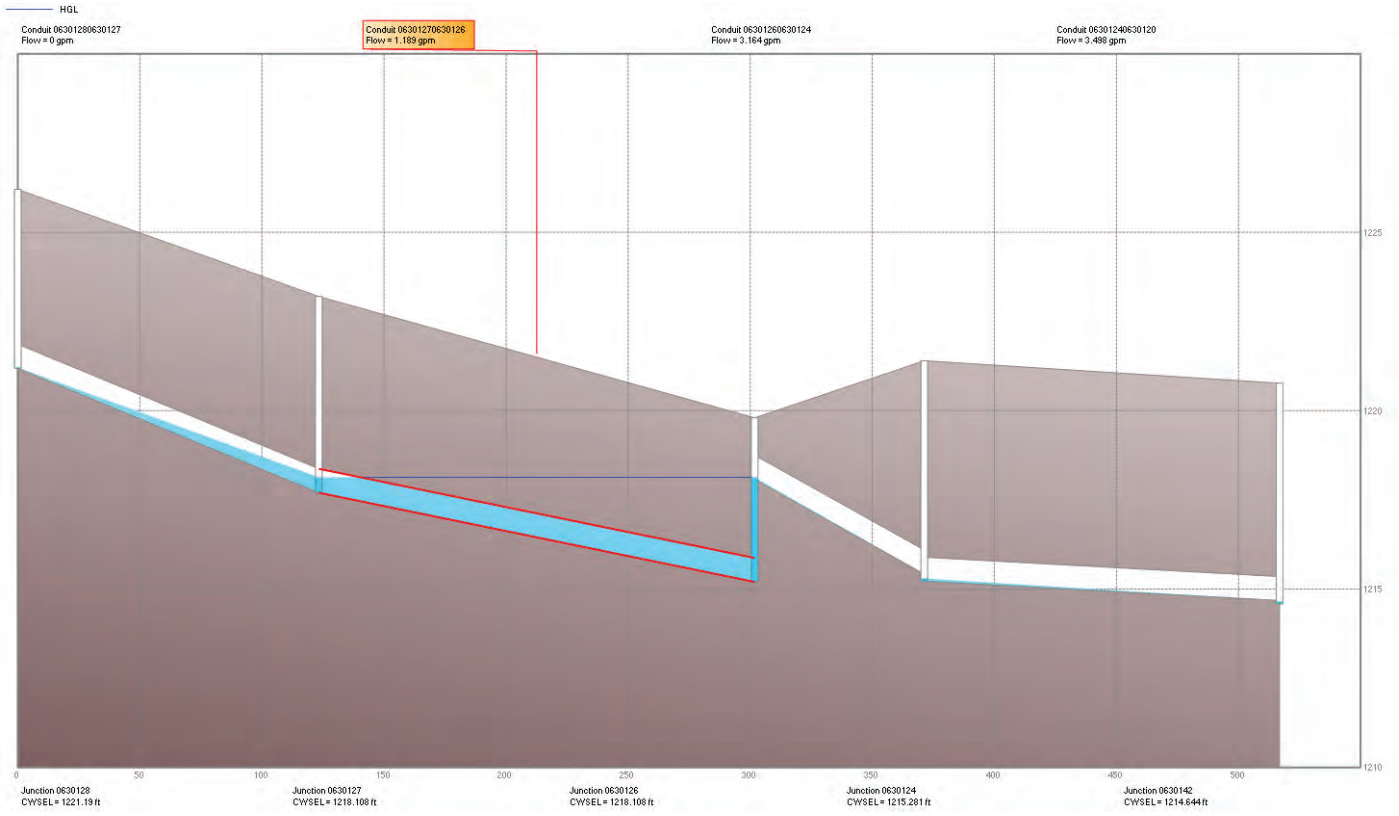
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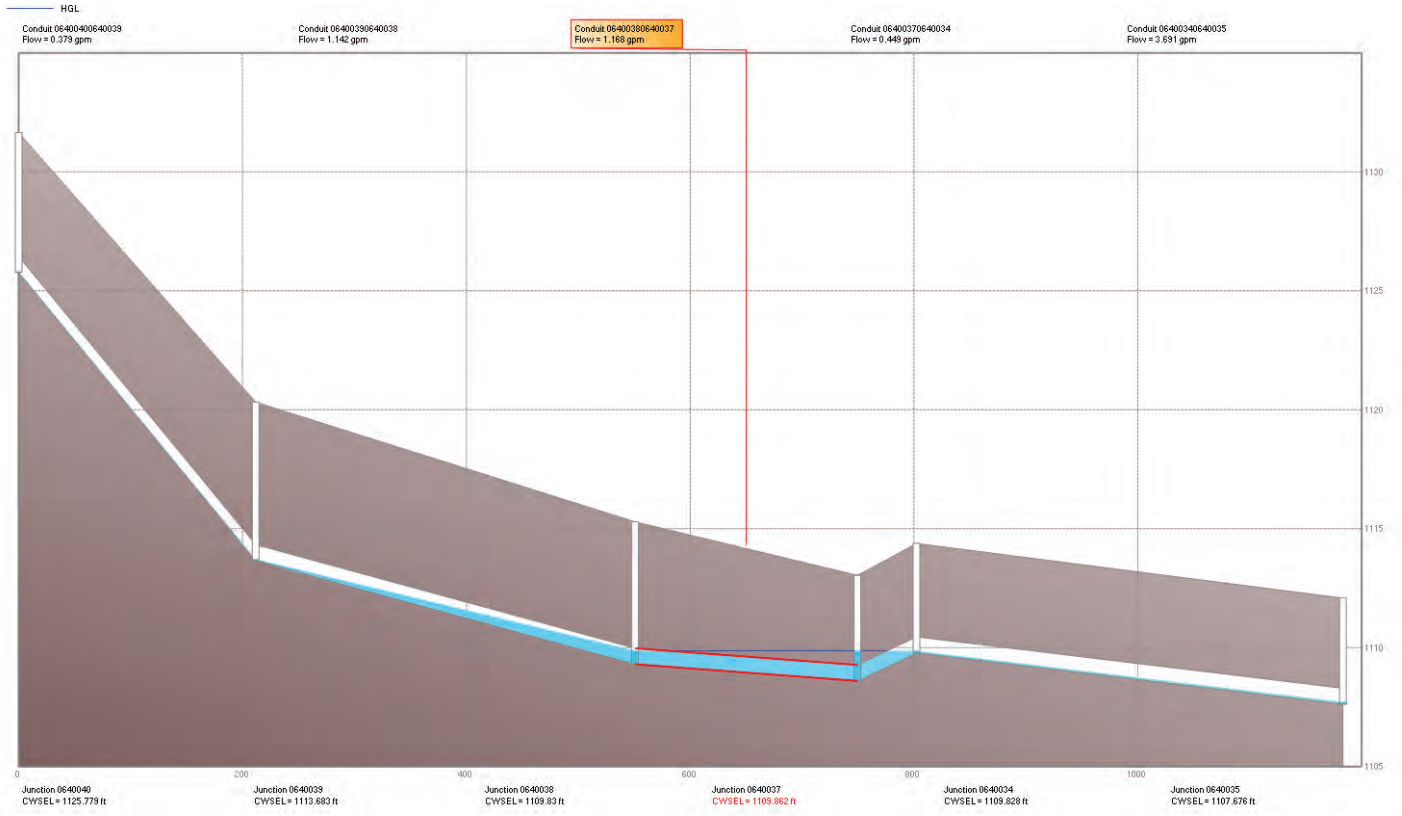
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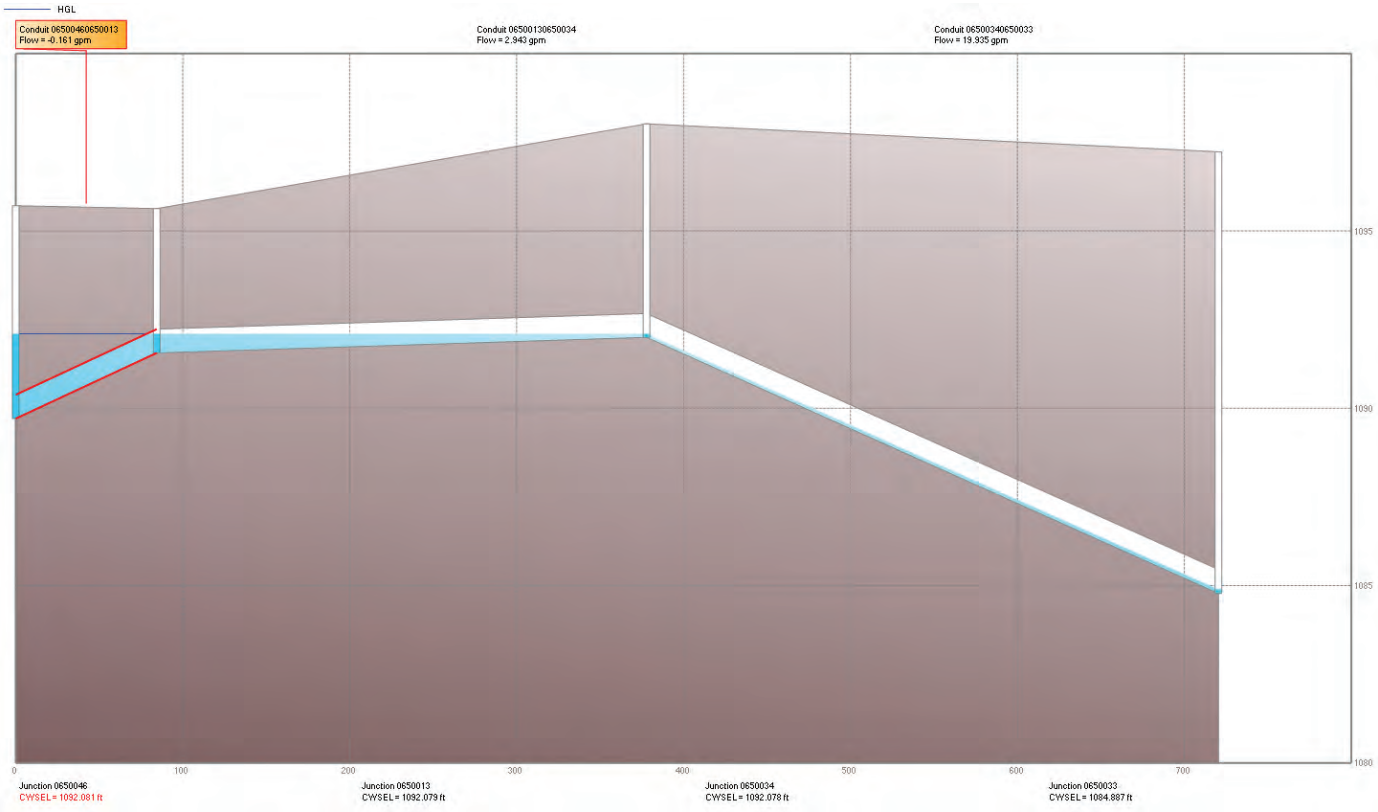
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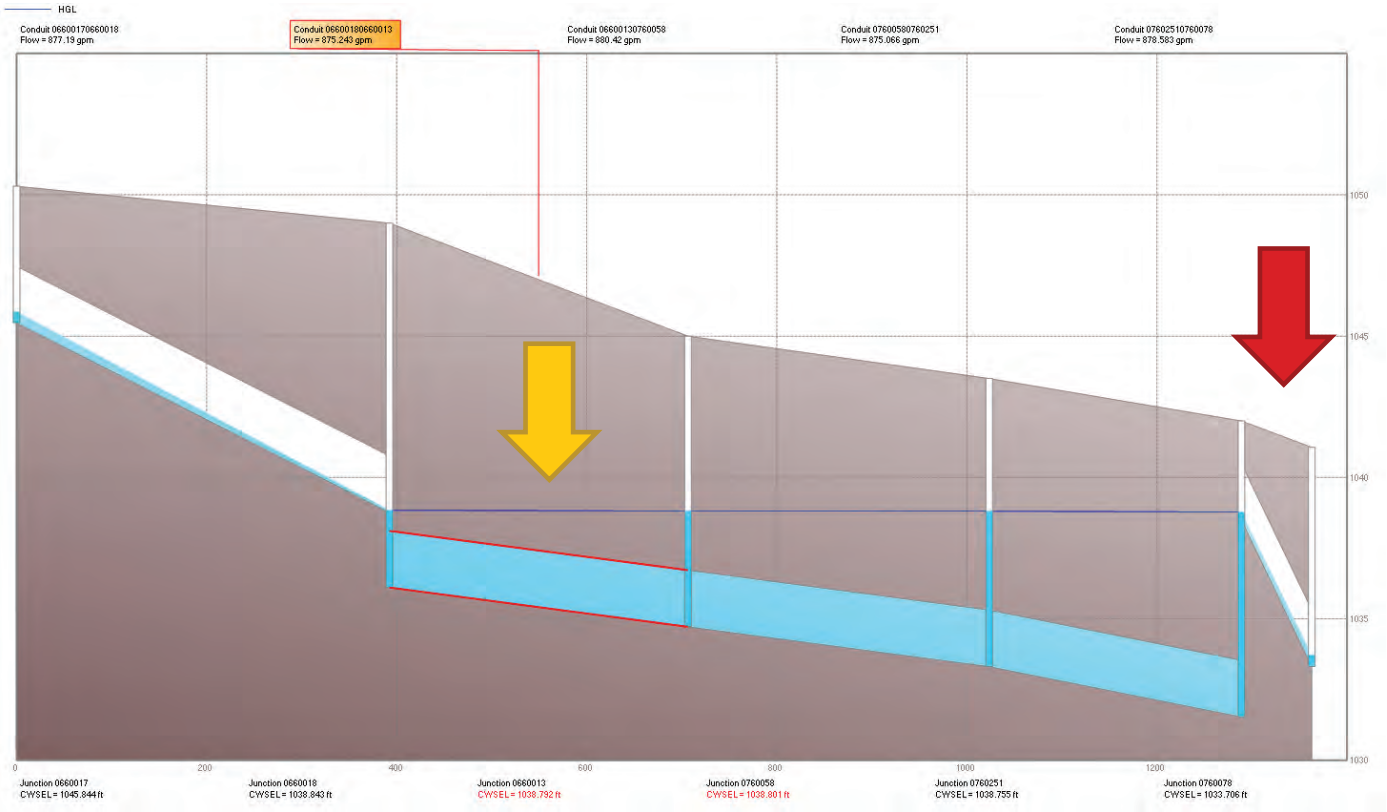
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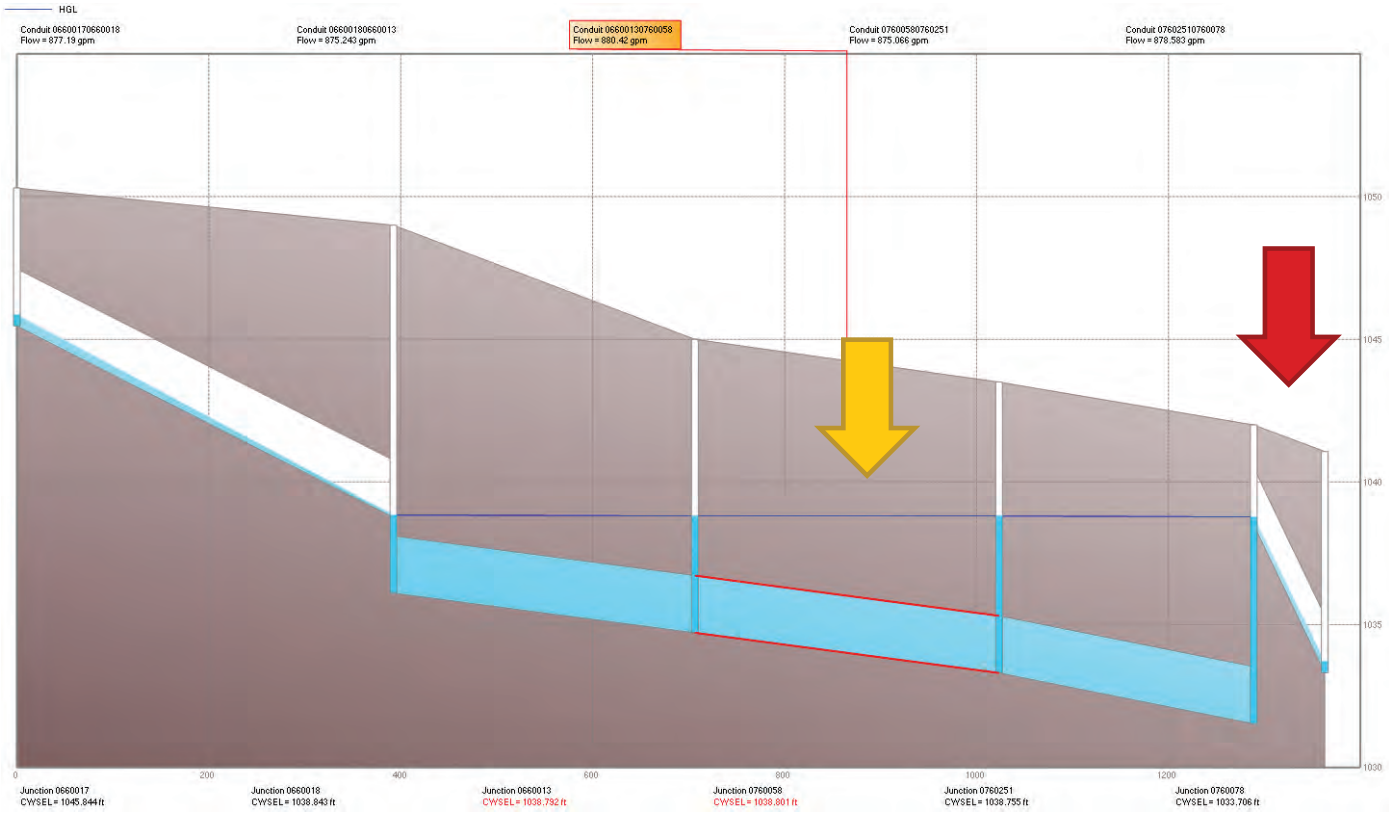
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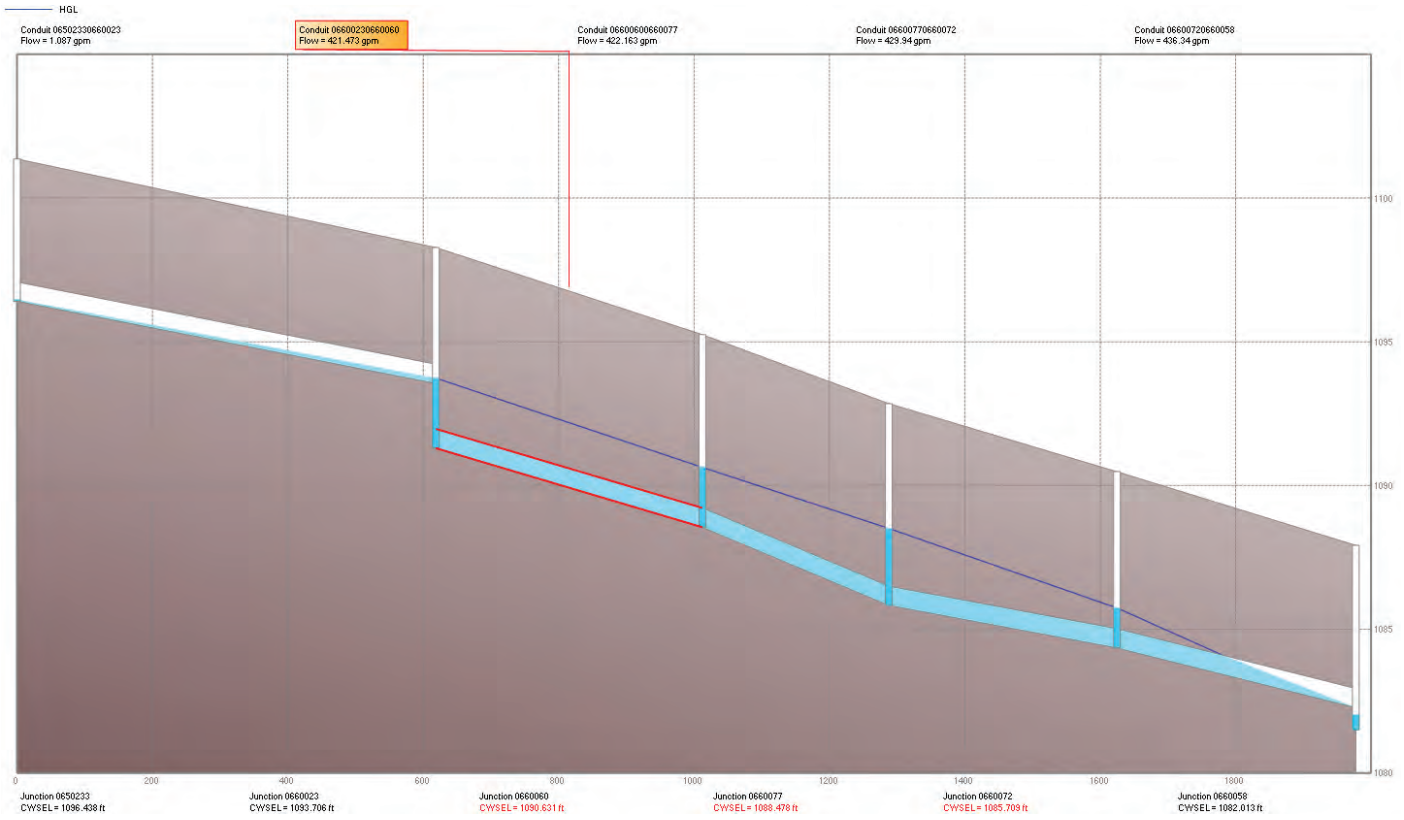
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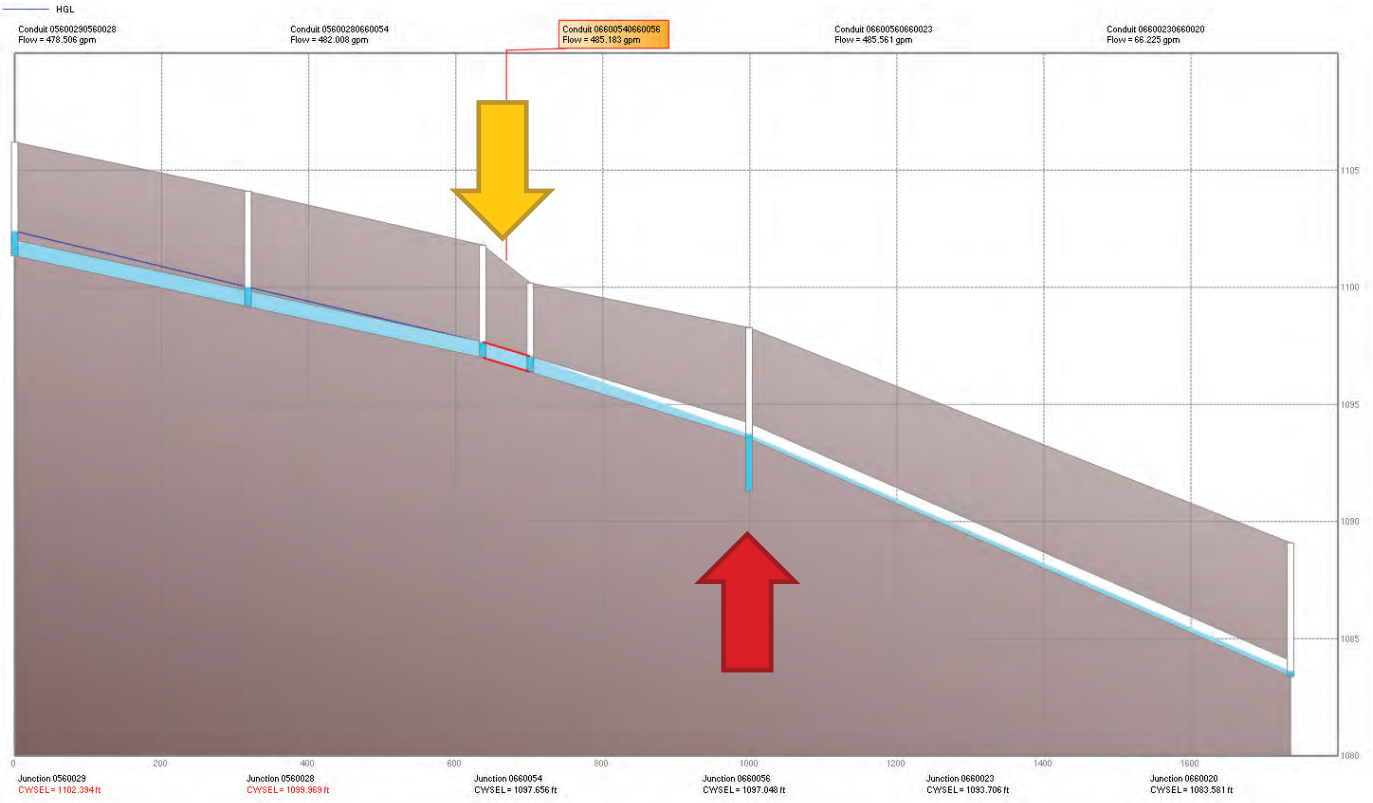
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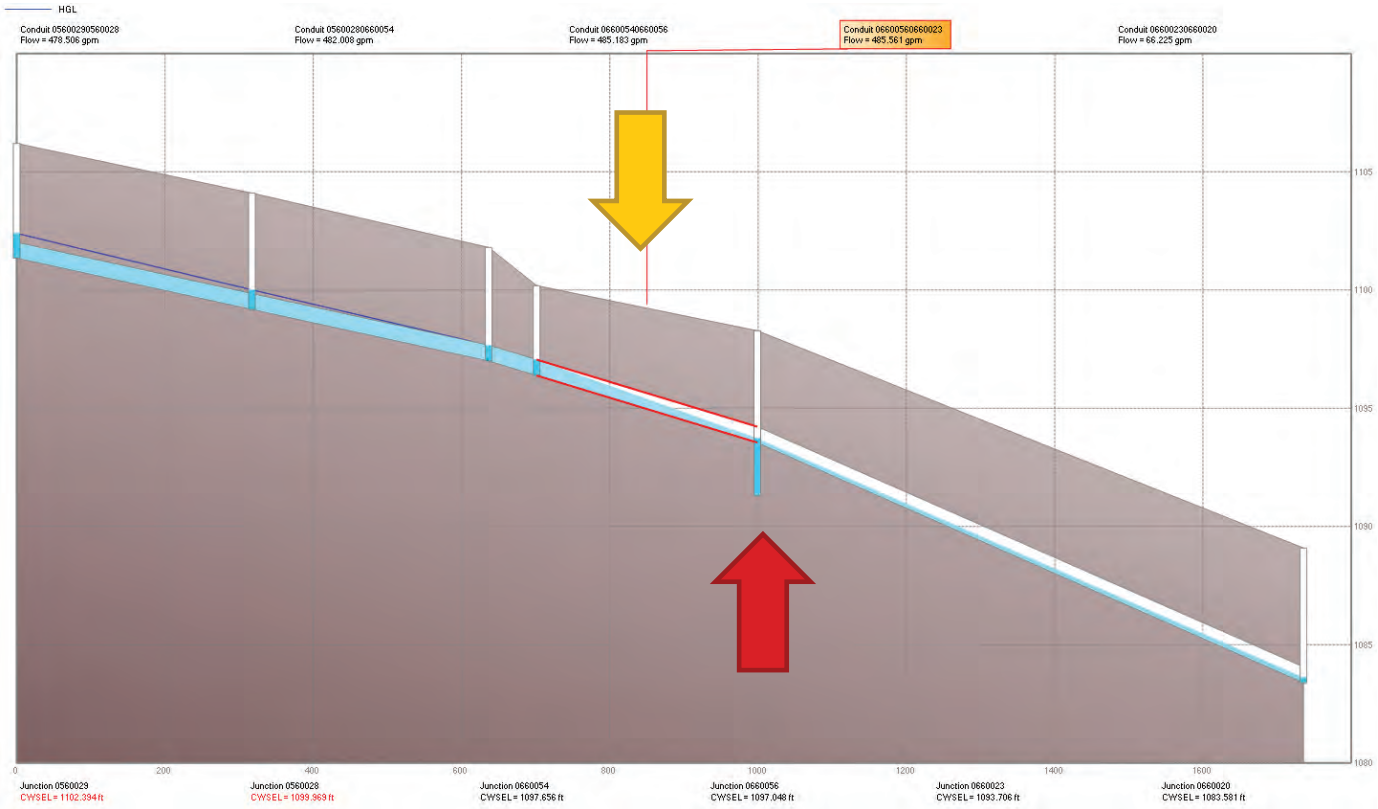
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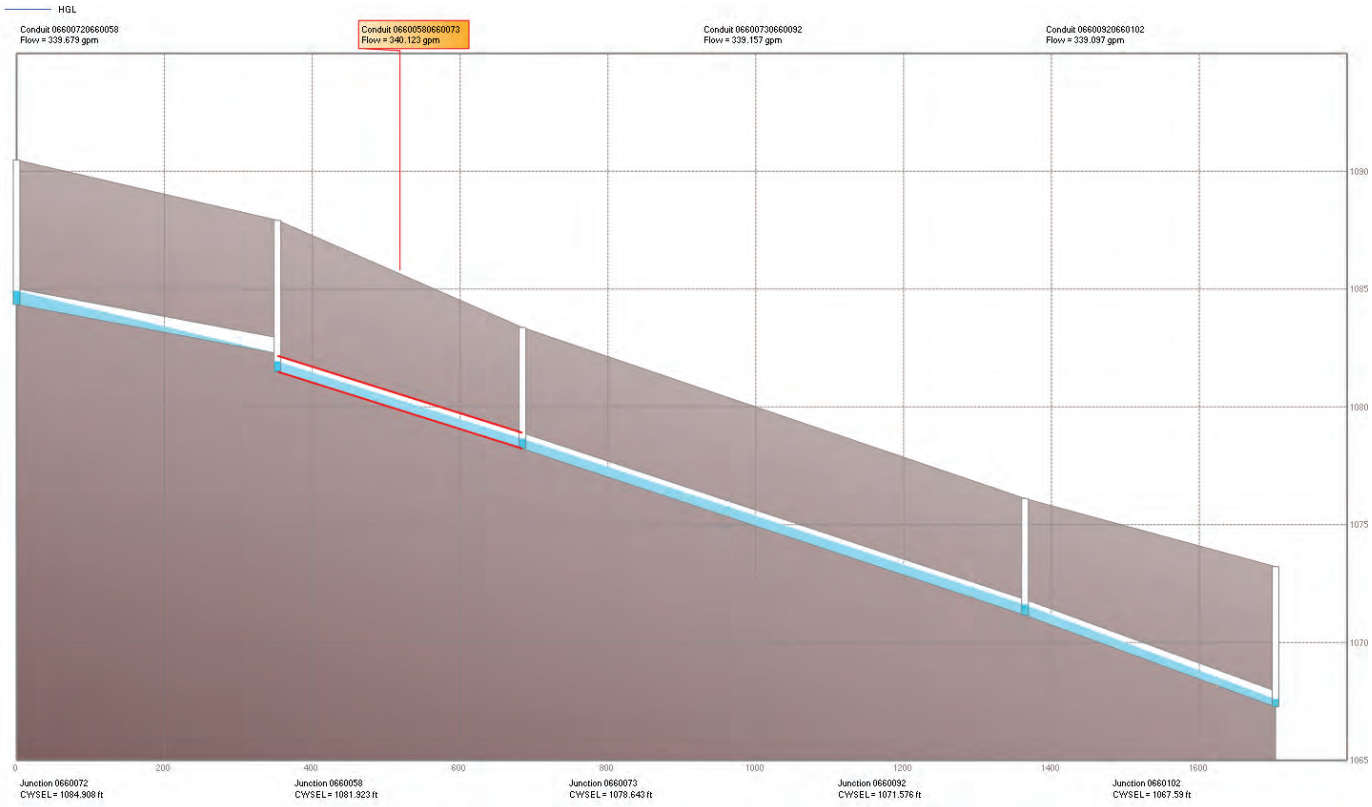
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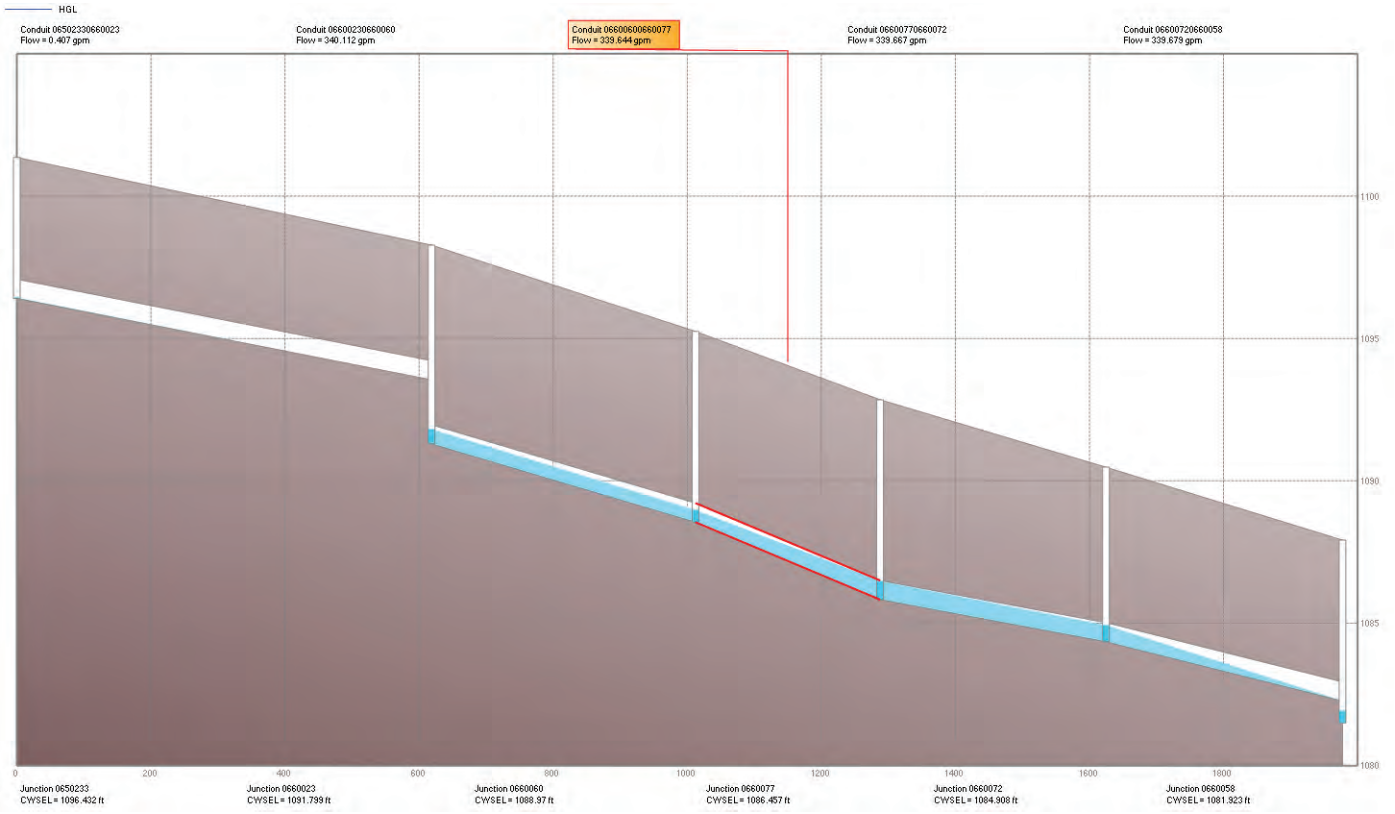
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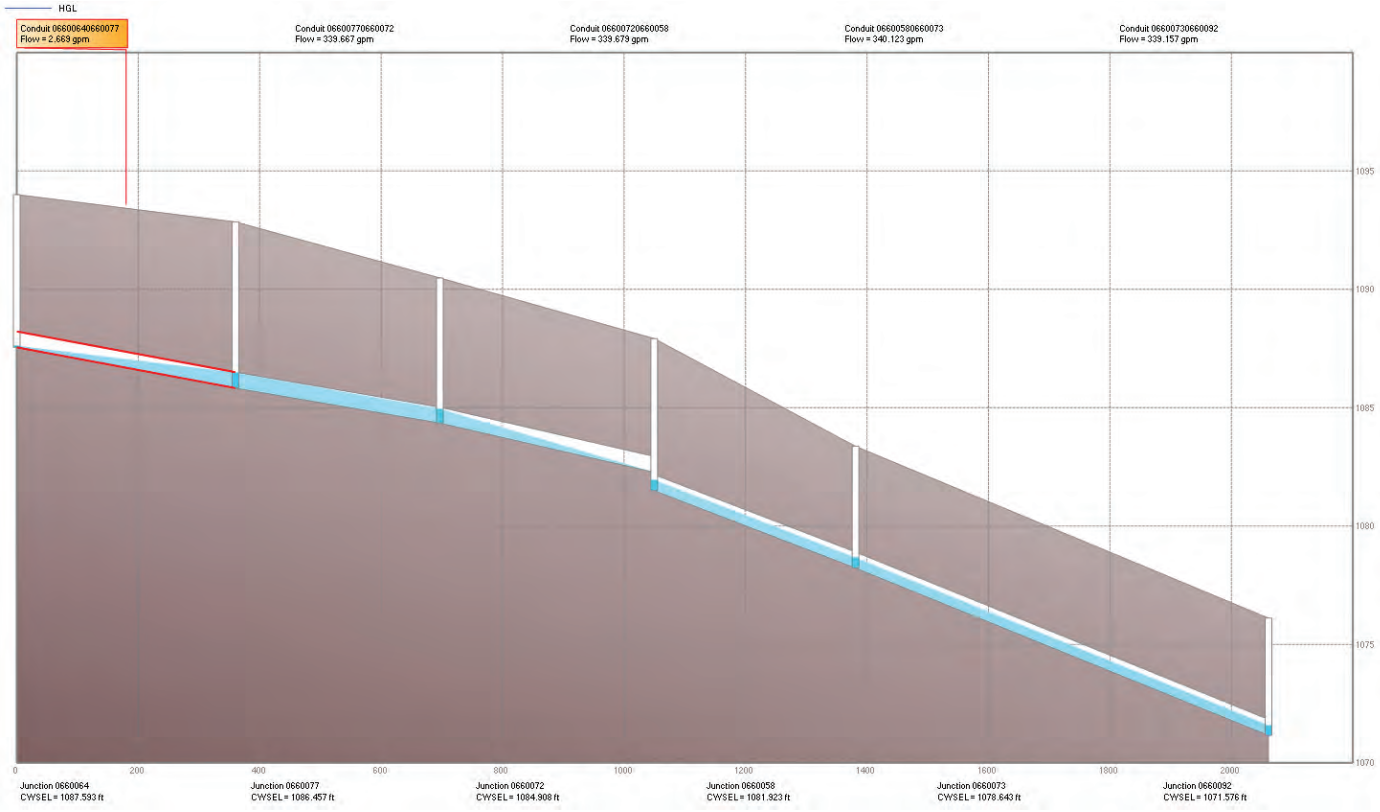
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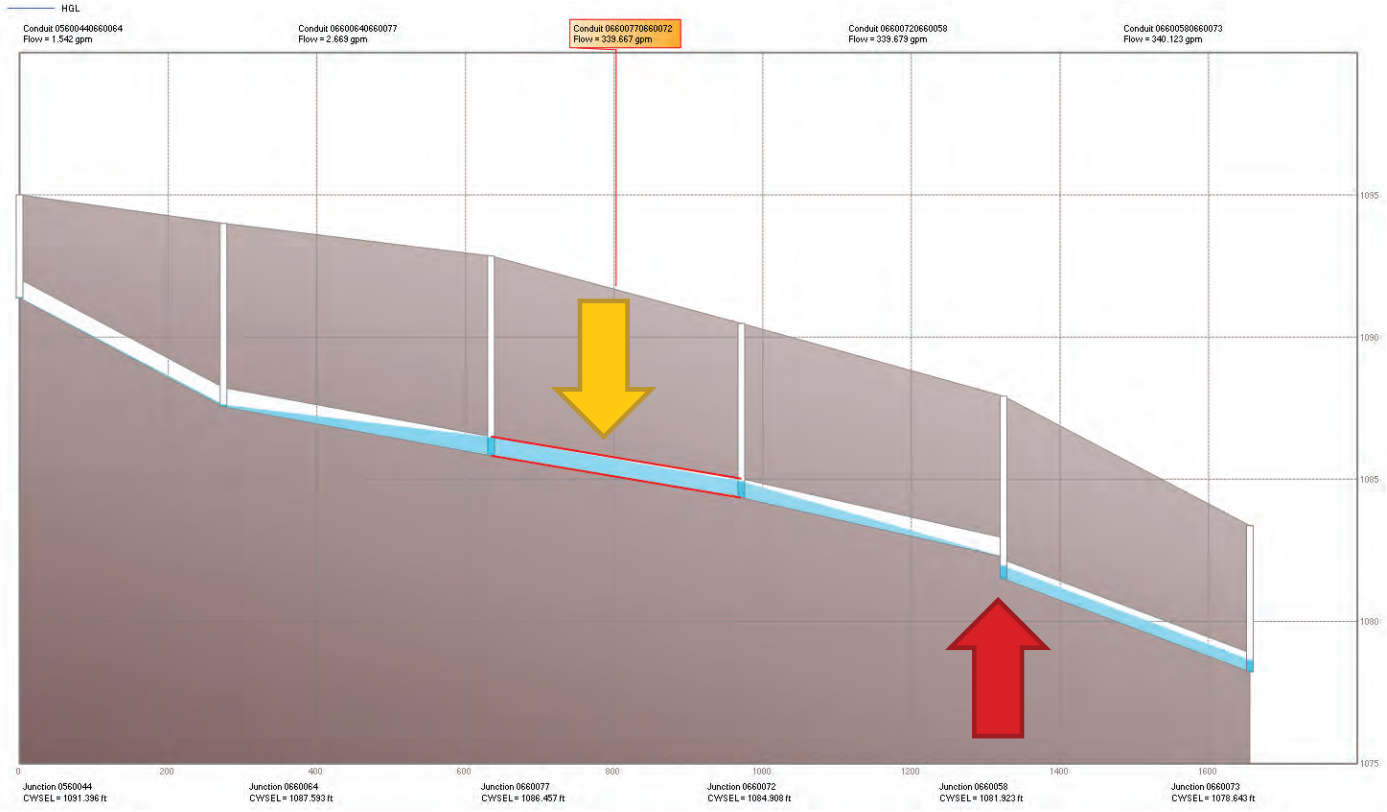
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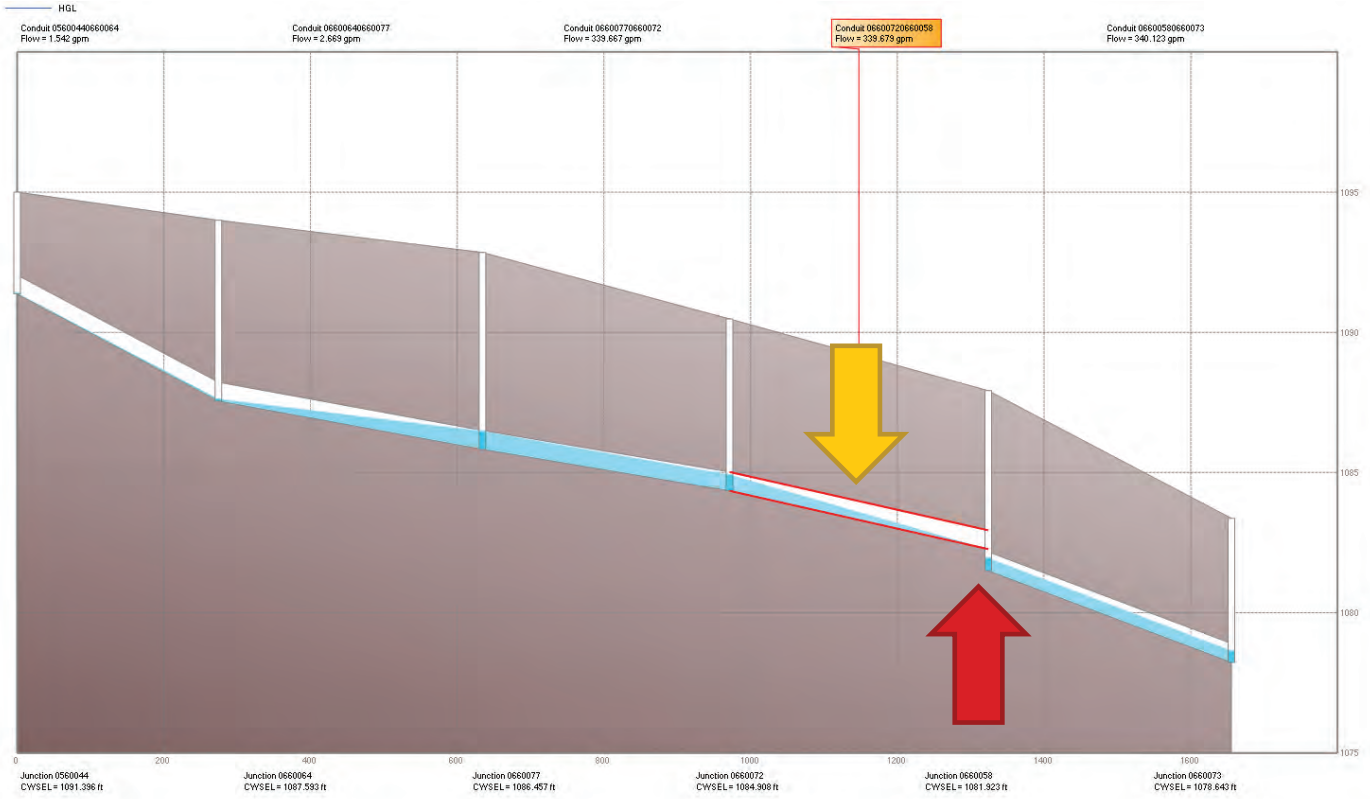
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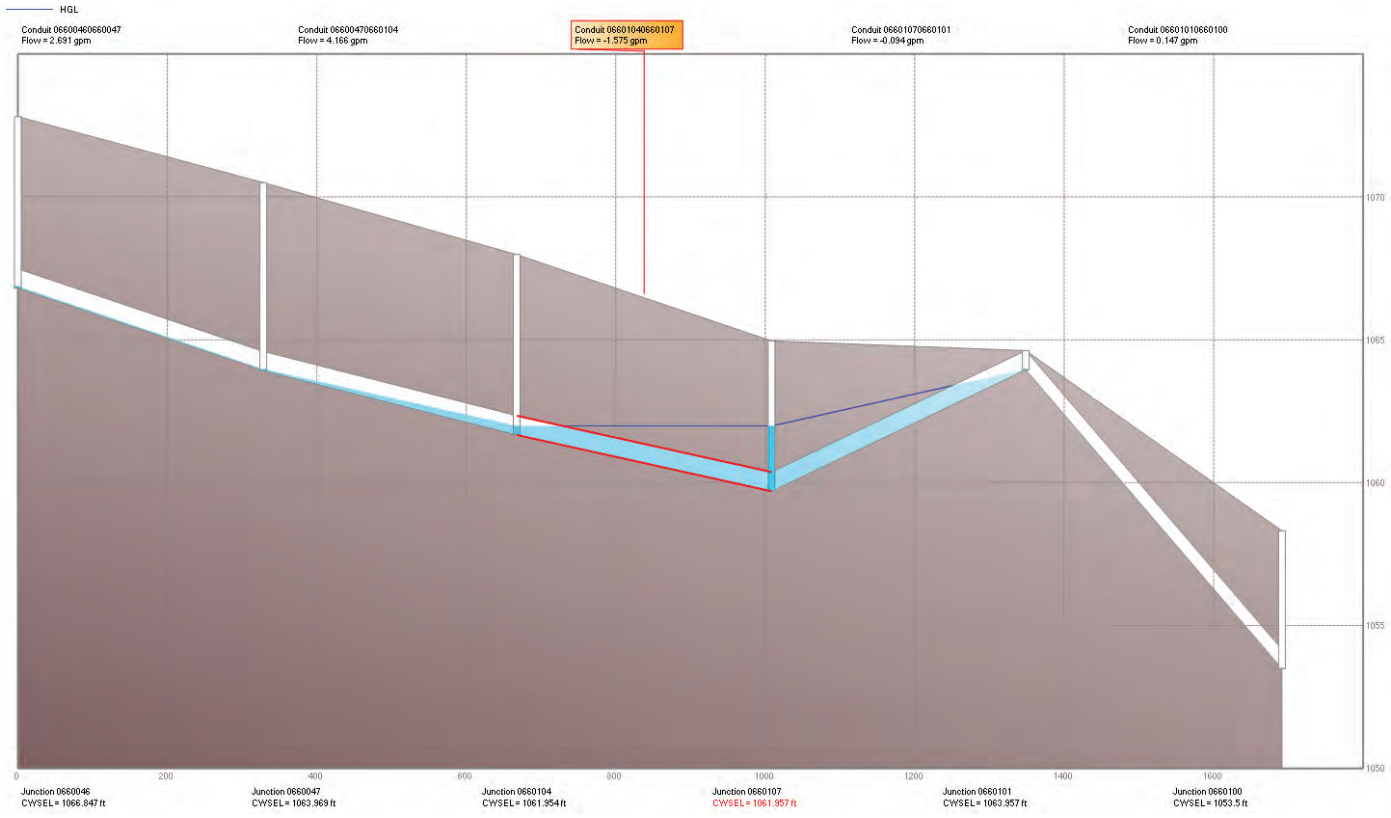
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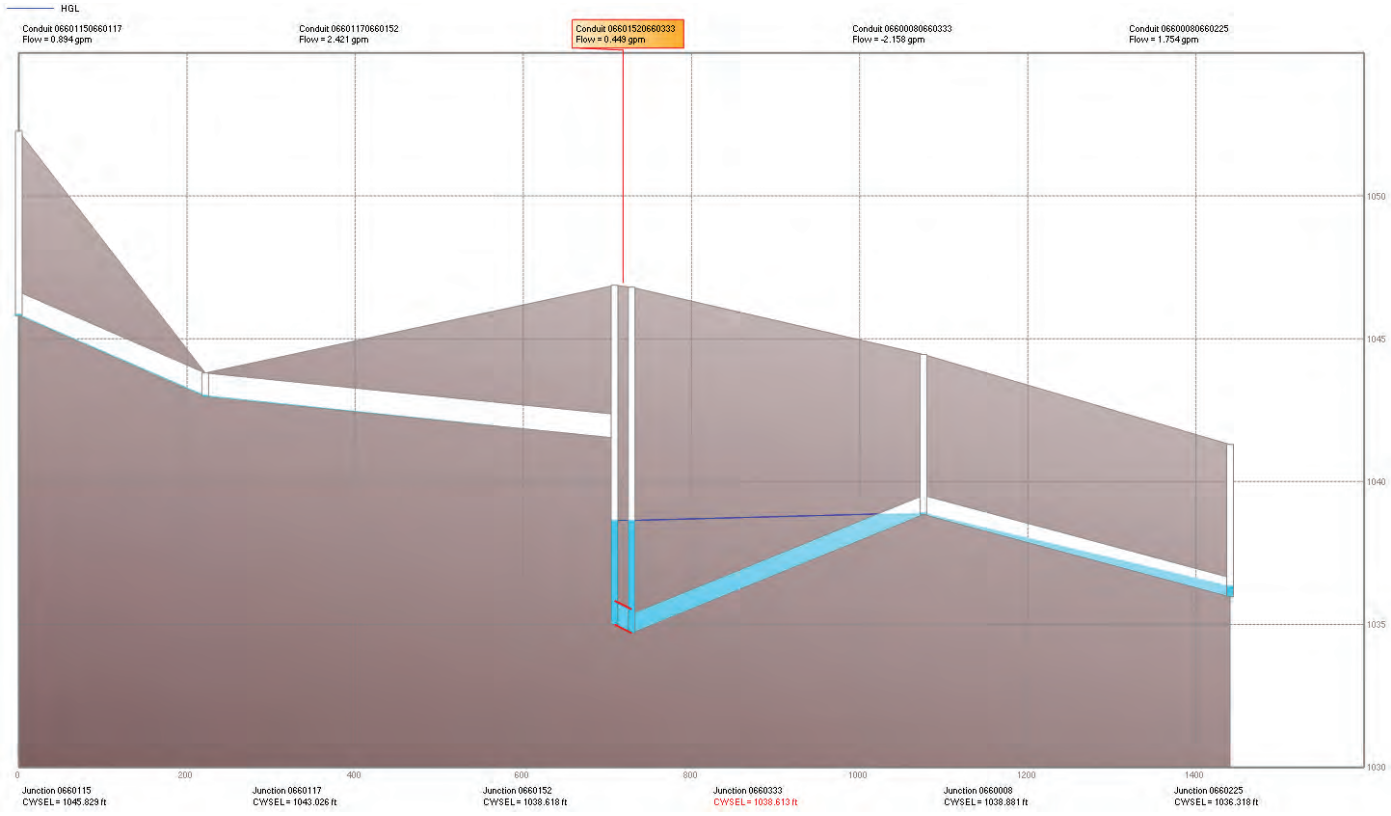
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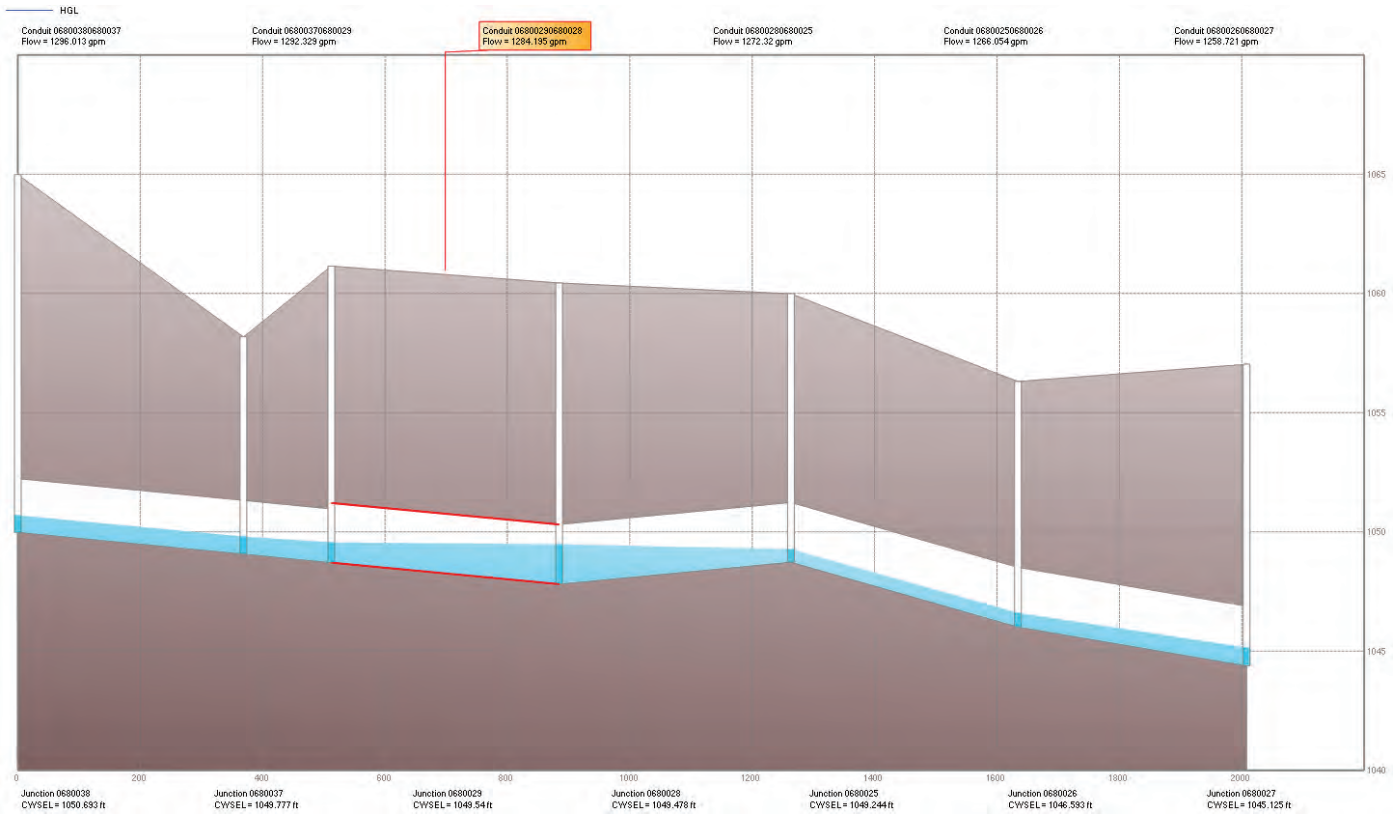
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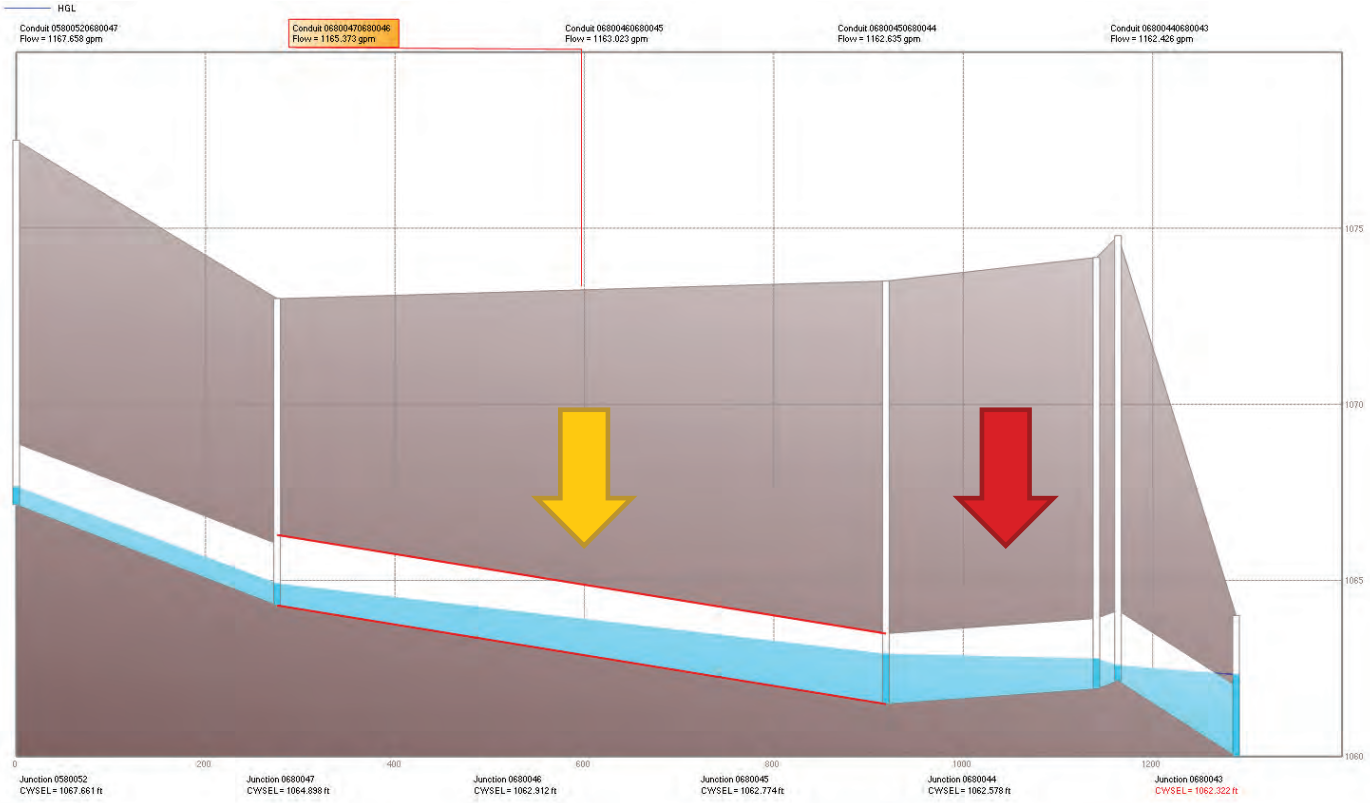
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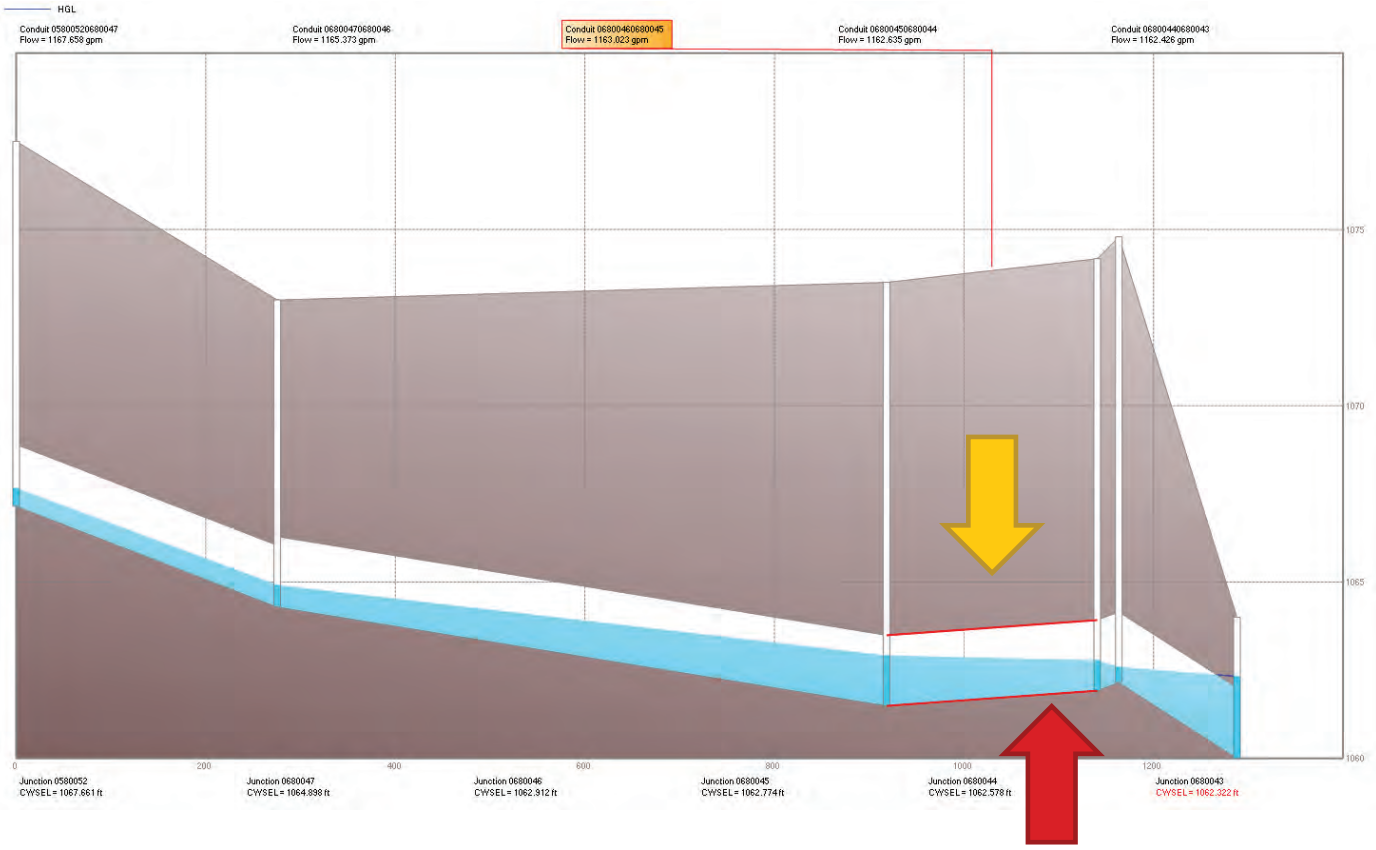
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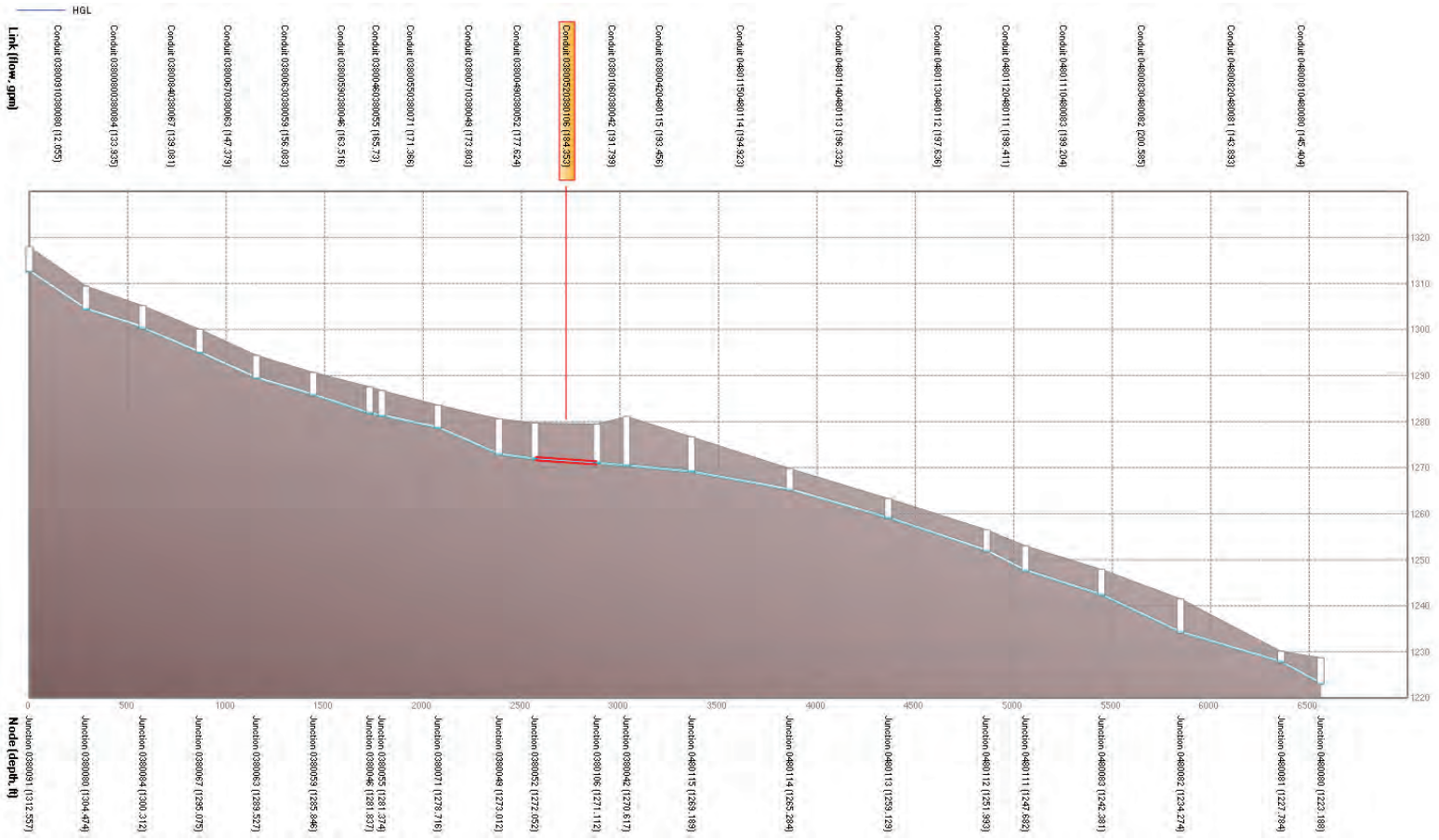
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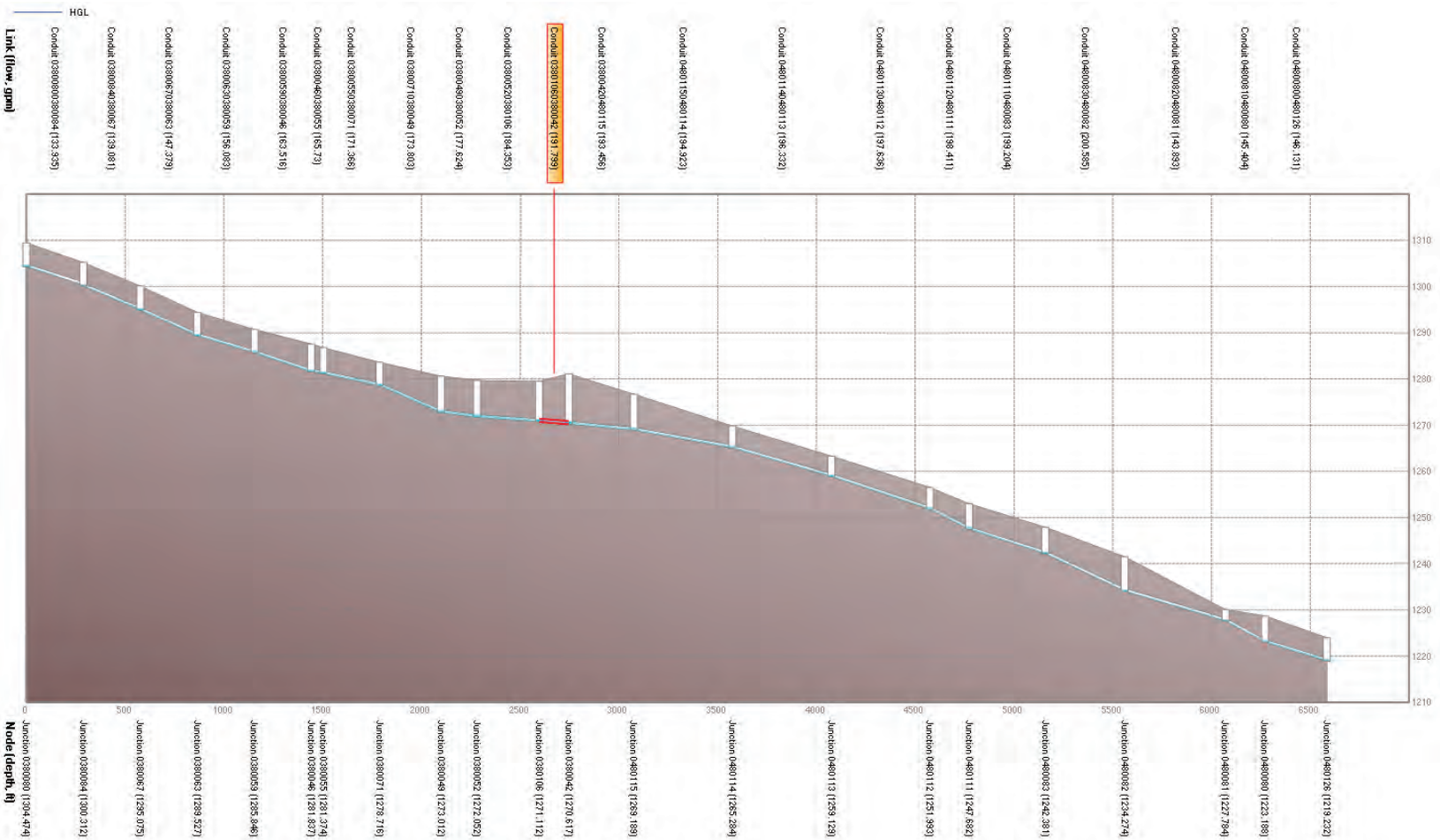
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TYPE 2

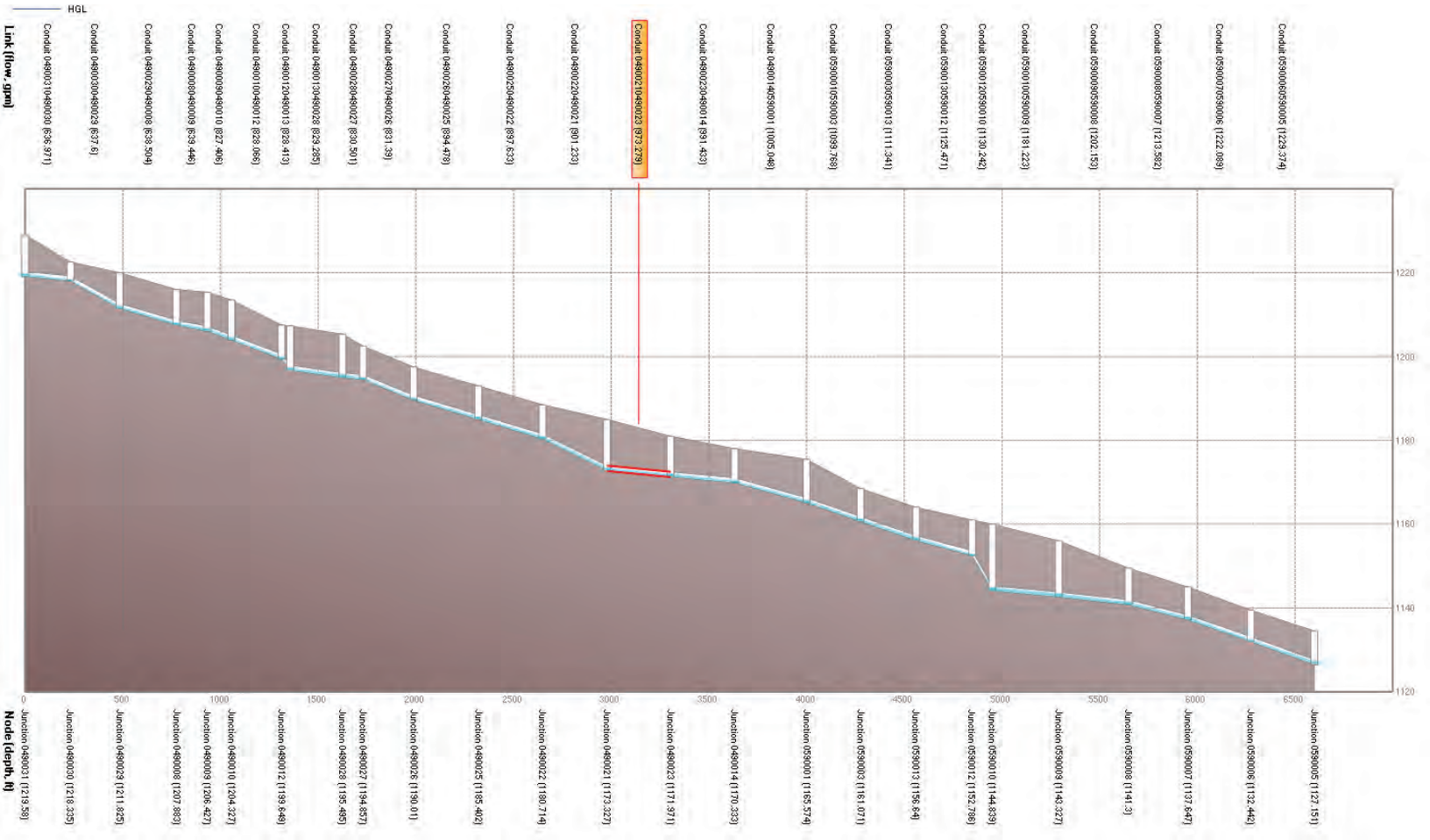
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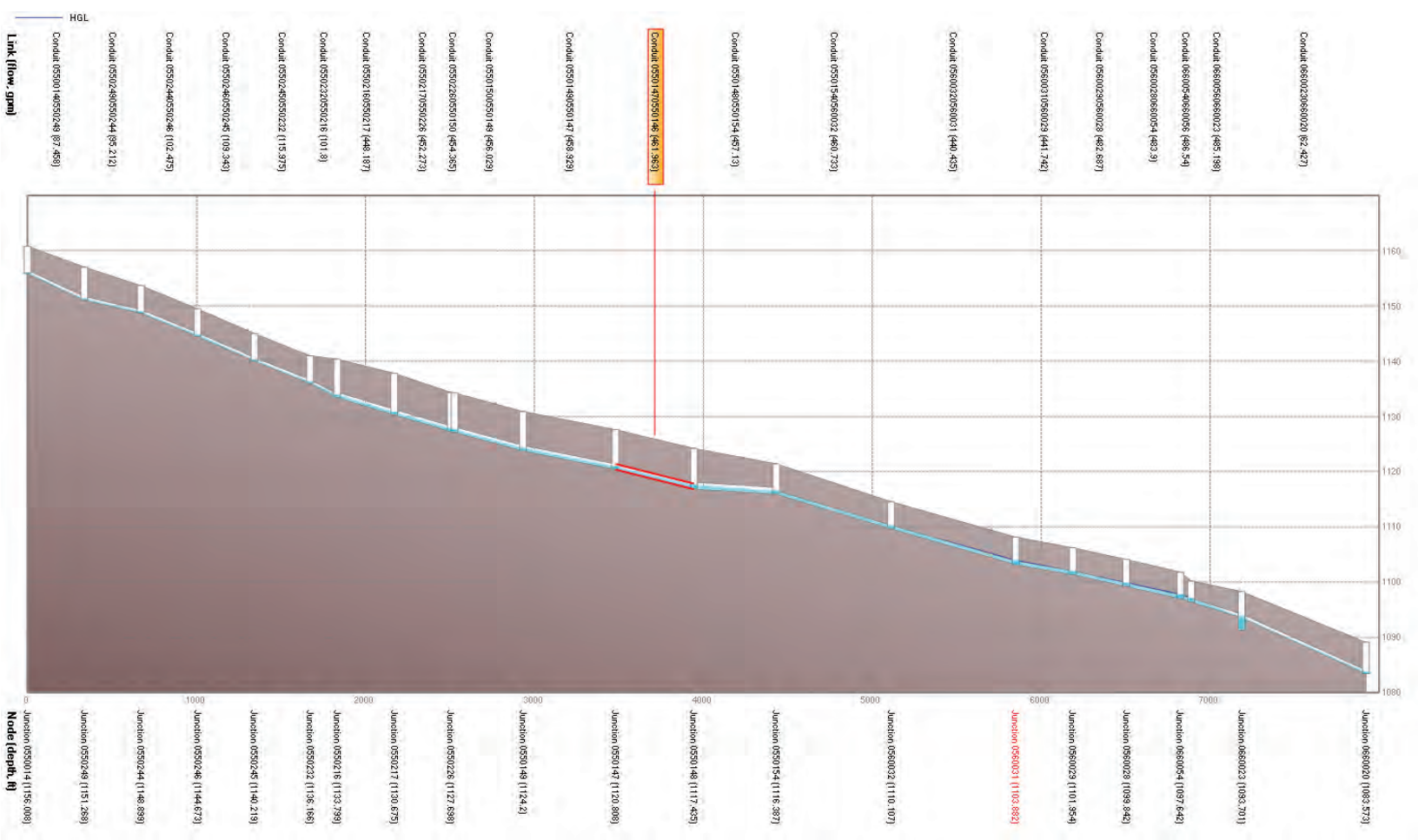
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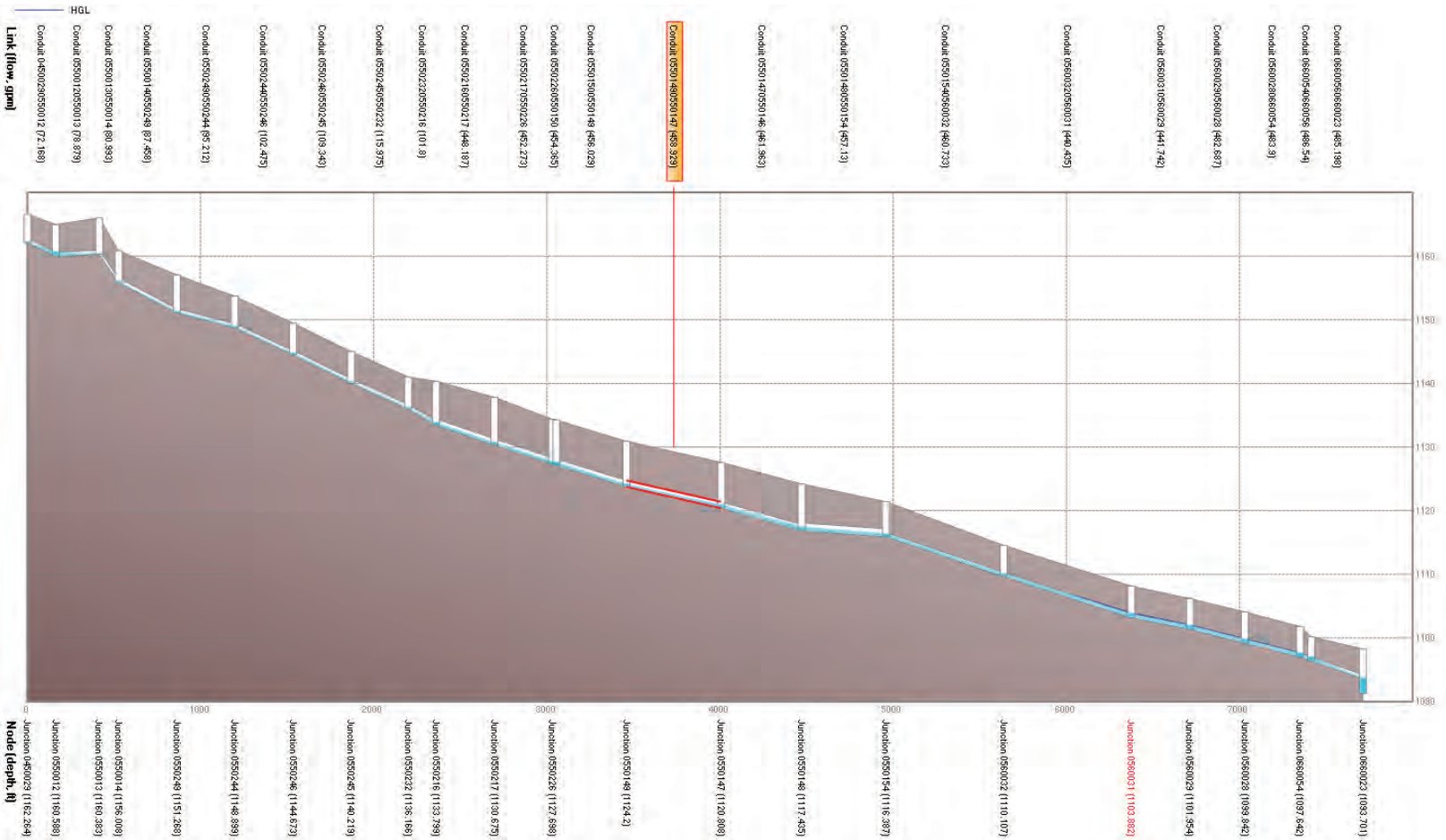
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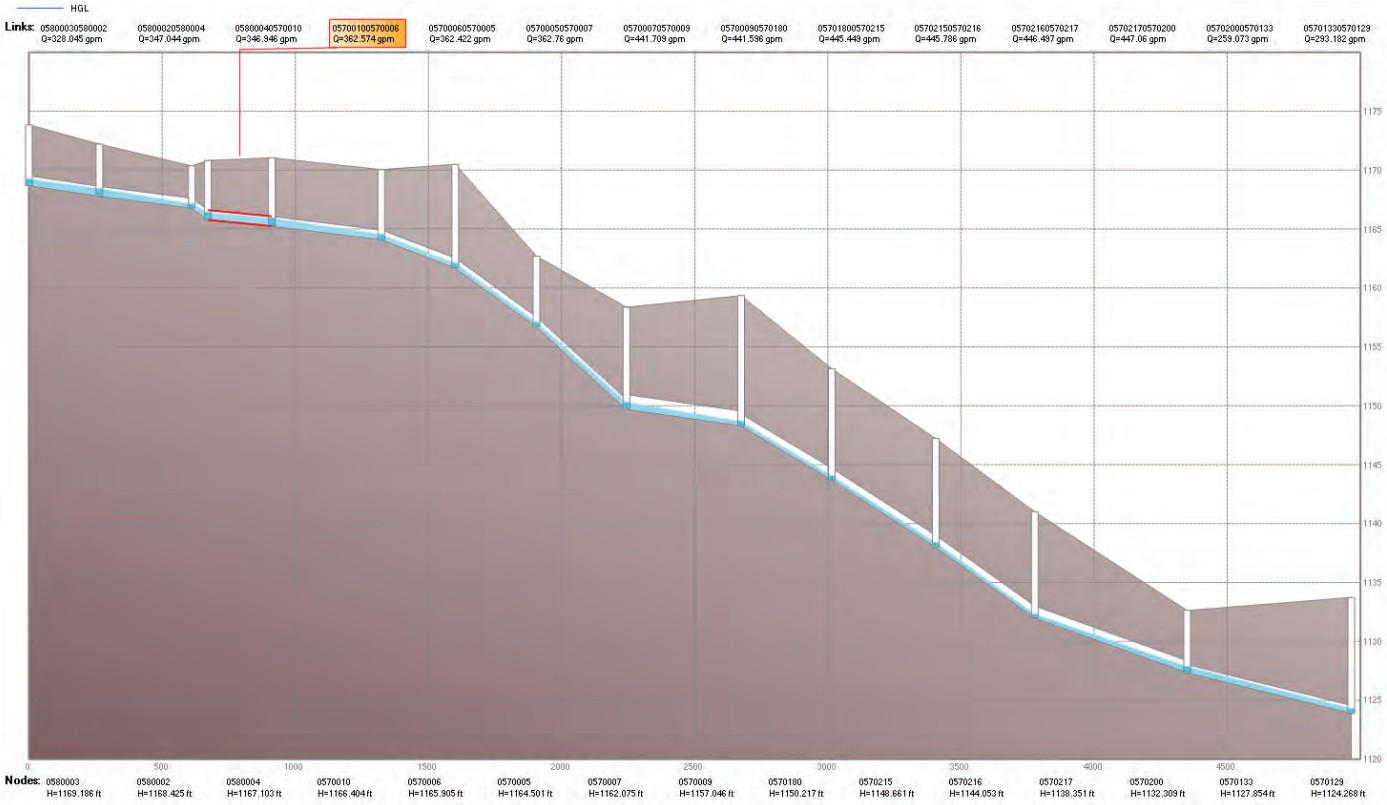
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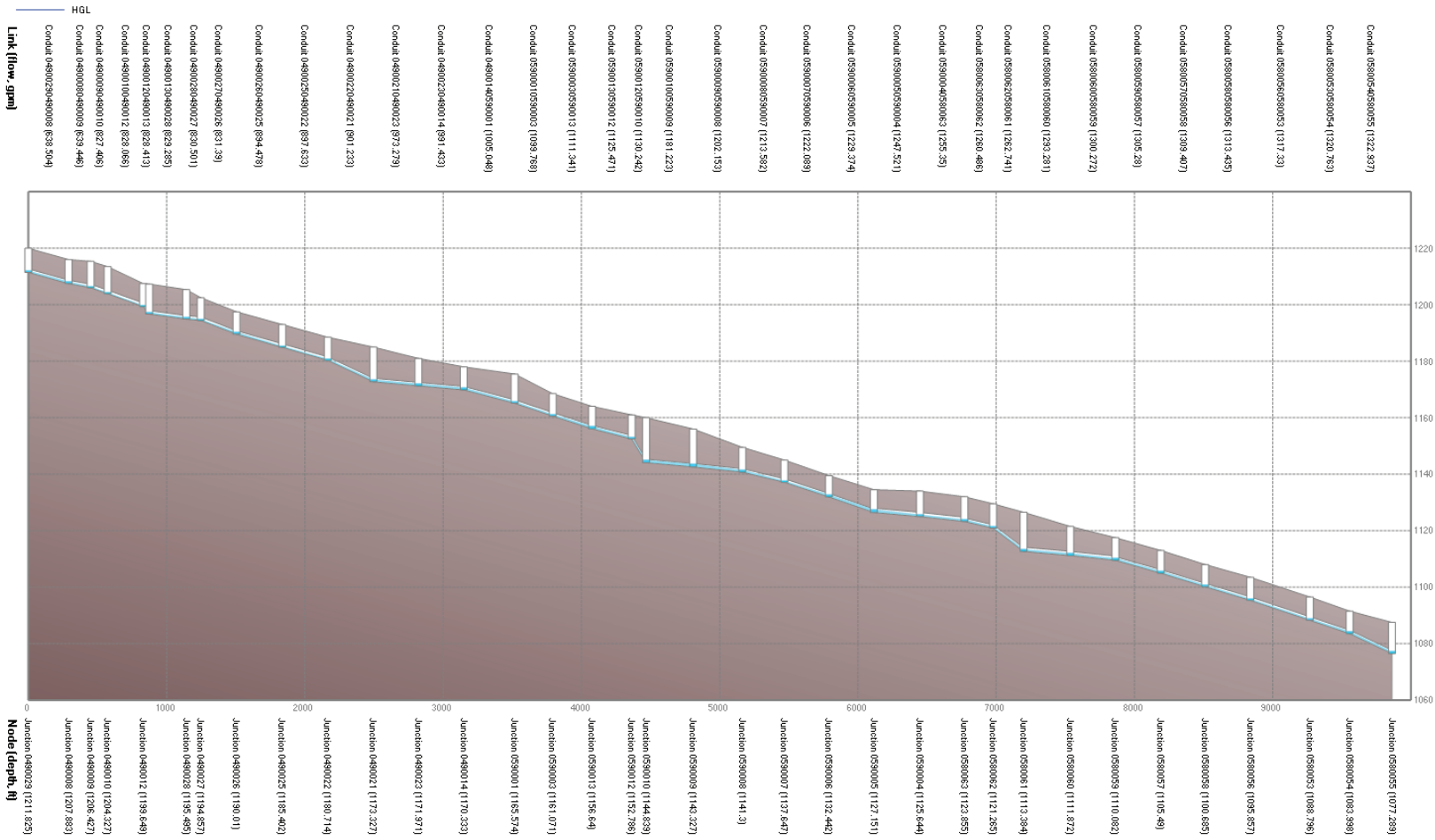
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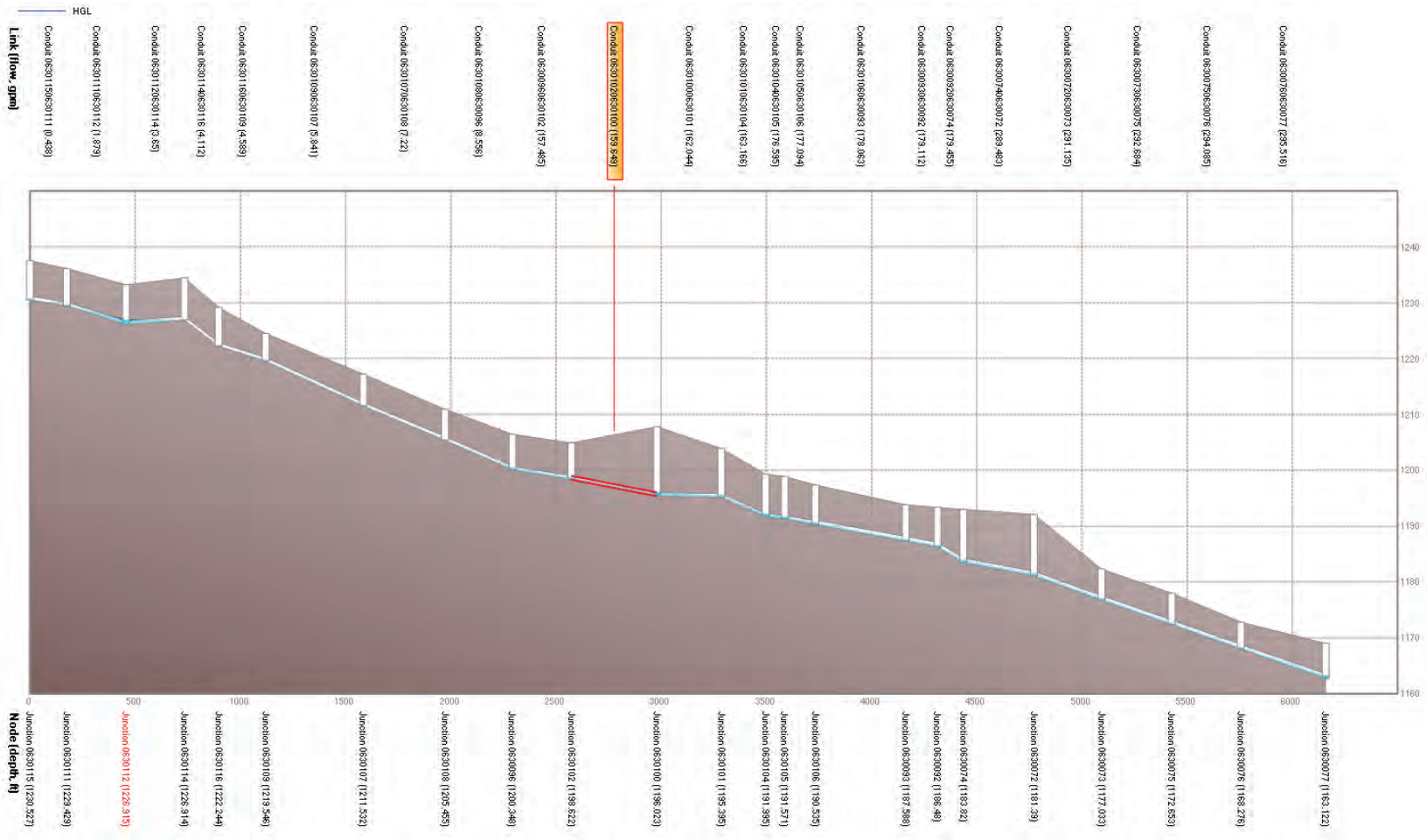
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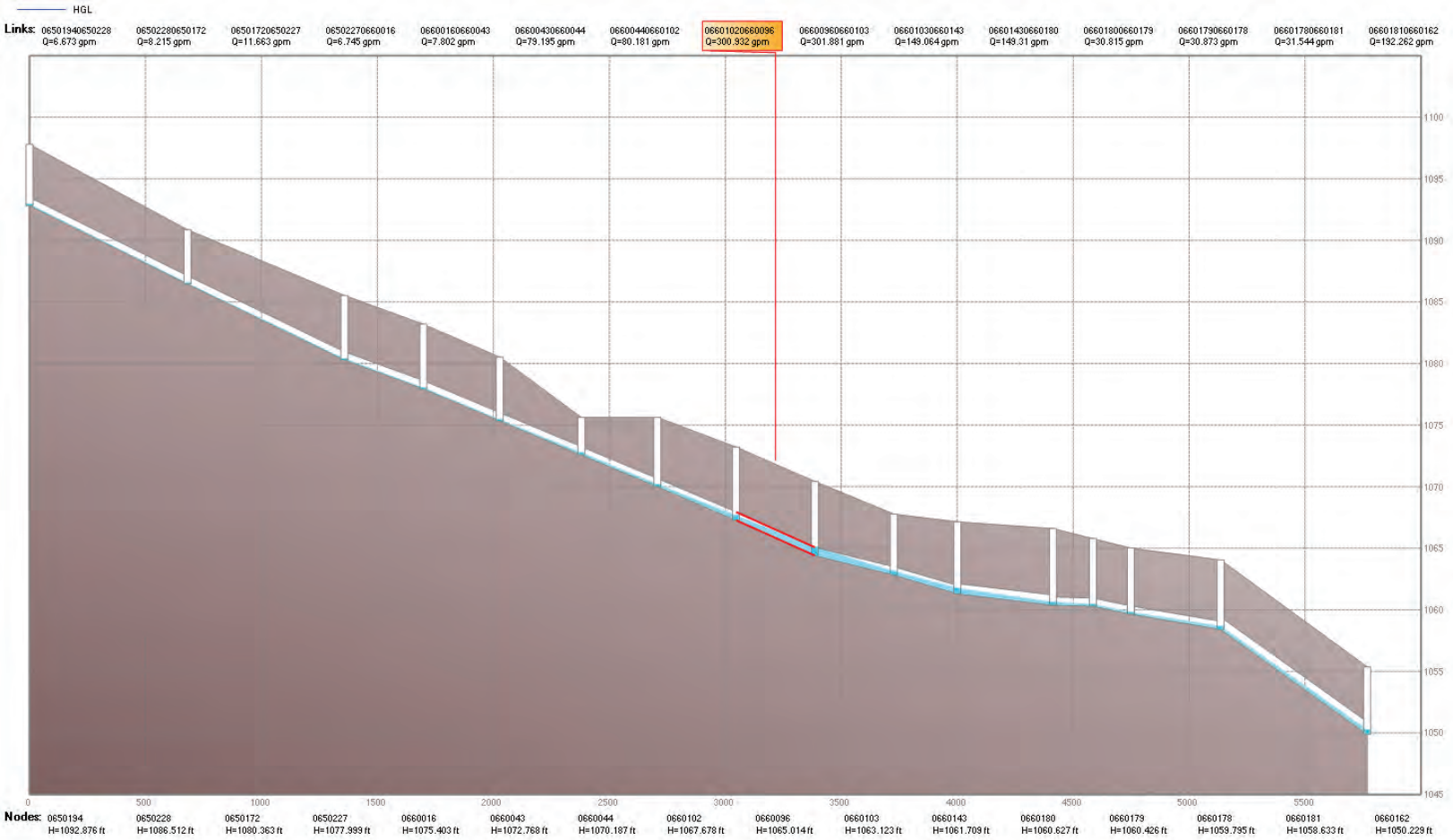
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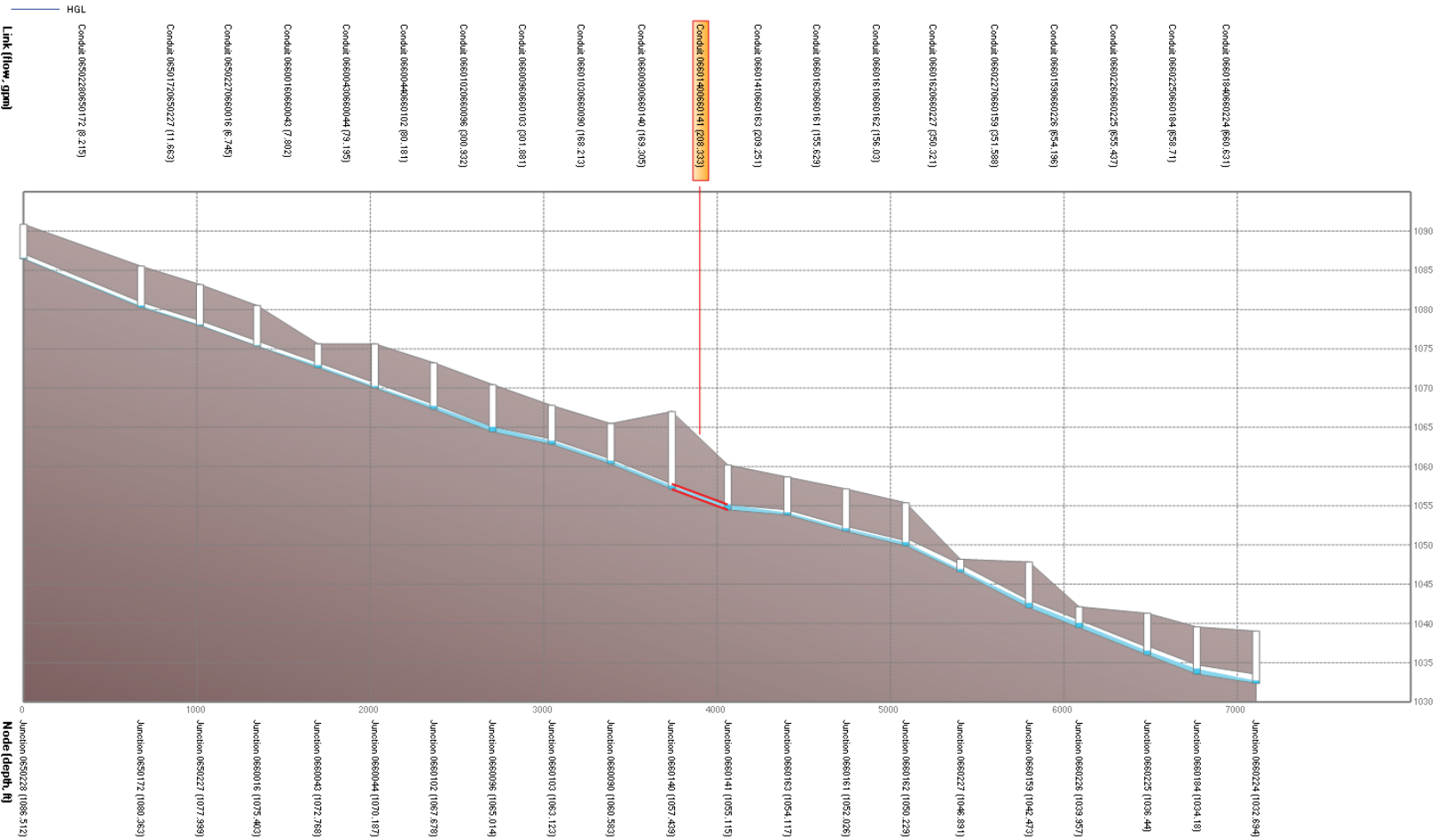
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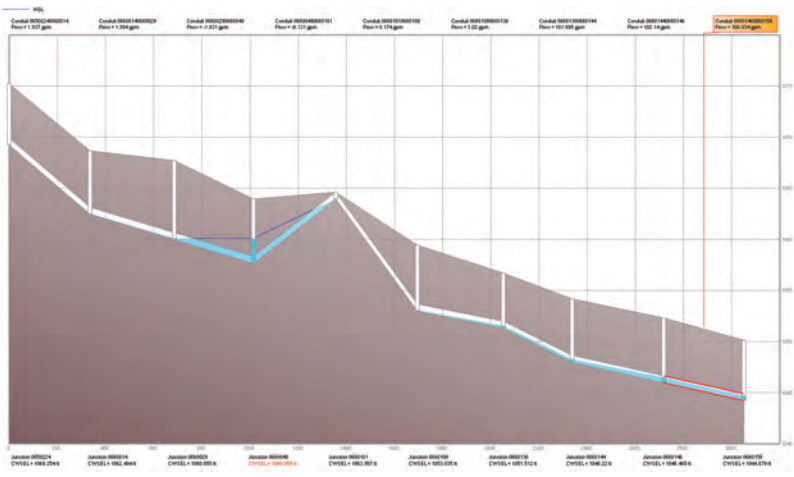
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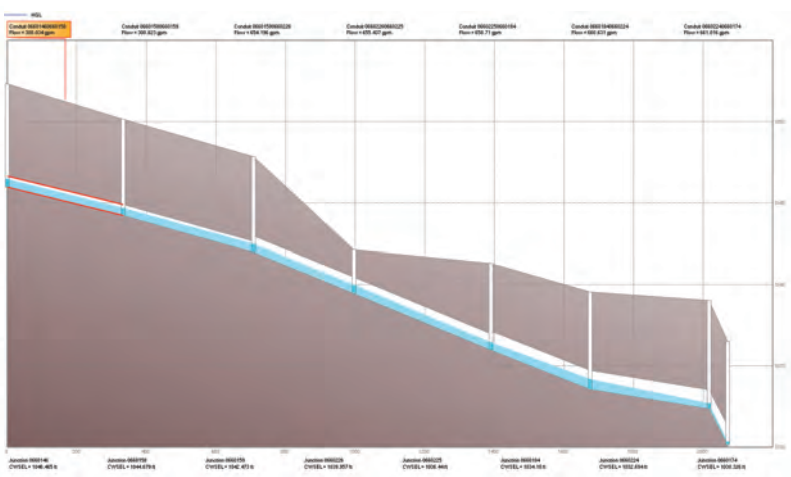


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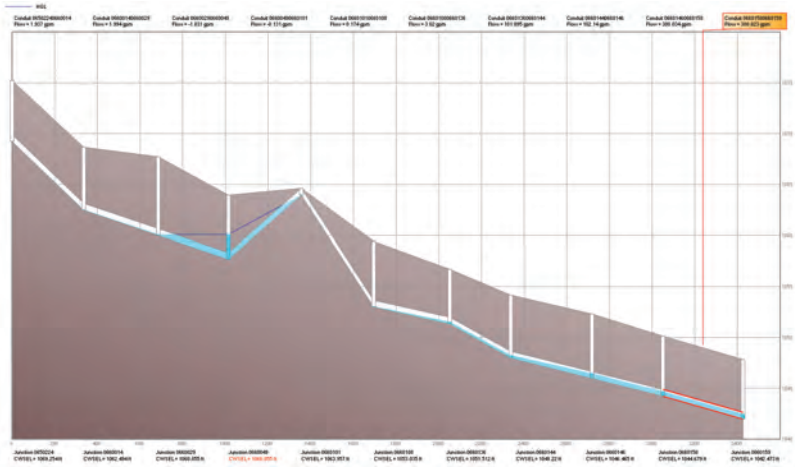


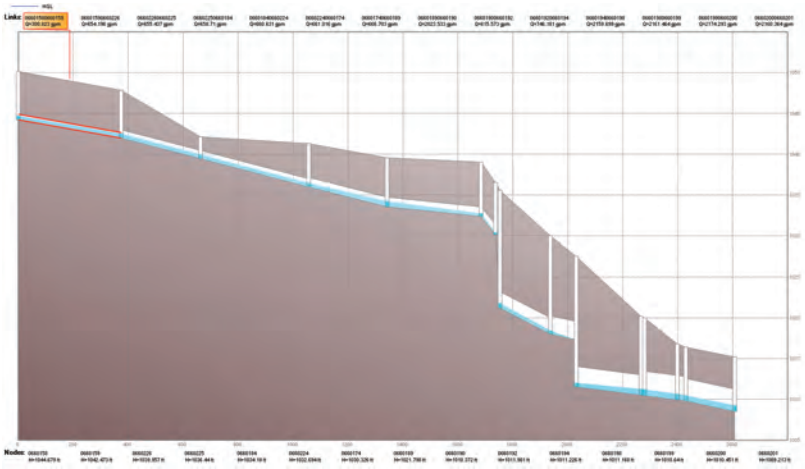
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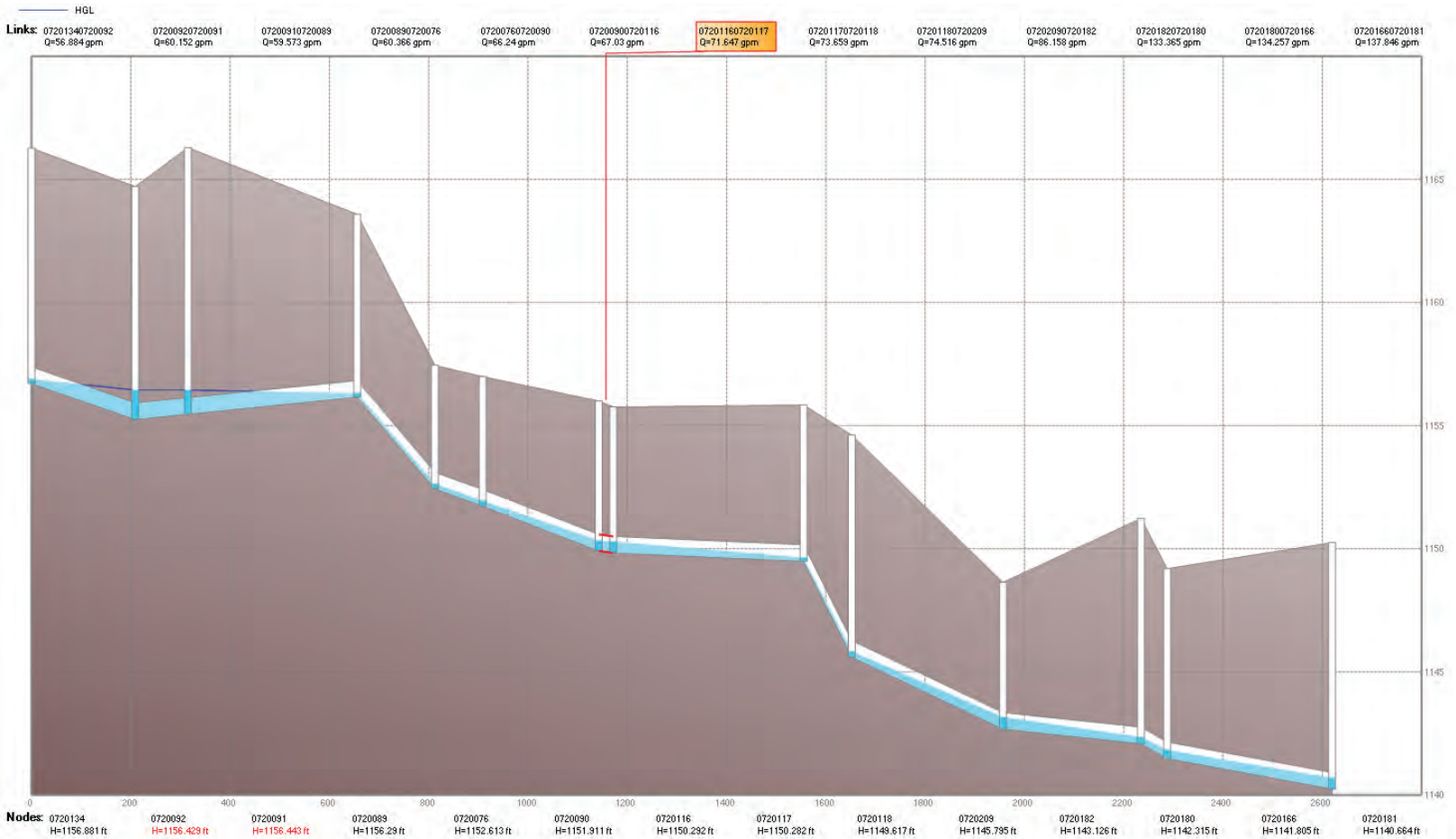


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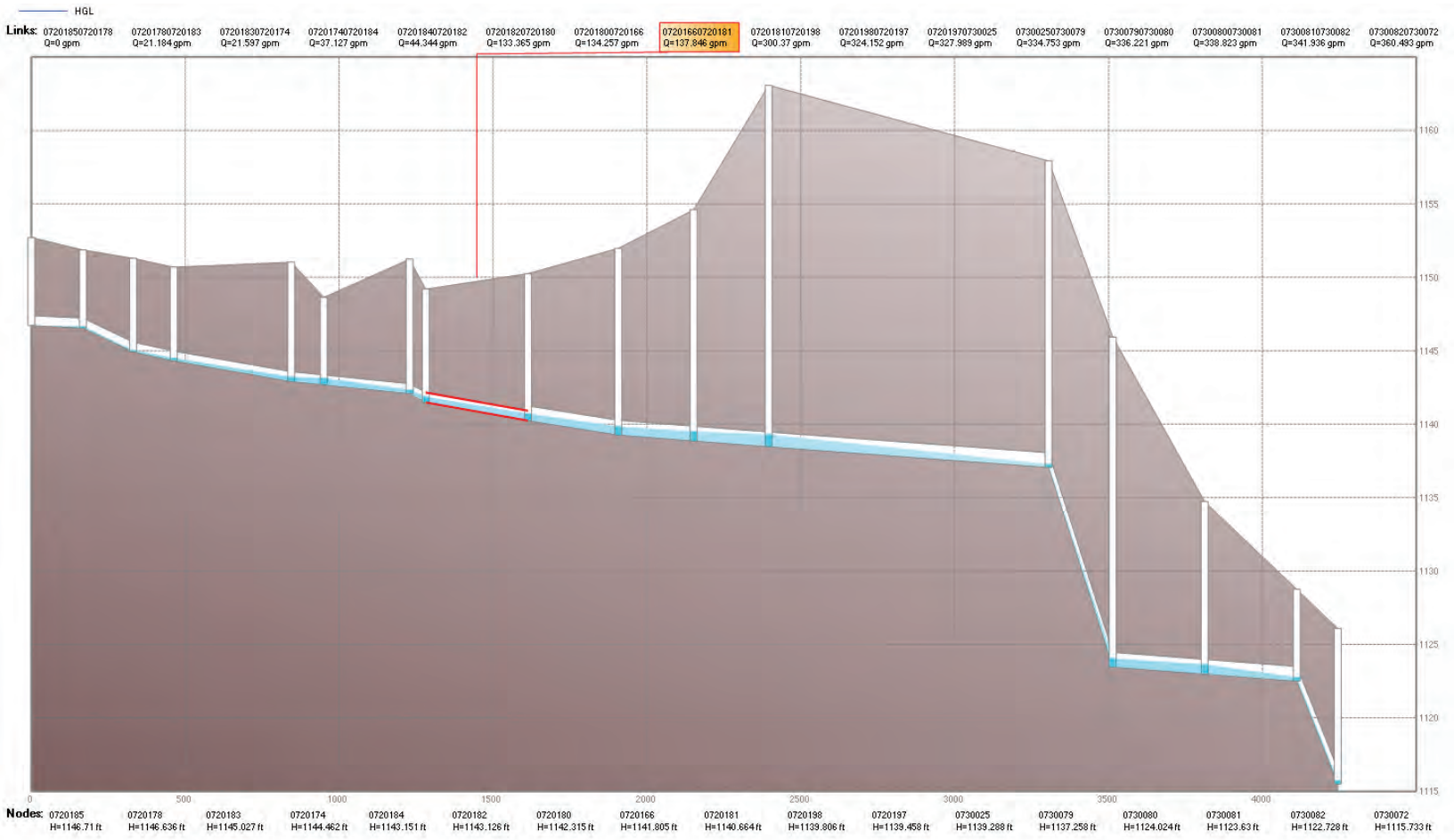




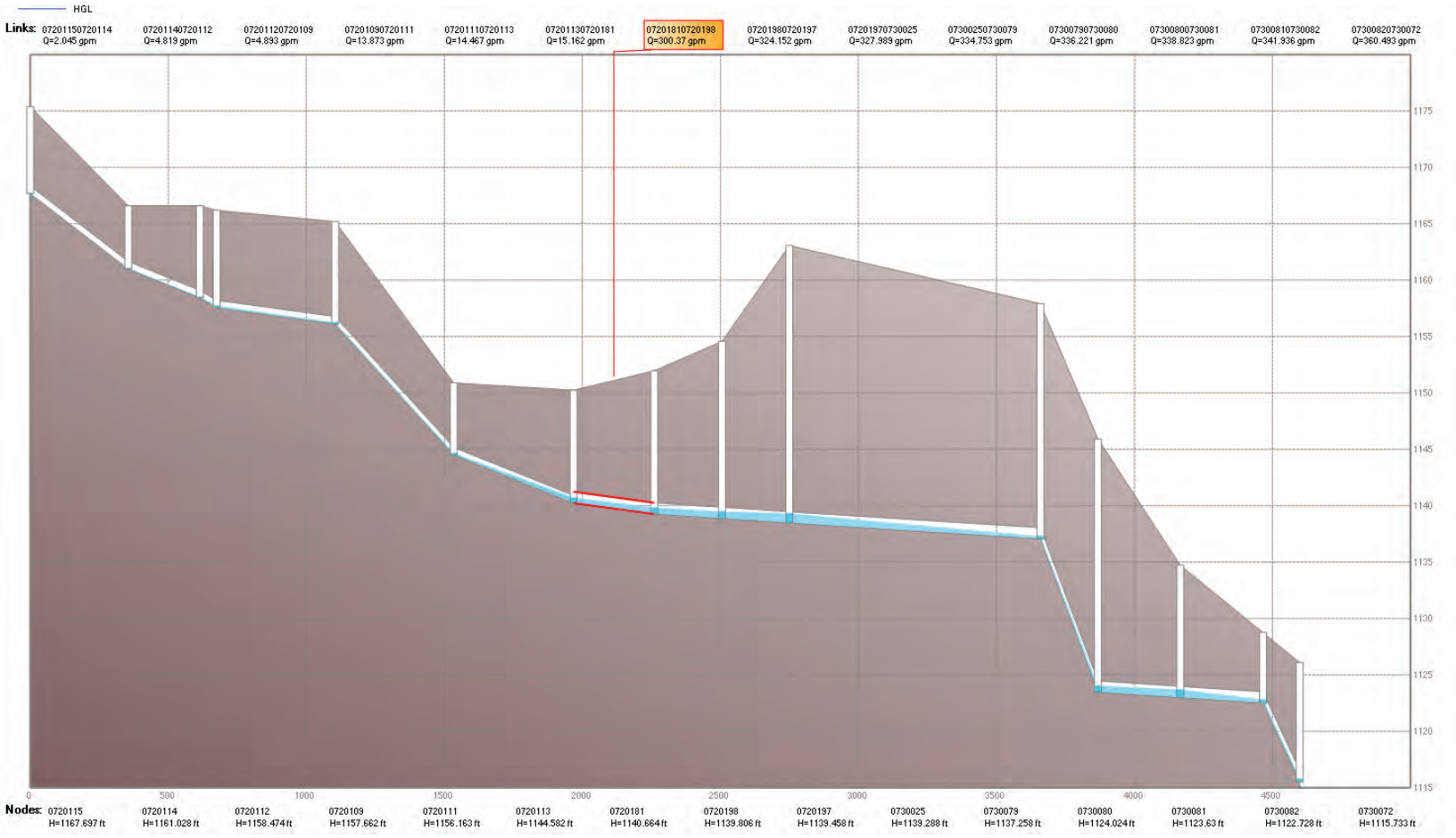
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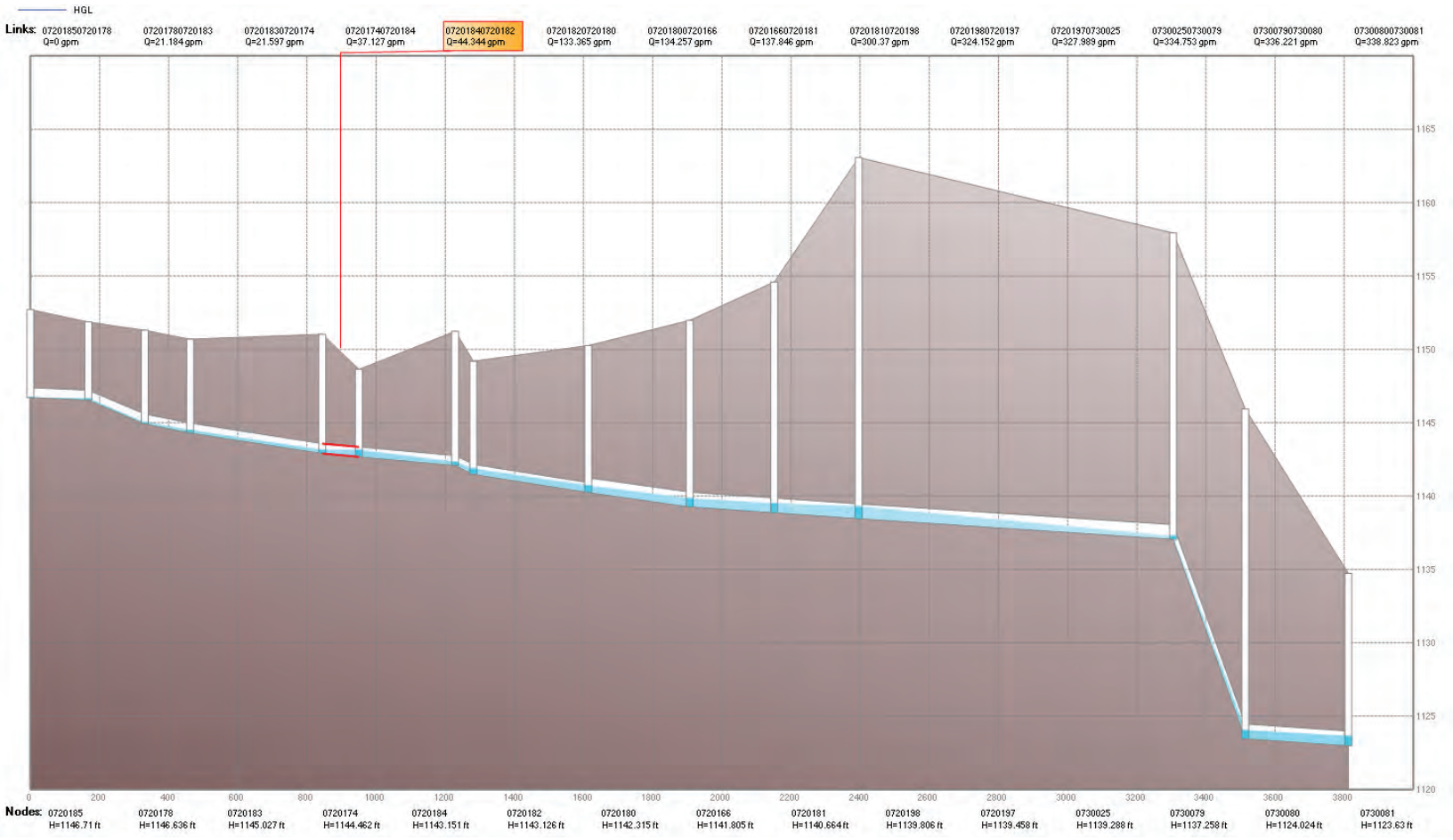
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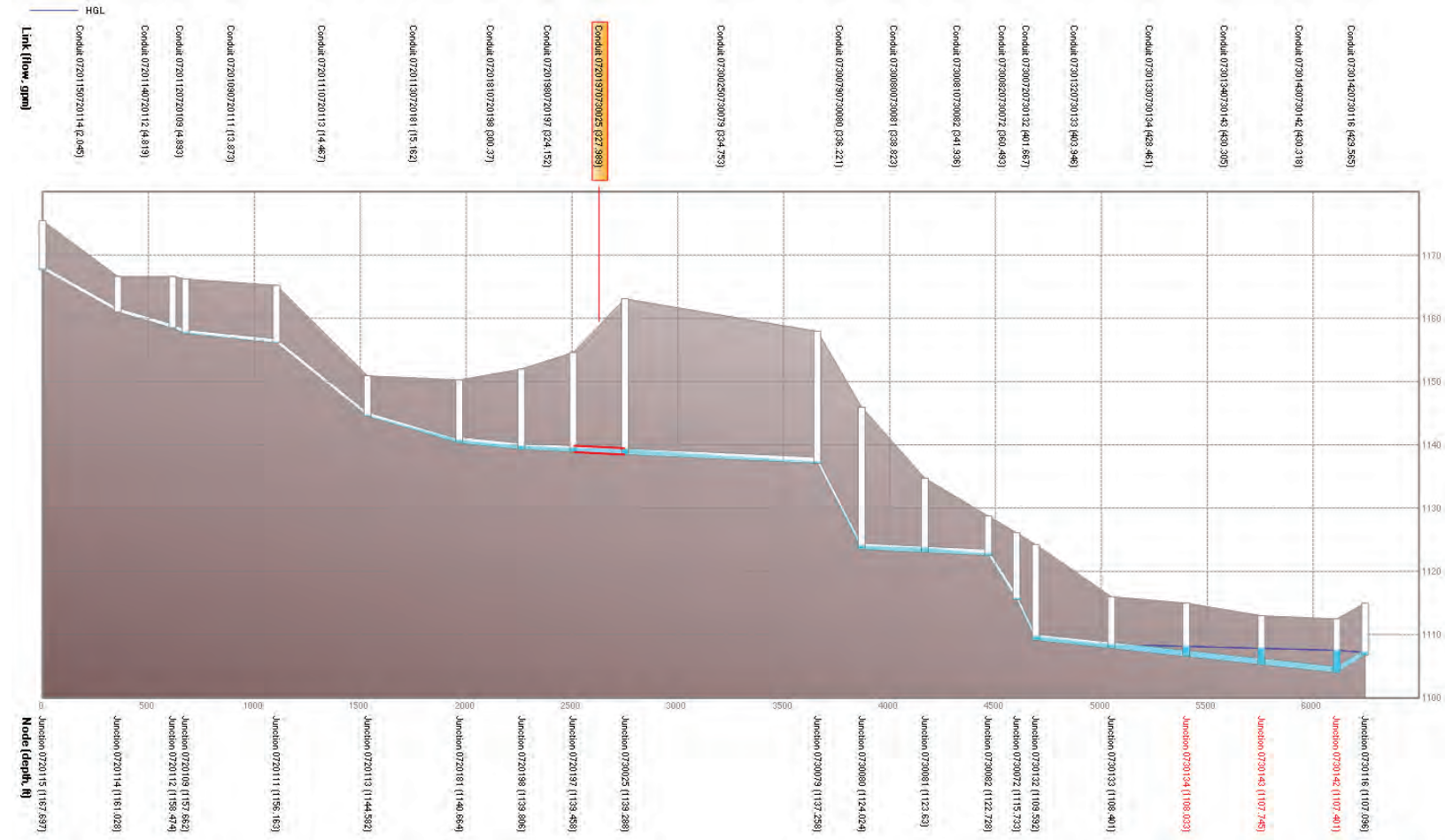
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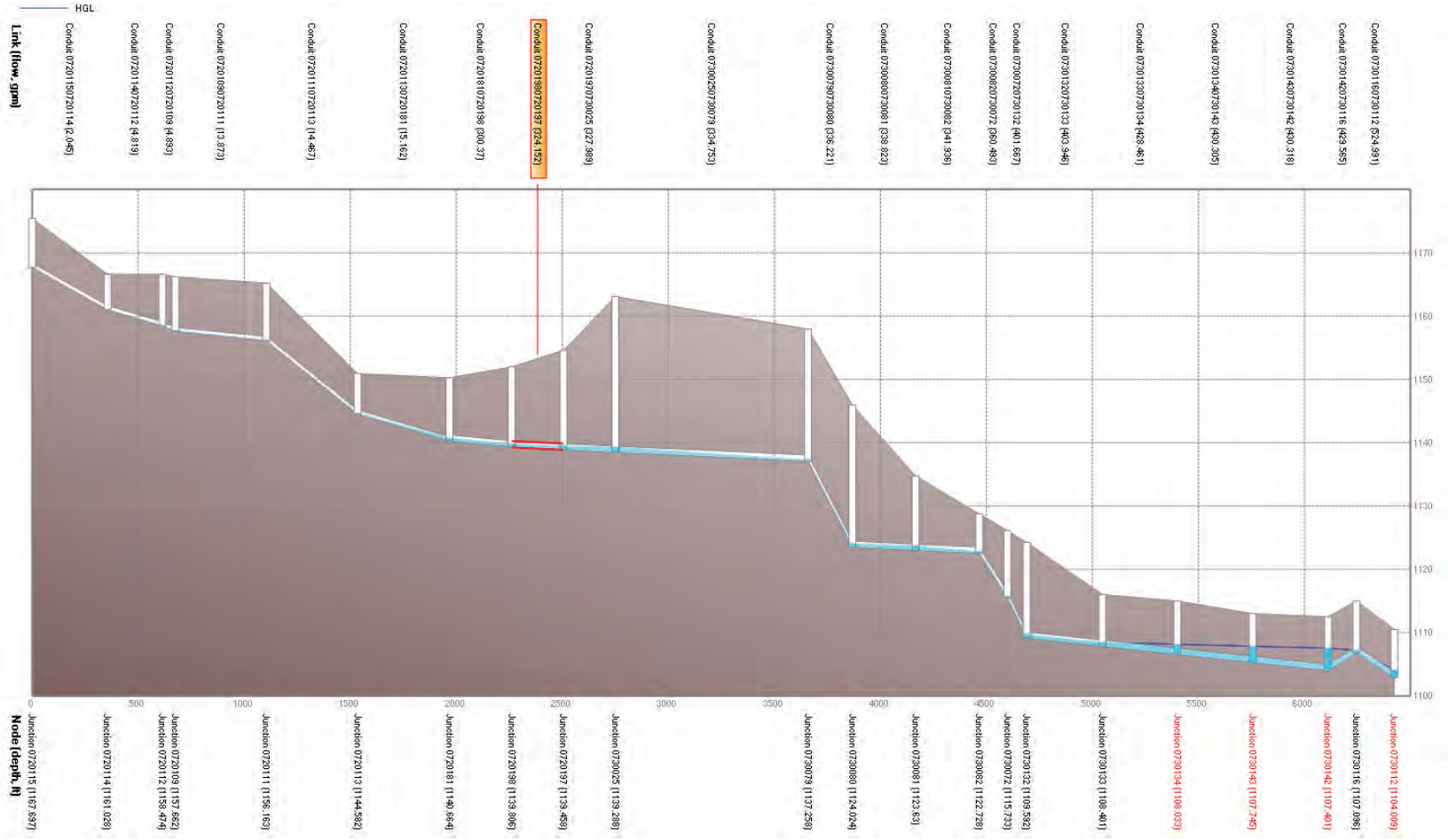
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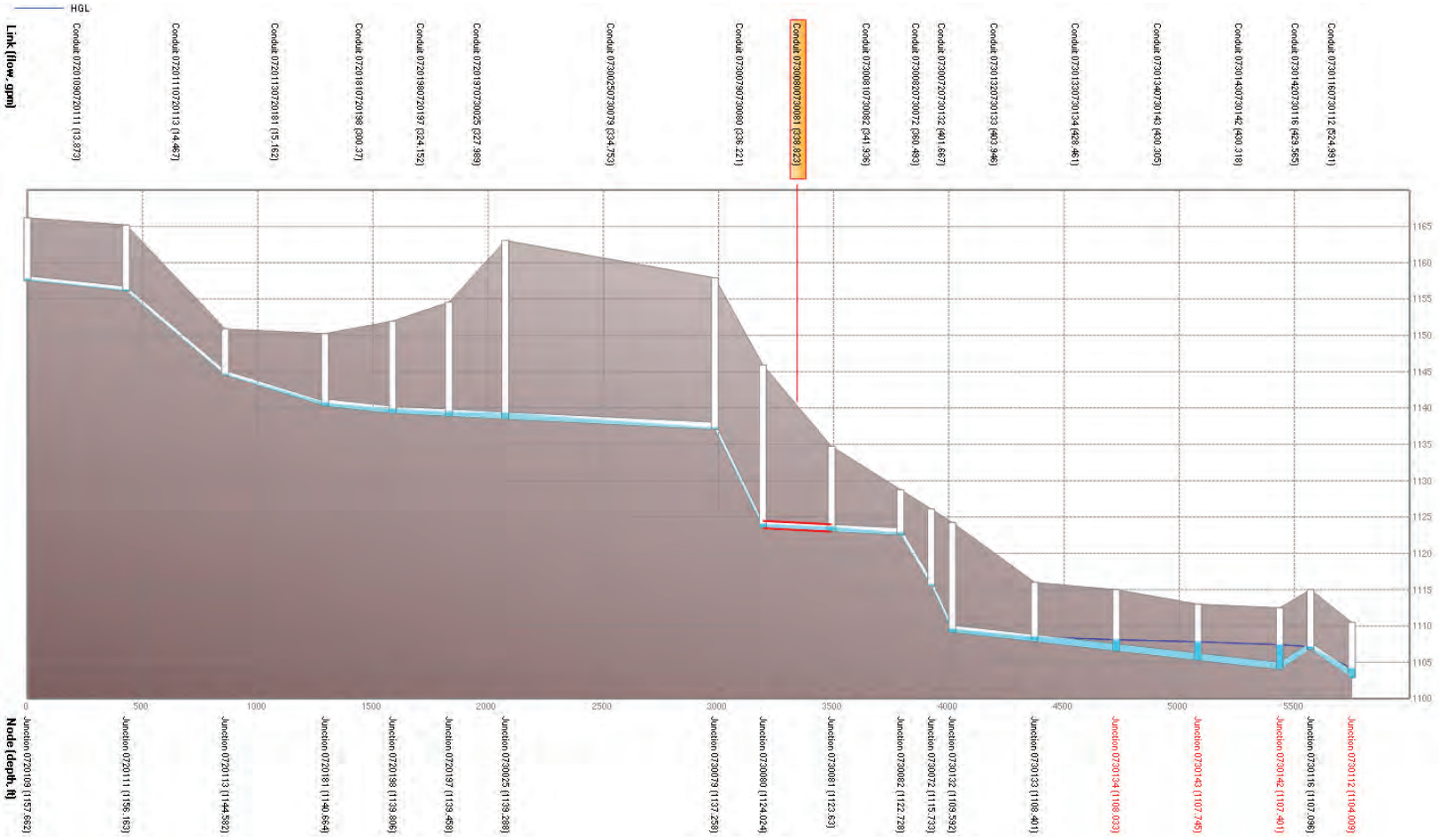
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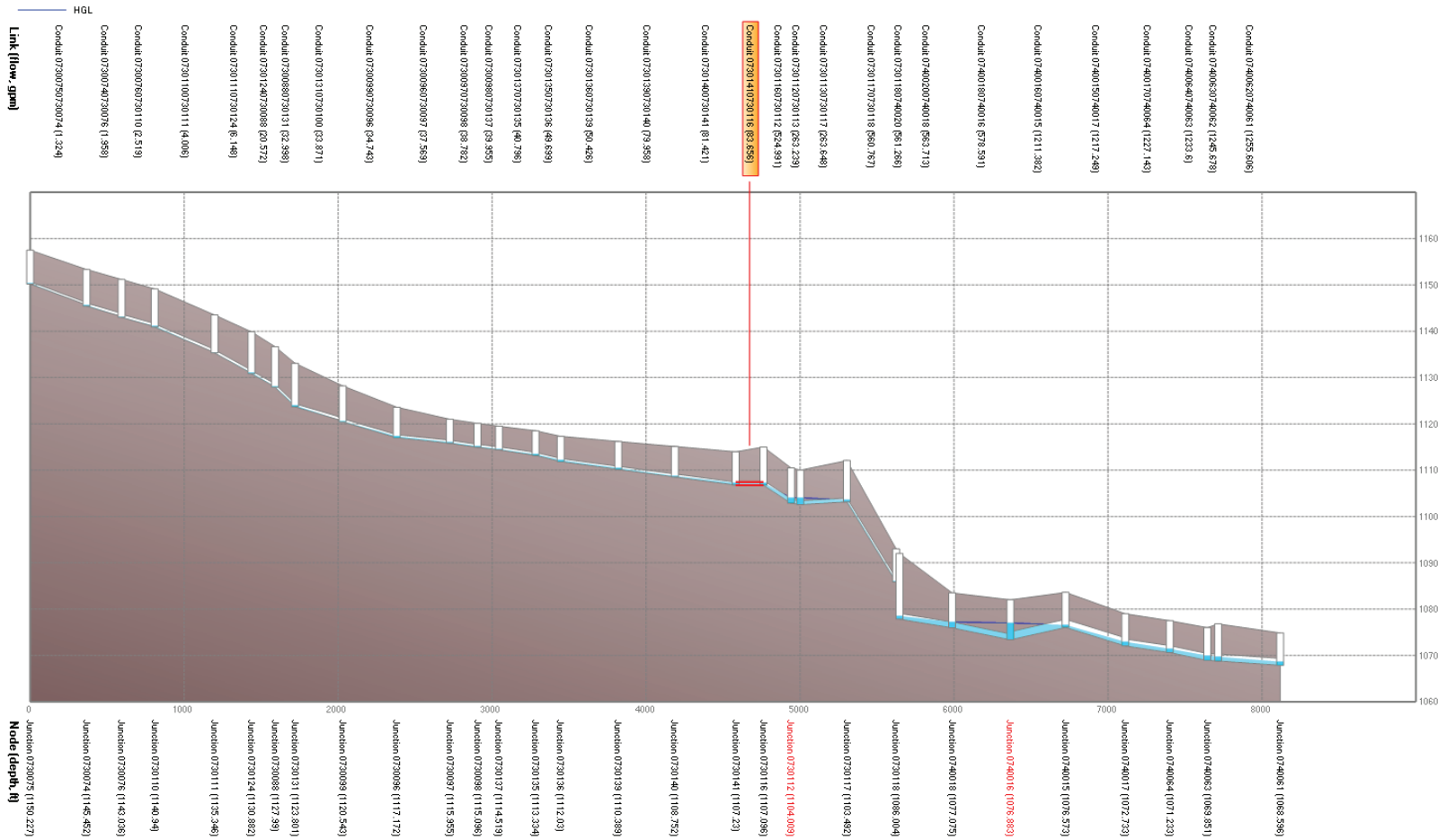
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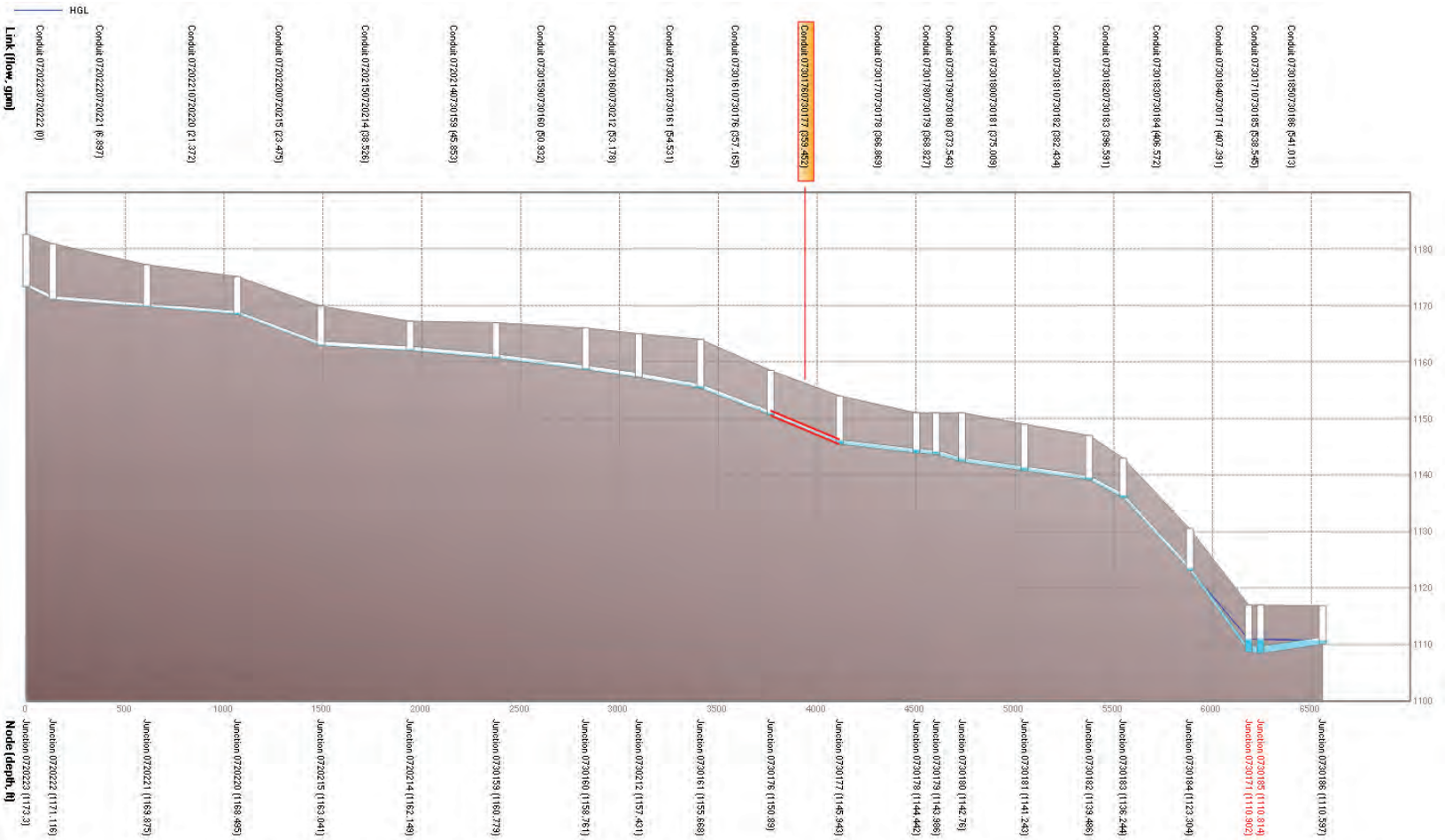
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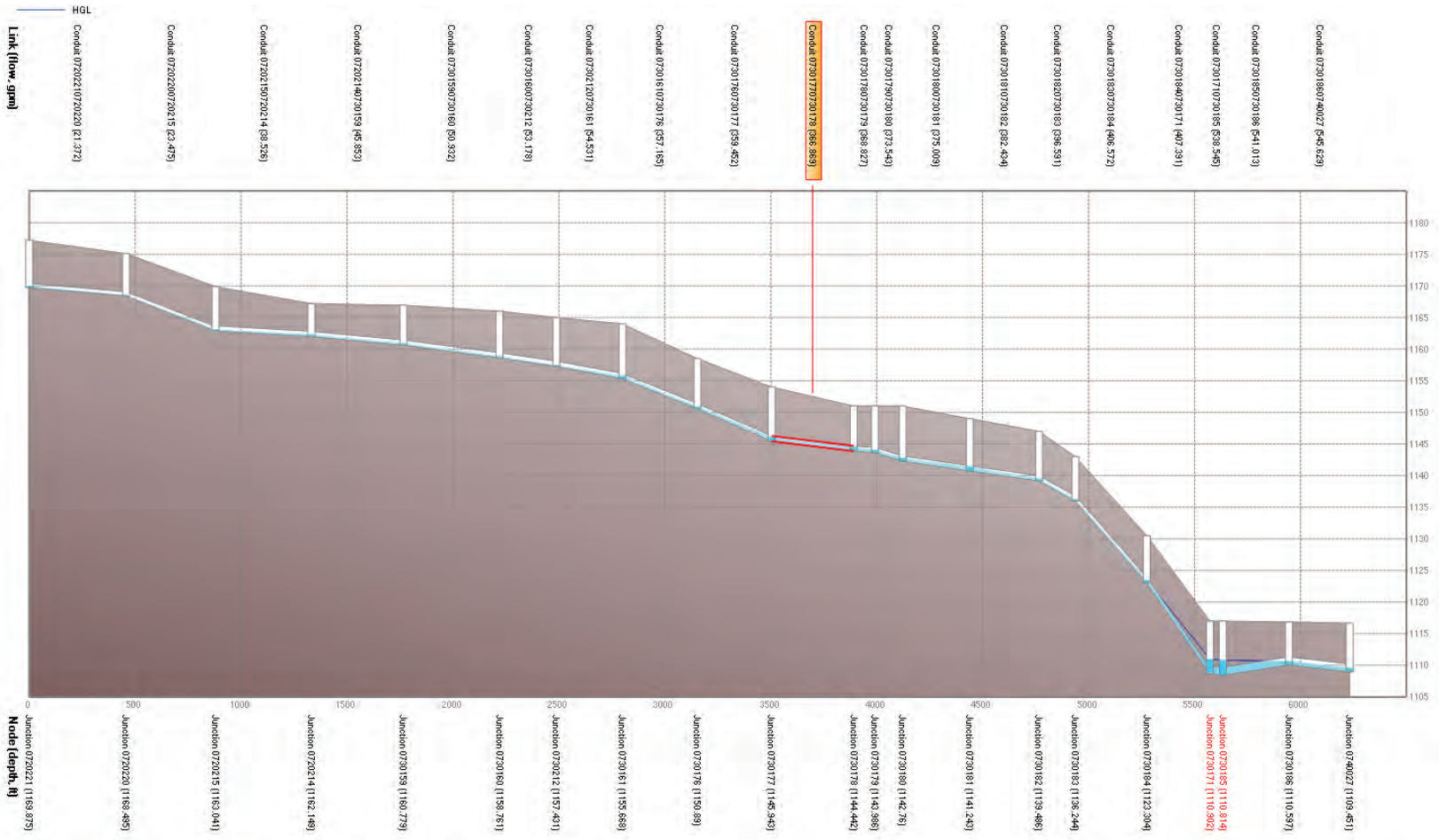
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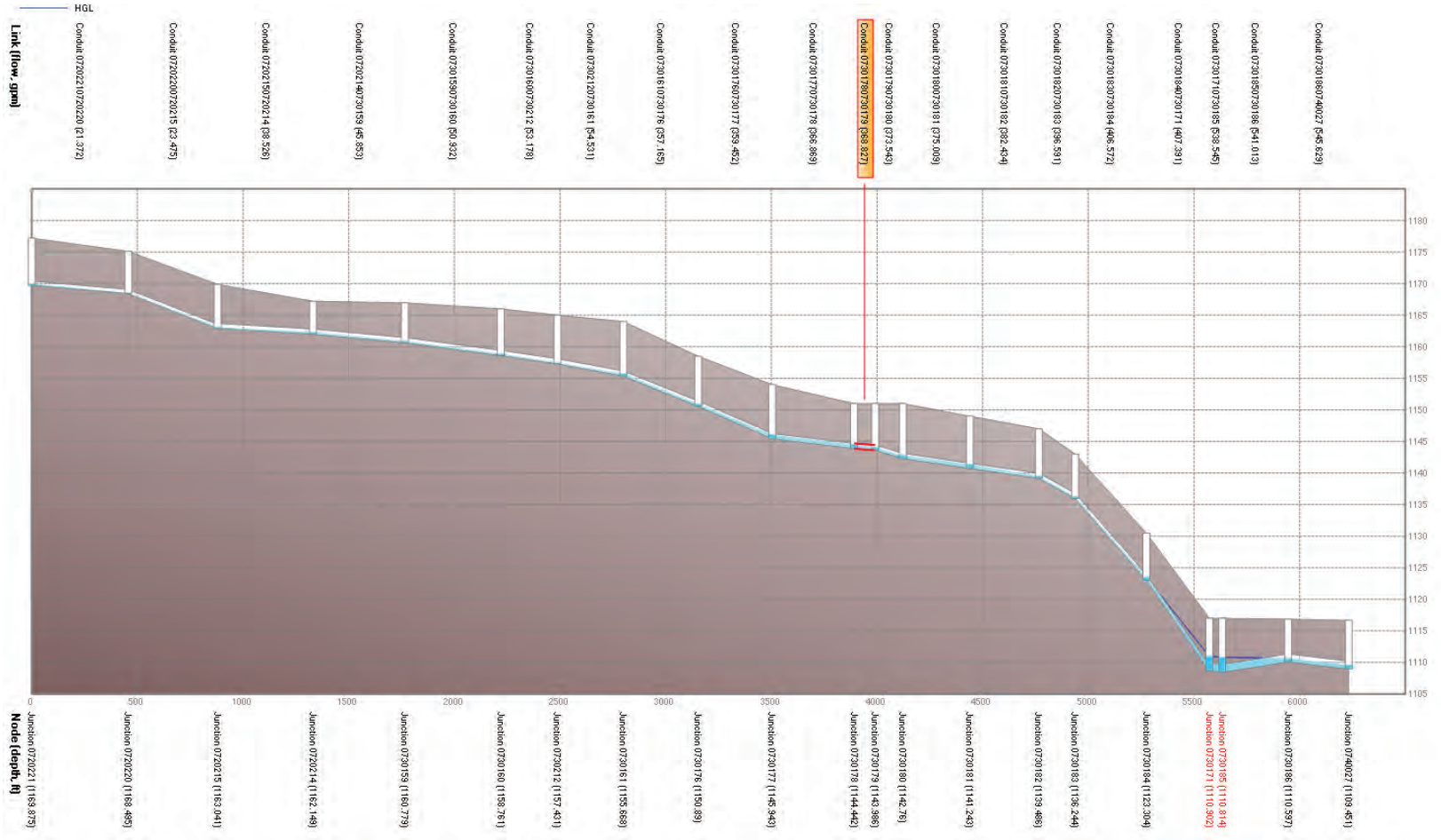
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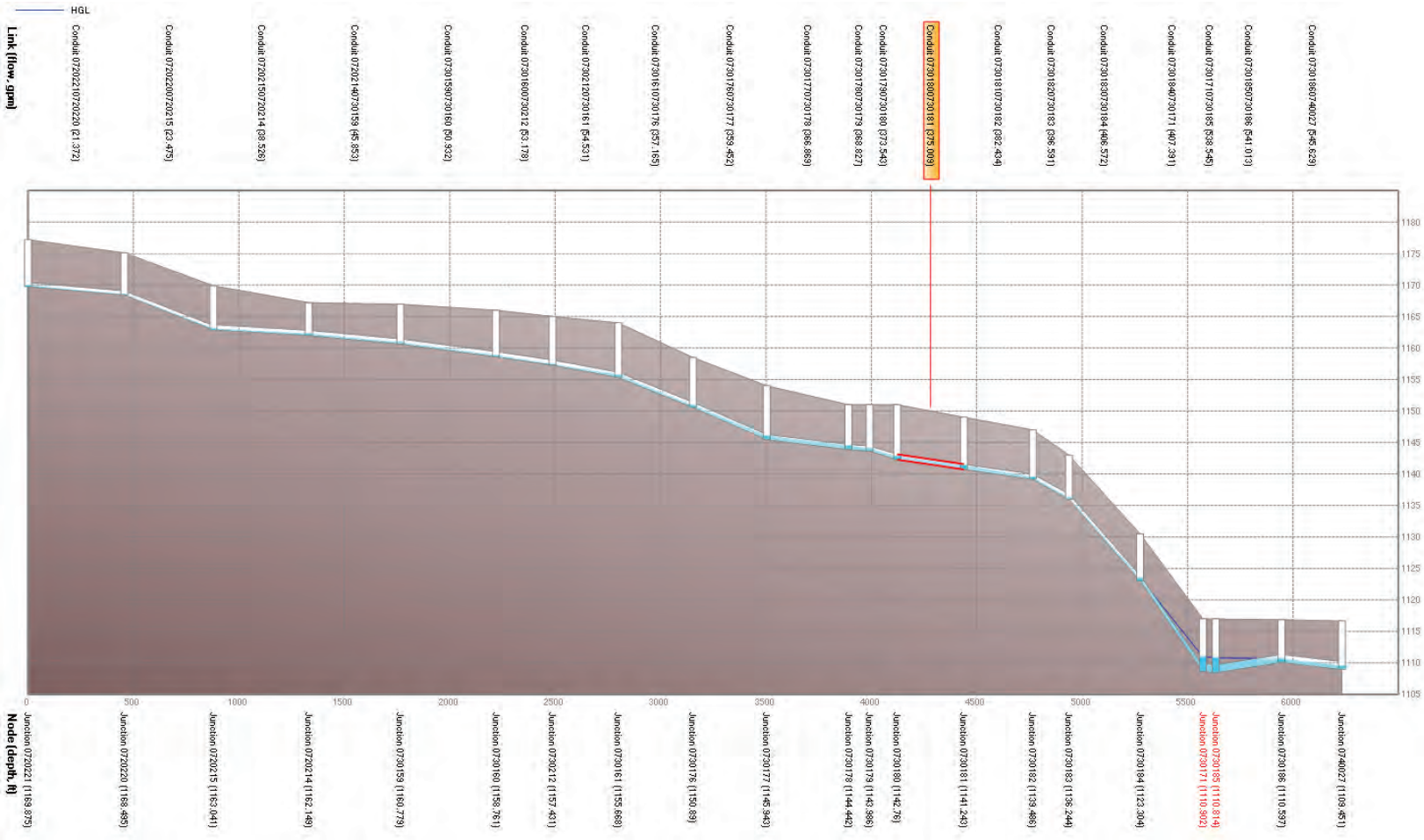
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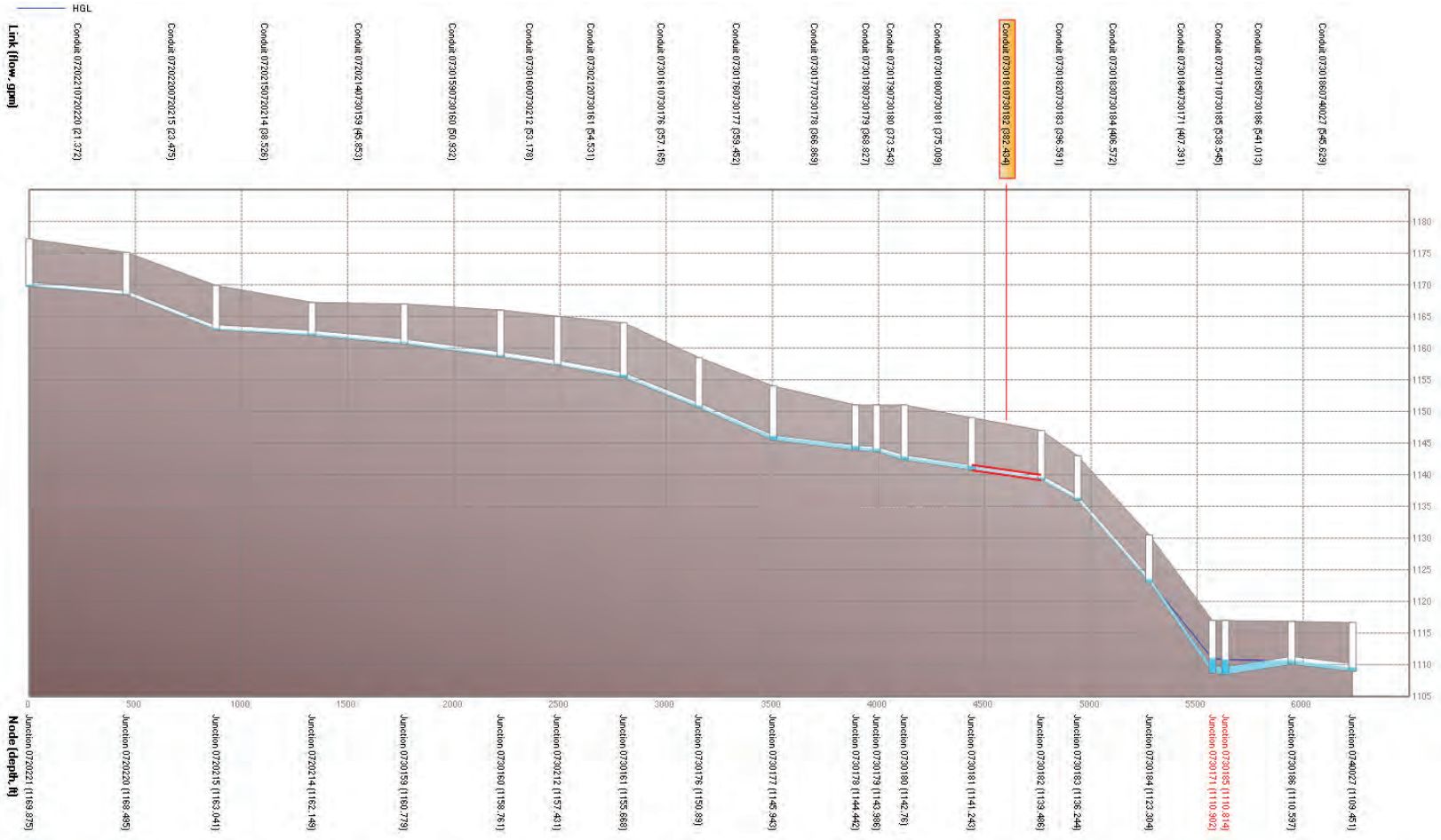
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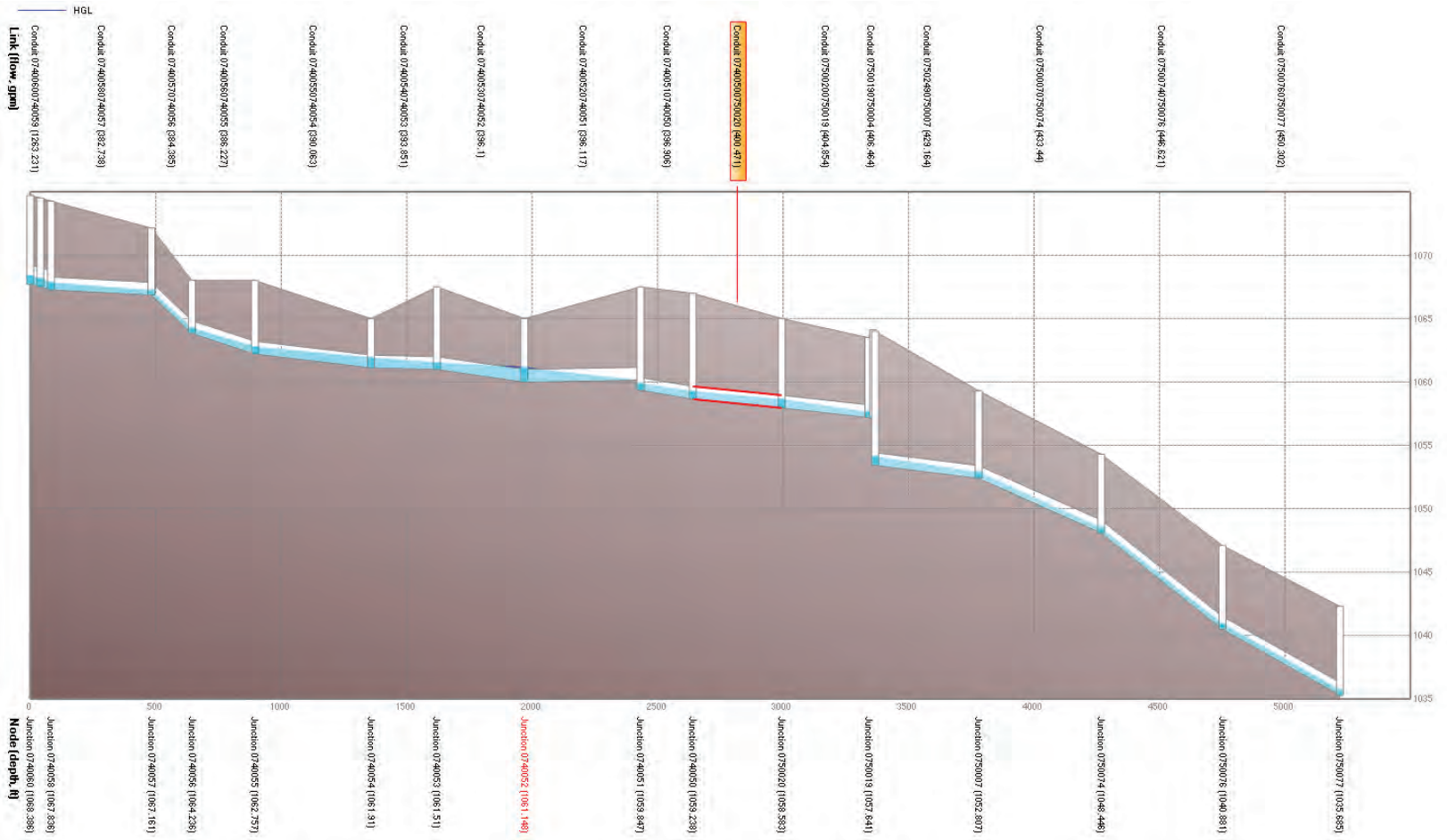
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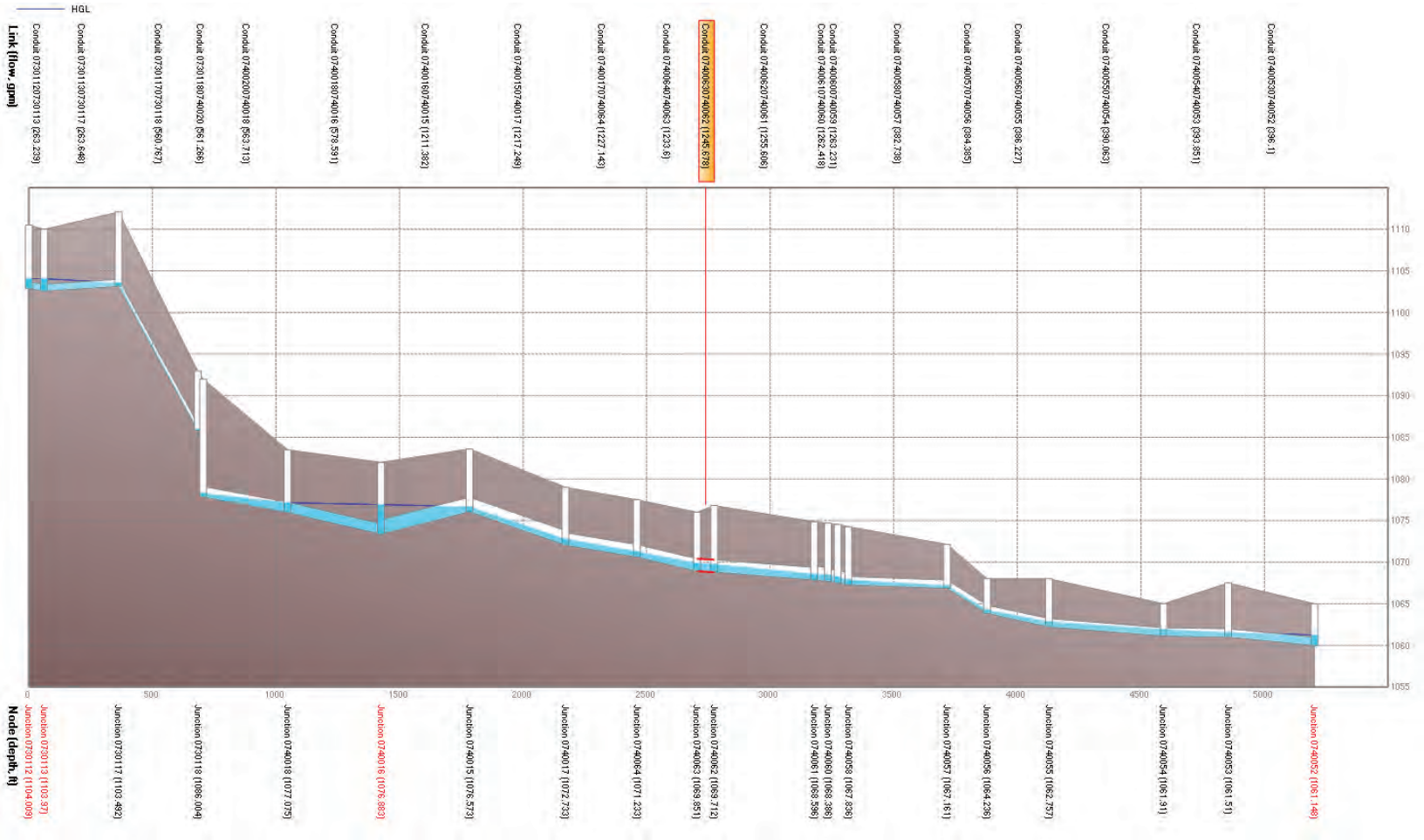
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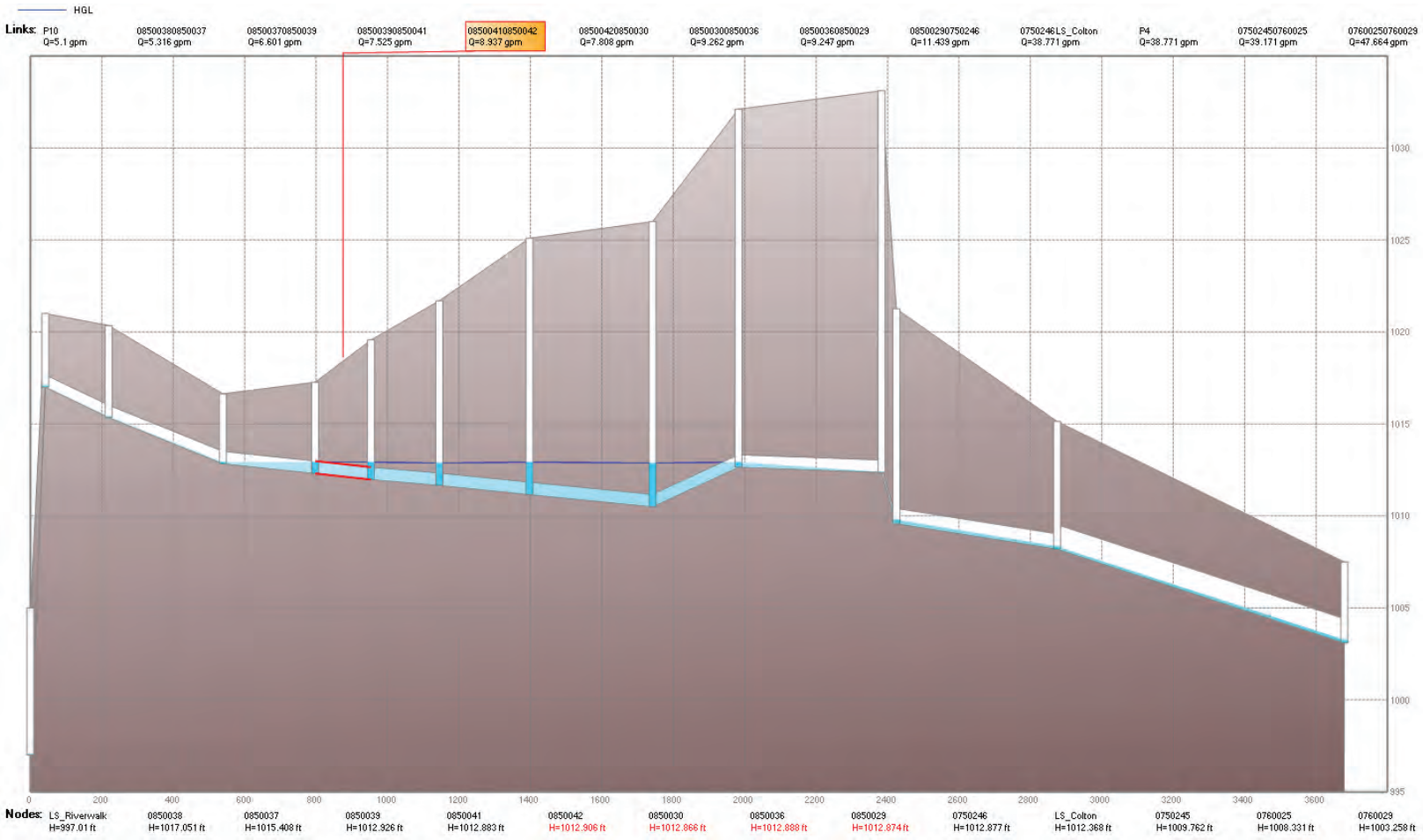
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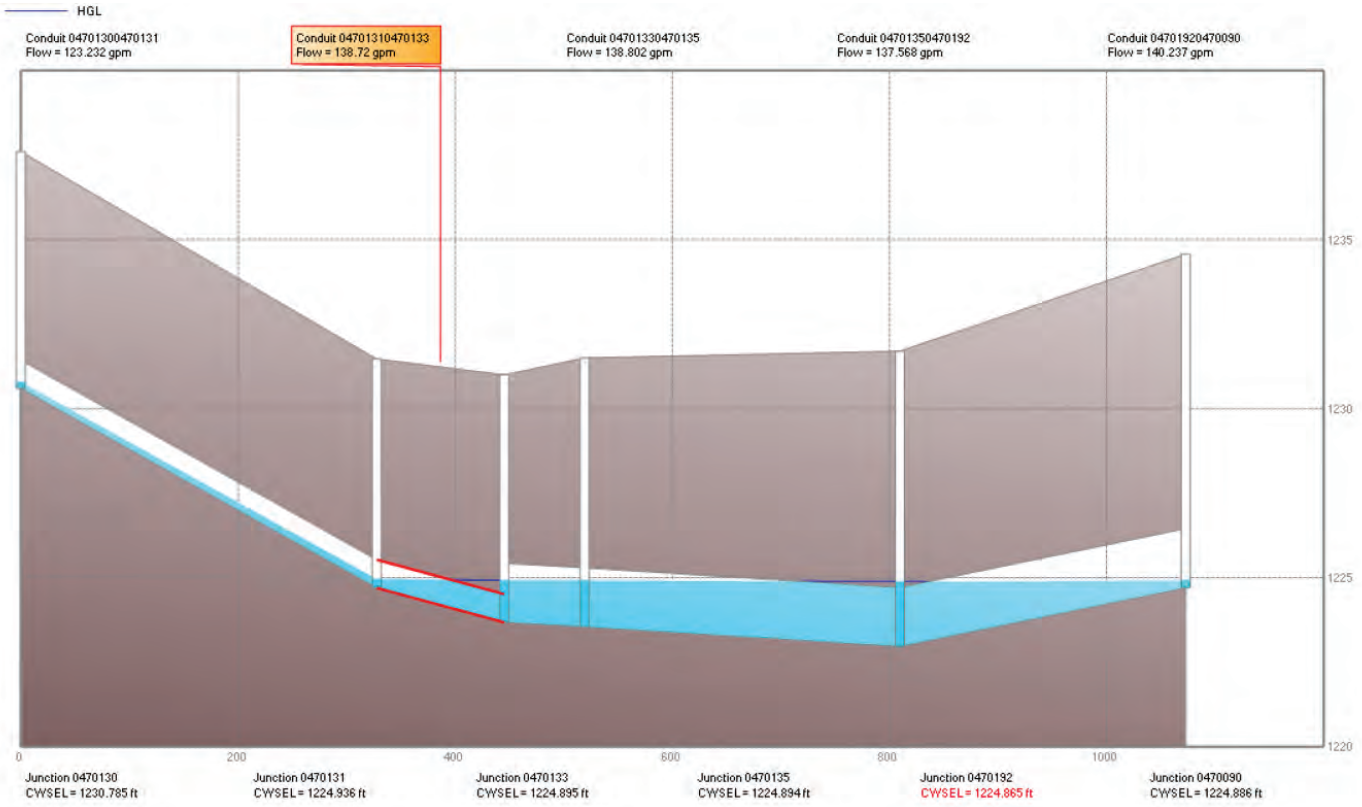
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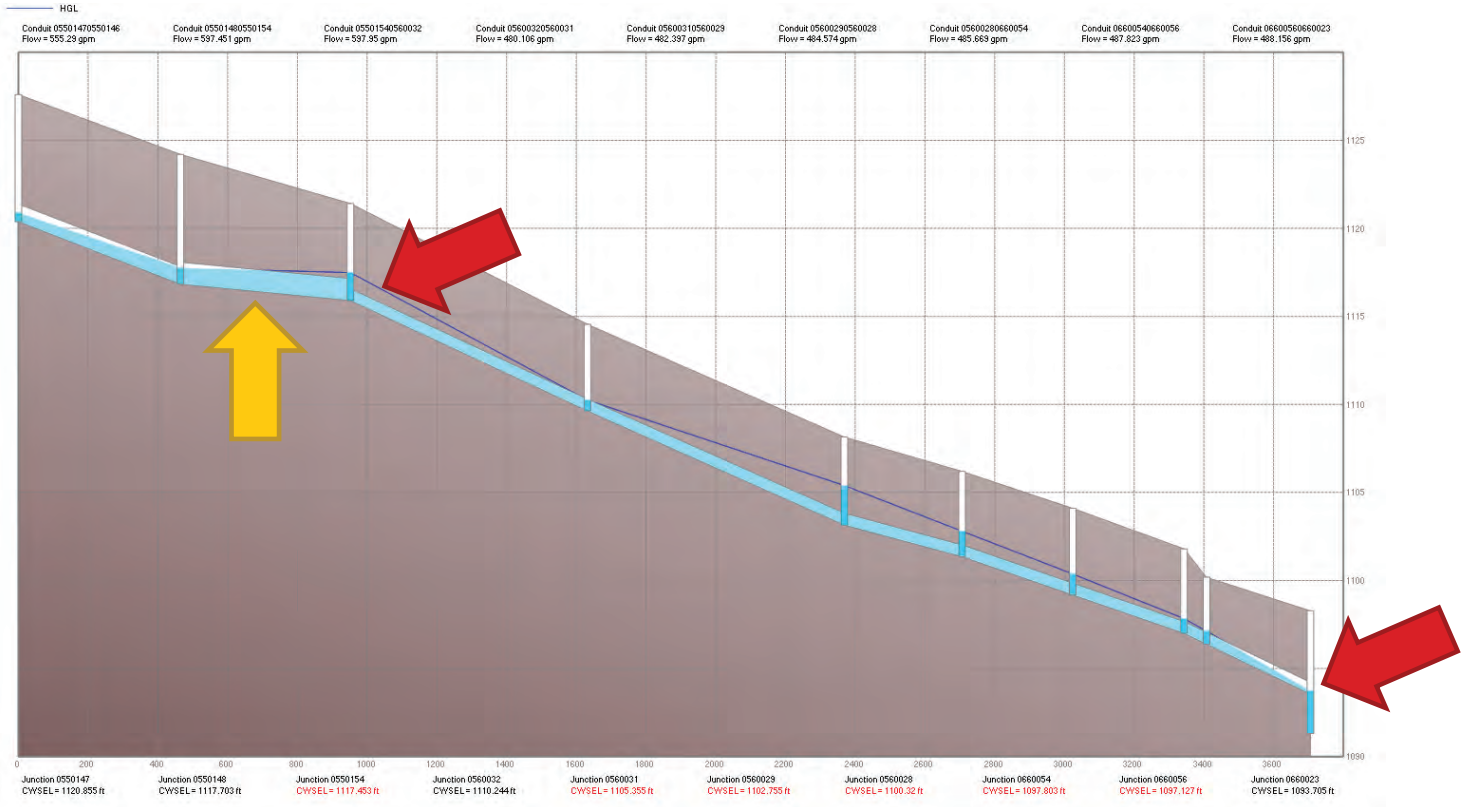
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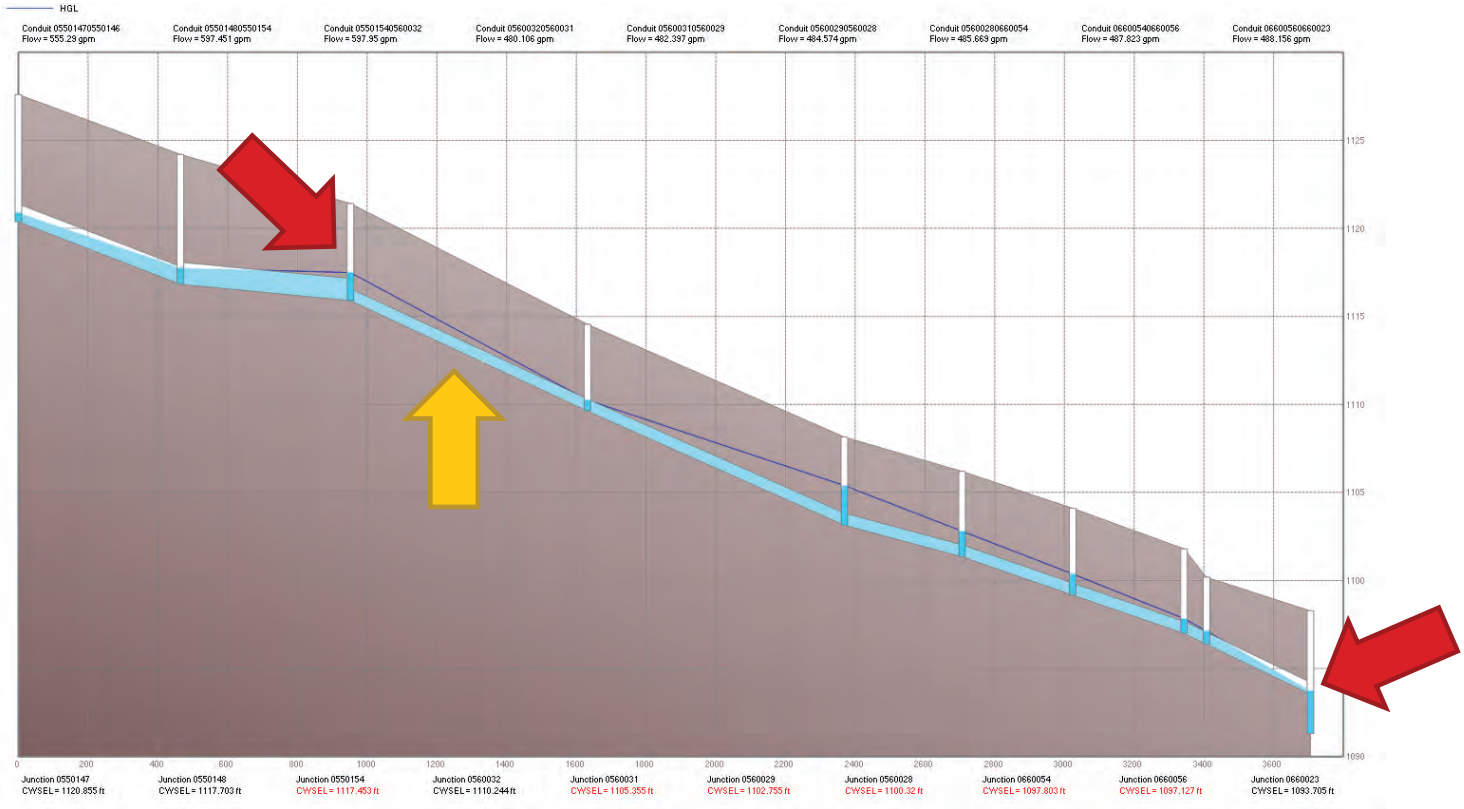


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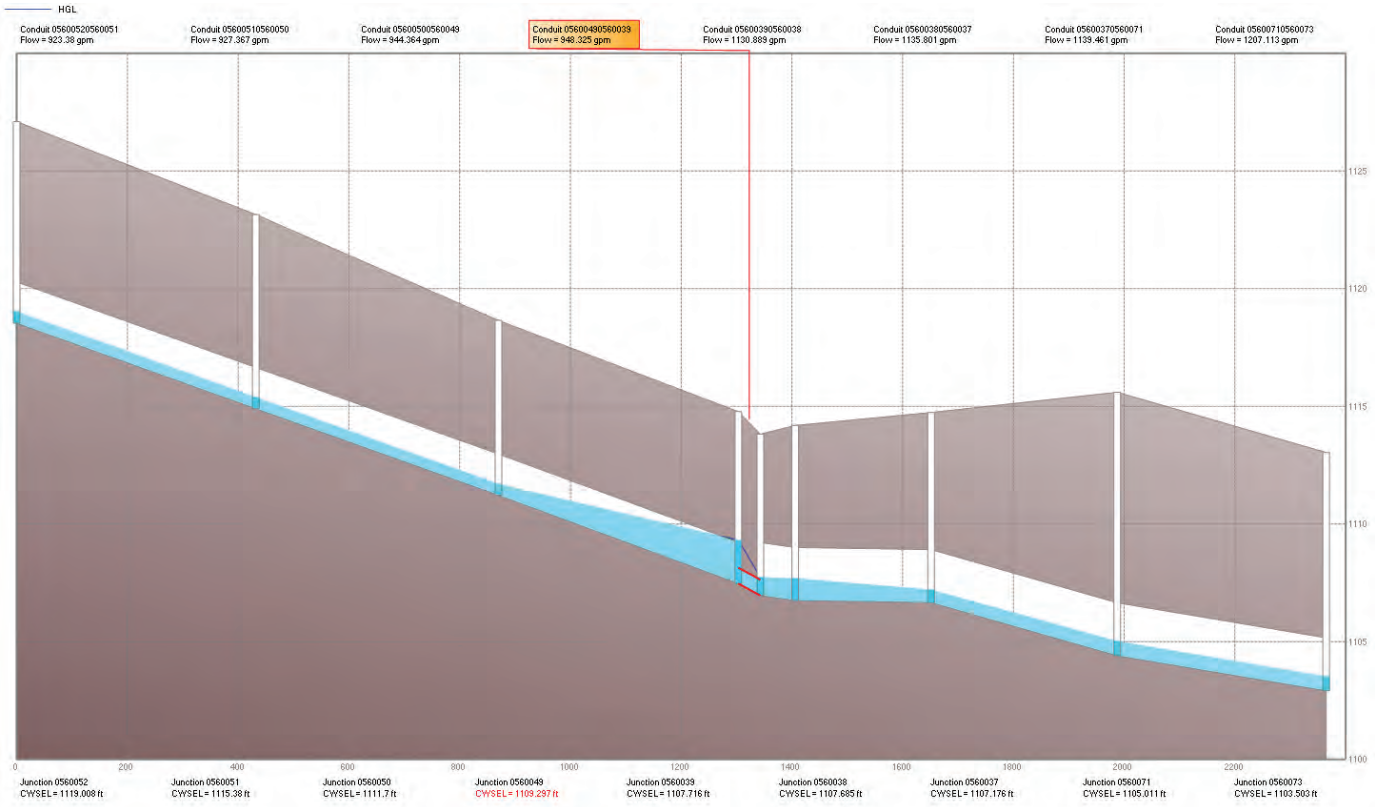
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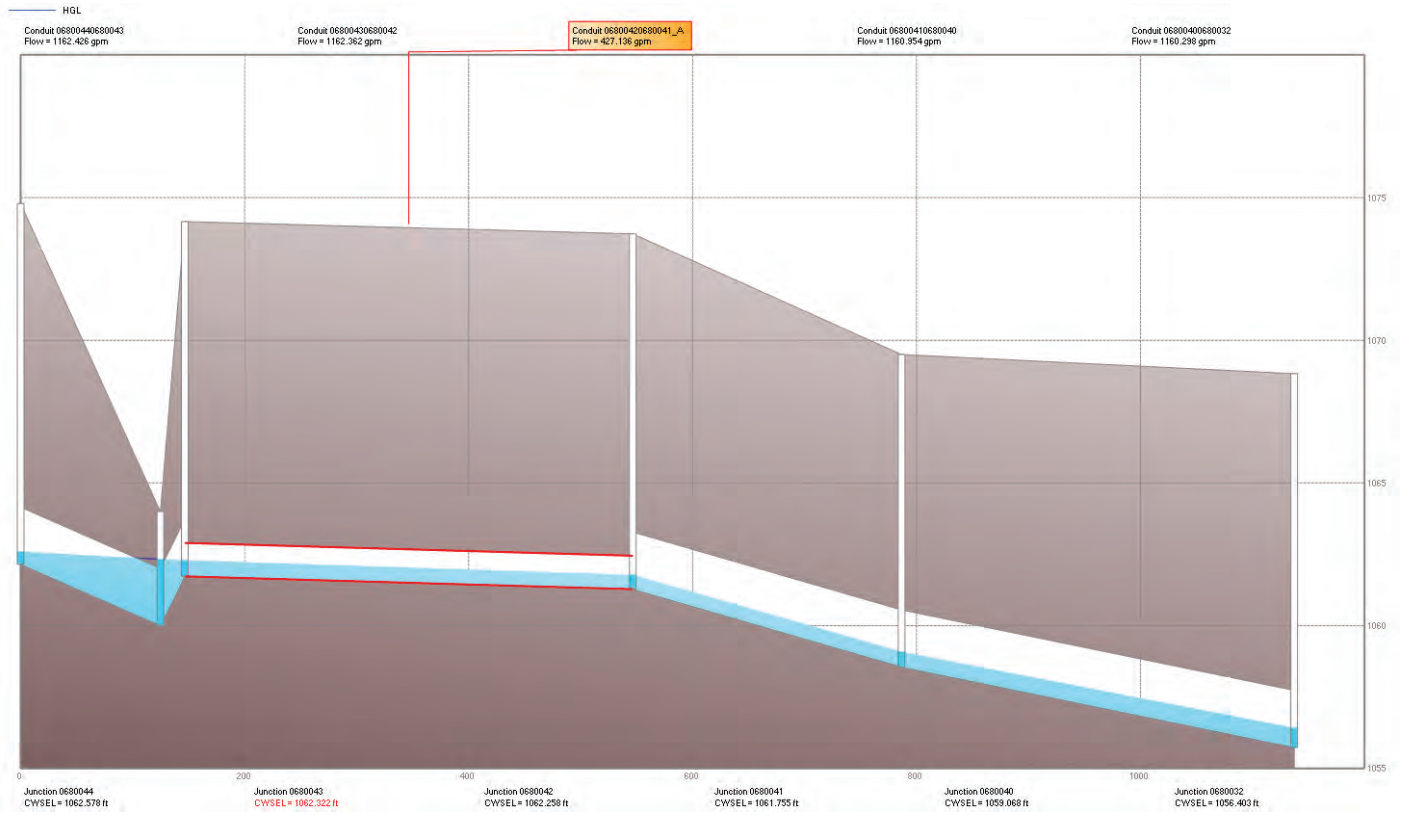


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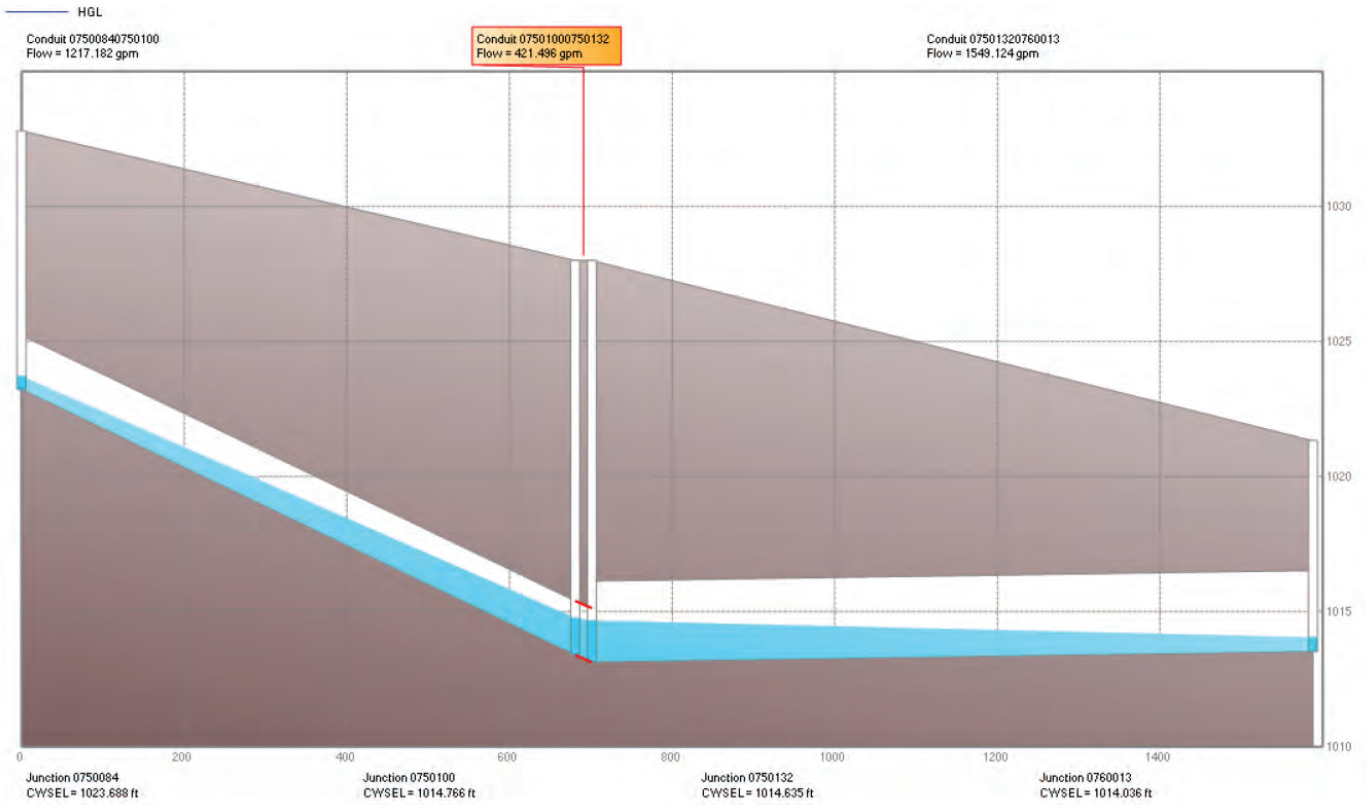


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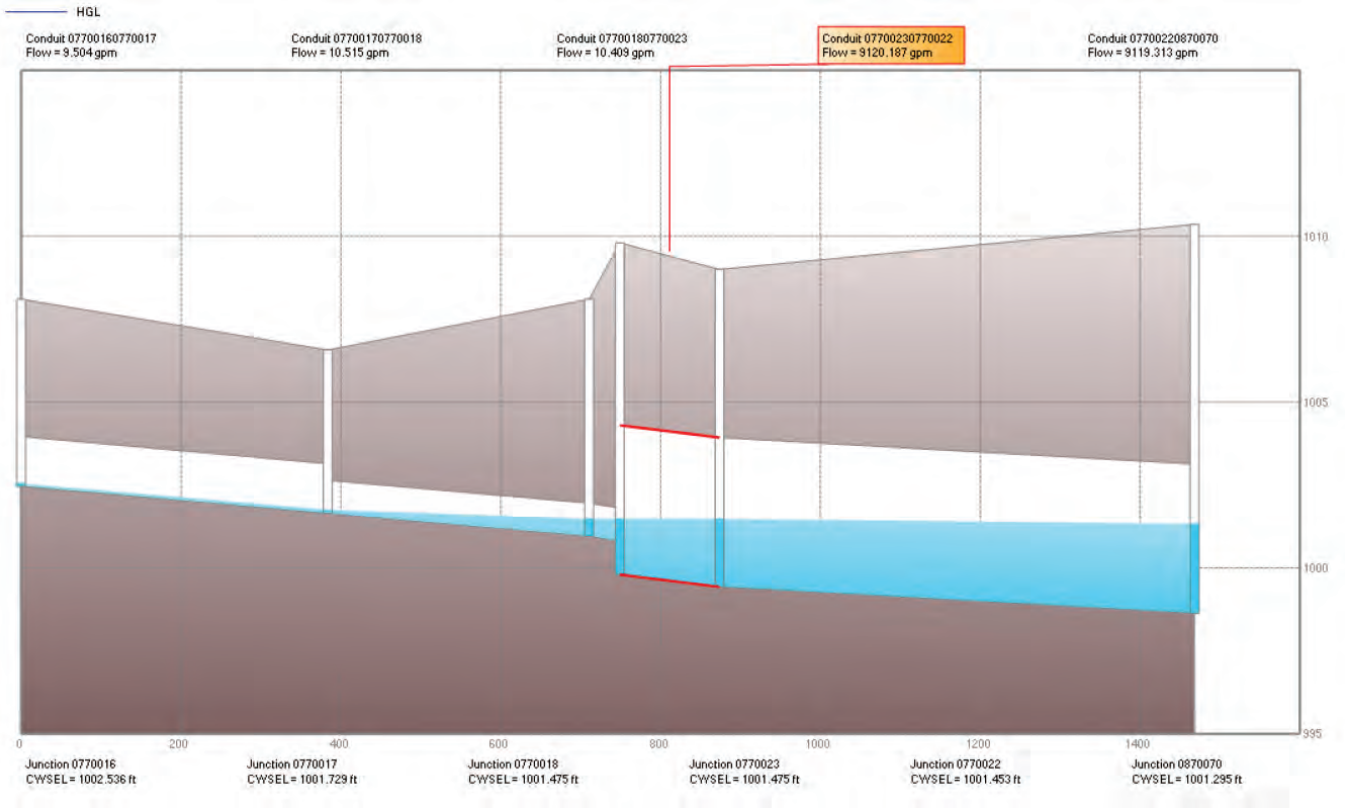


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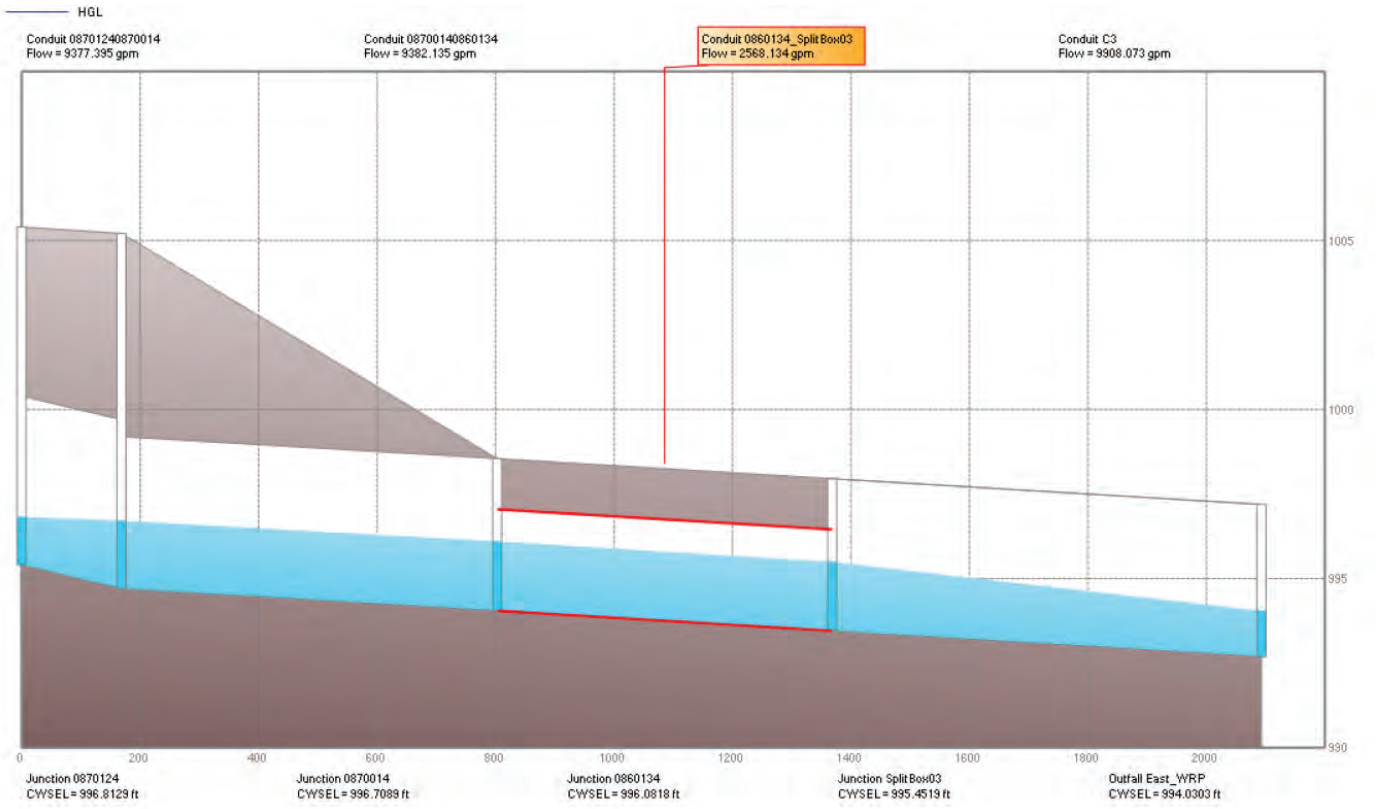
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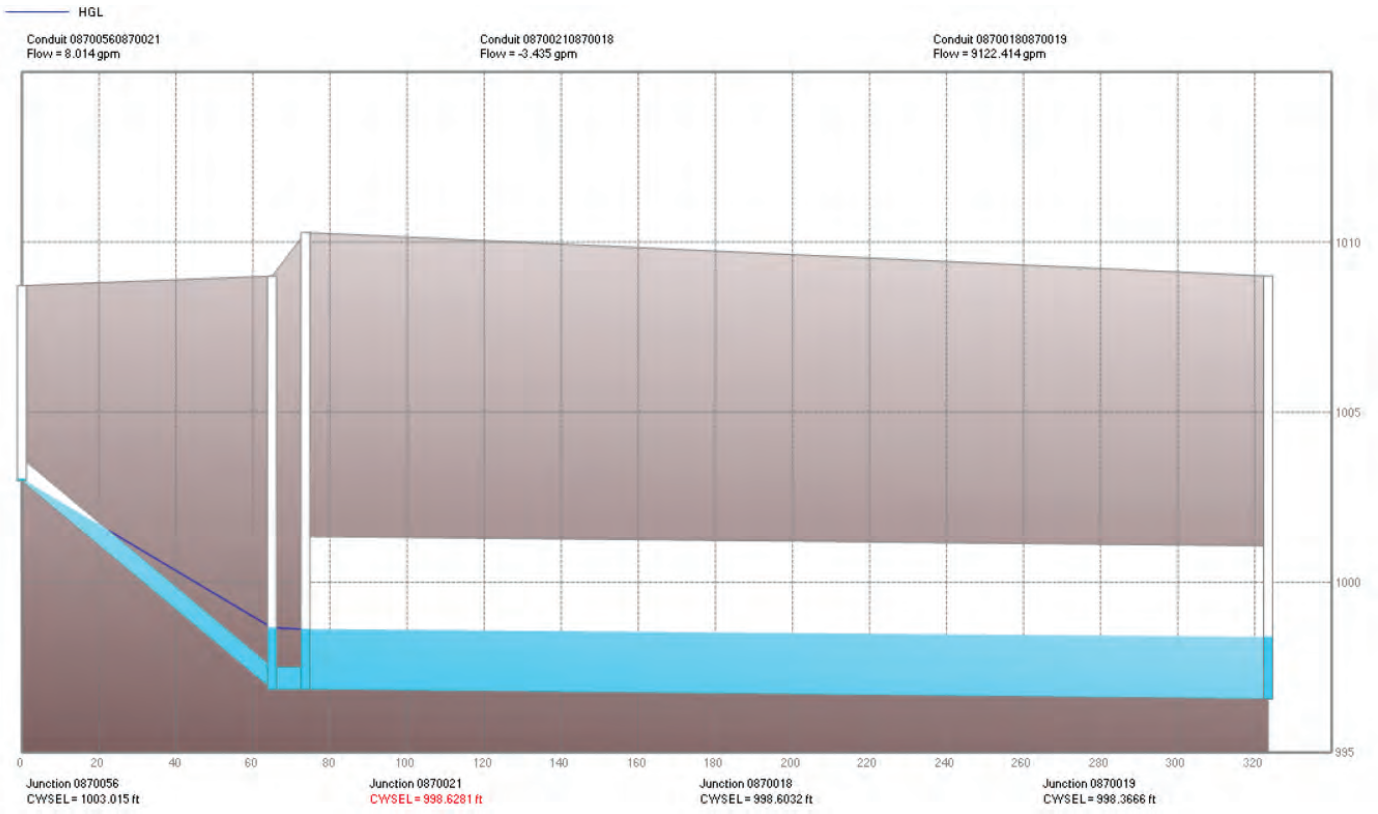
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APPENDIX H

CONSEQUENCE OF FAILURE FOR PIPES

APPENDIX H - CONSEQUENCE OF FAILURE FOR ALL PIPES

CONSEQUENCE OF FAILURE

The consequence of failure was assessed using environmental, social, and economic factors to estimate the effect on the system were a failure to occur. After discussion with SBMWD, criteria for the three categories were developed based on available information and relative importance of each factor. The same methodology was used for all pipes as opposed to the LoF score where pipes with and without CCTV footage were analyzed using different methodologies. The criteria and weighting for each are presented in Table H.1. The following subsections discuss each of these factors in detail

Table H.1: Consequence of Failure Parameters

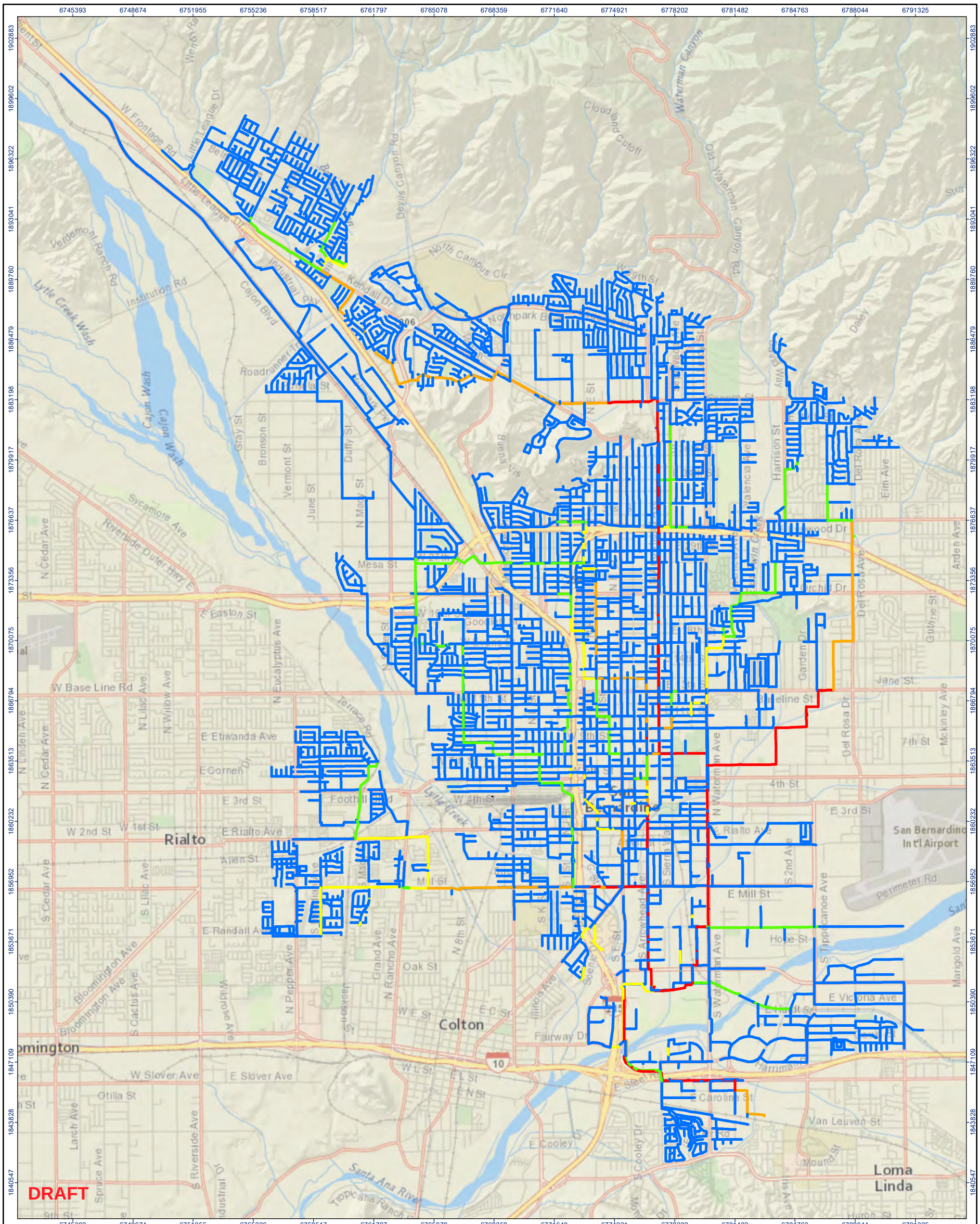
Category	Criteria	Weighting (%)
Environmental	Overflow Volume	25
	Environmentally Sensitive Areas	7
	Drinking Water Sources	8
Social	Population Density	5
	Critical Facilities	8
	Major Roadways	7
Economic	Criticality	10
	Land Use Type	10
	Overflow Volume	10
	Pipe Diameter	5
	Pipe Depth	5
Total		**100**

Overflow Rate

If a pipe were to fail, the amount of sewage that could spill out of the system is both an environmental and economic concern. Therefore, the estimated rate of flow lost due to a pipe failure is included as the highest rated CoF criteria. The negative impact an overflow could have to surrounding land and the fines resulting from it are of significant concern. To quantify the severity of this criterion, the average daily dry weather scenario in the hydraulic model was used to find average flow rates for pipes throughout the system. The flow categories dictating the CoF score associated with different flow rates is shown in Table H.2. A map of the final CoF scoring for flow rate by pipe is shown on Figure H-1.

Table H.2: Overflow Rate Scoring

Score	Volume (gpm)
1	<= 250
2	> 250 - 500
3	> 500 – 1000
4	> 1000 – 2000
5	> 2000



Legend

Sewer Pipes

Overflow Volume (gpm)

- <= 250
- > 250 - 500
- > 500 - 1000
- > 1000 - 2000
- > 2000

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

Stantec

Project Location
San Bernardino County
California

Prepared by LTorres on 2019-10-24

Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-1

DRAFT

Title
Overflow Volume Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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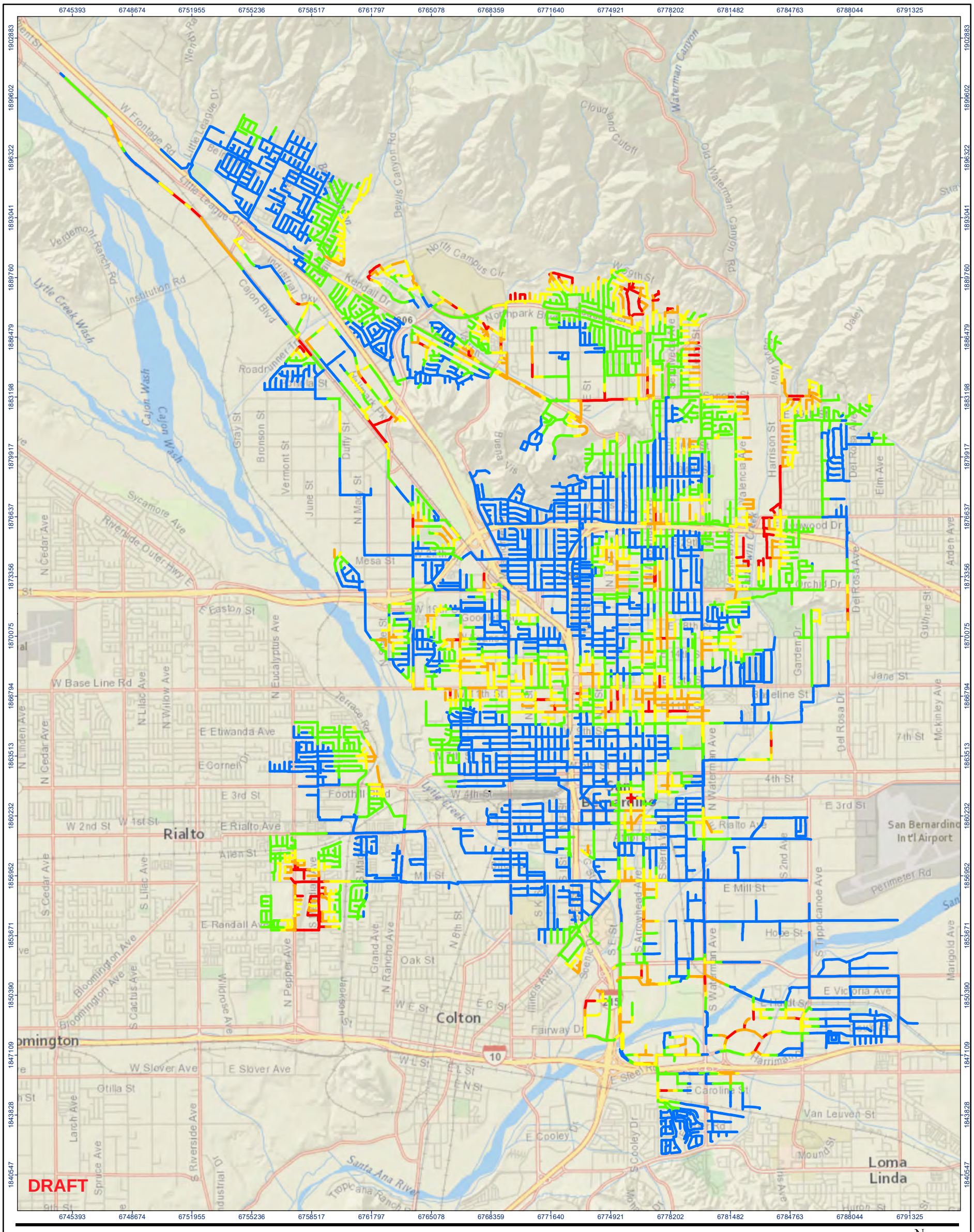
Proximity to Wells and Infiltration Zones

SBMWD wants to protect fresh water sources, dams, and infiltration zones from sewer flows in the event of a pipe break. A sewer main break adjacent to one of these areas could have major impacts on water quality and be challenging to mitigate and clean up. The varying proximity to these locations were considered as a criterion for the CoF score as defined in Table H.3. Figure H-2 shows the CoF scoring for this criterion pipe scores on the SBMWD system map.

Table H.3: Proximity to Wells and Infiltration Zones Scoring

Score	Wells Distance (ft)	Basins and Dams Distance (ft)
1	> 1000	> 2500
2	> 600 – 1000	> 1000 – 2500
3	> 300 – 600	> 500 – 1000
4	> 50 – 300	> 250 – 500
5	<= 50	<= 250

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Legend

Sewer Pipes

Proximity to Wells / Infiltration Zones (ft)

- > 1000 / > 2500
- > 600 - 1000 / > 1000 - 2500
- > 300 - 600 / > 500 - 1000
- > 50 - 300 / > 250 - 500
- <= 50 / <= 250

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

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California

Prepared by LTorres on 2019-10-24

Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-2

DRAFT

Title
Proximity to Wells and Infiltration Zones Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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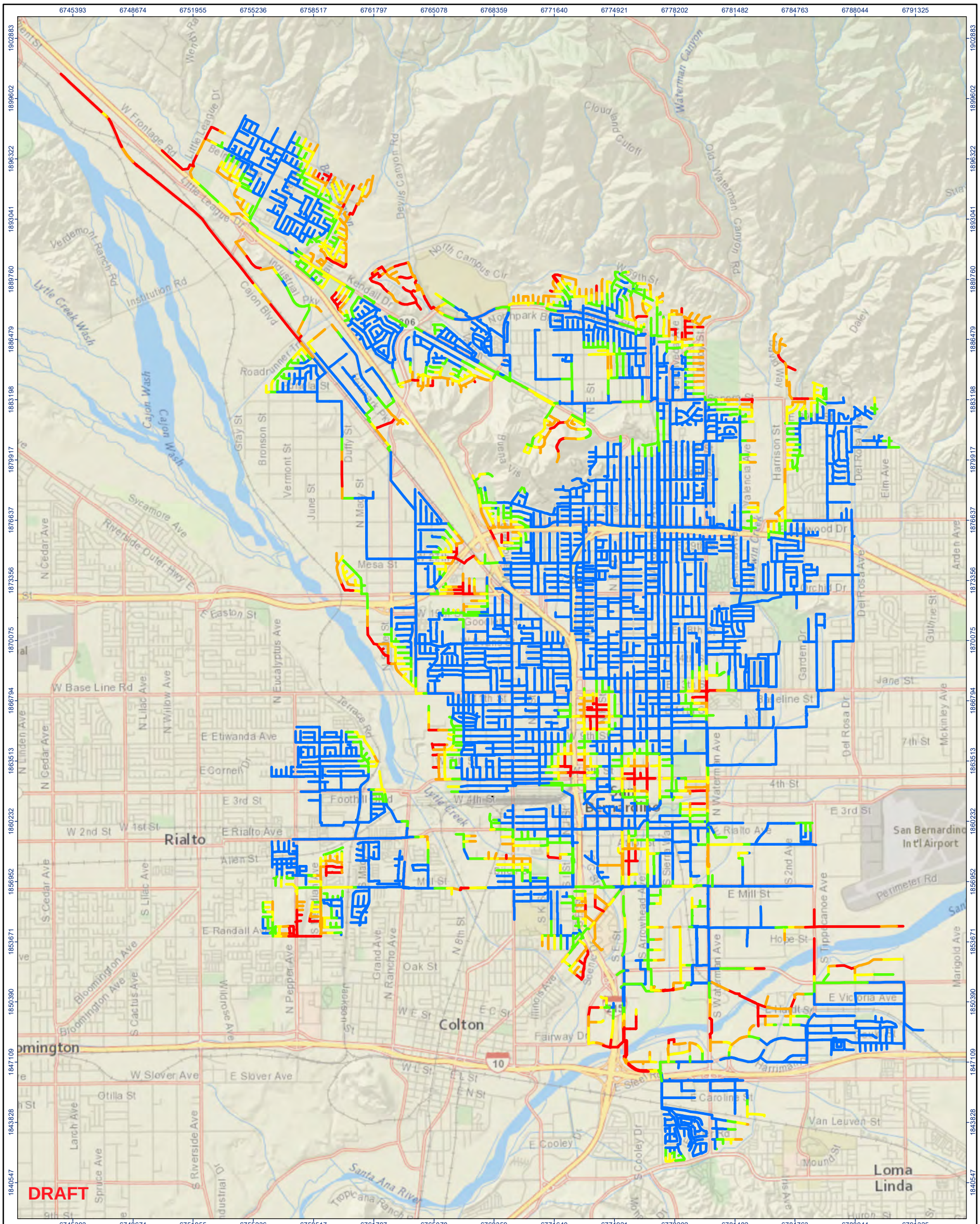
Proximity to Environmentally Sensitive Areas

Another key consideration for the CoF analysis is the protection of environmentally sensitive areas such as rivers, creeks, and wildlife habitats. It is a major priority for SBMWD to prevent any negative impacts that a sewer failure would have on these areas and to be good stewards of the environment they operate in. Environmentally sensitive areas were determined based on GIS maps of waterways and biotic habitat maps and scores were assigned based on distances between those areas and the system pipelines as shown in to Table H.4. This scoring is shown geographically in Figure H -3.

Table H.4: Proximity to Environmentally Sensitive Areas Scoring

Score	Distance (ft)
1	> 1000
2	> 600 – 1000
3	> 300 – 600
4	> 50 – 300
5	<= 50

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Legend

Sewer Pipes

Proximity to Environmentally Sensitive Areas (ft)

- > 1000
- > 600 - 1000
- > 300 - 600
- > 50 - 300
- <= 50

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

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San Bernardino County
California

Prepared by LTorres on 2019-10-24

Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-3

DRAFT

Title
Proximity to Environmentally Sensitive Areas Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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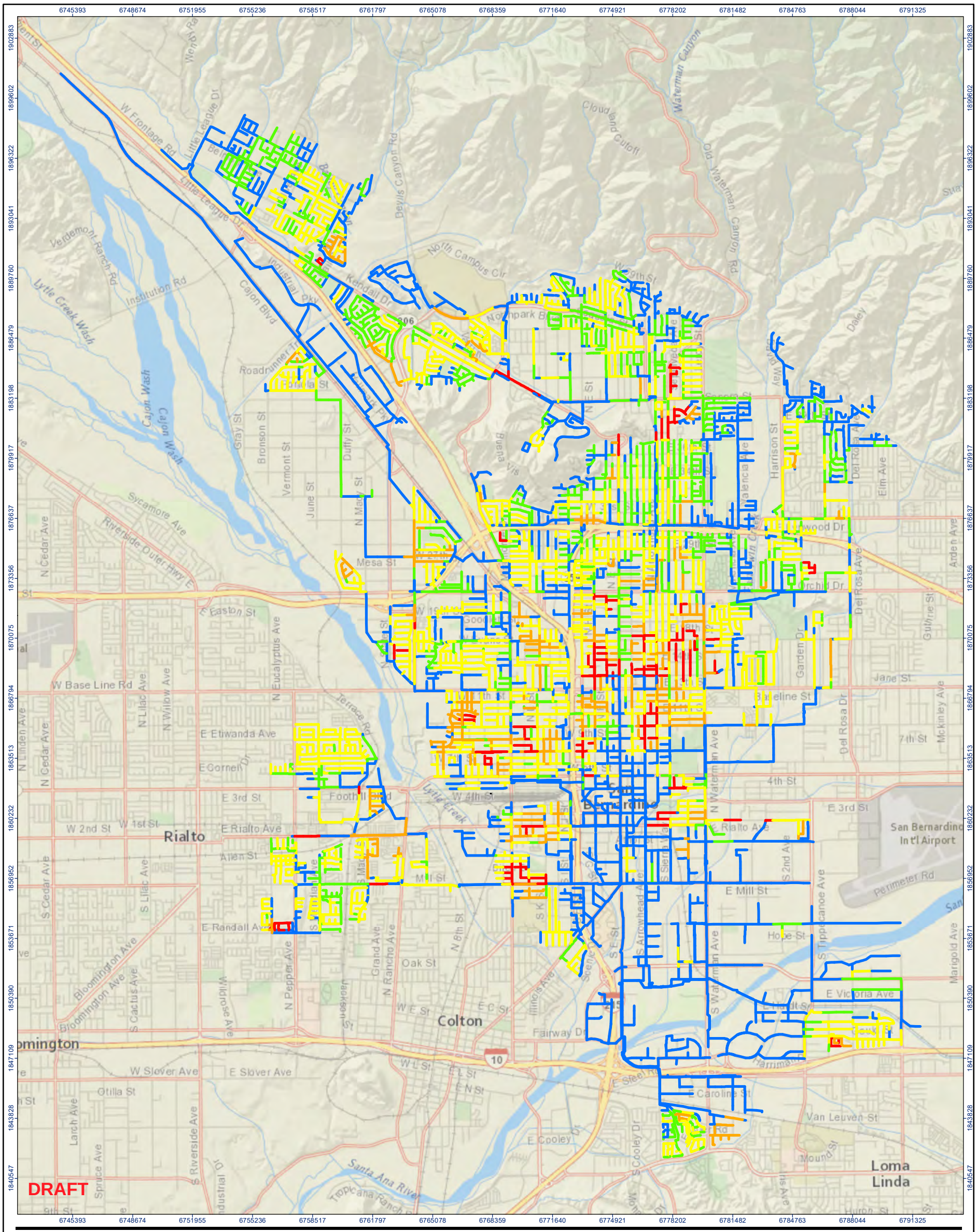
Population Density

A pipe failure in a more densely populated has a higher potential for causing impacts to residents and businesses in the area. This criterion was developed by rating pipe based on the population density of the immediately surrounding area and was quantified using 2010 San Bernardino County Census blocks. Table H.5 presents the scoring methodology used for population density criterion, while Figure H -4 shows the resulting scoring geographically.

Table H.5: Population Density Scoring

Score	Population Density
1	<= 0.0001
2	> 0.0001 – 0.0002
3	> 0.0002 – 0.0004
4	> 0.0004 – 0.0006
5	> 0.0006

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Legend

Sewer Pipes

Population Density

- <= 0.0001
- > 0.0001 - 0.0002
- > 0.0002 - 0.0004
- > 0.0004 - 0.0006
- > 0.0006

0 1,250 2,500 metres

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1:65,324

N

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Project Location
San Bernardino County
California

Prepared by LTorres on 2019-10-24

Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-4

DRAFT

Title
Population Density Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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Critical Facilities

SBMWD recognizes that some customers in the service area perform critical functions for the residents of San Bernardino and that any interruption of sewer service for these customers would have a particularly negative effect for those customers and the residents of the service area at large. The critical facilities selected based on conversations with SBMWD include:

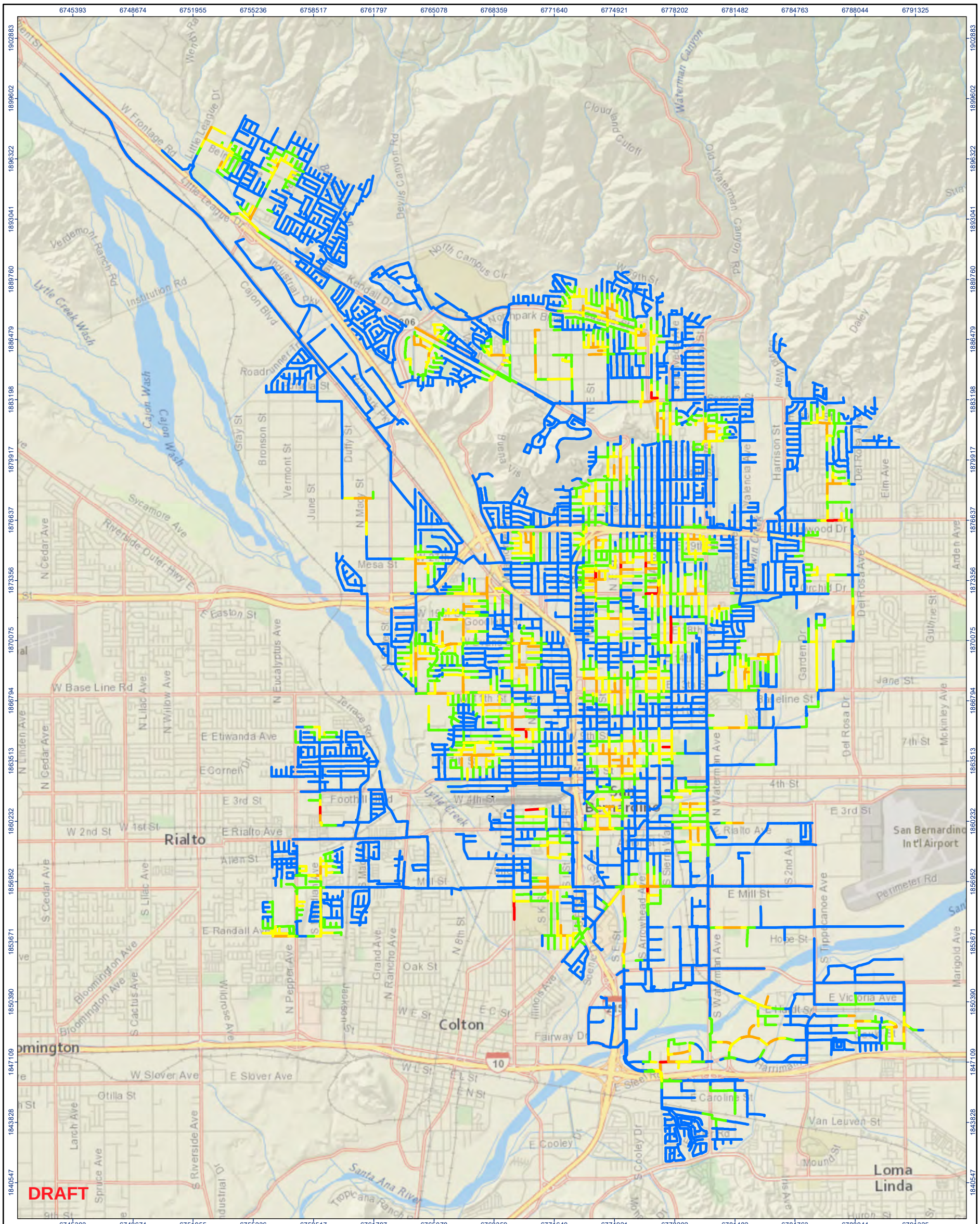
- Schools
- Hospitals
- Fire stations, and
- Police stations.

The distance between the pipe in question and a specific critical facility determines the score that is assigned to a pipe. Pipelines directly connected to the critical facility itself score the highest in this category. The threshold distances used for scoring are in Table H.6. Figure H-5 maps the location of pipes on the SBMWD system map and displays their assigned score for this criterion.

Table H.6: Critical Facilities Scoring

Score	Distance (ft)
1	> 100
2	< 100
3	< 50
4	< 25
5	Connected to critical customer

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Legend

Sewer Pipes

Critical Facilities (ft)

- > 100
- < 100
- < 50
- < 25
- Connected to Critical Customer

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

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San Bernardino County
California

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Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-5

DRAFT

Title
Critical Facilities Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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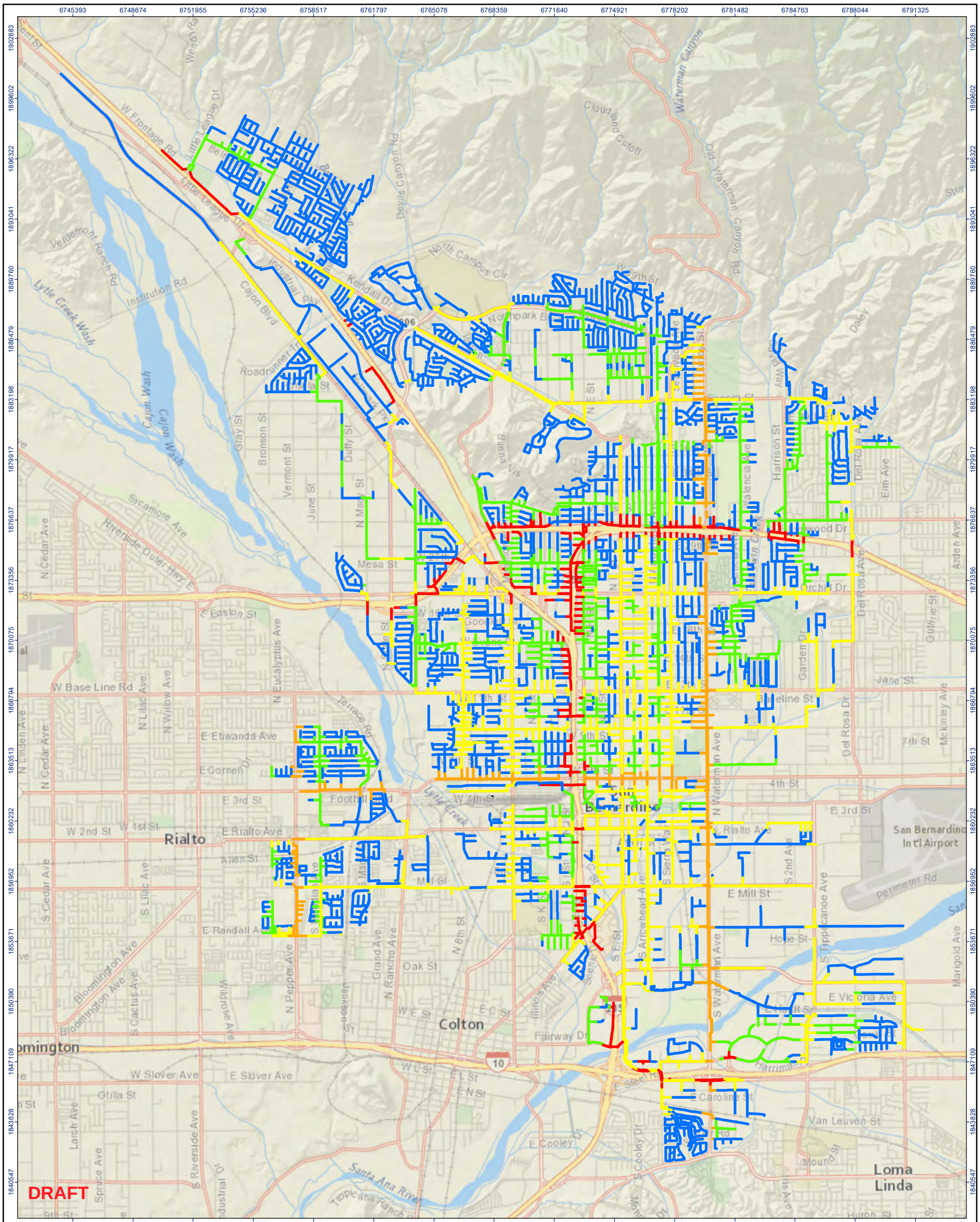
Major Roadways

If a pipe were to fail on or near a roadway or freeway, cleanup efforts may be more difficult to coordinate depending on the traffic impacts to that roadway. Additionally, there are freeways in the SBMWD service area that are maintained by other agencies such as Caltrans and addressing a spill on or near one of those freeways would add another layer of complexity to addressing the spill. To account for this, a criterion for proximity to roadways is included as part of the CoF score. This criterion is based on the types of roadway as defined by the Caltrans Functional Classification and is considered for pipes within 150 feet of the centerline of the roadway. The roadway types include interstate, freeway/expressway, principal arterial, minor arterial, major collector, minor collector, and local roads. Table H.7 presents the breakdown of scoring for each of these categories while Figure H -6 shows the resultant scoring geographically.

Table H.7: Major Roadways Scoring

Score	Roadway Type
1	> 150 ft of any roadway or < 150 ft of local road or minor collector
2	< 150 ft of major collector
3	< 150 ft of minor arterial
4	< 150 ft of principal arterial
5	< 150 ft of freeway/expressway or interstate

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Legend

Sewer Pipes

Major Roadways

- < 150 ft of local road or minor collector or > 150 ft of any roadway
- < 150 ft of major collector
- < 150 ft of minor arterial
- < 150 ft of principal arterial
- < 150 ft of freeway/expressway or interstate

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

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San Bernardino County
California

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Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-6

DRAFT

Title
Major Roadways Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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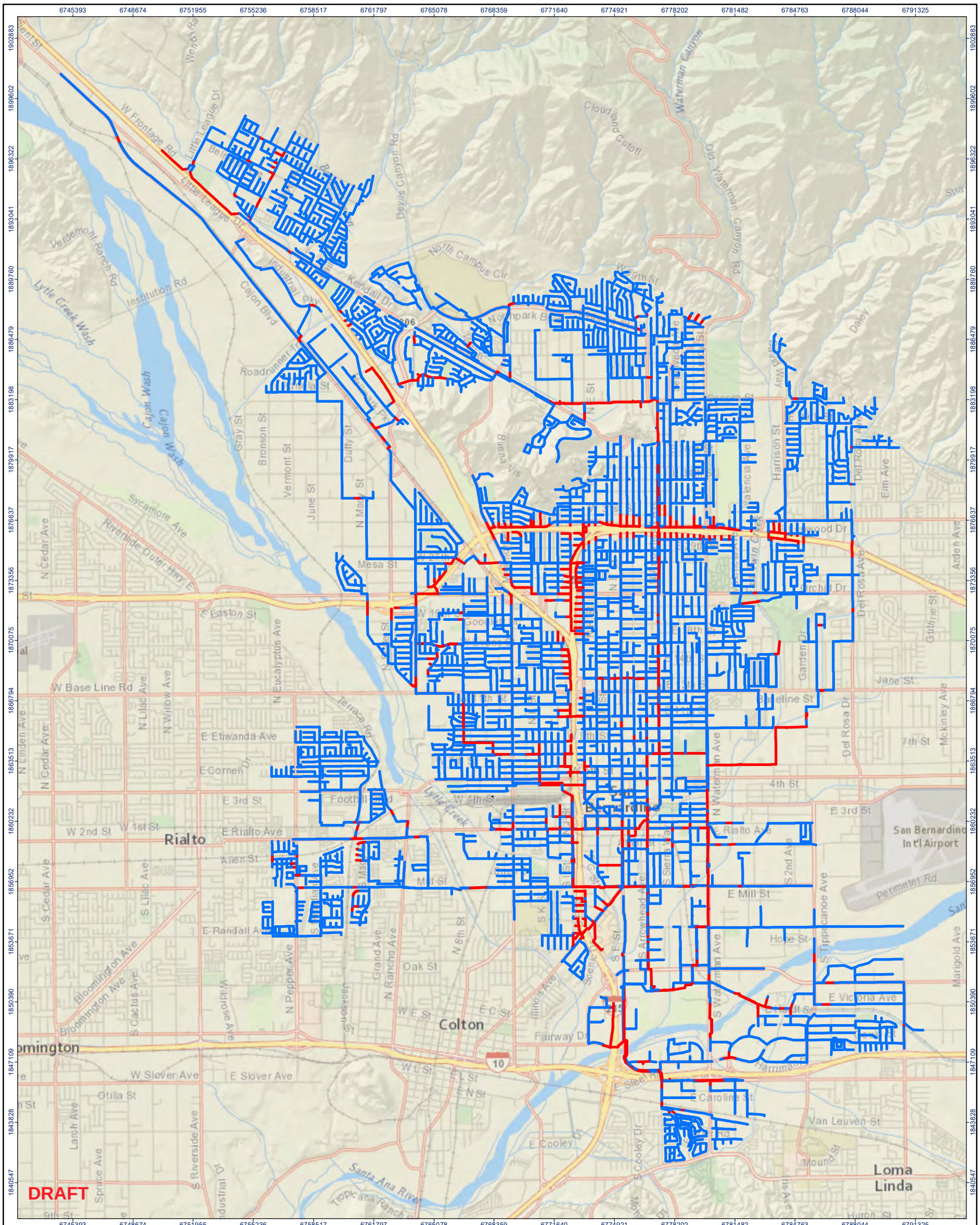
Criticality

There are pipes in the SBMWD system that, based on their location, connectivity, and size, are considered critical assets to the sewer system and would have more pronounced systemwide effects in the event of a failure. This criterion is treated as a binary score with pipes greater than 24 inches in diameter, pipes crossing major roadways, siphons, pipes crossing railroads, and pipes crossing water channels defined as critical. These critical facilities are scored as a five and remaining pipes not covered under any of these criteria are scored as a 1. Table H.8 presents the scoring criteria applied for this category while Figure H -7 shows the resulting scoring geographically.

Table H.8: Criticality Scoring

Score	Description
1	Remaining Pipes
5	Large diameter pipe, pipe crossing major roadways, siphon, pipe crossing railroads, pipe crossing water channels

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Legend

Sewer Pipes

Criticality

- Remaining Pipes
- Large Diameter, Crossing Major Roadways, Siphons, Crossing Railroads,Crossing Water Channels

0 1,250 2,500 metres

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1:65,324

N

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Project Location
San Bernardino County
California

Prepared by LTorres on 2019-11-04

Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-7

DRAFT

Title
Pipe Criticality

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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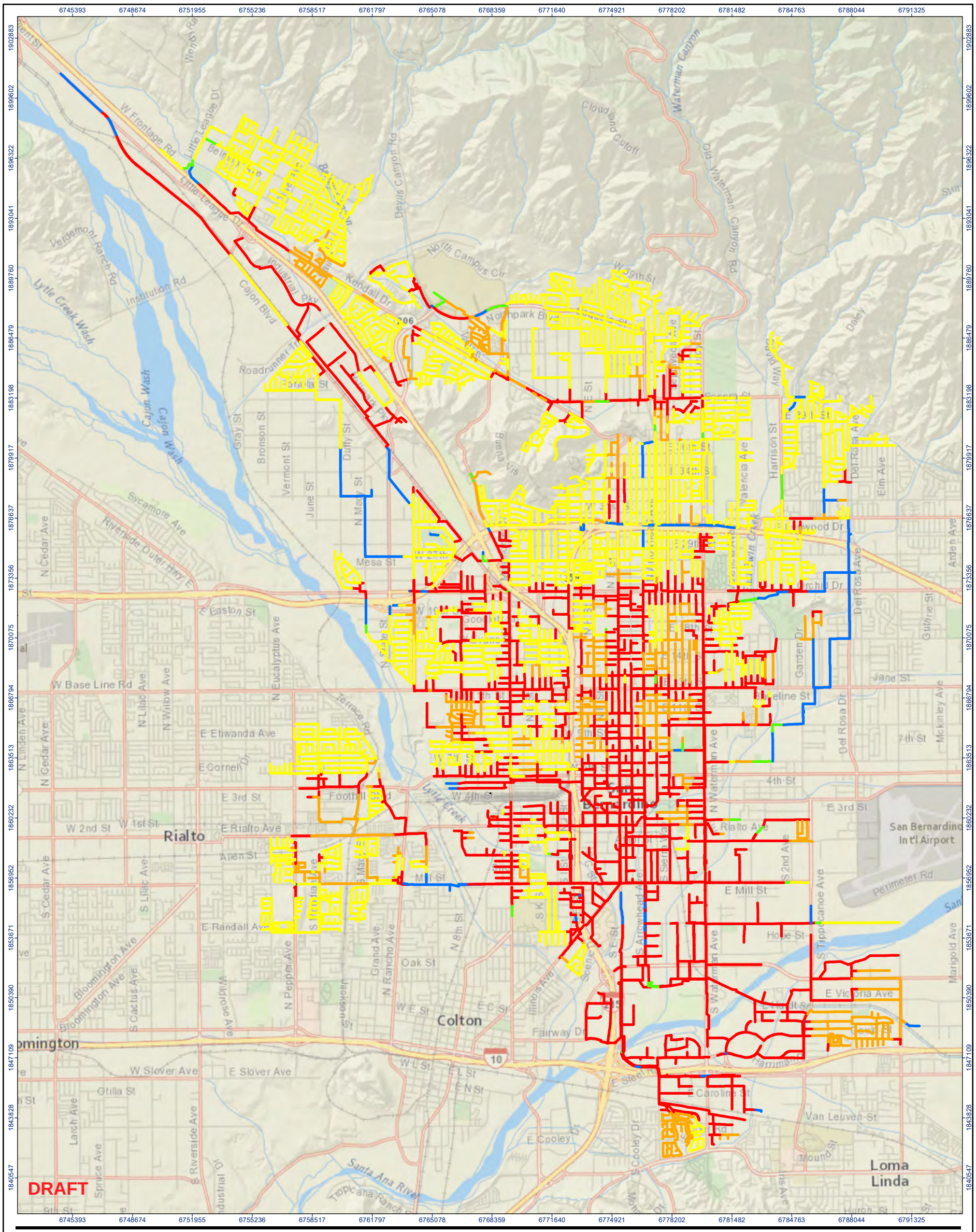
Land Use

Evaluating the land use around pipes considers the consequence of failure due to service interruption according to the differing expected quantity of flow for each land use type. This criterion differs from flow volume in that it also takes into account the type of structures adjacent to each pipes and associated impact each of those land uses represents. GIS parcel and land use data was correlated to each pipe in order to calculate the CoF score for land use and pipes within certain land use types were scored according to Table H.9. Figure H -8 shows the resultant scoring on the SBMWD system map.

Table H.9: Land Use Scoring

Score	Land Use
1	Open Space
2	Public, Public/Quasi-Public
3	Single Family Residential, Specific Plan
4	Multiple Family Residential
5	Commercial, Industrial

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Legend

Sewer Pipes

Land Use

- Open Space
- Public, Public/Quasi-Public
- Single Family Residential, Specific Plan
- Multiple Family Residential
- Commercial. Industrial

0 1,250 2,500 metres

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1:65,324

N

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San Bernardino County
California

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Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-8

DRAFT

Title
Land Use Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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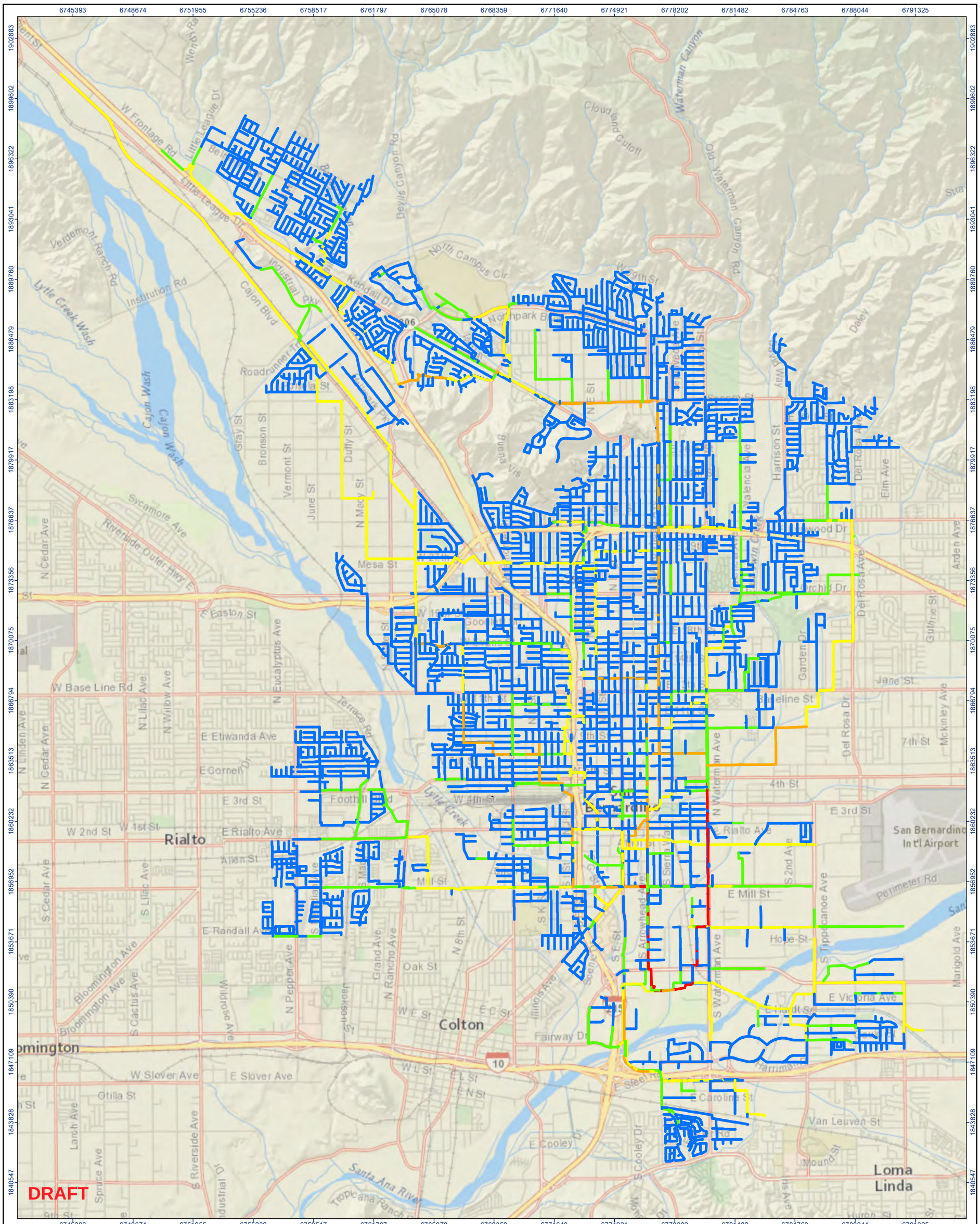
Sewer Pipe Diameter

As described in the unit costs presented in Section 10, the cost of replacing a broken pipe is dependent on the pipe diameter, as well as the depth of cover, material, and other physical properties of the pipe location. The consequence of a larger pipe failing and needing to be replaced is scored higher due to the additional cost needed to execute that replacement. Table H.10 presents the thresholds applied to pipe diameter while Figure H -9 shows the resultant scoring on the SBMWD system map.

Table H.10: Sewer Pipe Diameter Scoring

Score	Diameter (in)
1	<= 8
2	> 8 – 12
3	> 12 – 24
4	> 24 – 36
5	> 36 - 60

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Legend

Sewer Pipes

Diameter (in)

- <= 8
- > 8 - 12
- > 12 - 24
- > 24 - 36
- > 36 - 60

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

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San Bernardino County
California

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Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
H-9

DRAFT

Title
Sewer Pipe Diameter Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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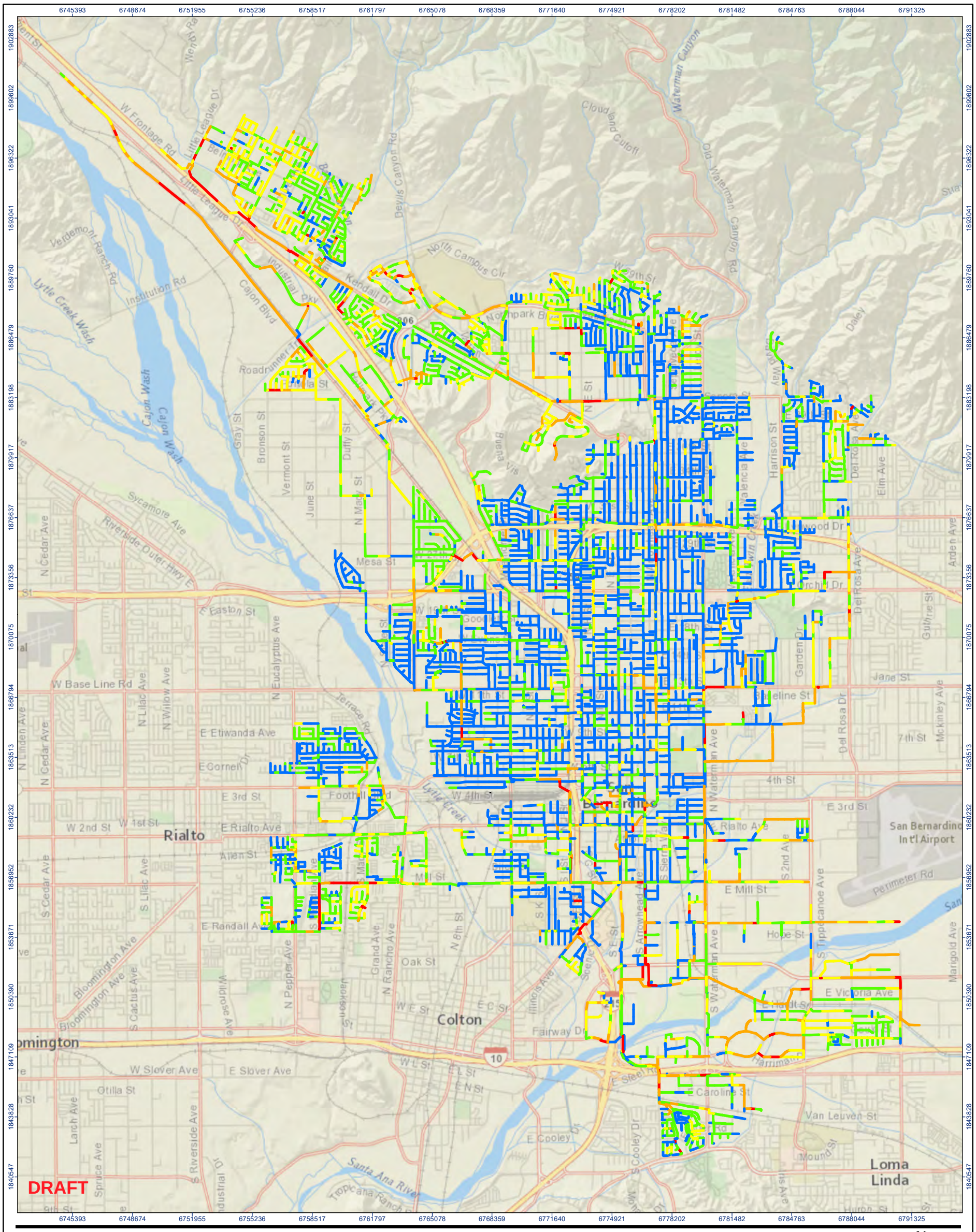
Sewer Pipe Depth

As mentioned in the previous subsection, the cost to replace a pipe will also depend on the depth of cover, or the distance between the ground surface and the invert elevation for the pipe. Pipe depth was assessed using the upstream manhole depth of a pipe as the GIS for the pipes did not list a depth. The upstream manhole was used for each pipe in order to be consistent from pipe to pipe. The thresholds applied for each CoF score pertaining to this criterion is presented in Table H.11, and the resultant scoring for all pipes is shown on Figure H -10.

Table H.11: Sewer Pipe Depth Scoring

Score	Depth (ft)
1	<= 6
2	> 6 – 8
3	> 8 – 10
4	> 10 – 15
5	> 15

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6745393
6748674
6751955
6755236
6758517
6761797
6765078
6768359
6771640
6774921
6778202
6781482
6784763
6788044
6791325
1902883
1896602
1896322
1893041
1889760
1886479
1883198
1879917
1876637
1873356
1870075
1866794
1863513
1860232
1856952
1853671
1850390
1847109
1843828
1840547
W Frontage Rd
Little League Dr
Vendemont Ranch Rd
Institution Rd
Lytle Creek Wash
Cajon Wash
Cajon Blvd
Kendall Dr
Industrial Pkwy
Roadrunner Dr
Gray St
Bronson St
Vermont St
June St
N Mary St
Duffy St
Beaver St
Beryl St
Beryl Ct
Beryl Pl
Beryl Vis
Beryl Ave
Beryl Rd
Beryl Way
Beryl Cir
Beryl Pkwy
Beryl Ln
Beryl Dr
Beryl Blvd

APPENDIX I

LIKELIHOOD OF FAILURE FOR PIPES

APPENDIX I – LIKELIHOOD OF FAILURE FOR PIPES

LIKELIHOOD OF FAILURE

Likelihood of failure is comprised of criteria used to establish how likely an asset is to fail given one or more physical parameters. It is recommended that LoF be scored in two different ways depending on whether or not a pipe had CCTV footage available from the Innerline or Houston and Harris programs. Since CCTV video shows the true condition of pipe, using only the PACP scoring information is acceptable to assign an LoF score. However in lieu of CCTV data, factors that contribute to the probability of a pipe breaking can be used to assign an LoF score. These factors include pipe material and age, pipe depth and roadway, maintenance frequency, and pipe capacity. Since CCTV is the best data to use before rehabilitating or replacing a pipe, pipes without CCTV records will be prioritized for future CCTV inspection based on their LoF score in conjunction with their CoF scores. This will allow SBMWD to visually confirm defects and pipe condition prior to initiating a project. Table I.1 shows the two approaches used and the LoF score weighting for each methodology. Stantec worked with SBMWD to determine the weighting for pipe material and age, pipe depth and roadways, maintenance frequency, and capacity. Each criterion is further defined and the scores for each pipe are shown in tables and maps presented in this section.

Table I.1: LoF Score Weighting

Category	Criteria	Weighting of total LoF Score (%)
Pipes with CCTV Footage	CCTV	100
Pipes without CCTV Footage	Pipe Material and Age	35
	Pipe Depth and Roadway	10
	Maintenance Frequency	15
	Pipe Capacity	40

CCTV footage is used to understand the current physical state of pipelines and assign LoF scores. Having visual records assures that pipes are being rehabilitated or replaced if their condition warrants action. Therefore, all pipes should have a CCTV record before rehabilitation or replacement is assigned for a pipe.

A CCTV program was conducted by Houston and Harris (H&H) from 2014 to 2016 and a subsequent program was conducted by Innerline from 2018 to 2019. These programs comprised 2,865 pipes as shown in Figure 9-2 of Section 9. The CCTV findings identify pipe defects based on the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) Scoring Guidelines. Individual structural defects were coded, and their severity documented using a one through five scale for each pipe.

Pipes without CCTV records were assigned an LoF score by considering various criteria that contribute to a pipe's LoF score and are outlined in the following sections. The CoF score was calculated for every pipe within the system using criteria established in partnership with SBMWD.

Pipes with CCTV Footage

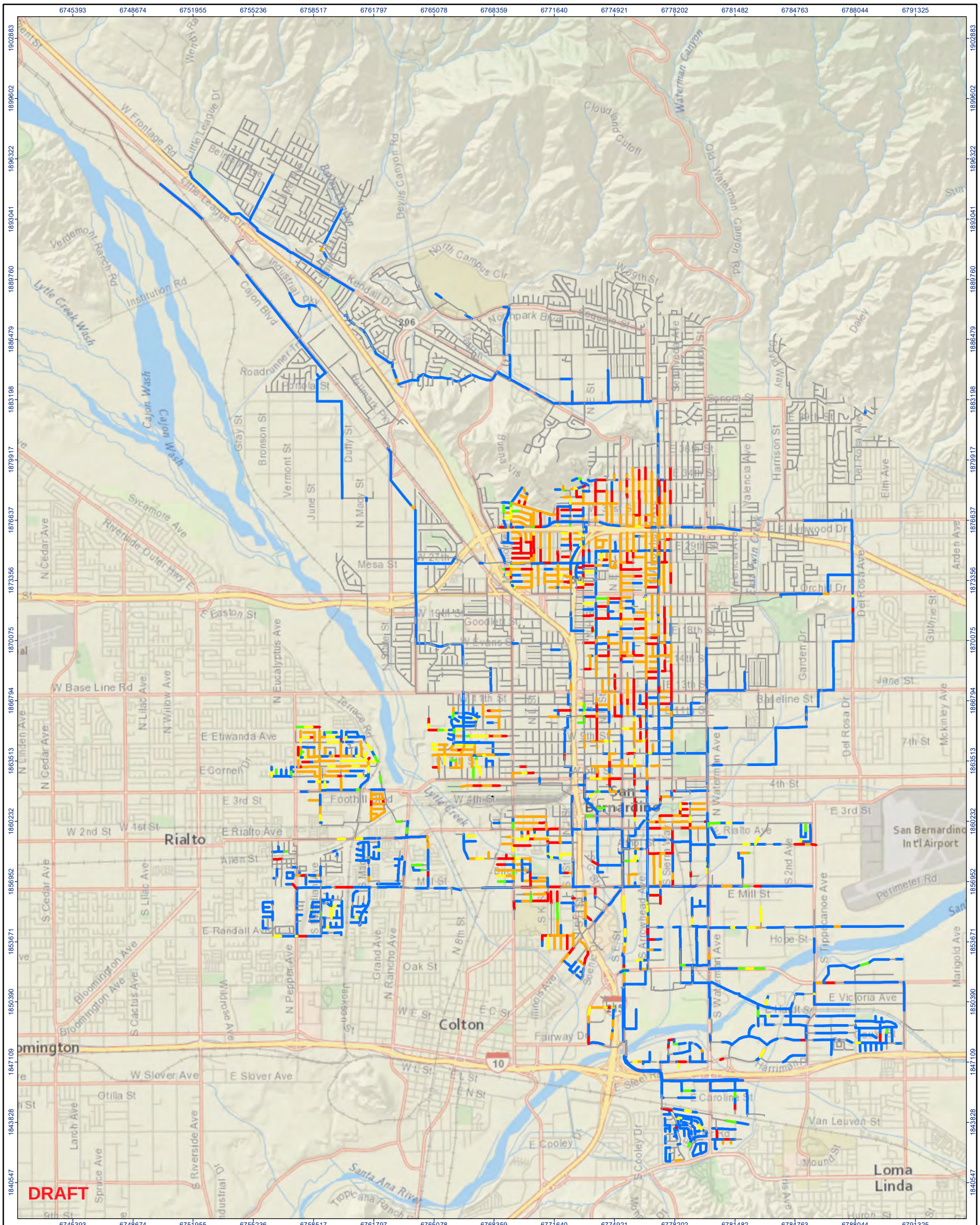
The CCTV reports and footage for pipes document defects and severity and lists various overall scores for pipes. One of these scores is the quick rating which gives a four-character score expressing the number of occurrences for the two highest severity grades observed within a pipe (scores are assigned as zero through five, as integers). This score was translated to an LoF score. The average of the quick score was taken as the LoF score for the 2865 pipes with CCTV records. For example, a quick score of 5342 denotes that a pipe had three grade 5 defects and two grade 4 defects. A score of 2417 would denote four level 2 defects and 7 level 1 defects, and that the 2 defect was the most severe defect found for that pipe. The LoF score applied to these pipe would be 4.6 (five multiplied by three, plus four multiplied by two, divided by two plus three) and 1.4 (two multiplied by four, plus one multiplied by 7, divided by four plus seven), respectively, according to the following formula:

$$\frac{\text{(Highest Defect Score) x (Number of highest defects) + (2}^{nd}\text{ Highest Defect Score) x (Number of 2}^{nd}\text{ highest defects)}}{\text{(Number of highest defect) x (Number of 2}^{nd}\text{ highest defect)}}$$

Table I.2 summarizes the severity of each level of pipes defect, while Figure I.1 shows the LoF scores for pipes with CCTV footage available.

Table I.2: CCTV Records

	Pipe Defect Code					
Score	**0**	**1**	**2**	**3**	**4**	**5**
PACP Quick Score	No Defects	Minor Defects	Moderate to Minor Defects	Moderate Defects	Significant Defects	Most Significant Defects


6745393
6748674
6751955
6755236
6758517
6761797
6765078
6768359
6771640
6774921
6778202
6781482
6784763
6788044
6791325
1902883
1896602
1896322
1893041
1889760
1886479
1883198
1879917
1876637
1873356
1870075
1866794
1863513
1860232
1856952
1853671
1850390
1847109
1843828
1840547
W Frontage Rd
Little League Dr
Vendemont Ranch Rd
Institution Rd
Lytle Creek Wash
Cajon Wash
Cajon Blvd
Industrial Pky
Kendall Dr
206
Roadrunner Trl
Tumalo St
Kaiwah Pky
Gray St
Bronson St
Vermont St
Duffy St
June St
Mady St
Sycamore Ave
Riverside Outer Hwy E
N Cedar Ave
Mesa St
E Easton St
W Base Line Rd
N Eucalyptus Ave
N Lilac Ave
N Willow Ave
N Linden Ave
Terrace Rd
E Etiwanda Ave
E Cornell
E 3rd St
W 2nd St
W 1st St
Foothill Blvd
Rialto
E Rialto Ave
Allen St
S Cedar Ave
S Lilac Ave
E Randall Ave
Bloomington Ave
S Cactus Ave
N Pepper Ave
Grand Ave
N Rancho Ave
N 6th St
Oak St
W E St
E C St
Colton
W Slover Ave
E Slover Ave
Otilla St
Larch Ave
Spruce Ave
Riverside Ave
Industrial Dr
Santa Ana River
Tropicana Ranch Rd
E Cooley Dr
S Cooley Dr
Van Leuven St
Mound St
Loma Linda
Carolina St
E Steel Rd
Harriman Pl
10
Beaumont Ave
Beaumont Ave
Beaumont Ave

Pipes without CCTV Footage

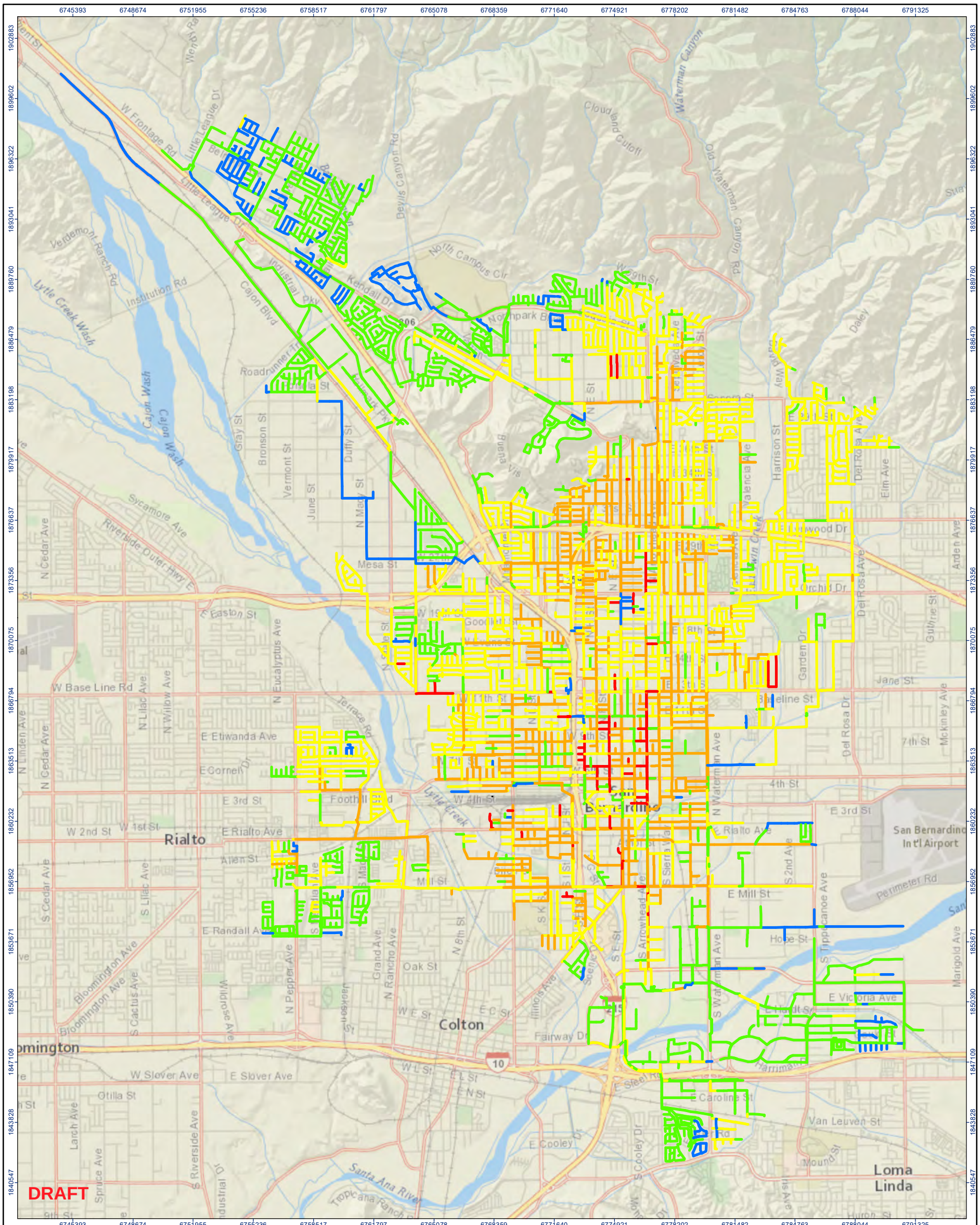
9.1.1.1 Sewer Pipe Material and Age

Sewer pipe material will influence the lifespan of a pipe. The SBMWD sewer system has a variety of pipe materials with the majority being VCP as shown in Section 3. All materials were assigned an estimated useful life based on literature and SBMWD feedback. A one through five score was assigned to each pipe by comparing the age of the pipe (based on installation date of the pipe or the installation date of nearby water pipelines correlated to the pipe) to the estimated useful life of that pipe based on material. Installation dates of sewer pipes were taken from GIS records when available; if installation date was not available, the pipe age was assumed based on the installation date of the nearby water pipe. This assumes that, in general, SBMWD water and sewer lines were installed at the same time. Watermains within 50 feet of the sewer that ran essentially parallel to the sewer (within 30 degrees) were used to assign an installation date. If watermains within 50 feet of the sewer pipe did not have installation information, the installation date of the nearest downstream sewer pipe with an installation date was assigned as a conservative assumption. Table I.3 shows the scoring used based on a pipe's material and age for this criterion and Figure **I**.2 shows the pipe's locations and scores.

Table I.3: Sewer Pipe Material and Age Scoring

Materials	Estimated Lifespan (years)	1	2	3	4	5
Concrete DIP PCC RCP	60	< 15	15 – 30	30 - 45	45 – 60	> 60
ABS ACP CIP HDPE PVC STL TRNS UNKN	80	< 20	20 – 40	40 - 60	60 – 80	> 80
Vitrified Clay	100	< 25	25 - 50	50 - 75	75 – 100	> 100

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Legend

Sewer Pipes

Material and Age (Percent of Useful Life)

- < 25%
- < 50%
- < 75%
- < 100%
- > 100%

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

Stantec

Project Location
San Bernardino County
California

Prepared by LTorres on 2019-10-24

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Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
I-2

DRAFT

Title
Sewer Pipe Material and Age Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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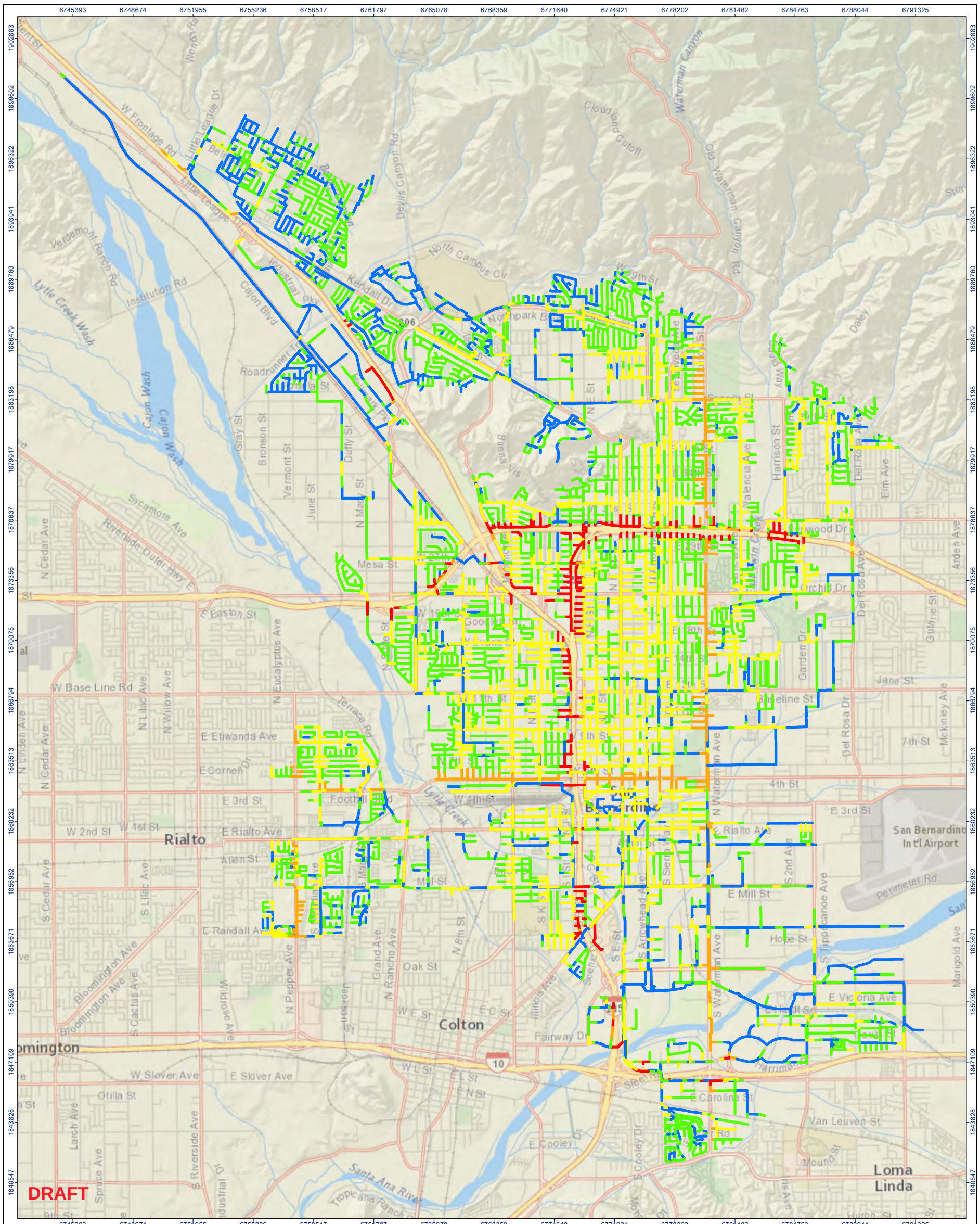
9.1.1.2 Sewer Pipe Depth and Roadway

Pipes are more likely to fail if installed at a shallow depth and near a busier roadway where it will experience more traffic loading and disturbance. To assess this criterion, pipes were assigned a depth based on the upstream maintenance hole. SBMWD's design standards state that pipe less than 15 inches in diameter should be installed at least 8 feet deep and pipe greater than 15 inches in diameter should be installed at least 7.5 feet deep. Therefore, these values were assumed as minimums for the scoring. Caltrans road classification identifies seven road types (interstate, freeway/expressway, principal arterial, minor arterial, major collector, minor collector, and local); these were used to further define the scoring. Only pipes within 150 feet of a roadway were scored based on their depth; if a pipe was more than 150 feet from a roadway they were scored as a zero for this criterion. Table I.4 shows the scoring categories for this criterion with the pipes mapped in Figure I.3.

Table I.4: Sewer Pipe Depth and Roadway Scoring

Diameter	Road Type	1	2	3	4	5
< 15 in	Within 150 feet of an interstate or freeway/expressway	> 15 foot depth	> 12 - <= 15 foot depth	> 10 - <= 12 foot depth	> 8 - <= 10 foot depth	<= 8 foot depth
	Within 150 feet of principal arterial	> 12 foot depth	> 10 - <= 12 foot depth	> 8 - <= 10 foot depth	<= 8 foot depth	
	Within 150 feet of minor arterial or major collector	> 10 foot depth	> 8 - <= 10 foot depth	<= 8 foot depth		
	Within 150 feet of minor collector or local collector	> 8 foot depth	<= 8 foot depth			
	Not within 150 feet of a road	any depth				
=> 15 in	Within 150 feet of an interstate or freeway/expressway	> 15 foot depth	> 12 - <= 15 foot depth	> 10 - <= 12 foot depth	> 7.5 - <= 10 foot depth	<= 7.5 foot depth
	Within 150 feet of principal arterial	> 12 foot depth	> 10 - <= 12 foot depth	> 7.5 - <= 10 foot depth	<= 7.5 foot depth	
	Within 150 feet of minor arterial or major collector	> 10 foot depth	> 7.5 - <= 10 foot depth	<= 7.5 foot depth		
	Within 150 feet of minor collector or local collector	> 7.5 foot depth	<= 7.5 foot depth			
	Not within 150 feet of a road	any depth				

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Legend

Sewer Pipes

Depth and Roadway

- 1
- 2
- 3
- 4
- 5

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

Stantec

Project Location
San Bernardino County
California

Prepared by LTorres on 2019-10-24

Client/Project

Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
I-3

DRAFT

Title
Sewer Pipe Depth and Roadway Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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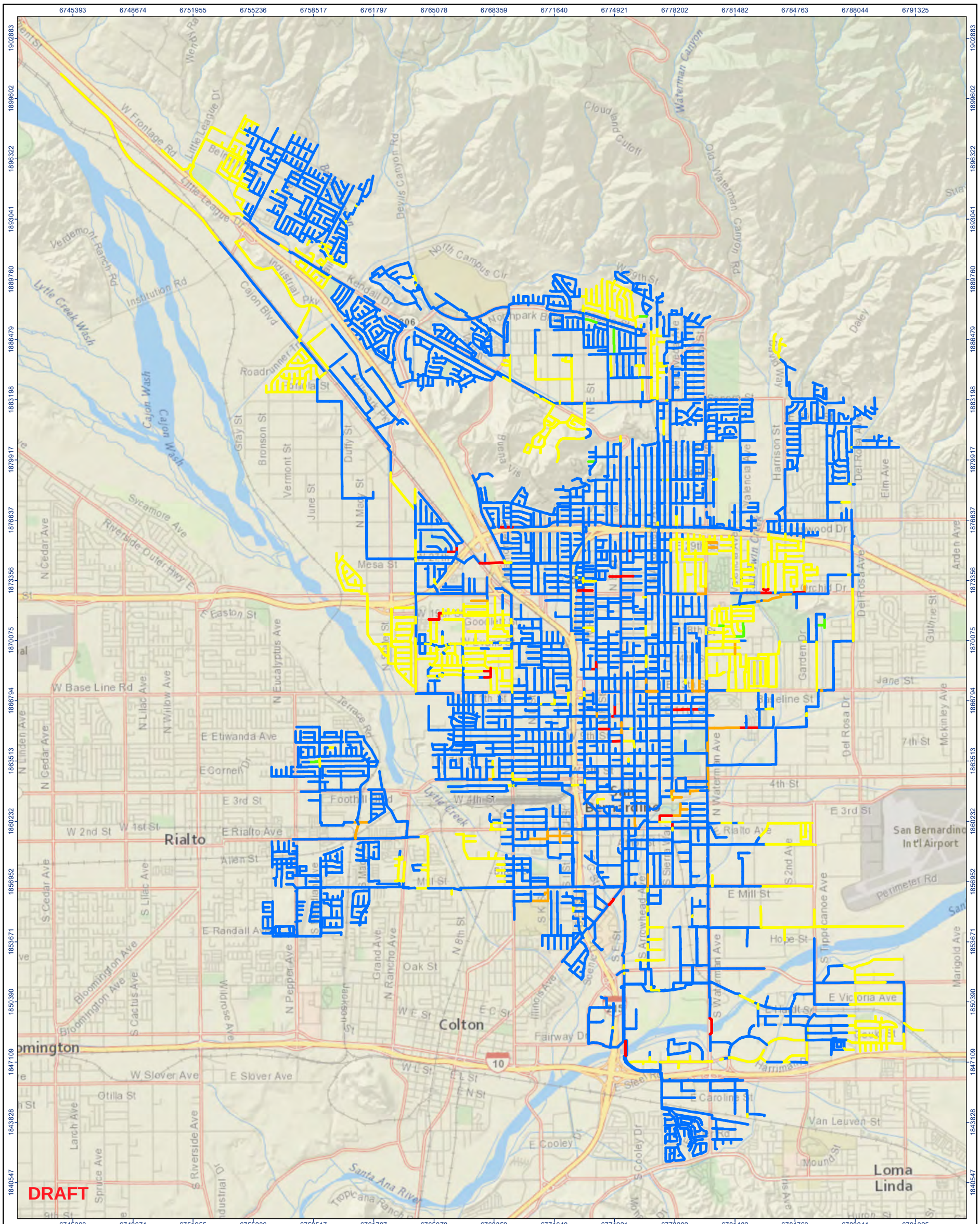
9.1.1.3 Sewer Pipe Maintenance Frequency

The amount of maintenance required for a pipe can give insight into its risk for failure. Using the Temporary Increased Maintenance Section (TIMS) list provided by SBMWD, scores were assigned for this criterion based on cleaning frequency. The scoring based on the TIMS list is in Table I.5 and shown for the system in Figure I.4.

Table I.5: Sewer Pipe Maintenance Frequency Scoring

Score	1	2	3	4	5
Cleaning Frequency	Annual or Large Diameter	Semi-Annual	Quarterly, Roots, or Unknown	Bimonthly	Monthly, Biweekly

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Legend

Sewer Pipes

Maintenance Frequency

- Annual or Large Diameter
- Semi-Annual
- Quarterly, Roots, or Unknown
- Bimonthly
- Monthly, Biweekly

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

Stantec

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California

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Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
I-4

DRAFT

Title
Sewer Pipe Maintenance Frequency Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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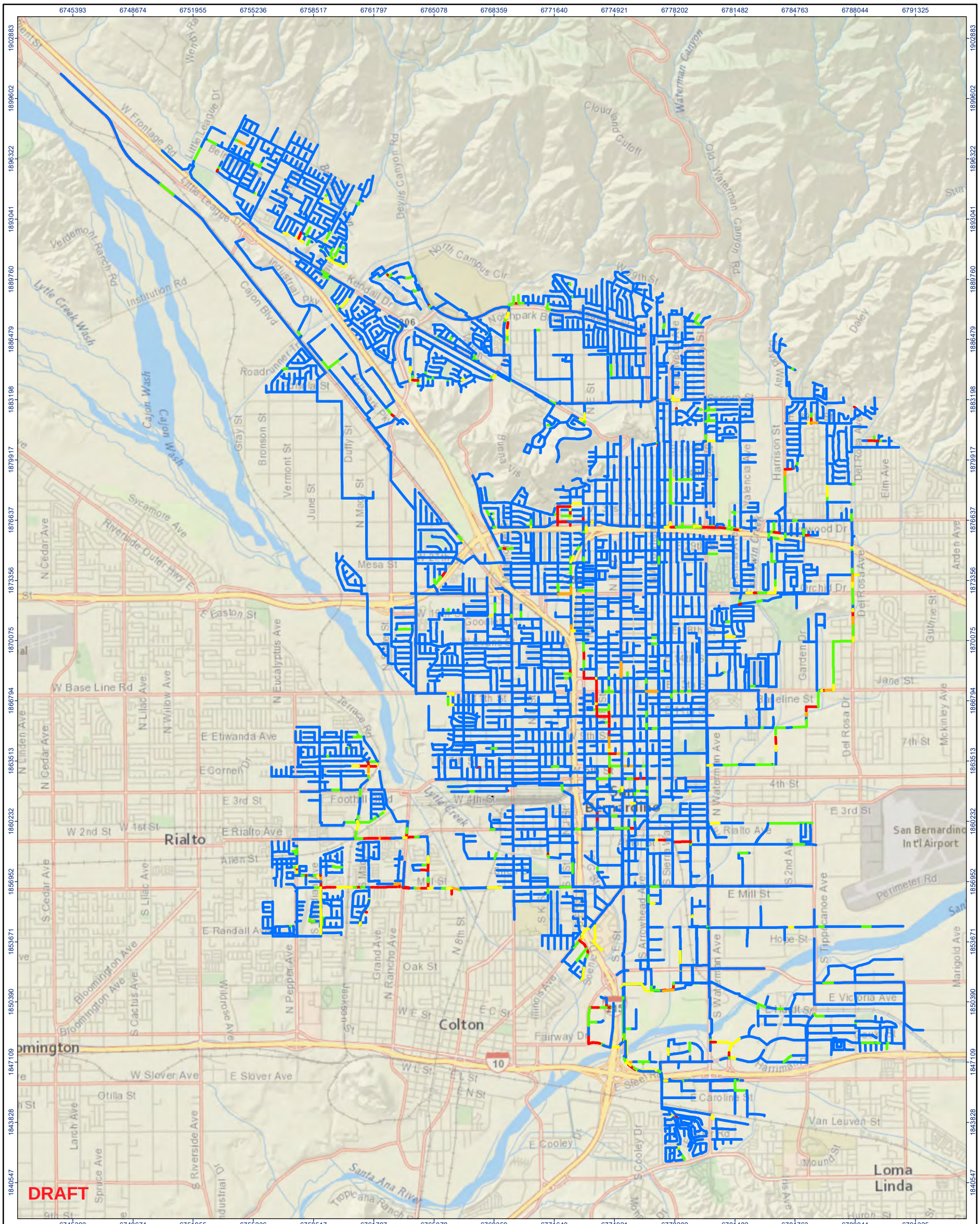
9.1.1.4 Sewer Pipe Capacity

As discussed in Section 7.1.4, the maximum d/D ratio for sewer pipes should be 0.5 during PDWF. A trigger point of 0.75 is also used in Section 8.1 for modeled pipes. From the hydraulic model, d/D ratios for all pipes were calculated to quantify the number of pipes above the designed maximum flow depth ratio of 0.5 and above the trigger point of 0.75. Capacity is an important factor to consider for this assessment, not only to highlight pipes outside of these criteria but also to score the remaining pipes that are currently not conveying too much flow but are still at a high capacity compared to other pipes in the system. Table I.6 has the scoring used for the condition assessment and the scores for each pipe are shown in Figure I.5.

Table I.6: Sewer Pipe Capacity Scoring

Score	d/D
1	<= .5
2	> .5 – .6
3	> .6 – .7
4	> .7 - .75
5	> .75

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Legend

Sewer Pipes

Capacity (d/D)

- <= 0.5
- > 0.5 - 0.6
- > 0.6 - 0.7
- > 0.7 - 0.75
- > 0.75

0 1,250 2,500 metres

(At original document size of 11x17)
1:65,324

N

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Contract No. 1674

San Bernardino Municipal Water Department
2019 Sewer Master Plan

Figure No.
I-5

DRAFT

Title
Sewer Pipe Capacity Scores

Notes
1. Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
2. Background: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

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APPENDIX J

ADJUSTED RISK SCORES FOR ALL PIPES

Adjusted Risk Scores -
Pipes With CCTV Footage

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
09600150960016	Condition - with CCTV scoring	169.9	27	6.29	27	96	3.75	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 188,100	$ 188,100				
07600950760105	Condition - with CCTV scoring	681	48	11.49	48	76	3.72	5.0	5.0	100.0	No	PDR Study	Immediate	Study					
07600940760095	Condition - with CCTV scoring	732.9	48	10.05	48	76	3.63	5.0	5.0	100.0	No	PDR Study	Immediate	Study					
07600960760094	Condition - with CCTV scoring	667.5	48	9.3	48	76	3.5	5.0	5.0	100.0	No	PDR Study	Immediate	Study					
05502330550215	Condition - with CCTV scoring	318.3	12	7.08	12	55	2.98	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 208,400	$ 208,400				
02200380220039	Condition - with CCTV scoring	278.1	18	10.24	18	22	2.31	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 255,400	$ 255,400				
08801000880099	Condition - with CCTV scoring	550	18	9.34	18	88	2.21	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 505,100	$ 505,100				
06700660670065	Condition - with CCTV scoring	270.7	12	5.29	12	67	2.12	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 177,200	$ 177,200				
05601310560120	Condition - with CCTV scoring	558.6	8	5.2	8	56	2.1	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 266,600	$ 266,600				
06600230660020	Condition - with CCTV scoring	736.7	8	6.98	8	66	2.1	4.7	4.7	100.0	No	Expedited Replacement	Immediate	$ 351,600	$ 351,600				
04501670450164	Condition - with CCTV scoring	215.8	8	5.34	8	45	1.98	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 103,000	$ 103,000				
05601510660153	Condition - with CCTV scoring	947	8	6.39	8	56	1.98	4.7	4.7	100.0	No	Expedited Replacement	Immediate	$ 451,900	$ 451,900				
06601860660146	Condition - with CCTV scoring	339	8	4.74	8	66	1.97	5.0	5.0	100.0	No	Expedited Replacement	Immediate	$ 161,800	$ 161,800				
09701270970046	Condition - with CCTV scoring	391.1	8	9.44	8	97	1.96	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 216,300	$ 216,300				
05401660540164	Condition - with CCTV scoring	443.2	8	5.58	8	54	1.96	4.7	4.7	100.0	No	Begin Project Development	Immediate	$ 211,500	$ 211,500				
06601670660181	Condition - with CCTV scoring	756.2	12	4.1	12	66	1.94	4.6	4.6	100.0	No	Expedited Replacement	Immediate	$ 495,100	$ 495,100				
04500630450061	Condition - with CCTV scoring	371.2	8	6.13	8	45	1.93	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 177,100	$ 177,100				
02200300220029	Condition - with CCTV scoring	443.8	12	10.17	12	22	1.91	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 312,800	$ 312,800				
06601710660167	Condition - with CCTV scoring	668.9	8	5.7	8	66	1.9	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 319,200	$ 319,200				
05602710560174	Condition - with CCTV scoring	652.4	8	7.1	8	56	1.88	4.8	4.8	100.0	No	Expedited Replacement	Immediate	$ 311,300	$ 311,300				
07501650750162	Condition - with CCTV scoring	664.8	12	9.05	12	75	1.85	4.9	4.9	100.0	No	Expedited Replacement	Immediate	$ 468,500	$ 468,500				
05601500560151	Condition - with CCTV scoring	712.2	8	5.63	8	56	1.85	4.7	4.7	100.0	No	Begin Project Development	Immediate	$ 339,900	$ 339,900				
06401830640184	Condition - with CCTV scoring	529.2	8	4.55	8	64	1.84	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 252,500	$ 252,500				
09600620960061	Condition - with CCTV scoring	532	12	11.25	12	96	1.82	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 374,900	$ 374,900				
08601240860123	Condition - with CCTV scoring	289.2	8	7.75	8	86	1.81	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 138,000	$ 138,000				
05601580660241	Condition - with CCTV scoring	299.1	8	4.54	8	56	1.78	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 142,700	$ 142,700				
08800250880026	Condition - with CCTV scoring	148.5	8	13.14	8	88	1.77	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 93,400	$ 93,400				
06600080660333	Condition - with CCTV scoring	346.9	8	5.6	8	66	1.76	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 165,500	$ 165,500				
06601660660165	Condition - with CCTV scoring	260.4	8	4.67	8	66	1.73	4.7	4.7	100.0	No	Begin Project Development	Immediate	$ 124,300	$ 124,300				
05601870560165	Condition - with CCTV scoring	244.3	8	3.21	8	56	1.72	4.7	4.7	100.0	No	Expedited Replacement	Immediate	$ 116,600	$ 116,600				
05601800560181	Condition - with CCTV scoring	79.1	8	6	8	56	1.7	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 37,700	$ 37,700				
05601790560180	Condition - with CCTV scoring	315.7	8	5.9	8	56	1.7	4.8	4.8	100.0	No	Expedited Replacement	Immediate	$ 150,700	$ 150,700				
09701620970157	Condition - with CCTV scoring	424.8	8	6.82	8	97	1.64	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 202,700	$ 202,700				
05602880560289	Condition - with CCTV scoring	294.5	8	5.07	8	56	1.61	5.0	5.0	100.0	No	Begin Project Development	Immediate	$ 140,500	$ 140,500				
06601010660100	Condition - with CCTV scoring	342.8	8	0	8	66	1.61	5.0	5.0	100.0	No	Expedited Replacement	ShortTerm	$ 163,600		$ 163,600			
07601500760157	Condition - with CCTV scoring	371.4	8	13.29	8	76	1.6	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 233,600		$ 233,600			
07501080750107	Condition - with CCTV scoring	111.9	8	4.95	8	75	1.54	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 53,400		$ 53,400			
05401750540172	Condition - with CCTV scoring	331.4	8	5.08	8	54	1.54	4.7	4.7	100.0	No	Begin Project Development	ShortTerm	$ 158,100		$ 158,100			
06601680660165	Condition - with CCTV scoring	470.7	8	4.37	8	66	1.53	4.7	4.7	100.0	No	Expedited Replacement	ShortTerm	$ 224,600		$ 224,600			
04501400450146	Condition - with CCTV scoring	546.3	8	4.78	8	45	1.46	4.8	4.8	100.0	No	Expedited Replacement	ShortTerm	$ 260,700		$ 260,700			
04501910450036	Condition - with CCTV scoring	87.4	8	5	8	45	1.45	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 41,700		$ 41,700			
05600770560058	Condition - with CCTV scoring	332.8	6	6.9	8	56	1.45	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 158,800		$ 158,800			
06300190630020	Condition - with CCTV scoring	75.4	8	5.98	8	63	1.45	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 36,000		$ 36,000			
06500490650050	Condition - with CCTV scoring	394.1	8	6.21	8	65	1.45	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 188,100		$ 188,100			
08900570890049	Condition - with CCTV scoring	374.6	8	6.34	8	89	1.45	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 178,800		$ 178,800			
06300820630083	Condition - with CCTV scoring	418.6	8	5.6	8	63	1.43	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 199,800		$ 199,800			
09700040970006	Condition - with CCTV scoring	42	8	6.09	8	97	1.4	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 20,000		$ 20,000			
09601140970060	Condition - with CCTV scoring	143.7	6	6.08	8	97	1.4	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 68,600		$ 68,600			
05601000560090	Condition - with CCTV scoring	159.6	8	7.68	8	56	1.35	4.8	4.8	100.0	No	Expedited Replacement	ShortTerm	$ 76,200		$ 76,200			
05600960560092	Condition - with CCTV scoring	135.8	8	7.04	8	56	1.33	5.0	5.0	100.0	No	Expedited Replacement	ShortTerm	$ 64,800		$ 64,800			
04801550480156	Condition - with CCTV scoring	397.8	12	7.96	12	48	1.31	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 260,500		$ 260,500			
04601580460155	Condition - with CCTV scoring	51.2	8	5.5	8	46	1.12	5.0	5.0	100.0	No	Begin Project Development	ShortTerm	$ 24,400		$ 24,400			
05603040560294	Condition - with CCTV scoring	366.5	8	4.84	8	56	1.62	4.7	4.7	99.8	No	Begin Project Development	ShortTerm	$ 174,900		$ 174,900			
08500230750089	Condition - with CCTV scoring	729.9	8	5	8	75	1.61	4.7	4.7	99.8	No	Begin Project Development	ShortTerm	$ 348,300		$ 348,300			
05601300560128	Condition - with CCTV scoring	454.1	8	3.79	8	56	1.76	4.6	4.6	99.0	No	Begin Project Development	ShortTerm	$ 216,700		$ 216,700			
06400730640074	Condition - with CCTV scoring	478.3	8	4.85	8	64	1.4	4.7	4.7	98.9	No	Begin Project Development	ShortTerm	$ 228,200		$ 228,200			
07700010760202	Condition - with CCTV scoring	819.8	8	4.56	8	67	1.62	4.6	4.6	98.5	No	Expedited Replacement	ShortTerm	$ 391,200		$ 391,200			
07200350720037	Condition - with CCTV scoring	480.2	8	7.82	8	72	2.06	4.5	4.5	98.2	No	Begin Project Development	ShortTerm	$ 229,200		$ 229,200			
06700190660335	Condition - with CCTV scoring	169.7	8	4.19	8	66	2.05	4.5	4.5	98.2	No	Begin Project Development	ShortTerm	$ 81,000		$ 81,000			
07601270760130	Condition - with CCTV scoring	649.4	8	6.8	8	76	2.05	4.5	4.5	98.2	No	Begin Project Development	ShortTerm	$ 309,900		$ 309,900			
07601910760190	Condition - with CCTV scoring	337	8	5.69	8	76	1.91	4.5	4.5	97.6	No	Begin Project Development	ShortTerm	$ 160,800		$ 160,800			
07500090750010	Condition - with CCTV scoring	395	8	6.5	8	75	1.9	4.5	4.5	97.6	No	Begin Project Development	ShortTerm	$ 188,500		$ 188,500			
07601970760198	Condition - with CCTV scoring	684.8	8	4.82	8	76	1.9	4.5	4.5	97.6	No	Begin Project Development	ShortTerm	$ 326,800		$ 326,800			
05601460560142	Condition - with CCTV scoring	571.9	8	2.44	8	56	1.88	4.5	4.5	97.5	No	Begin Project Development	ShortTerm	$ 272,900		$ 272,900			
06602260660225	Condition - with CCTV scoring	393.6	12	2.67	12	66	2.65	4.3	4.3	97.3	No	Begin Project Development	ShortTerm	$ 257,700		$ 257,700			
05601610560158	Condition - with CCTV scoring	342.1	8	4.31	8	56	1.78	4.5	4.5	97.1	No	Begin Project Development	ShortTerm	$ 163,300		$ 163,300			
05601880560166	Condition - with CCTV scoring	408.2	8	3.23	8	56	1.78	4.5	4.5	97.1	No	Begin Project Development	ShortTerm	$ 194,800		$ 194,800			
06500250650024	Condition - with CCTV scoring	538.4	8	3.56	8	65	1.78	4.5	4.5	97.1	No	Expedited Replacement	ShortTerm	$ 256,900		$ 256,900			

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
02200210220022	Condition - with CCTV scoring	248.5	18	16.2	18	22	2.59	4.3	4.3	97.0	No	Begin Project Development	ShortTerm	$ 249,800		$ 249,800			
07500120750013	Condition - with CCTV scoring	485.8	8	5.9	8	75	1.74	4.5	4.5	97.0	No	Begin Project Development	ShortTerm	$ 231,800		$ 231,800			
05400880640190	Condition - with CCTV scoring	665.7	8	5.27	8	54	1.72	4.5	4.5	96.9	No	Begin Project Development	ShortTerm	$ 317,700		$ 317,700			
06200220620021	Condition - with CCTV scoring	464.7	8	6.01	8	62	1.71	4.5	4.5	96.8	No	Begin Project Development	ShortTerm	$ 221,800		$ 221,800			
05601480560138	Condition - with CCTV scoring	534.8	8	3.79	8	56	2.06	4.4	4.4	96.8	No	Expedited Replacement	ShortTerm	$ 255,200		$ 255,200			
06700780670003	Condition - with CCTV scoring	381.6	8	4.82	8	67	1.7	4.5	4.5	96.8	No	Begin Project Development	ShortTerm	$ 182,100		$ 182,100			
06601560660155	Condition - with CCTV scoring	341.3	8	4.4	8	66	1.7	4.5	4.5	96.8	No	Begin Project Development	ShortTerm	$ 162,900		$ 162,900			
06600200660021	Condition - with CCTV scoring	601.8	8	5.7	8	66	1.69	4.5	4.5	96.8	No	Begin Project Development	ShortTerm	$ 287,200		$ 287,200			
07800510780052	Condition - with CCTV scoring	252.4	15	12.2	15	78	1.69	4.5	4.5	96.8	No	Begin Project Development	ShortTerm	$ 190,500		$ 190,500			
06401030640102	Condition - with CCTV scoring	265.5	8	6.05	8	64	1.65	4.5	4.5	96.6	No	Begin Project Development	ShortTerm	$ 126,700		$ 126,700			
05602310560177	Condition - with CCTV scoring	282.1	8	6.31	8	56	1.64	4.5	4.5	96.6	No	Begin Project Development	ShortTerm	$ 134,600		$ 134,600			
06602600660262	Condition - with CCTV scoring	647.1	8	5.17	8	66	1.64	4.5	4.5	96.6	No	Begin Project Development	ShortTerm	$ 308,800		$ 308,800			
08500390850041	Condition - with CCTV scoring	258.4	8	3.8	8	85	1.64	4.5	4.5	96.6	No	Begin Project Development	ShortTerm	$ 123,300		$ 123,300			
04501060450134	Condition - with CCTV scoring	454.4	8	5.25	8	45	1.55	4.5	4.5	96.2	No	Begin Project Development	ShortTerm	$ 216,800		$ 216,800			
05401760540175	Condition - with CCTV scoring	166	8	4.98	8	54	1.54	4.5	4.5	96.2	No	Begin Project Development	ShortTerm	$ 79,200		$ 79,200			
07500920750087	Condition - with CCTV scoring	905.2	8	4.45	8	75	1.53	4.5	4.5	96.1	No	Begin Project Development	ShortTerm	$ 432,000		$ 432,000			
05600570560055	Condition - with CCTV scoring	327.1	8	5.07	8	56	1.52	4.5	4.5	96.1	No	Begin Project Development	LongTerm	$ 156,100			$ 156,100		
07500700750065	Condition - with CCTV scoring	338.4	8	4.12	8	75	1.52	4.5	4.5	96.1	No	Begin Project Development	LongTerm	$ 161,500			$ 161,500		
05600930560092	Condition - with CCTV scoring	604.6	8	5	8	56	1.5	4.5	4.5	96.0	No	Begin Project Development	LongTerm	$ 288,500			$ 288,500		
04500890450088	Condition - with CCTV scoring	203.2	8	4.58	8	45	1.46	4.5	4.5	95.8	No	Begin Project Development	LongTerm	$ 97,000			$ 97,000		
07700580770061	Condition - with CCTV scoring	223.8	8	7.55	8	77	1.45	4.5	4.5	95.8	No	Begin Project Development	LongTerm	$ 106,800			$ 106,800		
07501910750190	Condition - with CCTV scoring	348.2	8	3.5	8	75	1.43	4.5	4.5	95.7	No	Begin Project Development	LongTerm	$ 166,200			$ 166,200		
04601620460160	Condition - with CCTV scoring	236.4	8	4.99	8	46	1.41	4.5	4.5	95.6	No	Begin Project Development	LongTerm	$ 112,800			$ 112,800		
06200660620063	Condition - with CCTV scoring	345.5	8	5.49	8	62	1.3	4.5	4.5	95.2	No	Begin Project Development	LongTerm	$ 164,900			$ 164,900		
07700800770071	Condition - with CCTV scoring	148.2	8	7.22	8	77	2.13	4.3	4.3	95.2	No	Begin Project Development	LongTerm	$ 70,700			$ 70,700		
07700750770002	Condition - with CCTV scoring	501.6	8	4.89	8	77	2.1	4.3	4.3	95.1	No	Begin Project Development	LongTerm	$ 239,400			$ 239,400		
07201140720112	Condition - with CCTV scoring	258.8	8	5.62	8	72	2.05	4.3	4.3	94.9	No	Begin Project Development	LongTerm	$ 123,500			$ 123,500		
06602650660254	Condition - with CCTV scoring	226.1	18	9.42	18	66	1.82	4.4	4.4	94.8	No	Expedited Replacement	LongTerm	$ 207,600			$ 207,600		
06601020660096	Condition - with CCTV scoring	339.9	8	5.95	8	66	1.99	4.3	4.3	94.6	Yes	Begin Project Development	LongTerm	$ -			$ -		
05602340560225	Condition - with CCTV scoring	355	8	6	8	56	1.63	4.4	4.4	94.5	No	Begin Project Development	LongTerm	$ 169,400			$ 169,400		
07500330750038	Condition - with CCTV scoring	478.8	8	5	8	75	1.51	4.4	4.4	94.0	No	Begin Project Development	LongTerm	$ 228,500			$ 228,500		
05600980560078	Condition - with CCTV scoring	515.1	8	0	8	56	1.5	4.4	4.4	94.0	No	Begin Project Development	LongTerm	$ 245,800			$ 245,800		
04600800460077	Condition - with CCTV scoring	686.8	8	3.25	8	46	1.82	4.3	4.3	93.9	No	Begin Project Development	LongTerm	$ 327,700			$ 327,700		
05600280660054	Condition - with CCTV scoring	319.4	8	4.92	8	56	2.23	4.3	4.3	93.9	Yes	Begin Project Development	LongTerm	$ -			$ -		
05602020560204	Condition - with CCTV scoring	304.5	8	6.73	8	56	1.8	4.3	4.3	93.9	No	Begin Project Development	LongTerm	$ 145,300			$ 145,300		
06602660660264	Condition - with CCTV scoring	277.7	15	4.5	15	66	1.96	4.3	4.3	93.8	No	Expedited Replacement	LongTerm	$ 174,600			$ 174,600		
08601210860119	Condition - with CCTV scoring	291	8	8.33	8	86	1.79	4.3	4.3	93.8	No	Begin Project Development	LongTerm	$ 160,900			$ 160,900		
04601930460191	Condition - with CCTV scoring	607.3	8	4.05	8	46	2.17	4.3	4.3	93.7	No	Begin Project Development	LongTerm	$ 289,800			$ 289,800		
05601170560115	Condition - with CCTV scoring	631.5	8	4.85	8	56	1.75	4.3	4.3	93.7	No	Begin Project Development	LongTerm	$ 301,400			$ 301,400		
06502280650172	Condition - with CCTV scoring	677.2	8	4.42	8	65	1.64	4.3	4.3	93.2	No	Begin Project Development	LongTerm	$ 323,200			$ 323,200		
08500370850039	Condition - with CCTV scoring	319.8	8	5	8	85	1.64	4.3	4.3	93.2	No	Begin Project Development	LongTerm	$ 152,600			$ 152,600		
07501940750193	Condition - with CCTV scoring	410.4	8	4	8	75	1.63	4.3	4.3	93.2	No	Begin Project Development	LongTerm	$ 195,800			$ 195,800		
07501930750191	Condition - with CCTV scoring	535.9	8	3.96	8	75	1.63	4.3	4.3	93.2	No	Begin Project Development	LongTerm	$ 255,700			$ 255,700		
07501900750192	Condition - with CCTV scoring	354.2	8	3.2	8	75	1.63	4.3	4.3	93.2	No	Expedited Replacement	LongTerm	$ 169,000			$ 169,000		
05900120590010	Condition - with CCTV scoring	104.1	15	8.55	15	59	3.27	4.0	4.0	93.1	No	Possible CIPP	LongTerm	$ 13,200			$ 13,200		
07601310760127	Condition - with CCTV scoring	442	8	2.66	8	76	2.02	4.3	4.3	93.1	No	Begin Project Development	LongTerm	$ 210,900			$ 210,900		
06300970630094	Condition - with CCTV scoring	216.6	8	5.17	8	63	1.6	4.3	4.3	93.1	No	Begin Project Development	LongTerm	$ 103,400			$ 103,400		
07501980750195	Condition - with CCTV scoring	675.3	8	6.04	8	75	1.59	4.3	4.3	93.0	No	Begin Project Development	LongTerm	$ 322,300			$ 322,300		
05501320550064	Condition - with CCTV scoring	23.9	14	6.13	15	55	2.76	4.1	4.1	92.9	No	Begin Project Development	LongTerm	$ 15,000			$ 15,000		
05401720540166	Condition - with CCTV scoring	376.4	8	5.08	8	54	1.54	4.3	4.3	92.8	No	Expedited Replacement	LongTerm	$ 179,600			$ 179,600		
06400860640087	Condition - with CCTV scoring	265.9	8	5.21	8	64	1.51	4.3	4.3	92.7	No	Begin Project Development	LongTerm	$ 126,900			$ 126,900		
07500450750044	Condition - with CCTV scoring	435.2	8	4.68	8	75	1.5	4.3	4.3	92.7	No	Begin Project Development	LongTerm	$ 207,700			$ 207,700		
07500300750032	Condition - with CCTV scoring	450.1	8	7.93	8	75	1.91	4.3	4.3	92.6	No	Begin Project Development	LongTerm	$ 214,800			$ 214,800		
07500720750073	Condition - with CCTV scoring	586.5	8	5.6	8	75	1.47	4.3	4.3	92.5	No	Begin Project Development	LongTerm	$ 279,900			$ 279,900		
09701460970145	Condition - with CCTV scoring	152	8	4.83	8	97	1.47	4.3	4.3	92.5	No	Begin Project Development	LongTerm	$ 72,500			$ 72,500		
06401260640127	Condition - with CCTV scoring	504	8	5.54	8	64	1.38	4.3	4.3	92.2	No	Begin Project Development	LongTerm	$ 240,500			$ 240,500		
04500080450159	Condition - with CCTV scoring	654.8	8	5.5	8	45	1.37	4.3	4.3	92.1	No	Begin Project Development	LongTerm	$ 312,500			$ 312,500		
09600100960009	Condition - with CCTV scoring	297.9	12	8.55	12	96	3.02	4.0	4.0	92.1	No	Possible CIPP	LongTerm	$ 28,600			$ 28,600		
04601880460186	Condition - with CCTV scoring	617.2	8	3.8	8	46	1.76	4.3	4.3	92.0	No	Begin Project Development	LongTerm	$ 294,500			$ 294,500		
06401210640109	Condition - with CCTV scoring	370.7	8	5.71	8	64	1.75	4.3	4.3	92.0	No	Begin Project Development	LongTerm	$ 176,900			$ 176,900		
07700630770005	Condition - with CCTV scoring	80	8	7.22	8	77	1.73	4.3	4.3	91.9	No	Begin Project Development	LongTerm	$ 38,200			$ 38,200		
06700760670077	Condition - with CCTV scoring	369.7	8	5.1	8	67	1.95	4.2	4.2	91.8	No	Expedited Replacement	LongTerm	$ 176,400			$ 176,400		
04500030450004	Condition - with CCTV scoring	812.2	8	5.7	8	45	1.28	4.3	4.3	91.8	No	Begin Project Development	LongTerm	$ 387,600			$ 387,600		
05701160570092	Condition - with CCTV scoring	381.4	8	4.56	8	57	1.94	4.2	4.2	91.8	No	Expedited Replacement	LongTerm	$ 182,000			$ 182,000		
04500200450158	Condition - with CCTV scoring	458.6	8	4.82	8	45	1.25	4.3	4.3	91.7	No	Begin Project Development	LongTerm	$ 218,800			$ 218,800		
07500730750074	Condition - with CCTV scoring	342.2	8	5.56	8	75	1.64	4.3	4.3	91.6	No	Begin Project Development	LongTerm	$ 163,300			$ 163,300		
04501350450134	Condition - with CCTV scoring	268.5	8	5.2	8	45	1.43	4.3	4.3	91.4	No	Begin Project Development	LongTerm	$ 128,100			$ 128,100		
06502330660023	Condition - with CCTV scoring	618.6	8	4.95	8	65	1.83	4.2	4.2	91.3	No	Begin Project Development	LongTerm	$ 295,200			$ 295,200		

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04602660460264	Condition - with CCTV scoring	295.8	8	5.1	8	46	1.5	4.3	4.3	91.0	No	Begin Project Development	LongTerm	$ 141,200			$ 141,200		
06300880630065	Condition - with CCTV scoring	277.3	8	6.44	8	63	1.48	4.3	4.3	90.9	No	Begin Project Development	LongTerm	$ 132,300			$ 132,300		
06401130650018	Condition - with CCTV scoring	438.9	8	4.83	8	64	1.48	4.3	4.3	90.9	No	Begin Project Development	LongTerm	$ 209,400			$ 209,400		
04601720460180	Condition - with CCTV scoring	642	8	6	8	46	1.46	4.3	4.3	90.8	No	Begin Project Development	LongTerm	$ 306,400			$ 306,400		
04501340450140	Condition - with CCTV scoring	270.6	8	5.07	8	45	1.46	4.3	4.3	90.8	No	Begin Project Development	LongTerm	$ 129,100			$ 129,100		
06300670630064	Condition - with CCTV scoring	295.9	8	4.6	8	63	1.43	4.3	4.3	90.7	No	Begin Project Development	LongTerm	$ 141,200			$ 141,200		
04501160450115	Condition - with CCTV scoring	361.7	8	5.65	8	45	1.36	4.3	4.3	90.4	No	Begin Project Development	LongTerm	$ 172,600			$ 172,600		
07502000750168	Condition - with CCTV scoring	627	8	5.48	8	75	2.04	4.1	4.1	90.4	No	Expedited Replacement	LongTerm	$ 299,200			$ 299,200		
07400630740062	Condition - with CCTV scoring	70.1	18	7.09	18	74	2.58	4.0	4.0	90.3	No	Possible Point Repair	LongTerm	$ 59,300			$ 59,300		
07600350760036	Condition - with CCTV scoring	442.6	15	6.4	15	76	2.39	4.0	4.0	89.8	No	Begin Project Development	LongTerm	$ 278,300			$ 278,300		
07600350760036	Condition - with CCTV scoring	428.1	15	6.4	15	76	2.39	4.0	4.0	89.8	No	Begin Project Development	LongTerm	$ 269,200			$ 269,200		
04601710460172	Condition - with CCTV scoring	803.6	8	6	8	46	1.46	4.2	4.2	89.8	No	Begin Project Development	LongTerm	$ 383,500			$ 383,500		
07501300750131	Condition - with CCTV scoring	629.3	8	4.45	8	75	1.46	4.2	4.2	89.8	No	Expedited Replacement	2031-2035	$ 300,300				$ 300,300	
06601080660136	Condition - with CCTV scoring	356.7	8	6.45	8	66	1.98	4.1	4.1	89.7	No	Begin Project Development	2031-2035	$ 170,200				$ 170,200	
07601510760152	Condition - with CCTV scoring	355.8	10	8.14	10	76	1.6	4.2	4.2	89.7	No	Begin Project Development	2031-2035	$ 214,500				$ 214,500	
07500650750071	Condition - with CCTV scoring	160.8	8	6.52	8	75	1.57	4.2	4.2	89.6	No	Begin Project Development	2031-2035	$ 76,700				$ 76,700	
06700230670019	Condition - with CCTV scoring	527.6	15	4.53	15	67	2.3	4.0	4.0	89.4	No	Begin Project Development	2031-2035	$ 331,800				$ 331,800	
04601490460147	Condition - with CCTV scoring	616.1	8	5	8	46	1.46	4.2	4.2	89.2	No	Begin Project Development	2031-2035	$ 294,000				$ 294,000	
06602640660265	Condition - with CCTV scoring	618.5	18	4.01	18	66	1.95	4.0	4.0	88.8	No	Begin Project Development	2031-2035	$ 467,600				$ 467,600	
04602210460222	Condition - with CCTV scoring	664	8	6	8	46	1.35	4.2	4.2	88.7	No	Begin Project Development	2031-2035	$ 316,900				$ 316,900	
04600080460005	Condition - with CCTV scoring	615	8	5.58	8	46	1.64	4.1	4.1	88.6	No	Begin Project Development	2031-2035	$ 293,500				$ 293,500	
06502090650207	Condition - with CCTV scoring	165.3	15	7.76	15	65	2.12	4.0	4.0	88.5	No	Possible CIPP	2031-2035	$ 21,000				$ 21,000	
04501310450133	Condition - with CCTV scoring	510.8	8	4.48	8	45	1.38	4.1	4.1	88.4	No	Begin Project Development	2031-2035	$ 243,800				$ 243,800	
04500850450086	Condition - with CCTV scoring	84.2	8	4.6	8	45	2.09	4.0	4.0	88.4	No	Possible CIPP	2031-2035	$ 4,700				$ 4,700	
04500040450005	Condition - with CCTV scoring	802.3	8	6.3	8	45	1.4	4.1	4.1	88.1	No	Begin Project Development	2031-2035	$ 382,900				$ 382,900	
06400720640073	Condition - with CCTV scoring	542.6	8	5.56	8	64	1.4	4.1	4.1	88.1	No	Begin Project Development	2031-2035	$ 258,900				$ 258,900	
07601640760163	Condition - with CCTV scoring	537.8	8	4.48	8	76	2.01	4.0	4.0	88.0	No	Possible CIPP	2031-2035	$ 29,900				$ 29,900	
04602570460250	Condition - with CCTV scoring	505.4	8	5.5	8	46	1.45	4.1	4.1	88.0	No	Begin Project Development	2031-2035	$ 241,200				$ 241,200	
06500160750188	Condition - with CCTV scoring	287.3	12	1	12	65	1.69	4.1	4.1	88.0	No	Begin Project Development	2031-2035	$ 188,100				$ 188,100	
04500050450006	Condition - with CCTV scoring	492	8	4.7	8	45	1.37	4.1	4.1	88.0	No	Begin Project Development	2031-2035	$ 234,800				$ 234,800	
07602250760223	Condition - with CCTV scoring	361	8	7.51	8	76	1.99	4.0	4.0	88.0	No	Possible CIPP	2031-2035	$ 20,100				$ 20,100	
07501960750198	Condition - with CCTV scoring	48.5	8	4.7	8	75	1.94	4.0	4.0	87.8	No	Possible CIPP	2031-2035	$ 2,700				$ 2,700	
04601510460150	Condition - with CCTV scoring	329.5	8	6.32	8	46	1.89	4.0	4.0	87.6	No	Possible CIPP	2031-2035	$ 18,300				$ 18,300	
04601450460144	Condition - with CCTV scoring	334	8	4.92	8	46	1.3	4.1	4.1	87.6	No	Begin Project Development	2031-2035	$ 159,400				$ 159,400	
04501490450167	Condition - with CCTV scoring	179.9	8	5.87	8	45	1.88	4.0	4.0	87.5	No	Possible CIPP	2031-2035	$ 10,000				$ 10,000	
05600740660074	Condition - with CCTV scoring	598.9	8	5.31	8	56	1.87	4.0	4.0	87.5	No	Possible CIPP	2031-2035	$ 33,300				$ 33,300	
04602190460234	Condition - with CCTV scoring	668.1	8	6	8	46	1.87	4.0	4.0	87.5	No	Possible CIPP	2031-2035	$ 37,200				$ 37,200	
08500330850034	Condition - with CCTV scoring	486.1	10	7.64	10	86	1.87	4.0	4.0	87.5	No	Possible CIPP	2031-2035	$ 36,700				$ 36,700	
06600740660075	Condition - with CCTV scoring	371.2	8	4.56	8	66	1.85	4.0	4.0	87.4	No	Possible CIPP	2031-2035	$ 20,600				$ 20,600	
07501350750137	Condition - with CCTV scoring	167.6	8	4.67	8	75	1.85	4.0	4.0	87.4	No	Possible CIPP	2031-2035	$ 9,300				$ 9,300	
06700110670009	Condition - with CCTV scoring	796.6	8	5.26	8	67	1.8	4.0	4.0	87.4	No	Begin Project Development	2031-2035	$ 380,100				$ 380,100	
04500520450057	Condition - with CCTV scoring	450.4	15	14.72	15	45	1.8	4.0	4.0	87.2	No	Possible CIPP	2031-2035	$ 57,300				$ 57,300	
05601050560204	Condition - with CCTV scoring	65	8	6.7	8	56	1.8	4.0	4.0	87.2	No	Possible CIPP	2031-2035	$ 3,600				$ 3,600	
06601570660156	Condition - with CCTV scoring	338.3	8	4.81	8	66	1.79	4.0	4.0	87.2	No	Possible CIPP	2031-2035	$ 18,800				$ 18,800	
06401810640182	Condition - with CCTV scoring	313.6	8	5.44	8	64	1.78	4.0	4.0	87.1	No	Begin Project Development	2031-2035	$ 149,700				$ 149,700	
07602130760167	Condition - with CCTV scoring	364	8	4.7	8	76	1.78	4.0	4.0	87.1	No	Possible CIPP	2031-2035	$ 20,200				$ 20,200	
07600170760037	Condition - with CCTV scoring	408.7	12	6.14	12	76	1.78	4.0	4.0	87.1	No	Possible CIPP	2031-2035	$ 39,300				$ 39,300	
04602580460259	Condition - with CCTV scoring	643.2	10	5.13	10	46	1.75	4.0	4.0	87.0	No	Begin Project Development	2031-2035	$ 323,600				$ 323,600	
08600610860057	Condition - with CCTV scoring	186.7	10	5.58	10	86	1.75	4.0	4.0	87.0	No	Possible CIPP	2031-2035	$ 14,100				$ 14,100	
08601080860104	Condition - with CCTV scoring	332.2	8	6.1	8	86	1.74	4.0	4.0	87.0	No	Possible CIPP	2031-2035	$ 18,500				$ 18,500	
04601440460138	Condition - with CCTV scoring	330.6	8	4.88	8	46	1.57	4.0	4.0	86.9	No	Begin Project Development	2031-2035	$ 157,800				$ 157,800	
07601890760142	Condition - with CCTV scoring	244.1	12	1.72	12	76	1.73	4.0	4.0	86.9	No	Possible CIPP	2031-2035	$ 23,500				$ 23,500	
04602270460221	Condition - with CCTV scoring	632	8	5.3	8	46	1.27	4.1	4.1	86.9	No	Begin Project Development	2031-2035	$ 301,600				$ 301,600	
06700010660260	Condition - with CCTV scoring	405.7	8	4.89	8	66	1.72	4.0	4.0	86.9	No	Begin Project Development	2031-2035	$ 193,600				$ 193,600	
06602430660242	Condition - with CCTV scoring	320.2	8	3.86	8	66	1.7	4.0	4.0	86.8	No	Begin Project Development	2031-2035	$ 152,800				$ 152,800	
07200900720116	Condition - with CCTV scoring	233.9	8	5.26	8	72	1.7	4.0	4.0	86.8	No	Possible CIPP	2031-2035	$ 13,000				$ 13,000	
05602240560223	Condition - with CCTV scoring	594.1	8	3.67	8	56	1.69	4.0	4.0	86.8	No	Begin Project Development	2031-2035	$ 283,500				$ 283,500	
07800130770170	Condition - with CCTV scoring	327	12	8.23	12	77	1.69	4.0	4.0	86.8	No	Possible CIPP	2031-2035	$ 31,400				$ 31,400	
06601720660169	Condition - with CCTV scoring	598.1	8	4.59	8	66	1.67	4.0	4.0	86.7	No	Possible CIPP	2031-2035	$ 33,300				$ 33,300	
09701550970152	Condition - with CCTV scoring	588	8	7.02	8	97	1.67	4.0	4.0	86.7	No	Begin Project Development	2031-2035	$ 280,600				$ 280,600	
07502110750207	Condition - with CCTV scoring	216.9	8	6.38	8	75	1.66	4.0	4.0	86.6	No	Possible CIPP	2031-2035	$ 12,100				$ 12,100	
06500270650025	Condition - with CCTV scoring	379.4	8	4.3	8	65	1.65	4.0	4.0	86.6	No	Begin Project Development	2031-2035	$ 181,100				$ 181,100	
05602910560289	Condition - with CCTV scoring	160.5	8	3.8	8	56	1.61	4.0	4.0	86.4	No	Begin Project Development	2031-2035	$ 76,600				$ 76,600	
06201160620115	Condition - with CCTV scoring	398.9	8	5.12	8	62	1.61	4.0	4.0	86.4	No	Possible CIPP	2031-2035	$ 22,200				$ 22,200	
07602230760219	Condition - with CCTV scoring	362.4	8	6.14	8	76	1.59	4.0	4.0	86.4	No	Possible CIPP	2031-2035	$ 20,200				$ 20,200	
07500080750009	Condition - with CCTV scoring	199.7	8	5.16	8	75	1.58	4.0	4.0	86.3	No	Possible CIPP	2031-2035	$ 11,100				$ 11,100	
07601990760200	Condition - with CCTV scoring	289	8	4.49	8	76	1.48	4.0	4.0	86.3	No	Begin Project Development	2031-2035	$ 137,900				$ 137,900	
08500180750070	Condition - with CCTV scoring	344.7	8	10.5	8	75	1.56	4.0	4.0	86.2	No	Begin Project Development	2031-2035	$ 190,600				$ 190,600	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04501450450147	Condition - with CCTV scoring	298.1	8	5.38	8	45	1.54	4.0	4.0	86.2	No	Begin Project Development	2031-2035	$ 142,300				$ 142,300	
07602260760225	Condition - with CCTV scoring	524.1	8	5.88	8	76	1.54	4.0	4.0	86.2	No	Possible CIPP	2031-2035	$ 29,100				$ 29,100	
07502270760014	Condition - with CCTV scoring	369.1	8	5.5	8	75	1.61	4.0	4.0	86.2	No	Possible CIPP	2031-2035	$ 20,500				$ 20,500	
04600120450190	Condition - with CCTV scoring	520.7	8	5	8	45	1.53	4.0	4.0	86.1	No	Possible CIPP	2031-2035	$ 29,000				$ 29,000	
05502280560057	Condition - with CCTV scoring	684.7	8	5.5	8	55	1.52	4.0	4.0	86.1	No	Begin Project Development	2031-2035	$ 326,700				$ 326,700	
04600880460080	Condition - with CCTV scoring	437.4	8	6	8	46	1.52	4.0	4.0	86.1	No	Possible CIPP	2031-2035	$ 24,300				$ 24,300	
07502050750204	Condition - with CCTV scoring	345.9	8	8.11	8	75	1.52	4.0	4.0	86.1	No	Begin Project Development	2031-2035	$ 191,300				$ 191,300	
04500510450052	Condition - with CCTV scoring	94.7	8	16.88	8	45	1.5	4.0	4.0	86.0	No	Possible CIPP	2031-2035	$ 5,300				$ 5,300	
06300210630019	Condition - with CCTV scoring	275.1	8	6.31	8	63	1.5	4.0	4.0	86.0	No	Possible CIPP	2031-2035	$ 15,300				$ 15,300	
07501280750129	Condition - with CCTV scoring	635.4	8	5.2	8	75	1.46	4.0	4.0	85.8	No	Begin Project Development	2031-2035	$ 303,200				$ 303,200	
04502060450034	Condition - with CCTV scoring	26.6	8	5	8	45	1.45	4.0	4.0	85.8	No	Possible CIPP	2031-2035	$ 1,500				$ 1,500	
05601120550246	Condition - with CCTV scoring	506.1	8	5	8	55	1.42	4.0	4.0	85.7	No	Possible CIPP	2031-2035	$ 28,100				$ 28,100	
06501270650126	Condition - with CCTV scoring	331.9	8	5.64	8	65	1.4	4.0	4.0	85.6	No	Possible CIPP	2031-2035	$ 18,500				$ 18,500	
04502360450237	Condition - with CCTV scoring	98.7	8	6.49	8	45	1.38	4.0	4.0	85.5	No	Possible CIPP	2031-2035	$ 5,500				$ 5,500	
06200800620077	Condition - with CCTV scoring	142	8	6.17	8	62	1.35	4.0	4.0	85.4	No	Possible CIPP	2031-2035	$ 7,900				$ 7,900	
06300110630003	Condition - with CCTV scoring	265.8	8	5.2	8	63	1.33	4.0	4.0	85.3	No	Possible CIPP	2031-2035	$ 14,800				$ 14,800	
04502050450038	Condition - with CCTV scoring	236	8	5.2	8	45	1.32	4.0	4.0	85.3	No	Possible CIPP	2031-2035	$ 13,100				$ 13,100	
04602750460266	Condition - with CCTV scoring	628.7	8	5.5	8	46	1.3	4.0	4.0	85.2	No	Possible CIPP	2031-2035	$ 35,000				$ 35,000	
06200810620078	Condition - with CCTV scoring	455.3	8	5.5	8	62	1.3	4.0	4.0	85.2	No	Begin Project Development	2031-2035	$ 217,300				$ 217,300	
04502810450215	Condition - with CCTV scoring	465.5	8	5	8	45	1.25	4.0	4.0	85.0	No	Possible CIPP	2031-2035	$ 25,900				$ 25,900	
04602760460266	Condition - with CCTV scoring	102.4	8	4.56	8	46	1.25	4.0	4.0	85.0	No	Begin Project Development	2031-2035	$ 48,900				$ 48,900	
07601980760201	Condition - with CCTV scoring	338.7	14	5.89	15	76	1.8	3.9	3.9	84.8	No	Possible CIPP	2031-2035	$ 43,100				$ 43,100	
07600250760029	Condition - with CCTV scoring	804.3	16	6.94	18	76	1.9	3.9	3.9	84.8	No	Possible CIPP	2031-2035	$ 130,400				$ 130,400	
07600880760097	Condition - with CCTV scoring	944	18	8	18	76	3.36	3.5	3.5	83.4	No	Possible CIPP	2031-2035	$ 153,000				$ 153,000	
07600360760061	Condition - with CCTV scoring	645.1	16	8.61	18	76	2.45	3.7	3.7	83.1	No	Possible CIPP	2031-2035	$ 104,600				$ 104,600	
07501390750165	Condition - with CCTV scoring	679	12	6.8	12	75	1.75	3.8	3.8	83.1	No	Possible CIPP	2031-2035	$ 65,300				$ 65,300	
04600860460078	Condition - with CCTV scoring	318.8	8	5.39	8	46	1.52	3.8	3.8	82.7	No	Possible CIPP	2031-2035	$ 17,700				$ 17,700	
08500200750085	Condition - with CCTV scoring	549.1	8	5.54	8	75	2.35	3.7	3.7	82.7	No	Begin Project Development	2031-2035	$ 262,000				$ 262,000	
07600270760059	Condition - with CCTV scoring	1373.6	12	6.42	12	76	2.25	3.7	3.7	82.3	No	Begin Project Development	2031-2035	$ 899,400				$ 899,400	
04501470450146	Condition - with CCTV scoring	293.3	8	5.56	8	45	1.54	3.8	3.8	82.2	No	Begin Project Development	2031-2035	$ 140,000				$ 140,000	
07400350750009	Condition - with CCTV scoring	479	8	5.5	8	74	1.71	3.8	3.8	81.8	No	Possible CIPP	2031-2035	$ 26,600				$ 26,600	
05600750560074	Condition - with CCTV scoring	558.7	8	5.82	8	56	1.97	3.7	3.7	81.2	No	Possible CIPP	2031-2035	$ 31,100				$ 31,100	
04500340450207	Condition - with CCTV scoring	271.8	8	5.65	8	45	1.45	3.8	3.8	80.8	No	Possible CIPP	2031-2035	$ 15,100				$ 15,100	
07601440760141	Condition - with CCTV scoring	465.3	14	5.23	15	76	1.86	3.7	3.7	80.8	No	Begin Project Development	2031-2035	$ 292,600				$ 292,600	
04600180460019	Condition - with CCTV scoring	56.1	8	5.25	8	46	1.38	3.8	3.8	80.5	No	Possible CIPP	2031-2035	$ 3,100				$ 3,100	
07601880760189	Condition - with CCTV scoring	368	12	3.9	12	76	1.73	3.7	3.7	80.3	No	Possible CIPP	2031-2035	$ 35,400				$ 35,400	
05501450560035	Condition - with CCTV scoring	301.3	8	5.57	8	55	1.71	3.7	3.7	80.2	No	Expedited Replacement	2031-2035	$ 143,800				$ 143,800	
04502040450205	Condition - with CCTV scoring	409.4	8	5.18	8	45	1.4	3.7	3.7	79.9	No	Possible CIPP	2031-2035	$ 22,800				$ 22,800	
04600780460076	Condition - with CCTV scoring	357.5	8	5.26	8	46	1.74	3.6	3.6	79.8	No	Possible CIPP	2031-2035	$ 19,900				$ 19,900	
05601190560118	Condition - with CCTV scoring	573.9	8	4.8	8	56	1.55	3.7	3.7	79.5	No	Possible CIPP	2031-2035	$ 31,900				$ 31,900	
09701760970174	Condition - with CCTV scoring	351.3	8	6.06	8	97	1.53	3.7	3.7	79.5	No	Begin Project Development	2031-2035	$ 167,600				$ 167,600	
06700050670001	Condition - with CCTV scoring	49.8	8	4.72	8	67	1.52	3.7	3.7	79.4	No	Begin Project Development	2031-2035	$ 23,800				$ 23,800	
07601300760132	Condition - with CCTV scoring	346.5	8	6.87	8	76	1.99	3.6	3.6	79.4	No	Begin Project Development	2031-2035	$ 165,400				$ 165,400	
05602980560302	Condition - with CCTV scoring	291	10	8.64	10	56	2.33	3.5	3.5	79.3	No	Possible CIPP	2031-2035	$ 21,900				$ 21,900	
06200950620096	Condition - with CCTV scoring	295.8	8	6.93	8	62	1.43	3.7	3.7	79.1	No	Possible CIPP	2031-2035	$ 16,500				$ 16,500	
04600760460077	Condition - with CCTV scoring	381.1	8	5.5	8	46	1.9	3.6	3.6	79.0	No	Possible CIPP	2031-2035	$ 21,200				$ 21,200	
06601370660157	Condition - with CCTV scoring	335.6	8	4.71	8	66	1.86	3.6	3.6	78.9	No	Possible CIPP	2031-2035	$ 18,700				$ 18,700	
07400230740024	Condition - with CCTV scoring	271.2	15	8.02	15	74	2.2	3.5	3.5	78.8	No	Possible CIPP	2031-2035	$ 34,500				$ 34,500	
04600980460095	Condition - with CCTV scoring	627.5	8	5.5	8	46	2.18	3.5	3.5	78.7	No	Possible CIPP	2031-2035	$ 34,900				$ 34,900	
06400630640055	Condition - with CCTV scoring	513.3	8	4.77	8	64	1.66	3.6	3.6	78.6	No	Possible CIPP	2031-2035	$ 28,500				$ 28,500	
03600560460210	Condition - with CCTV scoring	528.4	8	5.5	8	36	1.3	3.7	3.7	78.5	No	Possible CIPP	2031-2035	$ 29,400				$ 29,400	
04501270450124	Condition - with CCTV scoring	331	8	5.65	8	45	1.3	3.7	3.7	78.5	No	Possible CIPP	2031-2035	$ 18,400				$ 18,400	
07700740770075	Condition - with CCTV scoring	342.3	8	5.34	8	67	2.1	3.5	3.5	78.4	No	Begin Project Development	2031-2035	$ 163,300				$ 163,300	
06700640670063	Condition - with CCTV scoring	399.6	12	4.22	12	67	2.05	3.5	3.5	78.2	No	Begin Project Development	2031-2035	$ 261,600				$ 261,600	
05601640560143	Condition - with CCTV scoring	678.3	8	5.7	8	56	1.98	3.5	3.5	77.9	No	Possible CIPP	2031-2035	$ 37,700				$ 37,700	
07500220750021	Condition - with CCTV scoring	884.2	12	10.61	12	75	1.98	3.5	3.5	77.9	No	Possible CIPP	2031-2035	$ 85,000				$ 85,000	
05500500550051	Condition - with CCTV scoring	267.7	8	6	8	55	1.97	3.5	3.5	77.9	No	Possible CIPP	2031-2035	$ 14,900				$ 14,900	
07700730770072	Condition - with CCTV scoring	181.2	8	6.02	8	67	1.97	3.5	3.5	77.9	No	Begin Project Development	2031-2035	$ 86,500				$ 86,500	
04600130450191	Condition - with CCTV scoring	541.6	8	5	8	45	1.45	3.6	3.6	77.8	No	Possible CIPP	2031-2035	$ 30,100				$ 30,100	
07501710750172	Condition - with CCTV scoring	311.9	8	6	8	75	1.41	3.6	3.6	77.6	No	Possible CIPP	2031-2035	$ 17,300				$ 17,300	
08601060860091	Condition - with CCTV scoring	247.8	12	15.3	12	86	1.86	3.5	3.5	77.4	No	Possible CIPP	2031-2035	$ 23,800				$ 23,800	
07500440750041	Condition - with CCTV scoring	427.7	8	4.9	8	75	1.48	3.6	3.6	77.3	No	Begin Project Development	2031-2035	$ 204,100				$ 204,100	
08600290860030	Condition - with CCTV scoring	298.9	8	9.23	8	86	1.8	3.5	3.5	77.2	No	Possible CIPP	2031-2035	$ 16,600				$ 16,600	
04601210460122	Condition - with CCTV scoring	605.7	8	6.03	8	46	1.38	3.6	3.6	77.2	No	Possible CIPP	2031-2035	$ 33,700				$ 33,700	
05601550560156	Condition - with CCTV scoring	334.5	8	5.69	8	56	1.77	3.5	3.5	77.1	No	Possible CIPP	2031-2035	$ 18,600				$ 18,600	
06400090640122	Condition - with CCTV scoring	305.2	8	5.93	8	64	1.71	3.5	3.5	76.8	No	Possible CIPP	2031-2035	$ 17,000				$ 17,000	
06700040670005	Condition - with CCTV scoring	340.7	8	2.93	8	67	1.69	3.5	3.5	76.8	No	Begin Project Development	2031-2035	$ 162,600				$ 162,600	
07602190760222	Condition - with CCTV scoring	340.6	12	9.55	12	76	1.69	3.5	3.5	76.8	No	Possible CIPP	2031-2035	$ 32,700				$ 32,700	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07400490750016	Condition - with CCTV scoring	398.9	8	5.8	8	74	1.64	3.5	3.5	76.6	No	Possible CIPP	2031-2035	$ 22,200				$ 22,200	
07502290750113	Condition - with CCTV scoring	193.9	8	4.09	8	75	1.61	3.5	3.5	76.4	No	Possible CIPP	2031-2035	$ 10,800				$ 10,800	
04601950460196	Condition - with CCTV scoring	384	8	5	8	46	1.58	3.5	3.5	76.3	No	Begin Project Development	2031-2035	$ 183,200				$ 183,200	
04500120450013	Condition - with CCTV scoring	321.8	8	5.3	8	45	1.98	3.4	3.4	76.3	No	Possible CIPP	2031-2035	$ 17,900				$ 17,900	
04501440450145	Condition - with CCTV scoring	496.2	8	5.26	8	45	1.54	3.5	3.5	76.2	No	Possible CIPP	2031-2035	$ 27,600				$ 27,600	
07800520780037	Condition - with CCTV scoring	341.8	15	1.25	15	78	1.54	3.5	3.5	76.2	No	Possible CIPP	2031-2035	$ 43,500				$ 43,500	
07701290770128	Condition - with CCTV scoring	495.7	8	4.08	8	77	1.54	3.5	3.5	76.2	No	Begin Project Development	2031-2035	$ 236,600				$ 236,600	
05601860560187	Condition - with CCTV scoring	263.2	8	6	8	56	1.53	3.5	3.5	76.1	No	Possible CIPP	2031-2035	$ 14,600				$ 14,600	
04601810460180	Condition - with CCTV scoring	321.3	8	4.02	8	46	1.53	3.5	3.5	76.1	No	Possible CIPP	2031-2035	$ 17,900				$ 17,900	
04600730460074	Condition - with CCTV scoring	325.1	8	5.65	8	46	1.88	3.4	3.4	76.1	No	Possible CIPP	2031-2035	$ 18,100				$ 18,100	
04500530450050	Condition - with CCTV scoring	446.9	8	13.25	8	45	1.52	3.5	3.5	76.1	No	Possible CIPP	2031-2035	$ 24,900				$ 24,900	
07601870760188	Condition - with CCTV scoring	343.7	12	5.24	12	76	1.52	3.5	3.5	76.1	No	Possible CIPP	2031-2035	$ 33,000				$ 33,000	
04602220460223	Condition - with CCTV scoring	639.2	8	6	8	46	1.51	3.5	3.5	76.0	No	Possible CIPP	2031-2035	$ 35,500				$ 35,500	
03601280360129	Condition - with CCTV scoring	351.6	27	5.83	27	36	4.01	3.0	3.0	76.0	No	CCTV	2031-2035	$ -				$ -	
05600590560058	Condition - with CCTV scoring	514.6	6	5.6	8	56	1.5	3.5	3.5	76.0	No	Begin Project Development	2031-2035	$ 245,600				$ 245,600	
06400710640072	Condition - with CCTV scoring	406.1	8	4.94	8	64	1.5	3.5	3.5	76.0	No	Possible CIPP	2031-2035	$ 22,600				$ 22,600	
04500710450073	Condition - with CCTV scoring	276.1	8	5.85	8	45	1.47	3.5	3.5	75.9	No	Possible CIPP	2031-2035	$ 15,400				$ 15,400	
04500700450077	Condition - with CCTV scoring	133.3	8	5.79	8	45	1.47	3.5	3.5	75.9	No	Possible CIPP	2031-2035	$ 7,400				$ 7,400	
04500730450070	Condition - with CCTV scoring	320.8	8	5.92	8	45	1.47	3.5	3.5	75.9	No	Possible CIPP	2031-2035	$ 17,800				$ 17,800	
05602850560283	Condition - with CCTV scoring	737	8	4.88	8	56	1.46	3.5	3.5	75.8	No	Begin Project Development	2031-2035	$ 351,700				$ 351,700	
04500380450191	Condition - with CCTV scoring	180.4	8	4.62	8	45	1.45	3.5	3.5	75.8	No	Possible CIPP	2031-2035	$ 10,000				$ 10,000	
04500370450036	Condition - with CCTV scoring	233.7	8	3.32	8	45	1.45	3.5	3.5	75.8	No	Begin Project Development	2031-2035	$ 111,500				$ 111,500	
04501320450131	Condition - with CCTV scoring	518.4	8	5.2	8	45	1.45	3.5	3.5	75.8	No	Possible CIPP	2031-2035	$ 28,800				$ 28,800	
07501660750165	Condition - with CCTV scoring	369.4	8	4.6	8	75	1.45	3.5	3.5	75.8	No	Possible CIPP	2031-2035	$ 20,500				$ 20,500	
05601280560129	Condition - with CCTV scoring	303.3	8	4.91	8	56	1.72	3.4	3.4	75.8	No	Begin Project Development	2031-2035	$ 144,700				$ 144,700	
07500380750045	Condition - with CCTV scoring	485.8	8	4.92	8	75	1.43	3.5	3.5	75.7	No	Possible CIPP	2031-2035	$ 27,000				$ 27,000	
09601160970067	Condition - with CCTV scoring	318	6	5.59	8	97	1.42	3.5	3.5	75.7	No	Possible CIPP	2031-2035	$ 17,700				$ 17,700	
05602820560280	Condition - with CCTV scoring	625.3	8	4.88	8	56	1.77	3.4	3.4	75.7	No	Possible CIPP	2031-2035	$ 34,800				$ 34,800	
04601300460124	Condition - with CCTV scoring	501.4	8	5	8	46	1.41	3.5	3.5	75.6	No	Possible CIPP	2031-2035	$ 27,900				$ 27,900	
07602160760217	Condition - with CCTV scoring	650	8	3.96	8	76	1.4	3.5	3.5	75.6	No	Possible CIPP	2031-2035	$ 36,100				$ 36,100	
07501020750230	Condition - with CCTV scoring	380	8	5.79	8	75	2.22	3.3	3.3	75.5	No	Possible CIPP	2031-2035	$ 21,100				$ 21,100	
06300380630039	Condition - with CCTV scoring	304.8	8	5.62	8	63	1.38	3.5	3.5	75.5	No	Begin Project Development	2031-2035	$ 145,500				$ 145,500	
07601980760193	Condition - with CCTV scoring	432.8	14	5.89	15	76	2.2	3.3	3.3	75.5	No	Possible CIPP	2031-2035	$ 55,100				$ 55,100	
06200050620008	Condition - with CCTV scoring	137.1	8	6.2	8	62	1.35	3.5	3.5	75.4	No	Possible CIPP	2031-2035	$ 7,600				$ 7,600	
07800440780037	Condition - with CCTV scoring	131.4	8	6.33	8	78	1.35	3.5	3.5	75.4	No	Possible CIPP	2031-2035	$ 7,300				$ 7,300	
06600560660023	Condition - with CCTV scoring	297.7	8	3.8	8	66	2.18	3.3	3.3	75.4	Yes	Possible CIPP	2031-2035	$ -				$ -	
04502470450215	Condition - with CCTV scoring	593.8	8	4.75	8	45	1.33	3.5	3.5	75.3	No	Possible CIPP	2031-2035	$ 33,000				$ 33,000	
04500490450045	Condition - with CCTV scoring	146.8	8	6.88	8	45	1.32	3.5	3.5	75.3	No	Possible CIPP	2031-2035	$ 8,200				$ 8,200	
06200830620026	Condition - with CCTV scoring	422.7	8	5.78	8	62	1.3	3.5	3.5	75.2	No	Possible CIPP	2031-2035	$ 23,500				$ 23,500	
07202090720182	Condition - with CCTV scoring	304.6	8	9.016	8	72	2.13	3.3	3.3	75.2	No	Possible CIPP	2031-2035	$ 16,900				$ 16,900	
06400170640016	Condition - with CCTV scoring	308.1	8	6.31	8	64	1.79	3.4	3.4	75.2	No	Possible CIPP	2031-2035	$ 17,100				$ 17,100	
04602070460208	Condition - with CCTV scoring	677.9	8	5.94	8	46	1.27	3.5	3.5	75.1	No	Possible CIPP	2031-2035	$ 37,700				$ 37,700	
04502180450219	Condition - with CCTV scoring	228.6	8	4.85	8	45	1.27	3.5	3.5	75.1	No	Possible CIPP	2031-2035	$ 12,700				$ 12,700	
07701510770097	Condition - with CCTV scoring	602.8	54	12.62	54	77	3.76	3.0	3.0	75.0	No	CCTV	2031-2035	$ -				$ -	
04401500450087	Condition - with CCTV scoring	386.2	8	2.73	8	44	2.09	3.3	3.3	75.0	No	Begin Project Development	2031-2035	$ 184,300				$ 184,300	
05602940560303	Condition - with CCTV scoring	771.1	8	4.56	8	56	1.75	3.4	3.4	75.0	No	Begin Project Development	2031-2035	$ 368,000				$ 368,000	
04500130450015	Condition - with CCTV scoring	319.8	8	5.14	8	45	1.25	3.5	3.5	75.0	No	Possible CIPP	2031-2035	$ 17,800				$ 17,800	
04502280450239	Condition - with CCTV scoring	350.8	8	3.423	8	45	1.25	3.5	3.5	75.0	No	Possible CIPP	2031-2035	$ 19,500				$ 19,500	
06200520630011	Condition - with CCTV scoring	299.5	8	5.2	8	62	1.25	3.5	3.5	75.0	No	Possible CIPP	2031-2035	$ 16,700				$ 16,700	
06700060670005	Condition - with CCTV scoring	498.8	8	4.84	8	67	1.69	3.4	3.4	74.8	No	Begin Project Development	2031-2035	$ 238,000				$ 238,000	
07502030750202	Condition - with CCTV scoring	384.7	8	5.49	8	75	1.69	3.4	3.4	74.8	No	Possible CIPP	2031-2035	$ 21,400				$ 21,400	
07601590760158	Condition - with CCTV scoring	700	54	20.58	54	76	3.65	3.0	3.0	74.6	No	CCTV	2031-2035	$ -				$ -	
05601760560085	Condition - with CCTV scoring	200.8	8	7.75	8	56	1.64	3.4	3.4	74.6	No	Begin Project Development	2031-2035	$ 95,800				$ 95,800	
04602290460230	Condition - with CCTV scoring	147.3	27	8.92	27	46	3.64	3.0	3.0	74.6	No	CCTV	2031-2035	$ -				$ -	
04602090460207	Condition - with CCTV scoring	628	8	5.7	8	46	1.32	3.5	3.5	74.5	No	Possible CIPP	2031-2035	$ 34,900				$ 34,900	
05601570560158	Condition - with CCTV scoring	674.2	8	5.53	8	56	1.96	3.3	3.3	74.5	No	Possible CIPP	2031-2035	$ 37,500				$ 37,500	
08500260850028	Condition - with CCTV scoring	507	8	10.78	8	85	1.89	3.3	3.3	74.2	No	Possible CIPP	2031-2035	$ 28,200				$ 28,200	
05603030560298	Condition - with CCTV scoring	294.4	10	12.25	10	56	2.3	3.3	3.3	74.2	No	Begin Project Development	2031-2035	$ 185,100				$ 185,100	
08700700870057	Condition - with CCTV scoring	589.5	54	11.727	54	87	3.55	3.0	3.0	74.2	No	CCTV	2031-2035	$ -				$ -	
08700570870020	Condition - with CCTV scoring	611.5	54	10.81	54	87	3.55	3.0	3.0	74.2	No	CCTV	2031-2035	$ -				$ -	
07800300780031	Condition - with CCTV scoring	489.3	15	11.35	15	78	1.55	3.4	3.4	74.2	No	Possible CIPP	2031-2035	$ 62,300				$ 62,300	
06601870660176	Condition - with CCTV scoring	219.8	33	5.23	36	66	2.25	3.3	3.3	74.0	No	Possible Point Repair	2031-2035	$ 127,700				$ 127,700	
04500500450051	Condition - with CCTV scoring	297.4	8	16.88	8	45	1.5	3.4	3.4	74.0	No	Possible CIPP	2031-2035	$ 16,500				$ 16,500	
03601140460218	Condition - with CCTV scoring	645.2	10	5.1	10	36	1.79	3.3	3.3	73.8	No	Possible CIPP	2031-2035	$ 48,700				$ 48,700	
04601970460198	Condition - with CCTV scoring	306.1	8	5.43	8	46	1.45	3.4	3.4	73.8	No	Possible CIPP	2031-2035	$ 17,000				$ 17,000	
04600870460078	Condition - with CCTV scoring	540.8	8	5.06	8	46	1.57	3.4	3.4	73.8	No	Possible CIPP	2031-2035	$ 30,100				$ 30,100	
04600100460008	Condition - with CCTV scoring	641.9	8	5.2	8	46	2.01	3.3	3.3	73.8	No	Possible CIPP	2031-2035	$ 35,700				$ 35,700	
08500360850029	Condition - with CCTV scoring	344.6	8	13.93	8	85	1.99	3.3	3.3	73.7	No	Possible CIPP	2031-2035	$ 19,200				$ 19,200	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
05602260560204	Condition - with CCTV scoring	604.4	8	4.09	8	56	1.75	3.3	3.3	73.7	No	Possible CIPP	2031-2035	$ 33,600				$ 33,600	
06401080640102	Condition - with CCTV scoring	352.5	8	5.41	8	64	1.75	3.3	3.3	73.7	No	Possible CIPP	2031-2035	$ 19,600				$ 19,600	
04600390460040	Condition - with CCTV scoring	292.7	8	5.57	8	46	1.54	3.4	3.4	73.7	No	Possible CIPP	2031-2035	$ 16,300				$ 16,300	
05701670570168	Condition - with CCTV scoring	480.7	12	11.3	12	57	1.74	3.3	3.3	73.6	No	Possible CIPP	2031-2035	$ 46,200				$ 46,200	
04501370450135	Condition - with CCTV scoring	269.2	8	5.2	8	45	1.53	3.4	3.4	73.6	No	Possible CIPP	2031-2035	$ 15,000				$ 15,000	
06301190630123	Condition - with CCTV scoring	390.2	8	5.15	8	63	1.52	3.4	3.4	73.6	No	Possible CIPP	2031-2035	$ 21,700				$ 21,700	
05701230570095	Condition - with CCTV scoring	429.5	12	17.07	12	57	2.14	3.3	3.3	73.6	No	Possible CIPP	2031-2035	$ 41,300				$ 41,300	
06401290650019	Condition - with CCTV scoring	333.7	8	4.01	8	64	1.38	3.4	3.4	73.5	No	Begin Project Development	2031-2035	$ 159,200				$ 159,200	
05602070560210	Condition - with CCTV scoring	251.5	8	4.82	8	56	1.67	3.3	3.3	73.3	No	Possible CIPP	2031-2035	$ 14,000				$ 14,000	
05602210560218	Condition - with CCTV scoring	606.3	8	3.93	8	56	1.64	3.3	3.3	73.2	No	Possible CIPP	2031-2035	$ 33,700				$ 33,700	
07500070750074	Condition - with CCTV scoring	488.1	12	6.9	12	75	1.64	3.3	3.3	73.2	No	Possible CIPP	2031-2035	$ 46,900				$ 46,900	
06200490620048	Condition - with CCTV scoring	368.9	8	6	8	62	1.3	3.4	3.4	73.2	No	Possible CIPP	2031-2035	$ 20,500				$ 20,500	
04602610460260	Condition - with CCTV scoring	400.1	8	5.5	8	46	2	3.3	3.3	73.2	No	Possible CIPP	2031-2035	$ 22,300				$ 22,300	
06501240650123	Condition - with CCTV scoring	336.2	21	12.95	21	65	2.46	3.2	3.2	73.2	No	Possible Point Repair	2031-2035	$ 64,000				$ 64,000	
07602100770007	Condition - with CCTV scoring	381.3	8	5.8	8	76	1.61	3.3	3.3	73.1	No	Possible CIPP	2031-2035	$ 21,200				$ 21,200	
07501400750141	Condition - with CCTV scoring	131.3	8	6.43	8	75	1.6	3.3	3.3	73.1	No	Possible CIPP	2031-2035	$ 7,300				$ 7,300	
06400160640048	Condition - with CCTV scoring	246.3	8	5.62	8	64	1.59	3.3	3.3	73.0	No	Possible CIPP	2031-2035	$ 13,700				$ 13,700	
06401180640088	Condition - with CCTV scoring	282.3	8	6.71	8	64	1.59	3.3	3.3	73.0	No	Possible CIPP	2031-2035	$ 15,700				$ 15,700	
04502310450245	Condition - with CCTV scoring	461.6	8	7.5	8	45	1.38	3.4	3.4	73.0	No	Possible CIPP	2031-2035	$ 25,700				$ 25,700	
06300150630014	Condition - with CCTV scoring	366	8	4.99	8	63	1.38	3.4	3.4	73.0	No	Possible CIPP	2031-2035	$ 20,400				$ 20,400	
06401060640107	Condition - with CCTV scoring	309.5	8	4.75	8	64	1.57	3.3	3.3	72.9	No	Possible CIPP	2031-2035	$ 17,200				$ 17,200	
05601060560104	Condition - with CCTV scoring	381.3	8	5.06	8	56	1.56	3.3	3.3	72.9	No	Possible CIPP	2031-2035	$ 21,200				$ 21,200	
06402030640202	Condition - with CCTV scoring	198.3	8	5	8	64	1.54	3.3	3.3	72.8	No	Possible CIPP	2031-2035	$ 11,000				$ 11,000	
05701680570162	Condition - with CCTV scoring	507.6	12	9.96	12	57	1.95	3.3	3.3	72.8	No	Possible CIPP	2031-2035	$ 48,800				$ 48,800	
07501920750195	Condition - with CCTV scoring	346.4	8	3.16	8	75	1.77	3.3	3.3	72.8	No	Possible CIPP	2031-2035	$ 19,300				$ 19,300	
05602870560288	Condition - with CCTV scoring	268.4	8	5.47	8	56	1.53	3.3	3.3	72.8	No	Possible CIPP	2031-2035	$ 14,900				$ 14,900	
04502510450140	Condition - with CCTV scoring	466.9	8	5.1	8	45	1.53	3.3	3.3	72.8	No	Begin Project Development	2031-2035	$ 222,800				$ 222,800	
04602690460272	Condition - with CCTV scoring	319.1	8	5.06	8	46	1.52	3.3	3.3	72.7	No	Possible CIPP	2031-2035	$ 17,700				$ 17,700	
06601430660180	Condition - with CCTV scoring	411.9	10	5.85	10	66	1.93	3.3	3.3	72.7	No	Possible CIPP	2031-2035	$ 31,100				$ 31,100	
04501460450133	Condition - with CCTV scoring	268.5	8	6.832	8	45	1.51	3.3	3.3	72.7	No	Possible CIPP	2031-2035	$ 14,900				$ 14,900	
06200530630015	Condition - with CCTV scoring	350.9	8	5.2	8	62	1.3	3.4	3.4	72.7	No	Possible CIPP	2031-2035	$ 19,500				$ 19,500	
04602620460261	Condition - with CCTV scoring	393.4	8	5.5	8	46	1.74	3.3	3.3	72.7	No	Possible CIPP	2031-2035	$ 21,900				$ 21,900	
05600580560060	Condition - with CCTV scoring	337.7	6	7	8	56	1.5	3.3	3.3	72.7	No	Possible CIPP	2031-2035	$ 18,800				$ 18,800	
06602950660296	Condition - with CCTV scoring	319.8	21	10.52	21	66	3.15	3.0	3.0	72.6	No	CCTV	2031-2035	$ -				$ -	
07601120760110	Condition - with CCTV scoring	692.4	27	2.75	27	76	2.24	3.2	3.2	72.6	No	Possible Point Repair	2031-2035	$ 74,900				$ 74,900	
04501660450160	Condition - with CCTV scoring	530.6	8	5.22	8	45	1.88	3.3	3.3	72.5	No	Possible CIPP	2031-2035	$ 29,500				$ 29,500	
04500650450061	Condition - with CCTV scoring	741.4	8	5	8	45	1.88	3.3	3.3	72.5	No	Possible CIPP	2031-2035	$ 41,200				$ 41,200	
04601530460148	Condition - with CCTV scoring	204.5	8	6.2	8	46	1.45	3.3	3.3	72.5	No	Possible CIPP	2031-2035	$ 11,400				$ 11,400	
06600480660029	Condition - with CCTV scoring	340.3	8	5.61	8	66	1.86	3.3	3.3	72.4	No	Possible CIPP	2031-2035	$ 18,900				$ 18,900	
06601010660108	Condition - with CCTV scoring	339	8	0	8	66	1.86	3.3	3.3	72.4	No	Possible CIPP	2031-2035	$ 18,900				$ 18,900	
04602120460011	Condition - with CCTV scoring	625.1	8	5.51	8	46	1.32	3.4	3.4	72.4	No	Possible CIPP	2031-2035	$ 34,800				$ 34,800	
04601090460106	Condition - with CCTV scoring	383.9	8	5	8	46	1.43	3.3	3.3	72.4	No	Possible CIPP	2031-2035	$ 21,300				$ 21,300	
07500340750036	Condition - with CCTV scoring	384.1	8	4.61	8	75	1.43	3.3	3.3	72.4	No	Possible CIPP	2031-2035	$ 21,400				$ 21,400	
05603000560306	Condition - with CCTV scoring	538.9	8	6.72	8	56	2.09	3.2	3.2	72.4	No	Possible CIPP	2031-2035	$ 30,000				$ 30,000	
08500410850042	Condition - with CCTV scoring	156.4	8	4.96	8	85	1.66	3.3	3.3	72.4	No	Possible CIPP	2031-2035	$ 8,700				$ 8,700	
04601190460099	Condition - with CCTV scoring	569	8	4.81	8	46	1.93	3.2	3.2	72.3	No	Possible CIPP	2031-2035	$ 31,600				$ 31,600	
04900130490028	Condition - with CCTV scoring	267.9	15	10.6	15	49	3.08	3.0	3.0	72.3	No	CCTV	2031-2035	$ -				$ -	
04600840460083	Condition - with CCTV scoring	444.2	8	4.5	8	46	1.41	3.3	3.3	72.3	No	Possible CIPP	2031-2035	$ 24,700				$ 24,700	
04501150450114	Condition - with CCTV scoring	386.1	8	7.27	8	45	1.41	3.3	3.3	72.3	No	Possible CIPP	2031-2035	$ 21,500				$ 21,500	
04601160460117	Condition - with CCTV scoring	399.6	8	4.65	8	46	1.4	3.3	3.3	72.3	No	Possible CIPP	2031-2035	$ 22,200				$ 22,200	
04500280450029	Condition - with CCTV scoring	370.9	8	4.26	8	45	2.06	3.2	3.2	72.2	No	Possible CIPP	2031-2035	$ 20,600				$ 20,600	
05602050560206	Condition - with CCTV scoring	250.8	8	6.4	8	56	1.8	3.3	3.3	72.2	No	Possible CIPP	2031-2035	$ 13,900				$ 13,900	
06300420630041	Condition - with CCTV scoring	136.5	8	5.32	8	63	1.38	3.3	3.3	72.2	No	Possible CIPP	2031-2035	$ 7,600				$ 7,600	
06401270640128	Condition - with CCTV scoring	340.1	8	4.76	8	64	1.38	3.3	3.3	72.2	No	Possible CIPP	2031-2035	$ 18,900				$ 18,900	
07502020750198	Condition - with CCTV scoring	533.9	8	5.78	8	75	1.54	3.3	3.3	72.2	No	Possible CIPP	2031-2035	$ 29,700				$ 29,700	
05600640560066	Condition - with CCTV scoring	260.7	8	5.4	8	56	2.03	3.2	3.2	72.1	No	Possible CIPP	2031-2035	$ 14,500				$ 14,500	
06602400660239	Condition - with CCTV scoring	319.9	21	10.73	21	66	3.02	3.0	3.0	72.1	No	CCTV	2031-2035	$ -				$ -	
06602980660299	Condition - with CCTV scoring	328	21	8.38	21	66	3.02	3.0	3.0	72.1	No	CCTV	2031-2035	$ -				$ -	
07300250730079	Condition - with CCTV scoring	909.3	12	24.61	12	73	2.74	3.1	3.1	72.0	No	Possible CIPP	2031-2035	$ 87,400				$ 87,400	
08500400850037	Condition - with CCTV scoring	347.2	8	5	8	85	1.74	3.3	3.3	72.0	No	Possible CIPP	2031-2035	$ 19,300				$ 19,300	
04501570450278	Condition - with CCTV scoring	33.7	8	4.73	8	45	1.32	3.3	3.3	71.9	No	Possible CIPP	2031-2035	$ 1,900				$ 1,900	
04502130450212	Condition - with CCTV scoring	236.7	8	4.62	8	45	1.32	3.3	3.3	71.9	No	Possible CIPP	2031-2035	$ 13,200				$ 13,200	
04500660450064	Condition - with CCTV scoring	378.5	8	5.52	8	45	1.32	3.3	3.3	71.9	No	Possible CIPP	2031-2035	$ 21,000				$ 21,000	
06401280640129	Condition - with CCTV scoring	341.5	8	4.39	8	64	1.3	3.3	3.3	71.9	No	Begin Project Development	2031-2035	$ 163,000				$ 163,000	
04501040450135	Condition - with CCTV scoring	456.8	8	6.67	8	45	1.6	3.3	3.3	71.9	No	Possible CIPP	2031-2035	$ 25,400				$ 25,400	
03300590330088	Condition - with CCTV scoring	392.7	18	9.83	18	33	2.95	3.0	3.0	71.8	No	CCTV	2031-2035	$ -				$ -	
05602200560223	Condition - with CCTV scoring	260.6	8	5.66	8	56	1.69	3.3	3.3	71.8	No	Possible CIPP	2031-2035	$ 14,500				$ 14,500	
04900270490026	Condition - with CCTV scoring	258.4	15	8.06	15	49	2.93	3.0	3.0	71.7	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
06602990660240	Condition - with CCTV scoring	312.1	21	9.9	21	66	2.92	3.0	3.0	71.7	No	CCTV	2031-2035	$ -				$ -	
04600900460089	Condition - with CCTV scoring	652.1	8	6	8	46	1.46	3.3	3.3	71.6	No	Possible CIPP	2031-2035	$ 36,300				$ 36,300	
04601540460153	Condition - with CCTV scoring	410	8	6	8	46	1.4	3.3	3.3	71.5	No	Possible CIPP	2031-2035	$ 22,800				$ 22,800	
04600330460034	Condition - with CCTV scoring	671.4	8	5	8	46	1.62	3.3	3.3	71.5	No	Possible CIPP	2031-2035	$ 37,300				$ 37,300	
04501980450199	Condition - with CCTV scoring	370.4	12	6.66	12	45	2.86	3.0	3.0	71.4	No	CCTV	2031-2035	$ -				$ -	
05601430560141	Condition - with CCTV scoring	603.7	8	4.94	8	56	1.86	3.2	3.2	71.4	No	Begin Project Development	2031-2035	$ 288,100				$ 288,100	
06602210660220	Condition - with CCTV scoring	443	8	4.9	8	66	1.61	3.3	3.3	71.4	No	Possible CIPP	2031-2035	$ 24,600				$ 24,600	
06201190620099	Condition - with CCTV scoring	297.4	8	8	8	62	1.43	3.3	3.3	71.4	No	Possible CIPP	2031-2035	$ 16,500				$ 16,500	
06600540660056	Condition - with CCTV scoring	64.5	8	4.8	8	66	2.23	3.1	3.1	71.4	Yes	Possible CIPP	2031-2035	$ -				$ -	
06401020640109	Condition - with CCTV scoring	279.1	8	5.87	8	64	1.6	3.3	3.3	71.4	No	Begin Project Development	2031-2035	$ 133,200				$ 133,200	
07800330780034	Condition - with CCTV scoring	373.8	15	9.84	15	78	1.6	3.3	3.3	71.4	No	Possible CIPP	2031-2035	$ 47,600				$ 47,600	
06601470660113	Condition - with CCTV scoring	710.1	8	5.55	8	66	2.21	3.1	3.1	71.3	No	Begin Project Development	2031-2035	$ 338,900				$ 338,900	
04601650460090	Condition - with CCTV scoring	347.8	8	5.84	8	46	1.98	3.2	3.2	71.3	No	Possible CIPP	2031-2035	$ 19,300				$ 19,300	
04501190450120	Condition - with CCTV scoring	485.7	8	5.16	8	45	1.98	3.2	3.2	71.3	No	Possible CIPP	2031-2035	$ 27,000				$ 27,000	
04600830460079	Condition - with CCTV scoring	675.6	8	4.9	8	46	1.81	3.2	3.2	71.2	No	Possible CIPP	2031-2035	$ 37,600				$ 37,600	
06601590660226	Condition - with CCTV scoring	288.7	12	5.87	12	66	2.64	3.0	3.0	71.2	No	Possible CIPP	2031-2035	$ 27,800				$ 27,800	
06201050620089	Condition - with CCTV scoring	340.5	8	7.68	8	62	1.43	3.3	3.3	71.2	No	Possible CIPP	2031-2035	$ 18,900				$ 18,900	
04600500460049	Condition - with CCTV scoring	145.1	8	5.65	8	46	1.96	3.2	3.2	71.2	No	Possible CIPP	2031-2035	$ 8,100				$ 8,100	
07602110760191	Condition - with CCTV scoring	353	8	4.36	8	76	1.78	3.2	3.2	71.1	No	Possible CIPP	2031-2035	$ 19,600				$ 19,600	
06400620640059	Condition - with CCTV scoring	398.6	8	5.66	8	64	1.53	3.3	3.3	71.1	No	Possible CIPP	2031-2035	$ 22,200				$ 22,200	
06603240660323	Condition - with CCTV scoring	681.1	8	5.65	8	66	1.93	3.2	3.2	71.1	No	Possible CIPP	2031-2035	$ 37,900				$ 37,900	
05601730560174	Condition - with CCTV scoring	507.2	8	5.65	8	56	1.76	3.2	3.2	71.0	No	Possible CIPP	2031-2035	$ 28,200				$ 28,200	
04601840460186	Condition - with CCTV scoring	265.2	8	5.87	8	46	1.76	3.2	3.2	71.0	No	Possible CIPP	2031-2035	$ 14,700				$ 14,700	
06200990620097	Condition - with CCTV scoring	303.2	8	6.86	8	62	1.51	3.3	3.3	71.0	No	Possible CIPP	2031-2035	$ 16,900				$ 16,900	
07500020750171	Condition - with CCTV scoring	453.3	8	4.73	8	75	1.51	3.3	3.3	71.0	No	Possible CIPP	2031-2035	$ 25,200				$ 25,200	
06400700640071	Condition - with CCTV scoring	338	8	4.57	8	64	1.5	3.3	3.3	71.0	No	Possible CIPP	2031-2035	$ 18,800				$ 18,800	
05602680560269	Condition - with CCTV scoring	391.6	8	8.1	8	56	2.19	3.1	3.1	71.0	No	Possible CIPP	2031-2035	$ 21,800				$ 21,800	
05601540560155	Condition - with CCTV scoring	333.7	8	6.07	8	56	2.01	3.1	3.1	70.9	No	Possible CIPP	2031-2035	$ 18,600				$ 18,600	
07600260760027	Condition - with CCTV scoring	386.9	12	7.11	12	76	1.72	3.2	3.2	70.9	No	Possible CIPP	2031-2035	$ 37,200				$ 37,200	
04601240460129	Condition - with CCTV scoring	666.3	8	6.35	8	46	1.66	3.2	3.2	70.9	No	Possible CIPP	2031-2035	$ 37,100				$ 37,100	
04600910460089	Condition - with CCTV scoring	350.5	8	4.51	8	46	1.46	3.3	3.3	70.8	No	Possible CIPP	2031-2035	$ 19,500				$ 19,500	
04600790460081	Condition - with CCTV scoring	361.7	8	6.5	8	46	1.99	3.1	3.1	70.8	No	Possible CIPP	2031-2035	$ 20,100				$ 20,100	
05501350550132	Condition - with CCTV scoring	233.5	14	8.21	15	55	2.81	3.0	3.0	70.8	No	CCTV	2031-2035	$ -				$ -	
05602830560284	Condition - with CCTV scoring	718.1	8	4.86	8	56	1.7	3.2	3.2	70.8	No	Possible CIPP	2031-2035	$ 39,900				$ 39,900	
04500360450206	Condition - with CCTV scoring	243.5	8	3.5	8	45	1.45	3.3	3.3	70.8	No	Possible CIPP	2031-2035	$ 13,500				$ 13,500	
04602630460262	Condition - with CCTV scoring	406.2	8	5.75	8	46	1.58	3.2	3.2	70.8	No	Possible CIPP	2031-2035	$ 22,600				$ 22,600	
05900080590007	Condition - with CCTV scoring	303.2	15	8.79	15	59	2.68	3.0	3.0	70.7	No	CCTV	2031-2035	$ -				$ -	
06300860630088	Condition - with CCTV scoring	267.9	8	5.98	8	63	1.43	3.3	3.3	70.7	No	Possible CIPP	2031-2035	$ 14,900				$ 14,900	
05500630550061	Condition - with CCTV scoring	319.5	14	6.6	15	55	2.66	3.0	3.0	70.6	No	CCTV	2031-2035	$ -				$ -	
04501480450145	Condition - with CCTV scoring	274.6	8	5.28	8	45	1.54	3.2	3.2	70.6	No	Possible CIPP	2031-2035	$ 15,300				$ 15,300	
06600180660013	Condition - with CCTV scoring	314.1	24	12.89	24	66	2.65	3.0	3.0	70.6	No	CCTV	2031-2035	$ -				$ -	
04601730460174	Condition - with CCTV scoring	789.8	8	6	8	46	1.35	3.3	3.3	70.6	No	Possible CIPP	2031-2035	$ 43,900				$ 43,900	
07500140750015	Condition - with CCTV scoring	485.9	8	5.1	8	75	1.81	3.2	3.2	70.6	No	Possible CIPP	2031-2035	$ 27,000				$ 27,000	
04502520450253	Condition - with CCTV scoring	321.1	8	4	8	45	1.37	3.3	3.3	70.5	No	Possible CIPP	2031-2035	$ 17,900				$ 17,900	
05600700560068	Condition - with CCTV scoring	419	8	7.2	8	56	1.71	3.2	3.2	70.5	No	Possible CIPP	2031-2035	$ 23,300				$ 23,300	
06200730620072	Condition - with CCTV scoring	375.2	8	6.09	8	62	1.5	3.2	3.2	70.4	No	Begin Project Development	2031-2035	$ 179,000				$ 179,000	
07601200760121	Condition - with CCTV scoring	334.4	33	15.41	36	76	2.6	3.0	3.0	70.4	No	CCTV	2031-2035	$ -				$ -	
05600460560047	Condition - with CCTV scoring	483.9	8	4.59	8	56	1.97	3.1	3.1	70.4	No	Possible CIPP	2031-2035	$ 26,900				$ 26,900	
07500390750041	Condition - with CCTV scoring	157.9	8	4.55	8	75	1.58	3.2	3.2	70.3	No	Possible CIPP	2031-2035	$ 8,800				$ 8,800	
04502170450046	Condition - with CCTV scoring	265.3	8	5	8	45	1.32	3.3	3.3	70.3	No	Possible CIPP	2031-2035	$ 14,800				$ 14,800	
04601220460124	Condition - with CCTV scoring	631.1	8	6.13	8	46	1.41	3.2	3.2	70.3	No	Possible CIPP	2031-2035	$ 35,100				$ 35,100	
09600230960024	Condition - with CCTV scoring	252	8	8.78	8	96	2.55	3.0	3.0	70.2	No	Possible CIPP	2031-2035	$ 14,000				$ 14,000	
06200470620052	Condition - with CCTV scoring	300.3	8	5.2	8	62	1.3	3.3	3.3	70.2	No	Possible CIPP	2031-2035	$ 16,700				$ 16,700	
07600760760079	Condition - with CCTV scoring	340.7	24	7.58	24	76	2.55	3.0	3.0	70.2	No	CCTV	2031-2035	$ -				$ -	
05601030560091	Condition - with CCTV scoring	627.9	8	5.09	8	56	1.43	3.2	3.2	70.2	No	Possible CIPP	2031-2035	$ 34,900				$ 34,900	
06300700630068	Condition - with CCTV scoring	155.3	8	5.2	8	63	1.43	3.2	3.2	70.2	No	Possible CIPP	2031-2035	$ 8,600				$ 8,600	
06602240660174	Condition - with CCTV scoring	53.3	14	6.668	15	66	2.54	3.0	3.0	70.2	No	CCTV	2031-2035	$ -				$ -	
05603050560304	Condition - with CCTV scoring	343.8	8	5.19	8	56	1.62	3.2	3.2	70.1	No	Possible CIPP	2031-2035	$ 19,100				$ 19,100	
04501140450111	Condition - with CCTV scoring	358.4	8	5.5	8	45	1.41	3.2	3.2	70.1	No	Possible CIPP	2031-2035	$ 19,900				$ 19,900	
07501780750177	Condition - with CCTV scoring	316.2	8	5.45	8	75	1.67	3.2	3.2	70.0	No	Possible CIPP	2031-2035	$ 17,600				$ 17,600	
08600550860056	Condition - with CCTV scoring	582.7	8	6.49	8	86	1.67	3.2	3.2	70.0	No	Possible CIPP	2031-2035	$ 32,400				$ 32,400	
04600030460004	Condition - with CCTV scoring	669.2	8	6	8	46	1.45	3.2	3.2	70.0	No	Possible CIPP	2031-2035	$ 37,200				$ 37,200	
06200960620075	Condition - with CCTV scoring	268.4	8	6.97	8	62	1.5	3.2	3.2	70.0	No	Possible CIPP	2031-2035	$ 14,900				$ 14,900	
05600450560044	Condition - with CCTV scoring	586.7	8	6	8	56	1.96	3.1	3.1	70.0	No	Possible CIPP	2031-2035	$ 32,600				$ 32,600	
07400110740010	Condition - with CCTV scoring	422.4	15	7.12	15	74	2.49	3.0	3.0	70.0	No	CCTV	2031-2035	$ -				$ -	
06401070640108	Condition - with CCTV scoring	361.5	8	5.18	8	64	1.65	3.2	3.2	69.9	No	Possible CIPP	2031-2035	$ 20,100				$ 20,100	
07601250760122	Condition - with CCTV scoring	211.9	33	11.11	36	76	2.48	3.0	3.0	69.9	No	CCTV	2031-2035	$ -				$ -	
05600850560125	Condition - with CCTV scoring	321.6	8	7.43	8	56	1.64	3.2	3.2	69.9	No	Possible CIPP	2031-2035	$ 17,900				$ 17,900	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07502040750136	Condition - with CCTV scoring	311.8	8	8.15	8	75	1.55	3.2	3.2	69.8	No	Possible CIPP	2031-2035	$ 17,300				$ 17,300	
07501360750135	Condition - with CCTV scoring	407.3	8	9.68	8	75	1.87	3.1	3.1	69.8	No	Possible CIPP	2031-2035	$ 22,700				$ 22,700	
06502050650206	Condition - with CCTV scoring	607.4	8	5.42	8	65	2.29	3.0	3.0	69.8	No	Possible CIPP	2031-2035	$ 33,800				$ 33,800	
05701240570123	Condition - with CCTV scoring	535.3	12	15.75	12	57	2	3.1	3.1	69.8	No	Possible CIPP	2031-2035	$ 51,500				$ 51,500	
04602650460264	Condition - with CCTV scoring	628.8	8	5.5	8	46	1.45	3.2	3.2	69.8	No	Possible CIPP	2031-2035	$ 35,000				$ 35,000	
02300490230050	Condition - with CCTV scoring	276.5	18	6.88	18	23	2.45	3.0	3.0	69.8	No	CCTV	2031-2035	$ -				$ -	
07201650720131	Condition - with CCTV scoring	475.4	8	5	8	72	1.45	3.2	3.2	69.8	No	Possible CIPP	2031-2035	$ 26,400				$ 26,400	
04600380460039	Condition - with CCTV scoring	370.5	8	5.59	8	46	1.54	3.2	3.2	69.8	No	Possible CIPP	2031-2035	$ 20,600				$ 20,600	
04501650450163	Condition - with CCTV scoring	348.4	8	4.92	8	45	1.98	3.1	3.1	69.7	No	Possible CIPP	2031-2035	$ 19,400				$ 19,400	
04601080460109	Condition - with CCTV scoring	433.4	8	6.02	8	46	1.43	3.2	3.2	69.7	No	Possible CIPP	2031-2035	$ 24,100				$ 24,100	
06401980640199	Condition - with CCTV scoring	325.9	8	6.67	8	64	1.43	3.2	3.2	69.7	No	Possible CIPP	2031-2035	$ 18,100				$ 18,100	
06601460660151	Condition - with CCTV scoring	340.8	8	6.35	8	66	2.02	3.1	3.1	69.7	No	Possible CIPP	2031-2035	$ 19,000				$ 19,000	
04501390450137	Condition - with CCTV scoring	347.2	8	5.22	8	45	2.18	3.0	3.0	69.7	No	Possible CIPP	2031-2035	$ 19,300				$ 19,300	
04502450450249	Condition - with CCTV scoring	354.5	8	5.27	8	45	1.41	3.2	3.2	69.6	No	Possible CIPP	2031-2035	$ 19,700				$ 19,700	
05602230560185	Condition - with CCTV scoring	506.3	8	4.88	8	56	1.69	3.1	3.1	69.6	No	Possible CIPP	2031-2035	$ 28,200				$ 28,200	
06400910640119	Condition - with CCTV scoring	284.2	8	4.69	8	64	1.57	3.2	3.2	69.6	No	Possible CIPP	2031-2035	$ 15,800				$ 15,800	
04500860450172	Condition - with CCTV scoring	180.4	8	5.12	8	45	2.09	3.1	3.1	69.6	No	Possible CIPP	2031-2035	$ 10,000				$ 10,000	
05600480560046	Condition - with CCTV scoring	384.2	8	5	8	56	1.81	3.1	3.1	69.6	No	Possible CIPP	2031-2035	$ 21,400				$ 21,400	
04502110450212	Condition - with CCTV scoring	316.6	8	6.5	8	45	1.37	3.2	3.2	69.5	No	Possible CIPP	2031-2035	$ 17,600				$ 17,600	
06401220640091	Condition - with CCTV scoring	265.1	8	5.33	8	64	1.64	3.1	3.1	69.4	No	Possible CIPP	2031-2035	$ 14,700				$ 14,700	
05800580580056	Condition - with CCTV scoring	325.4	15	7.89	15	58	2.35	3.0	3.0	69.4	No	CCTV	2031-2035	$ -				$ -	
08600220860024	Condition - with CCTV scoring	479.1	8	7	8	86	2.35	3.0	3.0	69.4	No	CCTV	2031-2035	$ -				$ -	
06700350670036	Condition - with CCTV scoring	397.2	8	4.66	8	67	1.96	3.1	3.1	69.4	No	Begin Project Development	2031-2035	$ 189,500				$ 189,500	
04501830450184	Condition - with CCTV scoring	360.7	8	5.33	8	45	1.51	3.2	3.2	69.4	No	Possible CIPP	2031-2035	$ 20,100				$ 20,100	
04502420450214	Condition - with CCTV scoring	707.4	8	6.5	8	45	1.5	3.2	3.2	69.3	No	Possible CIPP	2031-2035	$ 39,300				$ 39,300	
07601240760112	Condition - with CCTV scoring	290	33	4.33	36	76	2.32	3.0	3.0	69.3	No	CCTV	2031-2035	$ -				$ -	
05601840560183	Condition - with CCTV scoring	827.7	8	3.8	8	56	1.82	3.1	3.1	69.2	No	Begin Project Development	2031-2035	$ 395,000				$ 395,000	
05601990560197	Condition - with CCTV scoring	537.2	8	3.25	8	56	1.67	3.1	3.1	69.2	No	Possible CIPP	2031-2035	$ 29,900				$ 29,900	
04600110460010	Condition - with CCTV scoring	665.5	8	5.51	8	46	1.4	3.2	3.2	69.1	No	Possible CIPP	2031-2035	$ 37,000				$ 37,000	
02200310220029	Condition - with CCTV scoring	415.6	12	8.57	12	22	2.25	3.0	3.0	69.0	No	CCTV	2031-2035	$ -				$ -	
07500950760019	Condition - with CCTV scoring	215.4	12	6.44	12	75	2.25	3.0	3.0	69.0	No	CCTV	2031-2035	$ -				$ -	
04602770560023	Condition - with CCTV scoring	528.1	8	6	8	46	1.99	3.0	3.0	68.9	No	Possible CIPP	2031-2035	$ 29,400				$ 29,400	
06601620660227	Condition - with CCTV scoring	314	12	5.48	12	66	2.22	3.0	3.0	68.9	No	CCTV	2031-2035	$ -				$ -	
04600680460056	Condition - with CCTV scoring	162.4	8	6.1	8	46	2.22	3.0	3.0	68.9	No	CCTV	2031-2035	$ -				$ -	
09600080960007	Condition - with CCTV scoring	158.9	15	4.28	15	96	2.2	3.0	3.0	68.8	No	CCTV	2031-2035	$ -				$ -	
06300010630002	Condition - with CCTV scoring	396.9	8	3.3	8	63	1.61	3.1	3.1	68.8	No	Possible CIPP	2031-2035	$ 22,100				$ 22,100	
06400130640091	Condition - with CCTV scoring	312.7	8	5.7	8	64	1.64	3.1	3.1	68.8	No	Possible CIPP	2031-2035	$ 17,400				$ 17,400	
06400890640086	Condition - with CCTV scoring	250.1	8	4.44	8	64	1.46	3.1	3.1	68.7	No	Possible CIPP	2031-2035	$ 13,900				$ 13,900	
04600160460017	Condition - with CCTV scoring	95.6	8	5.65	8	46	2.17	3.0	3.0	68.7	No	CCTV	2031-2035	$ -				$ -	
04600050460006	Condition - with CCTV scoring	34.3	8	5.61	8	46	2.17	3.0	3.0	68.7	No	Possible CIPP	2031-2035	$ 1,900				$ 1,900	
08600060850043	Condition - with CCTV scoring	475.9	8	9.3	8	86	2.17	3.0	3.0	68.7	No	CCTV	2031-2035	$ -				$ -	
04600540460056	Condition - with CCTV scoring	286.7	8	5.34	8	46	1.54	3.1	3.1	68.7	No	Possible CIPP	2031-2035	$ 15,900				$ 15,900	
05600780560077	Condition - with CCTV scoring	336.7	6	7.2	8	56	1.45	3.1	3.1	68.7	No	Possible CIPP	2031-2035	$ 18,700				$ 18,700	
06700250670023	Condition - with CCTV scoring	222.5	12	3.59	12	67	2.14	3.0	3.0	68.6	No	CCTV	2031-2035	$ -				$ -	
06200250620027	Condition - with CCTV scoring	273.5	8	6.3	8	62	1.42	3.1	3.1	68.5	No	Possible CIPP	2031-2035	$ 15,200				$ 15,200	
04502530450254	Condition - with CCTV scoring	295.9	8	5	8	45	1.3	3.2	3.2	68.5	No	Possible CIPP	2031-2035	$ 16,500				$ 16,500	
04602100460209	Condition - with CCTV scoring	626.4	8	5.5	8	46	1.3	3.2	3.2	68.5	No	Possible CIPP	2031-2035	$ 34,800				$ 34,800	
04501280450130	Condition - with CCTV scoring	519.8	8	5.11	8	45	1.3	3.2	3.2	68.5	No	Possible CIPP	2031-2035	$ 28,900				$ 28,900	
04601920460189	Condition - with CCTV scoring	628.9	8	4.04	8	46	1.81	3.1	3.1	68.5	No	Possible CIPP	2031-2035	$ 35,000				$ 35,000	
06603140660154	Condition - with CCTV scoring	323.5	8	4.1	8	66	1.66	3.1	3.1	68.5	No	Possible CIPP	2031-2035	$ 18,000				$ 18,000	
04602230460224	Condition - with CCTV scoring	405.3	8	6	8	46	1.51	3.1	3.1	68.4	No	Possible CIPP	2031-2035	$ 22,500				$ 22,500	
06400070640119	Condition - with CCTV scoring	326.6	8	4.79	8	64	1.64	3.1	3.1	68.4	No	Possible CIPP	2031-2035	$ 18,200				$ 18,200	
06700360670010	Condition - with CCTV scoring	409.2	8	5.67	8	67	2.09	3.0	3.0	68.4	No	CCTV	2031-2035	$ -				$ -	
04601470460148	Condition - with CCTV scoring	330.1	8	4.16	8	46	1.53	3.1	3.1	68.3	No	Possible CIPP	2031-2035	$ 18,400				$ 18,400	
04502650450257	Condition - with CCTV scoring	235.1	8	6	8	45	1.37	3.1	3.1	68.3	No	Possible CIPP	2031-2035	$ 13,100				$ 13,100	
04601550460156	Condition - with CCTV scoring	624.6	8	5.83	8	46	1.37	3.1	3.1	68.3	No	Possible CIPP	2031-2035	$ 34,700				$ 34,700	
06300900630065	Condition - with CCTV scoring	261.9	8	6.52	8	63	1.43	3.1	3.1	68.3	No	Possible CIPP	2031-2035	$ 14,600				$ 14,600	
07700980770099	Condition - with CCTV scoring	373.2	15	13.51	15	77	2.08	3.0	3.0	68.3	No	CCTV	2031-2035	$ -				$ -	
08500440850035	Condition - with CCTV scoring	307.2	10	9.09	10	86	2.07	3.0	3.0	68.3	No	CCTV	2031-2035	$ -				$ -	
05603060560305	Condition - with CCTV scoring	678.5	8	5.22	8	56	1.75	3.1	3.1	68.3	No	Possible CIPP	2031-2035	$ 37,700				$ 37,700	
04601990460200	Condition - with CCTV scoring	596.1	8	5.3	8	46	1.32	3.1	3.1	68.2	No	Possible CIPP	2031-2035	$ 33,200				$ 33,200	
04501850450186	Condition - with CCTV scoring	353.3	8	4.91	8	45	2.05	3.0	3.0	68.2	No	CCTV	2031-2035	$ -				$ -	
04602670460179	Condition - with CCTV scoring	189	8	5.65	8	46	2.04	3.0	3.0	68.2	No	CCTV	2031-2035	$ -				$ -	
07601450760170	Condition - with CCTV scoring	15.2	15	4.09	15	76	2.04	3.0	3.0	68.2	No	CCTV	2031-2035	$ -				$ -	
04502460450249	Condition - with CCTV scoring	313.7	8	5.22	8	45	1.41	3.1	3.1	68.1	No	Begin Project Development	2031-2035	$ 149,700				$ 149,700	
04602790460278	Condition - with CCTV scoring	519.7	8	6	8	46	1.41	3.1	3.1	68.1	No	Possible CIPP	2031-2035	$ 28,900				$ 28,900	
06200930620074	Condition - with CCTV scoring	338.8	8	7.09	8	62	1.66	3.1	3.1	68.1	No	Possible CIPP	2031-2035	$ 18,800				$ 18,800	
04601150460116	Condition - with CCTV scoring	370.5	8	5.46	8	46	1.47	3.1	3.1	68.1	No	Possible CIPP	2031-2035	$ 20,600				$ 20,600	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
05600550560056	Condition - with CCTV scoring	390.4	8	4.95	8	56	1.57	3.1	3.1	68.1	No	Possible CIPP	2031-2035	$ 21,700				$ 21,700	
06601060660104	Condition - with CCTV scoring	339.7	8	5.03	8	66	1.71	3.1	3.1	68.1	No	Possible CIPP	2031-2035	$ 18,900				$ 18,900	
06601400660141	Condition - with CCTV scoring	323.2	8	9.89	8	66	2.02	3.0	3.0	68.1	Yes	CCTV	2031-2035	$ -				$ -	
04600490460048	Condition - with CCTV scoring	367.2	8	5.21	8	46	1.46	3.1	3.1	68.1	No	Possible CIPP	2031-2035	$ 20,400				$ 20,400	
07700770770076	Condition - with CCTV scoring	458	8	6.32	8	77	2.43	2.9	2.9	68.1	No	CCTV	2031-2035	$ -				$ -	
04600480460047	Condition - with CCTV scoring	361.5	8	5.23	8	46	1.54	3.1	3.1	68.0	No	Possible CIPP	2031-2035	$ 20,100				$ 20,100	
04601900460187	Condition - with CCTV scoring	623.2	8	4.1	8	46	1.68	3.1	3.1	68.0	No	Possible CIPP	2031-2035	$ 34,700				$ 34,700	
05602080560206	Condition - with CCTV scoring	599.6	8	3.31	8	56	1.75	3.0	3.0	67.9	No	Expedited Replacement	2031-2035	$ 286,100				$ 286,100	
04501630450160	Condition - with CCTV scoring	294.7	8	5.26	8	45	1.98	3.0	3.0	67.9	No	CCTV	2031-2035	$ -				$ -	
04501640450163	Condition - with CCTV scoring	316	8	5.25	8	45	1.98	3.0	3.0	67.9	No	CCTV	2031-2035	$ -				$ -	
08600660860065	Condition - with CCTV scoring	303.3	10	4.88	10	86	1.98	3.0	3.0	67.9	No	Possible CIPP	2031-2035	$ 22,900				$ 22,900	
07500770750078	Condition - with CCTV scoring	681.3	12	7	12	75	1.88	3.0	3.0	67.9	No	Possible CIPP	2031-2035	$ 65,500				$ 65,500	
06601050660140	Condition - with CCTV scoring	357	8	6.11	8	66	1.9	3.0	3.0	67.9	No	Possible CIPP	2031-2035	$ 19,900				$ 19,900	
06301030630099	Condition - with CCTV scoring	529	8	5.03	8	63	1.6	3.1	3.1	67.9	No	Possible CIPP	2031-2035	$ 29,400				$ 29,400	
04600770460079	Condition - with CCTV scoring	390	8	5.5	8	46	1.97	3.0	3.0	67.9	No	CCTV	2031-2035	$ -				$ -	
07700540770051	Condition - with CCTV scoring	358.3	8	7	8	77	1.97	3.0	3.0	67.9	No	CCTV	2031-2035	$ -				$ -	
04601790460178	Condition - with CCTV scoring	795.2	8	6	8	46	1.43	3.1	3.1	67.9	No	Possible CIPP	2031-2035	$ 44,200				$ 44,200	
05601690560267	Condition - with CCTV scoring	507.4	8	6.52	8	56	1.96	3.0	3.0	67.8	No	CCTV	2031-2035	$ -				$ -	
04601700460171	Condition - with CCTV scoring	175.4	8	5.04	8	46	1.96	3.0	3.0	67.8	No	Possible CIPP	2031-2035	$ 9,800				$ 9,800	
07300960730097	Condition - with CCTV scoring	345.3	8	6.6	8	73	1.5	3.1	3.1	67.8	No	Possible CIPP	2031-2035	$ 19,200				$ 19,200	
07601920760190	Condition - with CCTV scoring	666.6	8	4.25	8	76	1.91	3.0	3.0	67.8	No	Possible CIPP	2031-2035	$ 37,100				$ 37,100	
05601680560167	Condition - with CCTV scoring	484.8	8	4.99	8	56	1.68	3.1	3.1	67.8	No	Possible CIPP	2031-2035	$ 27,000				$ 27,000	
05600650560064	Condition - with CCTV scoring	414.4	8	5.8	8	56	1.95	3.0	3.0	67.8	No	CCTV	2031-2035	$ -				$ -	
07500800750079	Condition - with CCTV scoring	416.7	8	5.07	8	75	1.71	3.0	3.0	67.8	No	Possible CIPP	2031-2035	$ 23,200				$ 23,200	
02200770220079	Condition - with CCTV scoring	192.7	8	4.13	8	22	1.94	3.0	3.0	67.8	No	CCTV	2031-2035	$ -				$ -	
06300030630001	Condition - with CCTV scoring	365.9	8	5.2	8	63	1.48	3.1	3.1	67.7	No	Possible CIPP	2031-2035	$ 20,300				$ 20,300	
04500010450149	Condition - with CCTV scoring	523	8	5.7	8	45	1.93	3.0	3.0	67.7	No	CCTV	2031-2035	$ -				$ -	
05601440560141	Condition - with CCTV scoring	863	8	3.35	8	56	1.93	3.0	3.0	67.7	No	Begin Project Development	2031-2035	$ 411,800				$ 411,800	
05601850560183	Condition - with CCTV scoring	218.4	8	4.74	8	56	1.82	3.0	3.0	67.7	No	Possible CIPP	2031-2035	$ 12,100				$ 12,100	
05600440660064	Condition - with CCTV scoring	274.4	8	3.63	8	56	1.83	3.0	3.0	67.7	No	Possible CIPP	2031-2035	$ 15,300				$ 15,300	
03600260460132	Condition - with CCTV scoring	341.9	8	5.73	8	36	1.61	3.1	3.1	67.7	No	Possible CIPP	2031-2035	$ 19,000				$ 19,000	
05602800560266	Condition - with CCTV scoring	306	8	4.47	8	56	1.6	3.1	3.1	67.7	No	Possible CIPP	2031-2035	$ 17,000				$ 17,000	
04501380450139	Condition - with CCTV scoring	336.9	8	5.17	8	45	2.22	2.9	2.9	67.6	No	CCTV	2031-2035	$ -				$ -	
04600510460052	Condition - with CCTV scoring	314.5	8	6.66	8	46	1.59	3.1	3.1	67.6	No	Possible CIPP	2031-2035	$ 17,500				$ 17,500	
05601380560136	Condition - with CCTV scoring	36.8	8	4.7	8	56	1.9	3.0	3.0	67.6	No	CCTV	2031-2035	$ -				$ -	
07600240760078	Condition - with CCTV scoring	45.5	24	9.8	24	76	1.9	3.0	3.0	67.6	No	CCTV	2031-2035	$ -				$ -	
05600560560048	Condition - with CCTV scoring	336.1	8	5.05	8	56	1.65	3.0	3.0	67.6	No	Possible CIPP	2031-2035	$ 18,700				$ 18,700	
05600890560057	Condition - with CCTV scoring	654.1	8	5.5	8	56	1.6	3.1	3.1	67.5	No	Possible CIPP	2031-2035	$ 36,400				$ 36,400	
05600080560007	Condition - with CCTV scoring	670.8	8	6.52	8	56	1.88	3.0	3.0	67.5	No	CCTV	2031-2035	$ -				$ -	
04501180450119	Condition - with CCTV scoring	450.7	8	4.4	8	45	1.88	3.0	3.0	67.5	No	CCTV	2031-2035	$ -				$ -	
07500760750077	Condition - with CCTV scoring	468	12	6.6	12	75	1.88	3.0	3.0	67.5	No	CCTV	2031-2035	$ -				$ -	
06400440640042	Condition - with CCTV scoring	537.7	8	6.83	8	64	1.64	3.0	3.0	67.5	No	Possible CIPP	2031-2035	$ 29,900				$ 29,900	
02200150220016	Condition - with CCTV scoring	760.7	18	11.44	18	22	1.87	3.0	3.0	67.5	No	CCTV	2031-2035	$ -				$ -	
04600520460053	Condition - with CCTV scoring	397.5	8	6	8	46	1.54	3.1	3.1	67.4	No	Possible CIPP	2031-2035	$ 22,100				$ 22,100	
04600040460149	Condition - with CCTV scoring	632.1	8	6	8	46	1.48	3.1	3.1	67.4	No	Possible CIPP	2031-2035	$ 35,200				$ 35,200	
06600900660140	Condition - with CCTV scoring	351.3	8	5.17	8	66	1.85	3.0	3.0	67.4	No	CCTV	2031-2035	$ -				$ -	
08600070860006	Condition - with CCTV scoring	329.3	8	12.48	8	86	1.85	3.0	3.0	67.4	No	CCTV	2031-2035	$ -				$ -	
07601460760113	Condition - with CCTV scoring	318.3	15	2.96	15	76	1.85	3.0	3.0	67.4	No	Possible CIPP	2031-2035	$ 40,500				$ 40,500	
06601630660161	Condition - with CCTV scoring	337.7	8	4.833	8	66	1.84	3.0	3.0	67.4	No	CCTV	2031-2035	$ -				$ -	
07601930760184	Condition - with CCTV scoring	162.9	14	7.59	15	76	1.84	3.0	3.0	67.4	No	CCTV	2031-2035	$ -				$ -	
04602510460248	Condition - with CCTV scoring	504.5	8	5.5	8	46	1.38	3.1	3.1	67.3	No	Possible CIPP	2031-2035	$ 28,100				$ 28,100	
06603250660324	Condition - with CCTV scoring	335.2	8	5.04	8	66	1.83	3.0	3.0	67.3	No	CCTV	2031-2035	$ -				$ -	
05601890560190	Condition - with CCTV scoring	605	8	6	8	56	1.83	3.0	3.0	67.3	No	CCTV	2031-2035	$ -				$ -	
07700760770075	Condition - with CCTV scoring	431.1	8	6.25	8	77	1.83	3.0	3.0	67.3	No	CCTV	2031-2035	$ -				$ -	
07500780750094	Condition - with CCTV scoring	681.1	12	4.9	12	75	1.75	3.0	3.0	67.3	No	Begin Project Development	2031-2035	$ 446,000				$ 446,000	
06602620760199	Condition - with CCTV scoring	331.1	8	4.19	8	66	1.74	3.0	3.0	67.3	No	Possible CIPP	2031-2035	$ 18,400				$ 18,400	
04801600480139	Condition - with CCTV scoring	330	12	8.74	12	48	1.81	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
08800870880098	Condition - with CCTV scoring	503.5	18	9.02	18	88	1.81	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
07500890750085	Condition - with CCTV scoring	334.1	8	5.59	8	75	1.81	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
05602840560237	Condition - with CCTV scoring	507.9	8	4.8	8	56	1.7	3.0	3.0	67.2	No	Possible CIPP	2031-2035	$ 28,200				$ 28,200	
05600910560089	Condition - with CCTV scoring	663.4	8	5.5	8	56	1.35	3.1	3.1	67.2	No	Possible CIPP	2031-2035	$ 36,900				$ 36,900	
05601080560201	Condition - with CCTV scoring	303.9	8	5.5	8	56	1.8	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
07600790760087	Condition - with CCTV scoring	218.9	24	6.78	24	76	2.95	2.8	2.8	67.2	No	CCTV	2031-2035	$ -				$ -	
04601200460099	Condition - with CCTV scoring	351.5	8	5	8	46	1.93	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
06600870660088	Condition - with CCTV scoring	471	10	7.19	10	66	1.79	3.0	3.0	67.2	No	Possible CIPP	2031-2035	$ 35,500				$ 35,500	
06601070660101	Condition - with CCTV scoring	340.2	8	5.26	8	66	1.79	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
05600340560035	Condition - with CCTV scoring	736	8	6.25	8	56	1.79	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
07701470770148	Condition - with CCTV scoring	501.2	15	11.2	15	77	1.79	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
08500300850036	Condition - with CCTV scoring	252	8	10.04	8	85	1.79	3.0	3.0	67.2	No	CCTV	2031-2035	$ -				$ -	
04500150450017	Condition - with CCTV scoring	318.2	8	5	8	45	1.2	3.1	3.1	67.2	No	Possible CIPP	2031-2035	$ 17,700				$ 17,700	
03600530460201	Condition - with CCTV scoring	662.8	8	5.33	8	36	1.33	3.1	3.1	67.1	No	Possible CIPP	2031-2035	$ 36,900				$ 36,900	
06603230660322	Condition - with CCTV scoring	676.7	8	5.37	8	66	1.78	3.0	3.0	67.1	No	CCTV	2031-2035	$ -				$ -	
06500240650026	Condition - with CCTV scoring	701.8	8	3.5	8	65	1.78	3.0	3.0	67.1	No	Begin Project Development	2031-2035	$ 334,900				$ 334,900	
06402020640201	Condition - with CCTV scoring	519.1	8	5	8	64	1.54	3.0	3.0	67.1	No	Possible CIPP	2031-2035	$ 28,900				$ 28,900	
05601980560108	Condition - with CCTV scoring	82.9	8	6.63	8	56	1.77	3.0	3.0	67.1	No	CCTV	2031-2035	$ -				$ -	
04601830460181	Condition - with CCTV scoring	649.1	8	6	8	46	1.45	3.1	3.1	67.1	No	Possible CIPP	2031-2035	$ 36,100				$ 36,100	
04602780460277	Condition - with CCTV scoring	522.6	8	6	8	46	1.57	3.0	3.0	67.0	No	Possible CIPP	2031-2035	$ 29,100				$ 29,100	
06600490660101	Condition - with CCTV scoring	341.7	8	6.3	8	66	1.76	3.0	3.0	67.0	No	Begin Project Development	2031-2035	$ 163,100				$ 163,100	
05602960560295	Condition - with CCTV scoring	278.9	8	5.34	8	56	1.76	3.0	3.0	67.0	No	CCTV	2031-2035	$ -				$ -	
08800840880087	Condition - with CCTV scoring	111.4	10	8.36	10	88	1.76	3.0	3.0	67.0	No	CCTV	2031-2035	$ -				$ -	
06200280620022	Condition - with CCTV scoring	285.5	8	6	8	62	1.52	3.0	3.0	67.0	No	Possible CIPP	2031-2035	$ 15,900				$ 15,900	
06401930640192	Condition - with CCTV scoring	307.9	8	5.21	8	64	1.52	3.0	3.0	67.0	No	Possible CIPP	2031-2035	$ 17,100				$ 17,100	
07501130750119	Condition - with CCTV scoring	328.1	8	4.79	8	75	1.68	3.0	3.0	67.0	No	Possible CIPP	2031-2035	$ 18,200				$ 18,200	
04502220450221	Condition - with CCTV scoring	355.2	8	7	8	45	1.3	3.1	3.1	67.0	No	Possible CIPP	2031-2035	$ 19,800				$ 19,800	
06601040660105	Condition - with CCTV scoring	340.9	8	6.31	8	66	1.75	3.0	3.0	67.0	No	CCTV	2031-2035	$ -				$ -	
07501190750227	Condition - with CCTV scoring	235.7	8	5.26	8	75	1.61	3.0	3.0	67.0	No	Possible CIPP	2031-2035	$ 13,100				$ 13,100	
06300850630067	Condition - with CCTV scoring	288.2	8	5.4	8	63	1.43	3.1	3.1	67.0	No	Possible CIPP	2031-2035	$ 16,000				$ 16,000	
04600740460075	Condition - with CCTV scoring	643.5	8	5.5	8	46	1.68	3.0	3.0	67.0	No	Possible CIPP	2031-2035	$ 35,800				$ 35,800	
06300890630088	Condition - with CCTV scoring	507.3	8	5.5	8	63	1.58	3.0	3.0	67.0	No	Possible CIPP	2031-2035	$ 28,200				$ 28,200	
06502010650200	Condition - with CCTV scoring	19.3	8	5.5	8	65	1.74	3.0	3.0	67.0	No	CCTV	2031-2035	$ -				$ -	
03601200360121	Condition - with CCTV scoring	270	12	4.96	12	36	1.74	3.0	3.0	67.0	No	CCTV	2031-2035	$ -				$ -	
04601560460157	Condition - with CCTV scoring	674.8	8	6	8	46	1.45	3.1	3.1	66.9	No	Possible CIPP	2031-2035	$ 37,500				$ 37,500	
07601420760141	Condition - with CCTV scoring	14.7	12	3.19	12	76	1.73	3.0	3.0	66.9	No	CCTV	2031-2035	$ -				$ -	
05601560660314	Condition - with CCTV scoring	345.6	8	4.24	8	56	1.72	3.0	3.0	66.9	No	CCTV	2031-2035	$ -				$ -	
06601490660147	Condition - with CCTV scoring	306.7	8	6.88	8	66	1.72	3.0	3.0	66.9	No	CCTV	2031-2035	$ -				$ -	
05601970560198	Condition - with CCTV scoring	193.2	8	6.37	8	56	1.72	3.0	3.0	66.9	No	CCTV	2031-2035	$ -				$ -	
07500740750076	Condition - with CCTV scoring	483.1	12	6.2	12	75	1.72	3.0	3.0	66.9	No	CCTV	2031-2035	$ -				$ -	
07500850750093	Condition - with CCTV scoring	117.4	8	5.65	8	75	1.71	3.0	3.0	66.8	No	CCTV	2031-2035	$ -				$ -	
06600460660047	Condition - with CCTV scoring	328.4	8	6	8	66	1.7	3.0	3.0	66.8	No	CCTV	2031-2035	$ -				$ -	
07501370750139	Condition - with CCTV scoring	45.2	8	7.47	8	75	1.7	3.0	3.0	66.8	No	Possible CIPP	2031-2035	$ 2,500				$ 2,500	
05602150560218	Condition - with CCTV scoring	355.8	8	7.46	8	56	1.69	3.0	3.0	66.8	No	CCTV	2031-2035	$ -				$ -	
06600470660104	Condition - with CCTV scoring	339.1	8	6.58	8	66	1.68	3.0	3.0	66.7	No	CCTV	2031-2035	$ -				$ -	
04801610480160	Condition - with CCTV scoring	327.1	12	7.68	12	48	1.68	3.0	3.0	66.7	No	CCTV	2031-2035	$ -				$ -	
04601750460182	Condition - with CCTV scoring	637.9	8	5.65	8	46	1.68	3.0	3.0	66.7	No	Possible CIPP	2031-2035	$ 35,500				$ 35,500	
05601950560167	Condition - with CCTV scoring	310	8	5.16	8	56	1.68	3.0	3.0	66.7	No	CCTV	2031-2035	$ -				$ -	
05601670560169	Condition - with CCTV scoring	357.6	8	5.43	8	56	1.68	3.0	3.0	66.7	No	CCTV	2031-2035	$ -				$ -	
07800010780002	Condition - with CCTV scoring	497.8	12	11.12	12	78	1.68	3.0	3.0	66.7	No	CCTV	2031-2035	$ -				$ -	
05602030560201	Condition - with CCTV scoring	281.5	8	4.24	8	56	1.67	3.0	3.0	66.7	No	CCTV	2031-2035	$ -				$ -	
08700710870010	Condition - with CCTV scoring	194.2	8	7.45	8	87	1.67	3.0	3.0	66.7	No	Begin Project Development	2031-2035	$ 92,700				$ 92,700	
08500220750086	Condition - with CCTV scoring	728.1	8	4.44	8	75	1.67	3.0	3.0	66.7	No	CCTV	2031-2035	$ -				$ -	
08700880870052	Condition - with CCTV scoring	299.4	8	6.9	8	87	1.66	3.0	3.0	66.6	No	Possible CIPP	2031-2035	$ 16,700				$ 16,700	
04300540440099	Condition - with CCTV scoring	380.3	15	8.63	15	43	1.65	3.0	3.0	66.6	No	CCTV	2031-2035	$ -				$ -	
07602150760192	Condition - with CCTV scoring	499.2	8	4.79	8	76	1.6	3.0	3.0	66.6	No	Possible CIPP	2031-2035	$ 27,800				$ 27,800	
06601480660149	Condition - with CCTV scoring	344.3	8	5.61	8	66	1.64	3.0	3.0	66.6	No	CCTV	2031-2035	$ -				$ -	
05602170560215	Condition - with CCTV scoring	681	8	4.11	8	56	1.64	3.0	3.0	66.6	No	CCTV	2031-2035	$ -				$ -	
05601770560085	Condition - with CCTV scoring	49	8	7.3	8	56	1.64	3.0	3.0	66.6	No	CCTV	2031-2035	$ -				$ -	
06401230640122	Condition - with CCTV scoring	120.3	8	5.09	8	64	1.64	3.0	3.0	66.6	No	CCTV	2031-2035	$ -				$ -	
09701630970162	Condition - with CCTV scoring	223.2	8	6.22	8	97	1.64	3.0	3.0	66.6	No	CCTV	2031-2035	$ -				$ -	
06200410620043	Condition - with CCTV scoring	297.7	8	6	8	62	1.55	3.0	3.0	66.6	No	Possible CIPP	2031-2035	$ 16,600				$ 16,600	
04602030460204	Condition - with CCTV scoring	641.3	8	5	8	46	1.32	3.1	3.1	66.5	No	Possible CIPP	2031-2035	$ 35,700				$ 35,700	
08500240750090	Condition - with CCTV scoring	732.5	8	4.46	8	75	1.68	3.0	3.0	66.5	No	CCTV	2031-2035	$ -				$ -	
04601610460160	Condition - with CCTV scoring	555.7	8	6	8	46	1.63	3.0	3.0	66.5	No	CCTV	2031-2035	$ -				$ -	
06700030670004	Condition - with CCTV scoring	20.2	8	2.98	8	67	1.63	3.0	3.0	66.5	No	CCTV	2031-2035	$ -				$ -	
07500860750087	Condition - with CCTV scoring	165.9	8	8.4	8	75	1.63	3.0	3.0	66.5	No	CCTV	2031-2035	$ -				$ -	
04602080460204	Condition - with CCTV scoring	327.2	8	5.07	8	46	1.25	3.1	3.1	66.5	No	Possible CIPP	2031-2035	$ 18,200				$ 18,200	
04601410460138	Condition - with CCTV scoring	286.5	8	6.09	8	46	1.62	3.0	3.0	66.5	No	CCTV	2031-2035	$ -				$ -	
08600930860096	Condition - with CCTV scoring	261.8	8	4.54	8	86	1.62	3.0	3.0	66.5	No	CCTV	2031-2035	$ -				$ -	
07500710750086	Condition - with CCTV scoring	174.2	8	8.83	8	75	1.62	3.0	3.0	66.5	No	CCTV	2031-2035	$ -				$ -	
04602550460256	Condition - with CCTV scoring	625.5	8	6	8	46	1.3	3.1	3.1	66.5	No	Possible CIPP	2031-2035	$ 34,800				$ 34,800	
04801580480157	Condition - with CCTV scoring	317	12	15.9	12	48	1.61	3.0	3.0	66.4	No	CCTV	2031-2035	$ -				$ -	
07500900750089	Condition - with CCTV scoring	346.1	8	4.65	8	75	1.61	3.0	3.0	66.4	No	CCTV	2031-2035	$ -				$ -	
07502250750227	Condition - with CCTV scoring	178.9	8	5.2	8	75	1.61	3.0	3.0	66.4	No	CCTV	2031-2035	$ -				$ -	
07602050760181	Condition - with CCTV scoring	323.9	21	8.01	21	76	1.6	3.0	3.0	66.4	No	CCTV	2031-2035	$ -				$ -	
05602100560229	Condition - with CCTV scoring	275.1	8	6.22	8	56	1.72	3.0	3.0	66.4	No	CCTV	2031-2035	$ -				$ -	
06601100660149	Condition - with CCTV scoring	195.8	8	3.83	8	66	1.59	3.0	3.0	66.4	No	CCTV	2031-2035	$ -				$ -	
06400460640047	Condition - with CCTV scoring	413.4	8	5.34	8	64	1.59	3.0	3.0	66.4	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
06501810650201	Condition - with CCTV scoring	502.8	8	5.5	8	65	1.54	3.0	3.0	66.4	No	Possible CIPP	2031-2035	$ 28,000				$ 28,000	
05700940570026	Condition - with CCTV scoring	427.4	12	16.87	12	57	2.32	2.9	2.9	66.4	No	CCTV	2031-2035	$ -				$ -	
05602670560268	Condition - with CCTV scoring	393.3	8	7.6	8	56	2.04	2.9	2.9	66.3	No	CCTV	2031-2035	$ -				$ -	
04502490450242	Condition - with CCTV scoring	362.4	8	8.85	8	45	1.58	3.0	3.0	66.3	No	CCTV	2031-2035	$ -				$ -	
04601290450242	Condition - with CCTV scoring	683.5	8	6.6	8	45	1.58	3.0	3.0	66.3	No	CCTV	2031-2035	$ -				$ -	
06201030620101	Condition - with CCTV scoring	186.2	8	6.48	8	62	1.58	3.0	3.0	66.3	No	CCTV	2031-2035	$ -				$ -	
07602030760199	Condition - with CCTV scoring	305.9	8	8.385	8	76	1.7	3.0	3.0	66.3	No	CCTV	2031-2035	$ -				$ -	
09701640970157	Condition - with CCTV scoring	242.6	8	6.22	8	97	1.57	3.0	3.0	66.3	No	CCTV	2031-2035	$ -				$ -	
07400480750014	Condition - with CCTV scoring	429.5	8	5.5	8	74	1.57	3.0	3.0	66.3	No	CCTV	2031-2035	$ -				$ -	
04602020460203	Condition - with CCTV scoring	664.2	8	6.1	8	46	1.37	3.0	3.0	66.2	No	Possible CIPP	2031-2035	$ 36,900				$ 36,900	
06401330640113	Condition - with CCTV scoring	99.6	8	4.7	8	64	1.56	3.0	3.0	66.2	No	CCTV	2031-2035	$ -				$ -	
07800310780063	Condition - with CCTV scoring	55.1	15	10.62	15	78	1.55	3.0	3.0	66.2	No	CCTV	2031-2035	$ -				$ -	
06600460660048	Condition - with CCTV scoring	339.1	8	6	8	66	1.72	3.0	3.0	66.2	No	CCTV	2031-2035	$ -				$ -	
05600620560063	Condition - with CCTV scoring	327.5	8	5.4	8	56	1.54	3.0	3.0	66.2	No	CCTV	2031-2035	$ -				$ -	
07602290760210	Condition - with CCTV scoring	379.5	8	5.4	8	76	1.54	3.0	3.0	66.2	No	CCTV	2031-2035	$ -				$ -	
06201080620112	Condition - with CCTV scoring	231.8	8	5.5	8	62	1.3	3.0	3.0	66.2	No	Possible CIPP	2031-2035	$ 12,900				$ 12,900	
04801460480144	Condition - with CCTV scoring	327.5	12	7.83	12	48	2.24	2.9	2.9	66.1	No	CCTV	2031-2035	$ -				$ -	
05600670560065	Condition - with CCTV scoring	676	8	5.07	8	56	2.08	2.9	2.9	66.1	No	CCTV	2031-2035	$ -				$ -	
03600490460158	Condition - with CCTV scoring	611.9	8	5.83	8	36	1.12	3.1	3.1	66.1	No	Possible CIPP	2031-2035	$ 34,000				$ 34,000	
04601480460151	Condition - with CCTV scoring	48.5	8	6.8	8	46	2.06	2.9	2.9	66.0	No	CCTV	2031-2035	$ -				$ -	
06401440640159	Condition - with CCTV scoring	182.1	8	5.14	8	64	1.5	3.0	3.0	66.0	No	CCTV	2031-2035	$ -				$ -	
06400590640055	Condition - with CCTV scoring	317	8	5.18	8	64	1.5	3.0	3.0	66.0	No	CCTV	2031-2035	$ -				$ -	
07500400750039	Condition - with CCTV scoring	64.3	8	4.36	8	75	1.5	3.0	3.0	66.0	No	CCTV	2031-2035	$ -				$ -	
04502610450259	Condition - with CCTV scoring	298.9	8	5	8	45	1.3	3.0	3.0	66.0	No	Possible CIPP	2031-2035	$ 16,600				$ 16,600	
04600020460003	Condition - with CCTV scoring	622.3	8	5.18	8	46	1.3	3.0	3.0	66.0	No	Possible CIPP	2031-2035	$ 34,600				$ 34,600	
04600560460053	Condition - with CCTV scoring	393.5	8	5	8	46	1.49	3.0	3.0	66.0	No	CCTV	2031-2035	$ -				$ -	
04502690450270	Condition - with CCTV scoring	388.2	8	5.35	8	45	1.25	3.0	3.0	66.0	No	Possible CIPP	2031-2035	$ 21,600				$ 21,600	
04500210450151	Condition - with CCTV scoring	449.1	8	4.35	8	45	1.48	3.0	3.0	65.9	No	CCTV	2031-2035	$ -				$ -	
06300080630007	Condition - with CCTV scoring	299.1	8	8.38	8	63	1.48	3.0	3.0	65.9	No	CCTV	2031-2035	$ -				$ -	
05600290560028	Condition - with CCTV scoring	317.3	8	4.85	8	56	2.31	2.8	2.8	65.9	Yes	CCTV	2031-2035	$ -				$ -	
04602530460254	Condition - with CCTV scoring	526.5	8	5.75	8	46	1.93	2.9	2.9	65.9	No	CCTV	2031-2035	$ -				$ -	
04500450450050	Condition - with CCTV scoring	247.9	8	9.63	8	45	1.47	3.0	3.0	65.9	No	CCTV	2031-2035	$ -				$ -	
02401090240110	Condition - with CCTV scoring	378.1	12	8.5	12	24	1.47	3.0	3.0	65.9	No	CCTV	2031-2035	$ -				$ -	
04600550460054	Condition - with CCTV scoring	308	8	4.93	8	46	1.46	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
07602000760201	Condition - with CCTV scoring	385.1	8	5.77	8	76	1.7	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
04502070450033	Condition - with CCTV scoring	41	8	3.7	8	45	1.45	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
04601380460136	Condition - with CCTV scoring	283.5	8	5.7	8	46	1.45	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
04601370460136	Condition - with CCTV scoring	382.1	8	5.5	8	46	1.45	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
04602110460010	Condition - with CCTV scoring	291.5	8	5.52	8	46	1.45	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
06300200630024	Condition - with CCTV scoring	372.7	8	5	8	63	1.45	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
04501330450110	Condition - with CCTV scoring	267.4	8	5.02	8	45	1.45	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
06500470650049	Condition - with CCTV scoring	326.7	8	6.32	8	65	1.45	3.0	3.0	65.8	No	Possible CIPP	2031-2035	$ 18,200				$ 18,200	
07301280730124	Condition - with CCTV scoring	119.3	8	8.8	8	73	1.45	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
04501820450179	Condition - with CCTV scoring	351.4	8	5.21	8	45	1.44	3.0	3.0	65.8	No	CCTV	2031-2035	$ -				$ -	
06201070620108	Condition - with CCTV scoring	233.7	8	5.5	8	62	1.3	3.0	3.0	65.8	No	Possible CIPP	2031-2035	$ 13,000				$ 13,000	
03600510460195	Condition - with CCTV scoring	310.6	8	5.56	8	36	1.43	3.0	3.0	65.7	No	CCTV	2031-2035	$ -				$ -	
07500430750042	Condition - with CCTV scoring	304.1	8	5.5	8	75	1.43	3.0	3.0	65.7	No	CCTV	2031-2035	$ -				$ -	
06600890660087	Condition - with CCTV scoring	267.6	8	3.88	8	66	1.62	3.0	3.0	65.7	No	CCTV	2031-2035	$ -				$ -	
05800250580026	Condition - with CCTV scoring	550.9	12	10.07	12	58	1.42	3.0	3.0	65.7	No	CCTV	2031-2035	$ -				$ -	
06200640620065	Condition - with CCTV scoring	294.1	8	6.23	8	62	1.42	3.0	3.0	65.7	No	Possible CIPP	2031-2035	$ 16,400				$ 16,400	
04502480450246	Condition - with CCTV scoring	81.9	8	5.03	8	45	1.41	3.0	3.0	65.6	No	CCTV	2031-2035	$ -				$ -	
04600810560007	Condition - with CCTV scoring	379.7	8	6	8	46	1.96	2.9	2.9	65.6	No	CCTV	2031-2035	$ -				$ -	
06400680640070	Condition - with CCTV scoring	342.3	8	3.02	8	64	1.4	3.0	3.0	65.6	No	CCTV	2031-2035	$ -				$ -	
04601640460091	Condition - with CCTV scoring	646.1	8	5.73	8	46	1.38	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
04601430460137	Condition - with CCTV scoring	369	8	5.52	8	46	1.38	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
05601900560222	Condition - with CCTV scoring	714.2	8	5.9	8	56	1.38	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
06401950640193	Condition - with CCTV scoring	61.1	8	5.6	8	64	1.38	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
07602220760187	Condition - with CCTV scoring	303.6	12	7.54	12	76	1.5	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
05800700580071	Condition - with CCTV scoring	324.3	12	8.89	12	58	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
04500070450006	Condition - with CCTV scoring	817	8	5.84	8	45	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
06201140620113	Condition - with CCTV scoring	406.8	8	5.05	8	62	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
06200710620069	Condition - with CCTV scoring	294	8	5.45	8	62	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
04501790450180	Condition - with CCTV scoring	345	8	5.2	8	45	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
04501840450185	Condition - with CCTV scoring	360.8	8	4.99	8	45	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
04501130450268	Condition - with CCTV scoring	434.3	8	4.85	8	45	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
04501240450120	Condition - with CCTV scoring	331.5	8	5.5	8	45	1.37	3.0	3.0	65.5	No	CCTV	2031-2035	$ -				$ -	
04601820460184	Condition - with CCTV scoring	52.2	8	6.83	8	46	1.81	2.9	2.9	65.4	No	CCTV	2031-2035	$ -				$ -	
04501880450209	Condition - with CCTV scoring	319.5	8	5.4	8	45	1.35	3.0	3.0	65.4	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04501580450157	Condition - with CCTV scoring	291.5	8	5.25	8	45	1.32	3.0	3.0	65.3	No	CCTV	2031-2035	$ -				$ -	
04500480450049	Condition - with CCTV scoring	218.7	8	6.45	8	45	1.32	3.0	3.0	65.3	No	CCTV	2031-2035	$ -				$ -	
05602650560195	Condition - with CCTV scoring	731.8	8	4.05	8	56	1.76	2.9	2.9	65.2	No	CCTV	2031-2035	$ -				$ -	
04502620450259	Condition - with CCTV scoring	273.1	8	4.32	8	45	1.3	3.0	3.0	65.2	No	CCTV	2031-2035	$ -				$ -	
04502540450259	Condition - with CCTV scoring	335.8	8	5.97	8	45	1.3	3.0	3.0	65.2	No	CCTV	2031-2035	$ -				$ -	
04500160450013	Condition - with CCTV scoring	467.5	8	4.79	8	45	1.3	3.0	3.0	65.2	No	CCTV	2031-2035	$ -				$ -	
06200080620047	Condition - with CCTV scoring	67.8	8	5	8	62	1.3	3.0	3.0	65.2	No	Possible CIPP	2031-2035	$ 3,800				$ 3,800	
06200770620083	Condition - with CCTV scoring	206.2	8	5.31	8	62	1.3	3.0	3.0	65.2	No	CCTV	2031-2035	$ -				$ -	
06200570620054	Condition - with CCTV scoring	263.3	8	5.51	8	62	1.3	3.0	3.0	65.2	No	CCTV	2031-2035	$ -				$ -	
06200840620071	Condition - with CCTV scoring	334.3	8	5.14	8	62	1.3	3.0	3.0	65.2	No	CCTV	2031-2035	$ -				$ -	
04501220450124	Condition - with CCTV scoring	556.3	8	5.25	8	45	1.3	3.0	3.0	65.2	No	CCTV	2031-2035	$ -				$ -	
06300650630063	Condition - with CCTV scoring	75	8	5.91	8	63	1.28	3.0	3.0	65.1	No	CCTV	2031-2035	$ -				$ -	
04502660450267	Condition - with CCTV scoring	570.6	8	4.8	8	45	1.27	3.0	3.0	65.1	No	CCTV	2031-2035	$ -				$ -	
07400130740012	Condition - with CCTV scoring	281.4	15	8.06	15	74	2.51	2.8	2.8	65.0	No	CCTV	2031-2035	$ -				$ -	
04602560460211	Condition - with CCTV scoring	664.2	8	5.82	8	46	1.45	3.0	3.0	65.0	No	CCTV	2031-2035	$ -				$ -	
05601410560142	Condition - with CCTV scoring	270.1	8	5.9	8	56	1.88	2.9	2.9	65.0	No	CCTV	2031-2035	$ -				$ -	
04500400450042	Condition - with CCTV scoring	318.8	8	5.15	8	45	1.25	3.0	3.0	65.0	No	CCTV	2031-2035	$ -				$ -	
04602000460119	Condition - with CCTV scoring	61.6	8	4.72	8	46	1.25	3.0	3.0	65.0	No	CCTV	2031-2035	$ -				$ -	
04501770450178	Condition - with CCTV scoring	354.4	8	5.03	8	45	1.25	3.0	3.0	65.0	No	CCTV	2031-2035	$ -				$ -	
04501760450177	Condition - with CCTV scoring	333.8	8	4.99	8	45	1.25	3.0	3.0	65.0	No	CCTV	2031-2035	$ -				$ -	
04602540460009	Condition - with CCTV scoring	615.1	8	5.75	8	46	1.54	2.9	2.9	64.9	No	CCTV	2031-2035	$ -				$ -	
04502380450225	Condition - with CCTV scoring	177.4	8	5.88	8	45	1.2	3.0	3.0	64.8	No	CCTV	2031-2035	$ -				$ -	
04502300450229	Condition - with CCTV scoring	172	8	4.77	8	45	1.2	3.0	3.0	64.8	No	CCTV	2031-2035	$ -				$ -	
04502200450221	Condition - with CCTV scoring	218.1	8	4.84	8	45	1.2	3.0	3.0	64.8	No	CCTV	2031-2035	$ -				$ -	
04500870450085	Condition - with CCTV scoring	290	8	5.6	8	45	2.09	2.8	2.8	64.7	No	CCTV	2031-2035	$ -				$ -	
04600820460081	Condition - with CCTV scoring	672.3	8	6	8	46	1.81	2.9	2.9	64.6	No	CCTV	2031-2035	$ -				$ -	
04500020450164	Condition - with CCTV scoring	364	8	4.96	8	45	1.98	2.8	2.8	64.6	No	CCTV	2031-2035	$ -				$ -	
05601150560118	Condition - with CCTV scoring	447.5	8	8.08	8	56	1.86	2.9	2.9	64.6	No	CCTV	2031-2035	$ -				$ -	
06602760660218	Condition - with CCTV scoring	462.3	8	4.85	8	66	1.63	2.9	2.9	64.6	No	CCTV	2031-2035	$ -				$ -	
06200440620046	Condition - with CCTV scoring	443.2	8	7.4	8	62	1.84	2.9	2.9	64.5	No	CCTV	2031-2035	$ -				$ -	
04500640450063	Condition - with CCTV scoring	405.8	8	5.52	8	45	1.93	2.8	2.8	64.4	No	CCTV	2031-2035	$ -				$ -	
06601410660163	Condition - with CCTV scoring	343.4	8	5.73	8	66	1.92	2.8	2.8	64.3	No	CCTV	2031-2035	$ -				$ -	
05601420560138	Condition - with CCTV scoring	345.2	8	5.32	8	56	1.88	2.8	2.8	64.2	No	CCTV	2031-2035	$ -				$ -	
06602270660159	Condition - with CCTV scoring	396.8	12	1.63	12	66	2.29	2.8	2.8	64.2	No	CCTV	2031-2035	$ -				$ -	
06301180630119	Condition - with CCTV scoring	261.3	8	5.72	8	63	1.52	2.9	2.9	63.9	No	CCTV	2031-2035	$ -				$ -	
04501610450261	Condition - with CCTV scoring	314.6	8	5	8	45	1.37	2.9	2.9	63.8	No	CCTV	2031-2035	$ -				$ -	
04501360450137	Condition - with CCTV scoring	451.4	8	5.16	8	45	1.67	2.9	2.9	63.8	No	CCTV	2031-2035	$ -				$ -	
05600720560070	Condition - with CCTV scoring	142.5	8	6.9	8	56	1.63	2.9	2.9	63.7	No	CCTV	2031-2035	$ -				$ -	
04601890460191	Condition - with CCTV scoring	334.3	8	6.8	8	46	1.9	2.8	2.8	63.6	No	CCTV	2031-2035	$ -				$ -	
04502630450254	Condition - with CCTV scoring	124.7	8	6.04	8	45	1.35	2.9	2.9	63.6	No	CCTV	2031-2035	$ -				$ -	
04600010460206	Condition - with CCTV scoring	551.1	8	5.24	8	46	1.88	2.8	2.8	63.5	No	CCTV	2031-2035	$ -				$ -	
05602770560275	Condition - with CCTV scoring	351.8	8	5.85	8	56	1.45	2.9	2.9	63.4	No	CCTV	2031-2035	$ -				$ -	
07701560770054	Condition - with CCTV scoring	295.4	8	5.76	8	77	1.85	2.8	2.8	63.4	No	CCTV	2031-2035	$ -				$ -	
06401320640131	Condition - with CCTV scoring	494.2	8	5.35	8	64	1.84	2.8	2.8	63.4	No	CCTV	2031-2035	$ -				$ -	
06401310640133	Condition - with CCTV scoring	380.4	8	5.3	8	64	1.84	2.8	2.8	63.4	No	CCTV	2031-2035	$ -				$ -	
04601870460189	Condition - with CCTV scoring	336.3	8	6.6	8	46	1.65	2.8	2.8	63.3	No	CCTV	2031-2035	$ -				$ -	
04601360460129	Condition - with CCTV scoring	605.5	8	6	8	46	1.53	2.9	2.9	63.3	No	CCTV	2031-2035	$ -				$ -	
04501590450278	Condition - with CCTV scoring	695.7	8	5.27	8	45	1.37	2.9	2.9	63.3	No	CCTV	2031-2035	$ -				$ -	
05601810560231	Condition - with CCTV scoring	284.2	8	5.57	8	56	1.6	2.8	2.8	63.1	No	CCTV	2031-2035	$ -				$ -	
04601140460112	Condition - with CCTV scoring	380.7	8	5.23	8	46	1.38	2.9	2.9	63.0	No	CCTV	2031-2035	$ -				$ -	
07501410750099	Condition - with CCTV scoring	266.1	8	5.9	8	75	1.54	2.8	2.8	62.8	No	CCTV	2031-2035	$ -				$ -	
06300910630090	Condition - with CCTV scoring	298.9	8	5.5	8	63	1.38	2.9	2.9	62.8	No	CCTV	2031-2035	$ -				$ -	
04501810450186	Condition - with CCTV scoring	344.6	8	5	8	45	1.93	2.8	2.8	62.7	No	CCTV	2031-2035	$ -				$ -	
04601960460197	Condition - with CCTV scoring	317.8	8	5	8	46	1.5	2.8	2.8	62.7	No	CCTV	2031-2035	$ -				$ -	
06300660630064	Condition - with CCTV scoring	157.5	8	6.83	8	63	1.48	2.8	2.8	62.6	No	CCTV	2031-2035	$ -				$ -	
04501780450181	Condition - with CCTV scoring	313.2	8	5.03	8	45	1.25	2.9	2.9	62.5	No	CCTV	2031-2035	$ -				$ -	
05602750560276	Condition - with CCTV scoring	378.5	8	5.89	8	56	1.45	2.8	2.8	62.5	No	CCTV	2031-2035	$ -				$ -	
04501080450110	Condition - with CCTV scoring	519	8	5.29	8	45	1.45	2.8	2.8	62.5	No	CCTV	2031-2035	$ -				$ -	
04502500450148	Condition - with CCTV scoring	503.3	8	5.6	8	45	1.61	2.8	2.8	62.4	No	CCTV	2031-2035	$ -				$ -	
06300680630066	Condition - with CCTV scoring	442.9	8	10.64	8	63	1.43	2.8	2.8	62.4	No	CCTV	2031-2035	$ -				$ -	
07701550770053	Condition - with CCTV scoring	293.6	8	4.03	8	77	1.82	2.8	2.8	62.3	No	CCTV	2031-2035	$ -				$ -	
08500270850026	Condition - with CCTV scoring	514.8	8	3.65	8	85	1.81	2.8	2.8	62.2	No	CCTV	2031-2035	$ -				$ -	
04601690460091	Condition - with CCTV scoring	301.4	8	5	8	46	1.38	2.8	2.8	62.2	No	CCTV	2031-2035	$ -				$ -	
06401990640200	Condition - with CCTV scoring	424.3	8	5.2	8	64	1.38	2.8	2.8	62.2	No	CCTV	2031-2035	$ -				$ -	
07500130750003	Condition - with CCTV scoring	309.1	8	7.1	8	75	1.79	2.8	2.8	62.2	No	CCTV	2031-2035	$ -				$ -	
05602280560176	Condition - with CCTV scoring	345.1	8	5.03	8	56	1.59	2.8	2.8	62.1	No	CCTV	2031-2035	$ -				$ -	
05600220560277	Condition - with CCTV scoring	587.2	8	4.61	8	56	1.96	2.7	2.7	62.1	No	CCTV	2031-2035	$ -				$ -	
04502590450258	Condition - with CCTV scoring	335.1	8	6.13	8	45	1.35	2.8	2.8	62.1	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
05602290560176	Condition - with CCTV scoring	491.8	8	6.23	8	56	1.64	2.8	2.8	61.9	No	CCTV	2031-2035	$ -				$ -	
04601180460100	Condition - with CCTV scoring	626.2	8	5.5	8	46	1.72	2.8	2.8	61.9	No	CCTV	2031-2035	$ -				$ -	
08600250860026	Condition - with CCTV scoring	475.5	10	9.23	10	86	2.45	2.6	2.6	61.8	No	CCTV	2031-2035	$ -				$ -	
06602550660253	Condition - with CCTV scoring	84	15	7.03	15	66	2.1	2.7	2.7	61.7	No	CCTV	2031-2035	$ -				$ -	
04602700460268	Condition - with CCTV scoring	339	8	5	8	46	2.09	2.7	2.7	61.7	No	CCTV	2031-2035	$ -				$ -	
05600070560004	Condition - with CCTV scoring	171.8	8	6	8	56	1.83	2.7	2.7	61.6	No	CCTV	2031-2035	$ -				$ -	
04501620450260	Condition - with CCTV scoring	309.2	8	5	8	45	1.4	2.8	2.8	61.6	No	CCTV	2031-2035	$ -				$ -	
06200420620041	Condition - with CCTV scoring	309.3	8	6	8	62	1.48	2.8	2.8	61.5	No	CCTV	2031-2035	$ -				$ -	
04502680450269	Condition - with CCTV scoring	442.6	8	4.75	8	45	1.3	2.8	2.8	61.4	No	CCTV	2031-2035	$ -				$ -	
04600750460076	Condition - with CCTV scoring	623.7	8	5.5	8	46	1.84	2.7	2.7	61.4	No	CCTV	2031-2035	$ -				$ -	
08700770870079	Condition - with CCTV scoring	143.9	15	5.94	15	87	2	2.7	2.7	61.3	No	CCTV	2031-2035	$ -				$ -	
04501090450108	Condition - with CCTV scoring	530.8	8	5.4	8	45	1.37	2.8	2.8	61.0	No	CCTV	2031-2035	$ -				$ -	
05900010590003	Condition - with CCTV scoring	275.6	15	10.4	15	59	2.68	2.5	2.5	60.7	No	CCTV	2031-2035	$ -				$ -	
06300830630071	Condition - with CCTV scoring	382.1	8	5.45	8	63	1.43	2.8	2.8	60.7	No	CCTV	2031-2035	$ -				$ -	
06603190660300	Condition - with CCTV scoring	605.1	8	5	8	66	1.83	2.7	2.7	60.7	No	Possible CIPP	2031-2035	$ 33,700				$ 33,700	
06601180660116	Condition - with CCTV scoring	153.8	10	5.75	10	66	1.82	2.7	2.7	60.6	No	CCTV	2031-2035	$ -				$ -	
04601860460187	Condition - with CCTV scoring	340.6	8	7	8	46	1.81	2.7	2.7	60.6	No	CCTV	2031-2035	$ -				$ -	
06300130630014	Condition - with CCTV scoring	129	8	4.58	8	63	1.38	2.8	2.8	60.5	No	CCTV	2031-2035	$ -				$ -	
07501890750029	Condition - with CCTV scoring	299.2	6	8.55	8	75	1.78	2.7	2.7	60.5	No	CCTV	2031-2035	$ -				$ -	
05602060560207	Condition - with CCTV scoring	269.2	8	6.4	8	56	1.75	2.7	2.7	60.3	No	CCTV	2031-2035	$ -				$ -	
05601700560169	Condition - with CCTV scoring	492.7	8	4.25	8	56	1.73	2.7	2.7	60.3	No	CCTV	2031-2035	$ -				$ -	
04601490460154	Condition - with CCTV scoring	332.4	8	5	8	46	1.48	2.7	2.7	60.2	No	CCTV	2031-2035	$ -				$ -	
04501300450127	Condition - with CCTV scoring	328.1	8	4.3	8	45	1.3	2.8	2.8	60.2	No	CCTV	2031-2035	$ -				$ -	
06200270620028	Condition - with CCTV scoring	260.8	8	6.19	8	62	1.37	2.7	2.7	60.0	No	CCTV	2031-2035	$ -				$ -	
04600370460034	Condition - with CCTV scoring	343.4	8	4.89	8	46	1.67	2.7	2.7	60.0	No	CCTV	2031-2035	$ -				$ -	
06300840630070	Condition - with CCTV scoring	158.6	8	5.4	8	63	1.43	2.7	2.7	60.0	No	CCTV	2031-2035	$ -				$ -	
03600570460002	Condition - with CCTV scoring	428.6	8	5.12	8	36	1.25	2.8	2.8	60.0	No	CCTV	2031-2035	$ -				$ -	
06200690620065	Condition - with CCTV scoring	274.4	8	6.43	8	62	1.42	2.7	2.7	60.0	No	CCTV	2031-2035	$ -				$ -	
05500080550007	Condition - with CCTV scoring	16.7	12	4.5	12	55	2.48	2.5	2.5	59.9	No	CCTV	2031-2035	$ -				$ -	
06401740640169	Condition - with CCTV scoring	299.5	8	5.63	8	64	1.64	2.7	2.7	59.9	No	CCTV	2031-2035	$ -				$ -	
06400470640016	Condition - with CCTV scoring	172.2	8	5.05	8	64	1.59	2.7	2.7	59.7	No	CCTV	2031-2035	$ -				$ -	
07500870750090	Condition - with CCTV scoring	176.9	8	7.02	8	75	1.58	2.7	2.7	59.7	No	CCTV	2031-2035	$ -				$ -	
02300510230047	Condition - with CCTV scoring	258.6	18	5.04	18	23	2.4	2.5	2.5	59.6	No	CCTV	2031-2035	$ -				$ -	
06500440650043	Condition - with CCTV scoring	348.7	8	6.02	8	65	1.56	2.7	2.7	59.6	No	CCTV	2031-2035	$ -				$ -	
04601120460113	Condition - with CCTV scoring	389	8	5.18	8	46	1.3	2.7	2.7	59.5	No	CCTV	2031-2035	$ -				$ -	
07500420750040	Condition - with CCTV scoring	301.8	8	5.5	8	75	1.5	2.7	2.7	59.3	No	CCTV	2031-2035	$ -				$ -	
04500470450048	Condition - with CCTV scoring	731.9	8	6.63	8	45	1.32	2.7	2.7	59.3	No	CCTV	2031-2035	$ -				$ -	
07601900760145	Condition - with CCTV scoring	343.1	12	4.62	12	76	2.04	2.6	2.6	59.3	No	CCTV	2031-2035	$ -				$ -	
07700530770051	Condition - with CCTV scoring	292.5	8	6.61	8	77	1.96	2.6	2.6	59.3	No	CCTV	2031-2035	$ -				$ -	
04501110450112	Condition - with CCTV scoring	453.8	8	5.38	8	45	1.45	2.7	2.7	59.1	No	CCTV	2031-2035	$ -				$ -	
05602380560250	Condition - with CCTV scoring	577	8	4.77	8	56	1.62	2.6	2.6	59.0	No	CCTV	2031-2035	$ -				$ -	
05602760560192	Condition - with CCTV scoring	818.8	8	5.64	8	56	1.61	2.6	2.6	58.9	No	CCTV	2031-2035	$ -				$ -	
06300710630069	Condition - with CCTV scoring	370.3	8	5.6	8	63	1.38	2.7	2.7	58.9	No	CCTV	2031-2035	$ -				$ -	
06200740620073	Condition - with CCTV scoring	268.9	8	7.19	8	62	1.58	2.6	2.6	58.8	No	CCTV	2031-2035	$ -				$ -	
04501290450128	Condition - with CCTV scoring	531.2	8	5.07	8	45	1.37	2.7	2.7	58.8	No	CCTV	2031-2035	$ -				$ -	
06300690630068	Condition - with CCTV scoring	443.3	8	5.53	8	63	1.28	2.7	2.7	58.8	No	CCTV	2031-2035	$ -				$ -	
04602240460225	Condition - with CCTV scoring	251.4	8	6.89	8	46	2.17	2.5	2.5	58.7	No	Possible CIPP	2031-2035	$ 14,000				$ 14,000	
07500260750025	Condition - with CCTV scoring	170	4	6.33	8	75	1.66	2.6	2.6	58.6	No	CCTV	2031-2035	$ -				$ -	
06401200640121	Condition - with CCTV scoring	369.4	8	5.39	8	64	1.53	2.6	2.6	58.6	No	CCTV	2031-2035	$ -				$ -	
06600580660073	Condition - with CCTV scoring	331.5	8	6.42	8	66	2.14	2.5	2.5	58.6	Yes	Possible CIPP	2031-2035	$ -				$ -	
04502560450257	Condition - with CCTV scoring	329.4	8	5.34	8	45	1.3	2.7	2.7	58.5	No	CCTV	2031-2035	$ -				$ -	
06201100630036	Condition - with CCTV scoring	209.1	8	5.7	8	62	1.3	2.7	2.7	58.5	No	CCTV	2031-2035	$ -				$ -	
04601850460173	Condition - with CCTV scoring	182.5	8	5.58	8	46	1.76	2.6	2.6	58.5	No	CCTV	2031-2035	$ -				$ -	
05600950560096	Condition - with CCTV scoring	195.6	8	5.75	8	56	1.26	2.7	2.7	58.4	No	CCTV	2031-2035	$ -				$ -	
04500770450074	Condition - with CCTV scoring	281.8	8	4.26	8	45	2.08	2.5	2.5	58.3	No	Possible CIPP	2031-2035	$ 15,700				$ 15,700	
05602270560228	Condition - with CCTV scoring	541.5	8	5.76	8	56	1.45	2.6	2.6	58.3	No	CCTV	2031-2035	$ -				$ -	
07800180770098	Condition - with CCTV scoring	344.6	15	15.39	15	77	2.05	2.5	2.5	58.2	No	Possible CIPP	2031-2035	$ 43,900				$ 43,900	
05600920560078	Condition - with CCTV scoring	334.2	8	7	8	56	1.53	2.6	2.6	58.1	No	Begin Project Development	2031-2035	$ 159,500				$ 159,500	
04502570450263	Condition - with CCTV scoring	206.2	8	6.38	8	45	1.3	2.6	2.6	58.1	No	CCTV	2031-2035	$ -				$ -	
04500220450023	Condition - with CCTV scoring	299.6	8	4.11	8	45	2.01	2.5	2.5	58.0	No	CCTV	2031-2035	$ -				$ -	
04602730460272	Condition - with CCTV scoring	329	8	5.38	8	46	2.01	2.5	2.5	58.0	No	CCTV	2031-2035	$ -				$ -	
06300390630042	Condition - with CCTV scoring	296.9	8	5.48	8	63	1.38	2.6	2.6	58.0	No	CCTV	2031-2035	$ -				$ -	
06401940640195	Condition - with CCTV scoring	268.5	8	5.45	8	64	1.38	2.6	2.6	58.0	No	CCTV	2031-2035	$ -				$ -	
06200260620025	Condition - with CCTV scoring	392.7	8	5.92	8	62	1.37	2.6	2.6	58.0	No	CCTV	2031-2035	$ -				$ -	
07501600750080	Condition - with CCTV scoring	441.3	8	6.15	8	75	1.53	2.6	2.6	57.5	No	CCTV	2031-2035	$ -				$ -	
05600760560044	Condition - with CCTV scoring	528.8	8	6	8	56	1.88	2.5	2.5	57.5	No	Possible CIPP	2031-2035	$ 29,400				$ 29,400	
06300170630016	Condition - with CCTV scoring	360	8	5.19	8	63	1.38	2.6	2.6	57.5	No	CCTV	2031-2035	$ -				$ -	
04602010460202	Condition - with CCTV scoring	626.7	8	5.44	8	46	1.25	2.6	2.6	57.5	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07500100750017	Condition - with CCTV scoring	321.5	8	5.4	8	75	1.85	2.5	2.5	57.4	No	CCTV	2031-2035	$ -				$ -	
06400950640096	Condition - with CCTV scoring	489	8	5.5	8	64	1.79	2.5	2.5	57.2	No	CCTV	2031-2035	$ -				$ -	
05601930560195	Condition - with CCTV scoring	323.9	8	5.21	8	56	1.76	2.5	2.5	57.0	No	CCTV	2031-2035	$ -				$ -	
06400110640012	Condition - with CCTV scoring	340.2	8	6.53	8	64	1.76	2.5	2.5	57.0	No	CCTV	2031-2035	$ -				$ -	
06200460720216	Condition - with CCTV scoring	406.9	8	7	8	62	1.76	2.5	2.5	57.0	No	CCTV	2031-2035	$ -				$ -	
04801090480161	Condition - with CCTV scoring	328.7	12	7.62	12	48	1.75	2.5	2.5	57.0	No	CCTV	2031-2035	$ -				$ -	
04600710460037	Condition - with CCTV scoring	344.1	8	4.98	8	46	1.75	2.5	2.5	57.0	No	CCTV	2031-2035	$ -				$ -	
05602700560269	Condition - with CCTV scoring	277.8	8	7.91	8	56	2.06	2.4	2.4	57.0	No	CCTV	2031-2035	$ -				$ -	
09600040960002	Condition - with CCTV scoring	305.8	27	6.94	27	96	4.2	2.0	2.0	56.8	No	CCTV	2031-2035	$ -				$ -	
06700080770074	Condition - with CCTV scoring	339.7	8	5.41	8	67	1.69	2.5	2.5	56.8	No	CCTV	2031-2035	$ -				$ -	
06401090640118	Condition - with CCTV scoring	286.6	8	5.47	8	64	1.68	2.5	2.5	56.7	No	CCTV	2031-2035	$ -				$ -	
05602810560280	Condition - with CCTV scoring	231.7	8	4	8	56	1.67	2.5	2.5	56.7	No	CCTV	2031-2035	$ -				$ -	
04500060450159	Condition - with CCTV scoring	446.4	8	6.83	8	45	1.42	2.5	2.5	56.6	No	CCTV	2031-2035	$ -				$ -	
04502210450217	Condition - with CCTV scoring	238.6	8	6	8	45	1.2	2.6	2.6	56.6	No	CCTV	2031-2035	$ -				$ -	
05601940560193	Condition - with CCTV scoring	173.1	8	4.3	8	56	1.64	2.5	2.5	56.6	No	CCTV	2031-2035	$ -				$ -	
05601960560193	Condition - with CCTV scoring	535.8	8	5.63	8	56	1.64	2.5	2.5	56.6	No	CCTV	2031-2035	$ -				$ -	
08601020860103	Condition - with CCTV scoring	272.2	8	5.94	8	86	1.61	2.5	2.5	56.4	No	CCTV	2031-2035	$ -				$ -	
06300810630082	Condition - with CCTV scoring	389.5	8	8.25	8	63	1.74	2.5	2.5	56.4	No	CCTV	2031-2035	$ -				$ -	
06301320630098	Condition - with CCTV scoring	380.9	8	4.96	8	63	1.6	2.5	2.5	56.4	No	CCTV	2031-2035	$ -				$ -	
07501590750081	Condition - with CCTV scoring	484.3	8	4.74	8	75	1.6	2.5	2.5	56.4	No	CCTV	2031-2035	$ -				$ -	
07601320760133	Condition - with CCTV scoring	286.7	8	6.55	8	76	1.99	2.4	2.4	56.3	No	CCTV	2031-2035	$ -				$ -	
06200510620050	Condition - with CCTV scoring	315.2	8	6.09	8	62	1.56	2.5	2.5	56.2	No	CCTV	2031-2035	$ -				$ -	
06400390640038	Condition - with CCTV scoring	339.1	8	6.66	8	64	1.56	2.5	2.5	56.2	No	CCTV	2031-2035	$ -				$ -	
02500320250031	Condition - with CCTV scoring	19.5	18	5.61	18	25	1.55	2.5	2.5	56.2	No	Possible Point Repair	2031-2035	$ 59,300				$ 59,300	
06601020660106	Condition - with CCTV scoring	340.4	8	5.95	8	66	1.54	2.5	2.5	56.2	No	CCTV	2031-2035	$ -				$ -	
09600010960003	Condition - with CCTV scoring	180	27	6.74	27	96	4.04	2.0	2.0	56.2	No	CCTV	2031-2035	$ -				$ -	
06300870630086	Condition - with CCTV scoring	467.1	8	5.5	8	63	1.53	2.5	2.5	56.1	No	CCTV	2031-2035	$ -				$ -	
06400870640088	Condition - with CCTV scoring	161.5	8	5	8	64	1.51	2.5	2.5	56.0	No	CCTV	2031-2035	$ -				$ -	
06500480650047	Condition - with CCTV scoring	330.8	8	6.6	8	65	1.49	2.5	2.5	56.0	No	CCTV	2031-2035	$ -				$ -	
05601520560153	Condition - with CCTV scoring	337.1	8	6.5	8	56	1.43	2.5	2.5	55.7	No	CCTV	2031-2035	$ -				$ -	
06400600640059	Condition - with CCTV scoring	288.6	8	5.13	8	64	1.43	2.5	2.5	55.7	No	CCTV	2031-2035	$ -				$ -	
05600360560034	Condition - with CCTV scoring	93.2	8	4	8	56	1.4	2.5	2.5	55.6	No	CCTV	2031-2035	$ -				$ -	
04500960450092	Condition - with CCTV scoring	251.1	8	4.1	8	45	1.39	2.5	2.5	55.6	No	CCTV	2031-2035	$ -				$ -	
04601170460097	Condition - with CCTV scoring	259.7	8	5.67	8	46	1.88	2.4	2.4	55.5	No	CCTV	2031-2035	$ -				$ -	
06300410630120	Condition - with CCTV scoring	134.6	8	5.23	8	63	1.38	2.5	2.5	55.5	No	CCTV	2031-2035	$ -				$ -	
06400340640035	Condition - with CCTV scoring	381.1	8	4.6	8	64	1.38	2.5	2.5	55.5	No	CCTV	2031-2035	$ -				$ -	
04501120450113	Condition - with CCTV scoring	148.6	8	5.43	8	45	1.37	2.5	2.5	55.5	No	CCTV	2031-2035	$ -				$ -	
06200500620049	Condition - with CCTV scoring	265.4	8	6.18	8	62	1.35	2.5	2.5	55.4	No	CCTV	2031-2035	$ -				$ -	
04601680460167	Condition - with CCTV scoring	212.5	8	4.81	8	46	1.34	2.5	2.5	55.4	No	CCTV	2031-2035	$ -				$ -	
04502780450272	Condition - with CCTV scoring	13.3	8	1.23	8	45	1.32	2.5	2.5	55.3	No	Possible CIPP	2031-2035	$ 700				$ 700	
04500460450047	Condition - with CCTV scoring	575.5	8	5.38	8	45	1.32	2.5	2.5	55.3	No	CCTV	2031-2035	$ -				$ -	
03601230360120	Condition - with CCTV scoring	394	12	5.48	12	36	1.81	2.4	2.4	55.2	No	Possible CIPP	2031-2035	$ 37,900				$ 37,900	
06300360630038	Condition - with CCTV scoring	69.7	8	5.42	8	63	1.3	2.5	2.5	55.2	No	CCTV	2031-2035	$ -				$ -	
06200850620084	Condition - with CCTV scoring	529.3	8	5.48	8	62	1.3	2.5	2.5	55.2	No	CCTV	2031-2035	$ -				$ -	
06200860620071	Condition - with CCTV scoring	530.9	8	5.93	8	62	1.3	2.5	2.5	55.2	No	CCTV	2031-2035	$ -				$ -	
06200790620080	Condition - with CCTV scoring	365.2	8	5.5	8	62	1.3	2.5	2.5	55.2	No	CCTV	2031-2035	$ -				$ -	
04501250450127	Condition - with CCTV scoring	532.9	8	5.02	8	45	1.3	2.5	2.5	55.2	No	CCTV	2031-2035	$ -				$ -	
05800140580072	Condition - with CCTV scoring	350.8	12	4.79	12	58	1.27	2.5	2.5	55.1	No	CCTV	2031-2035	$ -				$ -	
09600170960018	Condition - with CCTV scoring	136.4	27	2.25	27	96	3.77	2.0	2.0	55.1	No	CCTV	2031-2035	$ -				$ -	
04500110450007	Condition - with CCTV scoring	808.5	8	6.3	8	45	1.25	2.5	2.5	55.0	No	CCTV	2031-2035	$ -				$ -	
06600100660031	Condition - with CCTV scoring	679.6	8	4.01	8	66	1.55	2.4	2.4	54.8	No	Begin Project Development	2031-2035	$ 324,300				$ 324,300	
06602920660293	Condition - with CCTV scoring	309.2	33	9.62	36	66	3.65	2.0	2.0	54.6	No	CCTV	2031-2035	$ -				$ -	
04601630460164	Condition - with CCTV scoring	344.8	8	5.88	8	46	1.98	2.3	2.3	54.6	No	CCTV	2031-2035	$ -				$ -	
07601960760197	Condition - with CCTV scoring	587.9	8	7.012	8	76	1.79	2.4	2.4	54.6	No	Possible CIPP	2031-2035	$ 32,700				$ 32,700	
05600600560072	Condition - with CCTV scoring	298.4	8	7	8	56	1.63	2.4	2.4	54.5	No	CCTV	2031-2035	$ -				$ -	
07500250750023	Condition - with CCTV scoring	416.8	6	7.12	8	75	1.95	2.3	2.3	54.5	No	CCTV	2031-2035	$ -				$ -	
04602050460120	Condition - with CCTV scoring	575.7	8	5	8	46	1.93	2.3	2.3	54.4	No	CCTV	2031-2035	$ -				$ -	
05602180560220	Condition - with CCTV scoring	255.1	8	6.8	8	56	1.69	2.4	2.4	54.3	No	CCTV	2031-2035	$ -				$ -	
03500870360045	Condition - with CCTV scoring	341.9	30	17.15	30	35	3.56	2.0	2.0	54.2	No	CCTV	2031-2035	$ -				$ -	
06400080640007	Condition - with CCTV scoring	324.1	8	4.52	8	64	1.74	2.4	2.4	54.2	No	CCTV	2031-2035	$ -				$ -	
05601530560154	Condition - with CCTV scoring	360.9	8	5.5	8	56	1.88	2.3	2.3	54.2	No	CCTV	2031-2035	$ -				$ -	
04502120450046	Condition - with CCTV scoring	304.7	8	5.45	8	45	1.32	2.4	2.4	54.2	No	CCTV	2031-2035	$ -				$ -	
06600150660046	Condition - with CCTV scoring	351.6	8	6.5	8	66	1.84	2.3	2.3	54.0	No	CCTV	2031-2035	$ -				$ -	
06401190640120	Condition - with CCTV scoring	170.3	8	5.67	8	64	1.57	2.4	2.4	53.8	No	CCTV	2031-2035	$ -				$ -	
04602710460269	Condition - with CCTV scoring	338.1	8	6.16	8	46	2.19	2.3	2.3	53.8	No	CCTV	2031-2035	$ -				$ -	
03300760330075	Condition - with CCTV scoring	123.7	27	14.65	27	33	3.43	2.0	2.0	53.7	No	CCTV	2031-2035	$ -				$ -	
06401010640102	Condition - with CCTV scoring	520.4	8	5.18	8	64	1.6	2.4	2.4	53.7	No	CCTV	2031-2035	$ -				$ -	
06400100640009	Condition - with CCTV scoring	302.9	8	5.04	8	64	1.71	2.3	2.3	53.5	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
08500420850030	Condition - with CCTV scoring	191.5	8	7.59	8	85	1.71	2.3	2.3	53.5	No	CCTV	2031-2035	$ -				$ -	
06200970620096	Condition - with CCTV scoring	266.1	8	7.05	8	62	1.51	2.4	2.4	53.3	No	CCTV	2031-2035	$ -				$ -	
07501750750173	Condition - with CCTV scoring	315	8	6	8	75	1.64	2.3	2.3	53.2	No	CCTV	2031-2035	$ -				$ -	
03500980350003	Condition - with CCTV scoring	300.5	24	9.97	24	35	3.28	2.0	2.0	53.1	No	CCTV	2031-2035	$ -				$ -	
03400320340030	Condition - with CCTV scoring	162.8	27	14.98	27	34	3.27	2.0	2.0	53.1	No	CCTV	2031-2035	$ -				$ -	
06301170630118	Condition - with CCTV scoring	114.6	8	6.37	8	63	1.57	2.3	2.3	52.9	No	CCTV	2031-2035	$ -				$ -	
05401590540160	Condition - with CCTV scoring	590.3	27	16.5	27	54	3.22	2.0	2.0	52.9	No	CCTV	2031-2035	$ -				$ -	
06300990630095	Condition - with CCTV scoring	210.2	8	5.15	8	63	1.55	2.3	2.3	52.9	No	CCTV	2031-2035	$ -				$ -	
07601370760128	Condition - with CCTV scoring	409.9	8	3.45	8	76	1.69	2.3	2.3	52.8	No	CCTV	2031-2035	$ -				$ -	
04600350460036	Condition - with CCTV scoring	419.9	8	5.42	8	46	1.53	2.3	2.3	52.8	No	CCTV	2031-2035	$ -				$ -	
04602490460258	Condition - with CCTV scoring	421.9	10	5.43	10	46	1.47	2.3	2.3	52.5	No	CCTV	2031-2035	$ -				$ -	
07502090750206	Condition - with CCTV scoring	187.6	8	6.92	8	75	1.47	2.3	2.3	52.5	No	CCTV	2031-2035	$ -				$ -	
07200820720083	Condition - with CCTV scoring	396.5	8	8.15	8	72	2.51	2.1	2.1	52.5	No	CCTV	2031-2035	$ -				$ -	
07500010750002	Condition - with CCTV scoring	342.8	8	6	8	75	1.85	2.3	2.3	52.4	No	Possible CIPP	2031-2035	$ 19,100				$ 19,100	
06201130630047	Condition - with CCTV scoring	312.1	8	4.96	8	62	1.3	2.4	2.4	52.3	No	CCTV	2031-2035	$ -				$ -	
06500920650089	Condition - with CCTV scoring	321.9	21	9.88	21	65	3.06	2.0	2.0	52.2	No	CCTV	2031-2035	$ -				$ -	
06300160630018	Condition - with CCTV scoring	483	8	5.03	8	63	1.38	2.3	2.3	52.2	No	CCTV	2031-2035	$ -				$ -	
04501800450181	Condition - with CCTV scoring	350.9	8	4.98	8	45	1.3	2.3	2.3	51.9	No	CCTV	2031-2035	$ -				$ -	
06600240660025	Condition - with CCTV scoring	97.3	8	4.3	8	66	1.6	2.3	2.3	51.9	No	CCTV	2031-2035	$ -				$ -	
05701190570118	Condition - with CCTV scoring	354	15	11.74	15	57	2.95	2.0	2.0	51.8	No	CCTV	2031-2035	$ -				$ -	
07201810720198	Condition - with CCTV scoring	293.2	12	10.01	12	72	2.93	2.0	2.0	51.7	No	CCTV	2031-2035	$ -				$ -	
05602780560270	Condition - with CCTV scoring	334	8	5.88	8	56	2.01	2.2	2.2	51.7	No	CCTV	2031-2035	$ -				$ -	
05501360550135	Condition - with CCTV scoring	210.9	14	8.15	15	55	2.89	2.0	2.0	51.6	No	CCTV	2031-2035	$ -				$ -	
05602650560272	Condition - with CCTV scoring	337.1	8	4.05	8	56	1.77	2.2	2.2	51.5	No	CCTV	2031-2035	$ -				$ -	
07301610730176	Condition - with CCTV scoring	354	10	8.68	10	73	2.84	2.0	2.0	51.4	No	CCTV	2031-2035	$ -				$ -	
05700990570098	Condition - with CCTV scoring	193.6	15	8.8	15	57	2.8	2.0	2.0	51.2	No	CCTV	2031-2035	$ -				$ -	
06200480620029	Condition - with CCTV scoring	262.9	8	5.8	8	62	1.3	2.3	2.3	51.2	No	CCTV	2031-2035	$ -				$ -	
09701840970183	Condition - with CCTV scoring	419.1	24	10.82	24	97	2.78	2.0	2.0	51.1	No	CCTV	2031-2035	$ -				$ -	
07501770750174	Condition - with CCTV scoring	295.2	8	6.3	8	75	1.52	2.3	2.3	51.1	No	CCTV	2031-2035	$ -				$ -	
07602140760215	Condition - with CCTV scoring	520.6	8	5.2	8	76	1.47	2.3	2.3	50.9	No	CCTV	2031-2035	$ -				$ -	
06501020750181	Condition - with CCTV scoring	673	27	10.66	27	65	2.69	2.0	2.0	50.8	No	CCTV	2031-2035	$ -				$ -	
07500750750073	Condition - with CCTV scoring	450.1	8	5.52	8	75	1.5	2.2	2.2	50.6	No	CCTV	2031-2035	$ -				$ -	
07600780760077	Condition - with CCTV scoring	359.7	24	7.76	24	76	2.63	2.0	2.0	50.5	No	CCTV	2031-2035	$ -				$ -	
07400380740037	Condition - with CCTV scoring	440.5	8	5.22	8	74	1.47	2.2	2.2	50.5	No	CCTV	2031-2035	$ -				$ -	
08700830870082	Condition - with CCTV scoring	763.3	15	9.41	15	87	2.5	2.0	2.0	50.5	No	Possible CIPP	2031-2035	$ 97,100				$ 97,100	
03400460340047	Condition - with CCTV scoring	208.4	21	7.21	21	34	2.61	2.0	2.0	50.4	No	CCTV	2031-2035	$ -				$ -	
08600430860042	Condition - with CCTV scoring	316.6	15	8.43	15	86	2.59	2.0	2.0	50.4	No	CCTV	2031-2035	$ -				$ -	
06200290620028	Condition - with CCTV scoring	262	8	5.95	8	62	1.32	2.3	2.3	50.3	No	CCTV	2031-2035	$ -				$ -	
05401600540110	Condition - with CCTV scoring	503.2	24	14.19	24	54	2.51	2.0	2.0	50.0	No	CCTV	2031-2035	$ -				$ -	
06601840660224	Condition - with CCTV scoring	341.8	14	6	15	66	2.49	2.0	2.0	50.0	No	CCTV	2031-2035	$ -				$ -	
05601910560192	Condition - with CCTV scoring	347.4	8	2.91	8	56	1.61	2.2	2.2	49.8	No	CCTV	2031-2035	$ -				$ -	
06300240630039	Condition - with CCTV scoring	315.3	8	5.72	8	63	1.38	2.2	2.2	49.5	No	CCTV	2031-2035	$ -				$ -	
07701530770154	Condition - with CCTV scoring	370.8	8	7.25	8	77	2.33	2.0	2.0	49.3	No	CCTV	2031-2035	$ -				$ -	
06200670630017	Condition - with CCTV scoring	429.1	8	5.2	8	62	1.3	2.2	2.2	49.2	No	CCTV	2031-2035	$ -				$ -	
08800210880014	Condition - with CCTV scoring	404.2	8	7.1	8	88	2.3	2.0	2.0	49.2	No	CCTV	2031-2035	$ -				$ -	
08701220870121	Condition - with CCTV scoring	346.4	8	6.12	8	87	2.3	2.0	2.0	49.2	No	CCTV	2031-2035	$ -				$ -	
08500430850044	Condition - with CCTV scoring	499.2	10	10.25	10	86	2.27	2.0	2.0	49.1	No	CCTV	2031-2035	$ -				$ -	
01100030110020	Condition - with CCTV scoring	687.1	15	11.36	15	11	2.25	2.0	2.0	49.0	No	CCTV	2031-2035	$ -				$ -	
07701020770092	Condition - with CCTV scoring	272.9	15	10.04	15	77	2.24	2.0	2.0	49.0	No	CCTV	2031-2035	$ -				$ -	
08700310870030	Condition - with CCTV scoring	394.7	15	8.64	15	87	2.2	2.0	2.0	48.8	No	CCTV	2031-2035	$ -				$ -	
07400280740029	Condition - with CCTV scoring	358.7	8	5.16	8	74	1.61	2.1	2.1	48.8	No	CCTV	2031-2035	$ -				$ -	
08600230860029	Condition - with CCTV scoring	87.1	8	5.51	8	86	2.16	2.0	2.0	48.6	No	CCTV	2031-2035	$ -				$ -	
07200360720035	Condition - with CCTV scoring	63.1	10	7.74	10	72	2.11	2.0	2.0	48.4	No	CCTV	2031-2035	$ -				$ -	
04501520450153	Condition - with CCTV scoring	245.4	8	5.68	8	45	2.09	2.0	2.0	48.4	No	CCTV	2031-2035	$ -				$ -	
04500680450070	Condition - with CCTV scoring	287.1	8	5.5	8	45	2.08	2.0	2.0	48.3	No	CCTV	2031-2035	$ -				$ -	
04900070490032	Condition - with CCTV scoring	273.3	15	8.05	15	49	2.07	2.0	2.0	48.3	No	CCTV	2031-2035	$ -				$ -	
08700800870031	Condition - with CCTV scoring	398.2	15	6.82	15	87	2.07	2.0	2.0	48.3	No	CCTV	2031-2035	$ -				$ -	
04500230450024	Condition - with CCTV scoring	226.8	8	7.904	8	45	2.06	2.0	2.0	48.2	No	CCTV	2031-2035	$ -				$ -	
08600670860066	Condition - with CCTV scoring	286.7	10	6.65	10	86	2.03	2.0	2.0	48.1	No	CCTV	2031-2035	$ -				$ -	
06300180630103	Condition - with CCTV scoring	467.8	8	5.03	8	63	1.38	2.1	2.1	48.0	No	CCTV	2031-2035	$ -				$ -	
06301000630101	Condition - with CCTV scoring	305	8	12.43	8	63	2	2.0	2.0	48.0	No	CCTV	2031-2035	$ -				$ -	
05701500570148	Condition - with CCTV scoring	391.4	12	13.08	12	57	1.99	2.0	2.0	48.0	No	CCTV	2031-2035	$ -				$ -	
04500140450012	Condition - with CCTV scoring	479.1	8	5.03	8	45	1.98	2.0	2.0	47.9	No	CCTV	2031-2035	$ -				$ -	
04500750450076	Condition - with CCTV scoring	61.5	8	4.55	8	45	1.98	2.0	2.0	47.9	No	CCTV	2031-2035	$ -				$ -	
04501210450118	Condition - with CCTV scoring	107.6	8	4.88	8	45	1.98	2.0	2.0	47.9	No	CCTV	2031-2035	$ -				$ -	
08800020980006	Condition - with CCTV scoring	443.2	8	9.1	8	88	1.97	2.0	2.0	47.9	No	CCTV	2031-2035	$ -				$ -	
06600140660029	Condition - with CCTV scoring	349.2	8	6.2	8	66	1.93	2.0	2.0	47.7	No	CCTV	2031-2035	$ -				$ -	
04500390450038	Condition - with CCTV scoring	377.1	8	4.15	8	45	1.93	2.0	2.0	47.7	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04602060460120	Condition - with CCTV scoring	327.6	8	4.86	8	46	1.93	2.0	2.0	47.7	No	CCTV	2031-2035	$ -				$ -	
05701620570150	Condition - with CCTV scoring	492.2	12	10.83	12	57	1.92	2.0	2.0	47.7	No	CCTV	2031-2035	$ -				$ -	
07600830760082	Condition - with CCTV scoring	383.9	8	10.08	8	76	1.92	2.0	2.0	47.7	No	CCTV	2031-2035	$ -				$ -	
07601290760108	Condition - with CCTV scoring	363.2	8	4	8	76	1.92	2.0	2.0	47.7	No	CCTV	2031-2035	$ -				$ -	
09600850960086	Condition - with CCTV scoring	44.6	12	14.63	12	96	1.9	2.0	2.0	47.6	No	CCTV	2031-2035	$ -				$ -	
07200460720047	Condition - with CCTV scoring	435	10	7.9	10	72	1.9	2.0	2.0	47.6	No	CCTV	2031-2035	$ -				$ -	
06601130660180	Condition - with CCTV scoring	337.8	8	5.45	8	66	1.88	2.0	2.0	47.5	No	CCTV	2031-2035	$ -				$ -	
07201170720118	Condition - with CCTV scoring	383.4	8	5.93	8	72	1.85	2.0	2.0	47.4	No	CCTV	2031-2035	$ -				$ -	
06601850660163	Condition - with CCTV scoring	340.8	8	5.07	8	66	1.84	2.0	2.0	47.4	No	CCTV	2031-2035	$ -				$ -	
09701280970046	Condition - with CCTV scoring	339.5	8	7.95	8	97	1.83	2.0	2.0	47.3	No	CCTV	2031-2035	$ -				$ -	
05602160560213	Condition - with CCTV scoring	199.2	8	8.34	8	56	1.82	2.0	2.0	47.3	No	CCTV	2031-2035	$ -				$ -	
07701580770143	Condition - with CCTV scoring	278	8	5.34	8	77	1.82	2.0	2.0	47.3	No	CCTV	2031-2035	$ -				$ -	
07601390760129	Condition - with CCTV scoring	403.3	8	5.2	8	76	1.82	2.0	2.0	47.3	No	CCTV	2031-2035	$ -				$ -	
07501470750145	Condition - with CCTV scoring	221.6	8	6.57	8	75	1.82	2.0	2.0	47.3	No	CCTV	2031-2035	$ -				$ -	
07501510750150	Condition - with CCTV scoring	128.6	8	8.32	8	75	1.82	2.0	2.0	47.3	No	CCTV	2031-2035	$ -				$ -	
02200330220032	Condition - with CCTV scoring	316.5	12	7.51	12	22	1.81	2.0	2.0	47.2	No	CCTV	2031-2035	$ -				$ -	
07700550770079	Condition - with CCTV scoring	328.7	18	19.66	18	77	1.81	2.0	2.0	47.2	No	CCTV	2031-2035	$ -				$ -	
07501440750146	Condition - with CCTV scoring	329.8	8	8.1	8	75	1.8	2.0	2.0	47.2	No	CCTV	2031-2035	$ -				$ -	
07501450750144	Condition - with CCTV scoring	335.6	8	8.49	8	75	1.8	2.0	2.0	47.2	No	CCTV	2031-2035	$ -				$ -	
06401140640116	Condition - with CCTV scoring	328.9	8	10.8	8	64	1.79	2.0	2.0	47.2	No	CCTV	2031-2035	$ -				$ -	
08600960860095	Condition - with CCTV scoring	41.4	12	8.3	12	86	1.77	2.0	2.0	47.1	No	CCTV	2031-2035	$ -				$ -	
07200580720059	Condition - with CCTV scoring	314.6	8	5.99	8	72	1.76	2.0	2.0	47.0	No	CCTV	2031-2035	$ -				$ -	
07701590770143	Condition - with CCTV scoring	343.6	8	4.25	8	77	1.75	2.0	2.0	47.0	No	CCTV	2031-2035	$ -				$ -	
07502150750217	Condition - with CCTV scoring	15.3	22	8.04	24	75	1.74	2.0	2.0	47.0	No	CCTV	2031-2035	$ -				$ -	
08600300860007	Condition - with CCTV scoring	105	8	9.51	8	86	1.73	2.0	2.0	46.9	No	CCTV	2031-2035	$ -				$ -	
05602010560202	Condition - with CCTV scoring	301.6	8	6.71	8	56	1.72	2.0	2.0	46.9	No	CCTV	2031-2035	$ -				$ -	
03501330350130	Condition - with CCTV scoring	134.4	15	8.99	15	35	1.72	2.0	2.0	46.9	No	CCTV	2031-2035	$ -				$ -	
07700160770017	Condition - with CCTV scoring	383.6	18	5.64	18	77	1.71	2.0	2.0	46.8	No	CCTV	2031-2035	$ -				$ -	
06601550760123	Condition - with CCTV scoring	334.4	8	4.83	8	66	1.7	2.0	2.0	46.8	No	Possible CIPP	2031-2035	$ 18,600				$ 18,600	
07501380750135	Condition - with CCTV scoring	206.4	8	3.74	8	75	1.7	2.0	2.0	46.8	No	CCTV	2031-2035	$ -				$ -	
06602190660218	Condition - with CCTV scoring	212.6	8	4.56	8	66	1.69	2.0	2.0	46.8	No	CCTV	2031-2035	$ -				$ -	
09600240960026	Condition - with CCTV scoring	277	8	4.61	8	96	1.69	2.0	2.0	46.8	No	CCTV	2031-2035	$ -				$ -	
07601020760103	Condition - with CCTV scoring	383.2	8	10.78	8	76	1.68	2.0	2.0	46.7	No	CCTV	2031-2035	$ -				$ -	
06401850640177	Condition - with CCTV scoring	328.8	8	4.65	8	64	1.67	2.0	2.0	46.7	No	CCTV	2031-2035	$ -				$ -	
06401040640103	Condition - with CCTV scoring	456.7	8	4.97	8	64	1.67	2.0	2.0	46.7	No	CCTV	2031-2035	$ -				$ -	
07502080750206	Condition - with CCTV scoring	318.3	8	6.43	8	75	1.67	2.0	2.0	46.7	No	CCTV	2031-2035	$ -				$ -	
06600290660049	Condition - with CCTV scoring	329	8	7.741	8	66	1.66	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
06200020620004	Condition - with CCTV scoring	449.3	8	5.04	8	62	1.66	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
06401750640111	Condition - with CCTV scoring	424.1	8	5.38	8	64	1.66	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
06601500660148	Condition - with CCTV scoring	291.1	8	5.35	8	66	1.65	2.0	2.0	46.6	No	Possible CIPP	2031-2035	$ 16,200				$ 16,200	
04300530430046	Condition - with CCTV scoring	440.6	15	6.46	15	43	1.65	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
04300460430047	Condition - with CCTV scoring	332.8	15	6.47	15	43	1.65	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
05602220560218	Condition - with CCTV scoring	348	8	5.51	8	56	1.64	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
06401510640149	Condition - with CCTV scoring	290	8	4.9	8	64	1.64	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
07700180770023	Condition - with CCTV scoring	38.6	12	7.15	12	77	1.64	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
08800900880093	Condition - with CCTV scoring	129	8	8.26	8	88	1.64	2.0	2.0	46.6	No	CCTV	2031-2035	$ -				$ -	
03601240360123	Condition - with CCTV scoring	134.4	12	6.58	12	36	1.63	2.0	2.0	46.5	No	CCTV	2031-2035	$ -				$ -	
06601110660110	Condition - with CCTV scoring	412.8	8	4.62	8	66	1.62	2.0	2.0	46.5	No	CCTV	2031-2035	$ -				$ -	
07701180770117	Condition - with CCTV scoring	403.3	21	6.69	21	77	1.62	2.0	2.0	46.5	No	CCTV	2031-2035	$ -				$ -	
06401160640113	Condition - with CCTV scoring	346.5	8	7.3	8	64	1.61	2.0	2.0	46.4	No	CCTV	2031-2035	$ -				$ -	
07501490750148	Condition - with CCTV scoring	284.8	8	3.61	8	75	1.61	2.0	2.0	46.4	No	CCTV	2031-2035	$ -				$ -	
06300980630094	Condition - with CCTV scoring	130.9	8	5.2	8	63	1.6	2.0	2.0	46.4	No	CCTV	2031-2035	$ -				$ -	
06301300630131	Condition - with CCTV scoring	302.5	8	5.05	8	63	1.6	2.0	2.0	46.4	No	CCTV	2031-2035	$ -				$ -	
07202070720208	Condition - with CCTV scoring	99.3	8	5	8	72	1.6	2.0	2.0	46.4	No	CCTV	2031-2035	$ -				$ -	
03600460360047	Condition - with CCTV scoring	430.9	12	5.46	12	36	1.59	2.0	2.0	46.4	No	CCTV	2031-2035	$ -				$ -	
07400440740042	Condition - with CCTV scoring	310.9	6	6.54	8	74	1.59	2.0	2.0	46.4	No	CCTV	2031-2035	$ -				$ -	
07200530720054	Condition - with CCTV scoring	349.2	8	7.64	8	73	1.58	2.0	2.0	46.3	No	CCTV	2031-2035	$ -				$ -	
07200520720053	Condition - with CCTV scoring	313.2	8	6.96	8	73	1.58	2.0	2.0	46.3	No	CCTV	2031-2035	$ -				$ -	
08900670890071	Condition - with CCTV scoring	229.8	8	9.35	8	89	1.57	2.0	2.0	46.3	No	CCTV	2031-2035	$ -				$ -	
07300220720052	Condition - with CCTV scoring	348.6	8	8.95	8	73	1.56	2.0	2.0	46.2	No	CCTV	2031-2035	$ -				$ -	
07602180760211	Condition - with CCTV scoring	354.1	8	4.34	8	76	1.56	2.0	2.0	46.2	No	CCTV	2031-2035	$ -				$ -	
07601550760154	Condition - with CCTV scoring	350.9	10	6.74	10	76	1.56	2.0	2.0	46.2	No	CCTV	2031-2035	$ -				$ -	
08600900860089	Condition - with CCTV scoring	340.4	8	5.98	8	86	1.56	2.0	2.0	46.2	No	CCTV	2031-2035	$ -				$ -	
07601030760084	Condition - with CCTV scoring	443.3	8	9.62	8	76	1.55	2.0	2.0	46.2	No	CCTV	2031-2035	$ -				$ -	
06400120640013	Condition - with CCTV scoring	313.3	8	6.26	8	64	1.54	2.0	2.0	46.2	No	CCTV	2031-2035	$ -				$ -	
07301590730160	Condition - with CCTV scoring	453.9	10	6.34	10	73	1.54	2.0	2.0	46.2	No	CCTV	2031-2035	$ -				$ -	
04600260450206	Condition - with CCTV scoring	539.3	8	5	8	45	1.53	2.0	2.0	46.1	No	CCTV	2031-2035	$ -				$ -	
06600300660019	Condition - with CCTV scoring	306.4	8	7.57	8	66	1.52	2.0	2.0	46.1	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
08700600870059	Condition - with CCTV scoring	196.7	8	6.35	8	87	1.52	2.0	2.0	46.1	No	CCTV	2031-2035	$ -				$ -	
07502070750205	Condition - with CCTV scoring	182.6	8	7.25	8	75	1.52	2.0	2.0	46.1	No	CCTV	2031-2035	$ -				$ -	
07601530760151	Condition - with CCTV scoring	342.7	10	8.38	10	76	1.52	2.0	2.0	46.1	No	CCTV	2031-2035	$ -				$ -	
07400710740044	Condition - with CCTV scoring	315	6	3.5	8	74	1.51	2.0	2.0	46.0	No	CCTV	2031-2035	$ -				$ -	
06200900630022	Condition - with CCTV scoring	399.3	8	6.12	8	62	1.5	2.0	2.0	46.0	No	CCTV	2031-2035	$ -				$ -	
06401630640161	Condition - with CCTV scoring	290.7	8	4.8	8	64	1.5	2.0	2.0	46.0	No	CCTV	2031-2035	$ -				$ -	
07800370780030	Condition - with CCTV scoring	79.4	15	9.13	15	78	1.5	2.0	2.0	46.0	No	CCTV	2031-2035	$ -				$ -	
07400470750012	Condition - with CCTV scoring	432.3	8	6	8	74	1.5	2.0	2.0	46.0	No	CCTV	2031-2035	$ -				$ -	
06600310660066	Condition - with CCTV scoring	544.9	8	4.9	8	66	1.48	2.0	2.0	45.9	No	CCTV	2031-2035	$ -				$ -	
04801590480158	Condition - with CCTV scoring	329.7	12	13.62	12	48	1.48	2.0	2.0	45.9	No	CCTV	2031-2035	$ -				$ -	
05602320560219	Condition - with CCTV scoring	152.6	8	5.64	8	56	1.47	2.0	2.0	45.9	No	CCTV	2031-2035	$ -				$ -	
04500780450073	Condition - with CCTV scoring	267.5	8	5.9	8	45	1.47	2.0	2.0	45.9	No	CCTV	2031-2035	$ -				$ -	
03600470360043	Condition - with CCTV scoring	340.8	12	5.55	12	36	1.47	2.0	2.0	45.9	No	CCTV	2031-2035	$ -				$ -	
07502060750205	Condition - with CCTV scoring	341.7	8	7.5	8	75	1.47	2.0	2.0	45.9	No	CCTV	2031-2035	$ -				$ -	
04600440460040	Condition - with CCTV scoring	433.4	8	5.29	8	46	1.46	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
06300320630033	Condition - with CCTV scoring	264.4	8	5.73	8	63	1.46	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
06201010620100	Condition - with CCTV scoring	302.2	8	5.75	8	62	1.46	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
06201180620116	Condition - with CCTV scoring	400.5	8	5.13	8	62	1.46	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
04500310450190	Condition - with CCTV scoring	114	8	4.6	8	45	1.45	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
06300270630029	Condition - with CCTV scoring	271.9	8	5.6	8	63	1.45	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
09700540970053	Condition - with CCTV scoring	320.1	8	6.42	8	97	1.45	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
07800410780042	Condition - with CCTV scoring	261.3	8	4.53	8	78	1.45	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
09700740970042	Condition - with CCTV scoring	202.3	8	5.2	8	97	1.45	2.0	2.0	45.8	No	CCTV	2031-2035	$ -				$ -	
04501170450116	Condition - with CCTV scoring	68.9	8	10.742	8	45	1.43	2.0	2.0	45.7	No	CCTV	2031-2035	$ -				$ -	
03200350320033	Condition - with CCTV scoring	226.4	8	8.77	8	32	1.42	2.0	2.0	45.7	No	CCTV	2031-2035	$ -				$ -	
06200980620095	Condition - with CCTV scoring	303.8	8	8.08	8	62	1.4	2.0	2.0	45.6	No	CCTV	2031-2035	$ -				$ -	
07701630770119	Condition - with CCTV scoring	413.7	8	5.18	8	77	1.4	2.0	2.0	45.6	No	CCTV	2031-2035	$ -				$ -	
07301050730106	Condition - with CCTV scoring	331.3	8	6.28	8	73	1.4	2.0	2.0	45.6	No	CCTV	2031-2035	$ -				$ -	
07602170760218	Condition - with CCTV scoring	332.1	8	4.42	8	76	1.4	2.0	2.0	45.6	No	CCTV	2031-2035	$ -				$ -	
06300460630132	Condition - with CCTV scoring	455.7	8	4.96	8	63	1.38	2.0	2.0	45.5	No	CCTV	2031-2035	$ -				$ -	
07300390730040	Condition - with CCTV scoring	120	8	7.9	8	73	1.38	2.0	2.0	45.5	No	CCTV	2031-2035	$ -				$ -	
05800720580070	Condition - with CCTV scoring	307	12	8.11	12	58	1.37	2.0	2.0	45.5	No	CCTV	2031-2035	$ -				$ -	
05601140550249	Condition - with CCTV scoring	519.1	8	5	8	55	1.37	2.0	2.0	45.5	No	CCTV	2031-2035	$ -				$ -	
06200330620032	Condition - with CCTV scoring	346.3	8	5.79	8	62	1.37	2.0	2.0	45.5	No	CCTV	2031-2035	$ -				$ -	
06601650660167	Condition - with CCTV scoring	327.5	8	4.48	8	66	1.82	1.9	1.9	45.5	No	CCTV	2031-2035	$ -				$ -	
04502350450234	Condition - with CCTV scoring	122.5	8	10.04	8	45	1.35	2.0	2.0	45.4	No	CCTV	2031-2035	$ -				$ -	
09700090970005	Condition - with CCTV scoring	289.3	8	6.49	8	97	1.35	2.0	2.0	45.4	No	CCTV	2031-2035	$ -				$ -	
07501990750197	Condition - with CCTV scoring	184.5	8	5.3	8	75	1.35	2.0	2.0	45.4	No	CCTV	2031-2035	$ -				$ -	
06301370630136	Condition - with CCTV scoring	413.4	8	7.4	8	63	1.33	2.0	2.0	45.3	No	CCTV	2031-2035	$ -				$ -	
04502640450254	Condition - with CCTV scoring	239.3	8	3.14	8	45	1.3	2.0	2.0	45.2	No	CCTV	2031-2035	$ -				$ -	
06200560620084	Condition - with CCTV scoring	312.2	8	5.55	8	62	1.3	2.0	2.0	45.2	No	CCTV	2031-2035	$ -				$ -	
06200780620079	Condition - with CCTV scoring	261.5	8	5.5	8	62	1.3	2.0	2.0	45.2	No	CCTV	2031-2035	$ -				$ -	
04502290450231	Condition - with CCTV scoring	129	8	5.92	8	45	1.28	2.0	2.0	45.1	No	CCTV	2031-2035	$ -				$ -	
04602040460205	Condition - with CCTV scoring	29.5	8	4.49	8	46	1.25	2.0	2.0	45.0	No	CCTV	2031-2035	$ -				$ -	
04500550450052	Condition - with CCTV scoring	180.1	8	3.4	8	45	1.2	2.0	2.0	44.8	No	CCTV	2031-2035	$ -				$ -	
07601540760153	Condition - with CCTV scoring	381.7	10	8	10	76	1.4	2.0	2.0	44.6	No	CCTV	2031-2035	$ -				$ -	
08700660870067	Condition - with CCTV scoring	204.7	8	4.18	8	87	1.4	1.9	1.9	43.6	No	CCTV	2031-2035	$ -				$ -	
08800160880015	Condition - with CCTV scoring	329.9	8	5.67	8	88	1.85	1.8	1.8	43.4	No	CCTV	2031-2035	$ -				$ -	
06700770670003	Condition - with CCTV scoring	303.4	8	3.96	8	67	1.8	1.8	1.8	43.2	No	CCTV	2031-2035	$ -				$ -	
06200300620022	Condition - with CCTV scoring	312.9	8	5.38	8	62	1.52	1.8	1.8	42.1	No	CCTV	2031-2035	$ -				$ -	
06300220630019	Condition - with CCTV scoring	403.6	8	6.1	8	63	1.5	1.8	1.8	42.0	No	CCTV	2031-2035	$ -				$ -	
08500170750065	Condition - with CCTV scoring	734.1	8	7.8	8	75	1.71	1.7	1.7	40.2	No	CCTV	2031-2035	$ -				$ -	
07400370740036	Condition - with CCTV scoring	467.7	10	6.66	10	74	1.57	1.7	1.7	39.6	No	CCTV	2031-2035	$ -				$ -	
06301090630107	Condition - with CCTV scoring	464.6	8	5	8	63	1.55	1.7	1.7	39.5	No	CCTV	2031-2035	$ -				$ -	
06200890620061	Condition - with CCTV scoring	268.4	8	7.68	8	62	1.42	1.7	1.7	39.0	No	CCTV	2031-2035	$ -				$ -	
06300440630046	Condition - with CCTV scoring	509.9	8	4.96	8	63	1.38	1.7	1.7	38.9	No	CCTV	2031-2035	$ -				$ -	
04502390450214	Condition - with CCTV scoring	362.3	8	5.06	8	45	1.37	1.7	1.7	38.8	No	CCTV	2031-2035	$ -				$ -	
04500300450031	Condition - with CCTV scoring	325	8	3.7	8	45	2.06	1.5	1.5	38.2	No	CCTV	2031-2035	$ -				$ -	
07800170780019	Condition - with CCTV scoring	444.6	8	7.07	8	78	1.45	1.6	1.6	37.8	No	CCTV	2031-2035	$ -				$ -	
07500240750022	Condition - with CCTV scoring	314.2	8	6.35	8	75	1.9	1.5	1.5	37.6	No	CCTV	2031-2035	$ -				$ -	
04400970440096	Condition - with CCTV scoring	438.2	15	6.88	15	43	1.89	1.5	1.5	37.6	No	CCTV	2031-2035	$ -				$ -	
07500290750028	Condition - with CCTV scoring	52	8	9.44	8	75	1.81	1.5	1.5	37.2	No	CCTV	2031-2035	$ -				$ -	
06401820640183	Condition - with CCTV scoring	297.8	8	5.08	8	64	1.77	1.5	1.5	37.1	No	CCTV	2031-2035	$ -				$ -	
05602040560205	Condition - with CCTV scoring	264.9	8	5.75	8	56	1.75	1.5	1.5	37.0	No	CCTV	2031-2035	$ -				$ -	
06300950630096	Condition - with CCTV scoring	517	8	5.9	8	63	1.7	1.5	1.5	36.8	No	CCTV	2031-2035	$ -				$ -	
06300940630095	Condition - with CCTV scoring	136.5	8	5.19	8	63	1.6	1.5	1.5	36.4	No	CCTV	2031-2035	$ -				$ -	
06400570640058	Condition - with CCTV scoring	420.5	8	2.97	8	64	1.57	1.5	1.5	36.3	No	CCTV	2031-2035	$ -				$ -	
07800160780017	Condition - with CCTV scoring	448.9	8	6.54	8	78	1.45	1.5	1.5	35.8	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04501070450089	Condition - with CCTV scoring	389.4	8	4.3	8	45	1.39	1.5	1.5	35.6	No	CCTV	2031-2035	$ -				$ -	
06401050640103	Condition - with CCTV scoring	488	8	4.54	8	64	1.52	1.3	1.3	32.7	No	CCTV	2031-2035	$ -				$ -	
06201000630033	Condition - with CCTV scoring	350.5	8	6.46	8	62	1.51	1.3	1.3	32.7	No	CCTV	2031-2035	$ -				$ -	
06301210630123	Condition - with CCTV scoring	291.2	8	5.47	8	63	1.45	1.3	1.3	32.5	No	CCTV	2031-2035	$ -				$ -	
01201560120001	Condition - with CCTV scoring	202.1	15	15.47	15	12	3	1.0	1.0	32.0	No	CCTV	2031-2035	$ -				$ -	
08701050870104	Condition - with CCTV scoring	501.1	12	9.52	12	87	1.83	1.2	1.2	31.9	No	CCTV	2031-2035	$ -				$ -	
06401240640126	Condition - with CCTV scoring	412.5	8	7.6	8	64	1.53	1.3	1.3	31.8	No	CCTV	2031-2035	$ -				$ -	
03400920340094	Condition - with CCTV scoring	204.5	21	9.17	21	34	2.72	1.0	1.0	30.9	No	CCTV	2031-2035	$ -				$ -	
03400930340092	Condition - with CCTV scoring	356.4	21	6.3	21	34	2.67	1.0	1.0	30.7	No	CCTV	2031-2035	$ -				$ -	
04500920450089	Condition - with CCTV scoring	273.6	8	4.62	8	45	1.39	1.3	1.3	30.6	No	CCTV	2031-2035	$ -				$ -	
06400380640037	Condition - with CCTV scoring	198.7	8	5.99	8	64	1.38	1.3	1.3	30.5	No	CCTV	2031-2035	$ -				$ -	
06501980650197	Condition - with CCTV scoring	337.7	8	4.63	8	65	2.37	1.0	1.0	30.5	No	Possible CIPP	2031-2035	$ 18,800				$ 18,800	
06501950650197	Condition - with CCTV scoring	346.7	8	5.28	8	65	1.76	1.2	1.2	30.4	No	CCTV	2031-2035	$ -				$ -	
04500910450092	Condition - with CCTV scoring	276.3	8	4.57	8	45	1.44	1.2	1.2	29.8	No	CCTV	2031-2035	$ -				$ -	
08701190870118	Condition - with CCTV scoring	412	12	6.36	12	87	2.42	1.0	1.0	29.7	No	CCTV	2031-2035	$ -				$ -	
07601210760124	Condition - with CCTV scoring	92.8	33	4.83	36	76	2.32	1.0	1.0	29.3	No	CCTV	2031-2035	$ -				$ -	
02200410220043	Condition - with CCTV scoring	493.7	18	10.32	18	22	2.23	1.0	1.0	28.9	No	CCTV	2031-2035	$ -				$ -	
04500720450071	Condition - with CCTV scoring	151.7	8	8.594	8	45	2.18	1.0	1.0	28.7	No	CCTV	2031-2035	$ -				$ -	
02200230220024	Condition - with CCTV scoring	1013.3	18	22.15	18	22	2.17	1.0	1.0	28.7	No	CCTV	2031-2035	$ -				$ -	
07501880750027	Condition - with CCTV scoring	382.4	12	7.94	12	75	2.14	1.0	1.0	28.6	No	CCTV	2031-2035	$ -				$ -	
01200030120155	Condition - with CCTV scoring	691.4	12	9.07	12	12	2.03	1.0	1.0	28.1	No	CCTV	2031-2035	$ -				$ -	
04500620450063	Condition - with CCTV scoring	145.1	8	6.32	8	45	2.01	1.0	1.0	28.0	No	CCTV	2031-2035	$ -				$ -	
08600100860011	Condition - with CCTV scoring	42.7	12	15.47	12	86	2.01	1.0	1.0	28.0	No	CCTV	2031-2035	$ -				$ -	
01201220120121	Condition - with CCTV scoring	402.1	15	7.31	15	12	2	1.0	1.0	28.0	No	CCTV	2031-2035	$ -				$ -	
08800010870105	Condition - with CCTV scoring	497.3	12	9.6	12	87	1.97	1.0	1.0	27.9	No	CCTV	2031-2035	$ -				$ -	
07701370770113	Condition - with CCTV scoring	242.4	8	4.8	8	77	1.95	1.0	1.0	27.8	No	CCTV	2031-2035	$ -				$ -	
08700110860133	Condition - with CCTV scoring	269.9	8	10.24	8	87	1.92	1.0	1.0	27.7	No	CCTV	2031-2035	$ -				$ -	
05500510650195	Condition - with CCTV scoring	337.6	8	5.45	8	55	1.89	1.0	1.0	27.6	No	CCTV	2031-2035	$ -				$ -	
08601330860126	Condition - with CCTV scoring	133.1	8	7.31	8	87	1.89	1.0	1.0	27.6	No	CCTV	2031-2035	$ -				$ -	
04501740450173	Condition - with CCTV scoring	180.9	8	3.4	8	45	1.88	1.0	1.0	27.5	No	CCTV	2031-2035	$ -				$ -	
08700890870055	Condition - with CCTV scoring	505.6	12	7.46	12	87	1.87	1.0	1.0	27.5	No	CCTV	2031-2035	$ -				$ -	
07701360770137	Condition - with CCTV scoring	209.7	8	5.9	8	77	1.87	1.0	1.0	27.5	No	CCTV	2031-2035	$ -				$ -	
07301690730170	Condition - with CCTV scoring	255.1	12	6.15	12	73	1.87	1.0	1.0	27.5	No	CCTV	2031-2035	$ -				$ -	
07500150750013	Condition - with CCTV scoring	309.2	8	7	8	75	1.86	1.0	1.0	27.4	No	CCTV	2031-2035	$ -				$ -	
06300790630074	Condition - with CCTV scoring	182.1	10	8.44	10	63	1.84	1.0	1.0	27.4	No	CCTV	2031-2035	$ -				$ -	
05601160560115	Condition - with CCTV scoring	606.5	8	4.5	8	56	1.83	1.0	1.0	27.3	No	CCTV	2031-2035	$ -				$ -	
08901060890107	Condition - with CCTV scoring	508.1	10	10.55	10	89	1.81	1.0	1.0	27.2	No	CCTV	2031-2035	$ -				$ -	
05501610550164	Condition - with CCTV scoring	281	12	6.55	12	55	1.8	1.0	1.0	27.2	No	CCTV	2031-2035	$ -				$ -	
01300080120122	Condition - with CCTV scoring	367.5	12	6.17	12	12	1.8	1.0	1.0	27.2	No	CCTV	2031-2035	$ -				$ -	
07701380770136	Condition - with CCTV scoring	389.8	8	4.99	8	77	1.8	1.0	1.0	27.2	No	CCTV	2031-2035	$ -				$ -	
06400410640043	Condition - with CCTV scoring	680	8	4.76	8	64	1.79	1.0	1.0	27.2	No	CCTV	2031-2035	$ -				$ -	
07601090760108	Condition - with CCTV scoring	190	8	4.41	8	76	1.78	1.0	1.0	27.1	No	CCTV	2031-2035	$ -				$ -	
03500740350095	Condition - with CCTV scoring	661	12	7.65	12	35	1.77	1.0	1.0	27.1	No	CCTV	2031-2035	$ -				$ -	
08701040870093	Condition - with CCTV scoring	498.4	12	9.7	12	87	1.76	1.0	1.0	27.0	No	CCTV	2031-2035	$ -				$ -	
06600370660038	Condition - with CCTV scoring	364	8	16.56	8	66	1.76	1.0	1.0	27.0	No	CCTV	2031-2035	$ -				$ -	
07500180750010	Condition - with CCTV scoring	145.5	8	4.1	8	75	1.75	1.0	1.0	27.0	No	CCTV	2031-2035	$ -				$ -	
07200180720017	Condition - with CCTV scoring	321.8	8	6.05	8	72	1.75	1.0	1.0	27.0	No	CCTV	2031-2035	$ -				$ -	
06502340650194	Condition - with CCTV scoring	258.1	8	5.27	8	65	1.73	1.0	1.0	26.9	No	CCTV	2031-2035	$ -				$ -	
06300800630054	Condition - with CCTV scoring	340.3	8	7	8	63	1.73	1.0	1.0	26.9	No	CCTV	2031-2035	$ -				$ -	
08600570860054	Condition - with CCTV scoring	89.6	10	7.48	10	86	1.72	1.0	1.0	26.9	No	CCTV	2031-2035	$ -				$ -	
08600540860055	Condition - with CCTV scoring	163.3	10	7.8	10	86	1.72	1.0	1.0	26.9	No	CCTV	2031-2035	$ -				$ -	
07800450780046	Condition - with CCTV scoring	350.3	8	6.24	8	78	1.71	1.0	1.0	26.8	No	CCTV	2031-2035	$ -				$ -	
07400530740052	Condition - with CCTV scoring	349	12	6.51	12	74	1.71	1.0	1.0	26.8	No	CCTV	2031-2035	$ -				$ -	
06301080630096	Condition - with CCTV scoring	320.9	8	5.52	8	63	1.7	1.0	1.0	26.8	No	CCTV	2031-2035	$ -				$ -	
06201170620118	Condition - with CCTV scoring	453.2	8	8.33	8	62	1.69	1.0	1.0	26.8	No	CCTV	2031-2035	$ -				$ -	
06600390660051	Condition - with CCTV scoring	481.7	8	6.56	8	66	1.67	1.0	1.0	26.7	No	CCTV	2031-2035	$ -				$ -	
06401840640185	Condition - with CCTV scoring	248.6	8	5.64	8	64	1.67	1.0	1.0	26.7	No	CCTV	2031-2035	$ -				$ -	
09701500970149	Condition - with CCTV scoring	536.9	8	6.48	8	97	1.67	1.0	1.0	26.7	No	CCTV	2031-2035	$ -				$ -	
06502300660032	Condition - with CCTV scoring	409.7	8	7.02	8	65	1.67	1.0	1.0	26.7	No	CCTV	2031-2035	$ -				$ -	
06501930650194	Condition - with CCTV scoring	325.9	8	5.34	8	65	1.66	1.0	1.0	26.6	No	CCTV	2031-2035	$ -				$ -	
06401250640124	Condition - with CCTV scoring	376.8	8	5.37	8	64	1.64	1.0	1.0	26.6	No	CCTV	2031-2035	$ -				$ -	
07701450770146	Condition - with CCTV scoring	352.9	12	7.5	12	77	1.64	1.0	1.0	26.6	No	CCTV	2031-2035	$ -				$ -	
06401690640170	Condition - with CCTV scoring	251.6	8	4.43	8	64	1.61	1.0	1.0	26.4	No	CCTV	2031-2035	$ -				$ -	
08700420870043	Condition - with CCTV scoring	332.3	8	5.9	8	87	1.61	1.0	1.0	26.4	No	CCTV	2031-2035	$ -				$ -	
06400640640062	Condition - with CCTV scoring	289.2	8	6.19	8	64	1.58	1.0	1.0	26.3	No	CCTV	2031-2035	$ -				$ -	
09700980970096	Condition - with CCTV scoring	592.3	12	7.62	12	97	1.58	1.0	1.0	26.3	No	CCTV	2031-2035	$ -				$ -	
06300590630058	Condition - with CCTV scoring	290.1	12	7.51	12	63	1.58	1.0	1.0	26.3	No	CCTV	2031-2035	$ -				$ -	
09701730970175	Condition - with CCTV scoring	348	8	5.97	8	97	1.56	1.0	1.0	26.2	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
08900480890037	Condition - with CCTV scoring	310.1	8	7.74	8	89	1.53	1.0	1.0	26.1	No	CCTV	2031-2035	$ -				$ -	
06401110640110	Condition - with CCTV scoring	274	8	4.92	8	64	1.52	1.0	1.0	26.1	No	CCTV	2031-2035	$ -				$ -	
08700610870058	Condition - with CCTV scoring	198	8	6.35	8	87	1.52	1.0	1.0	26.1	No	CCTV	2031-2035	$ -				$ -	
06501440650145	Condition - with CCTV scoring	436.5	18	4.5	18	65	1.5	1.0	1.0	26.0	No	CCTV	2031-2035	$ -				$ -	
05600900560089	Condition - with CCTV scoring	189.2	8	6.6	8	56	1.5	1.0	1.0	26.0	No	CCTV	2031-2035	$ -				$ -	
07400460750011	Condition - with CCTV scoring	373.5	8	6	8	74	1.5	1.0	1.0	26.0	No	CCTV	2031-2035	$ -				$ -	
06201200620104	Condition - with CCTV scoring	277.5	8	5.34	8	62	1.46	1.0	1.0	25.8	No	CCTV	2031-2035	$ -				$ -	
06400400640039	Condition - with CCTV scoring	211.7	8	5.88	8	64	1.46	1.0	1.0	25.8	No	CCTV	2031-2035	$ -				$ -	
07500360750038	Condition - with CCTV scoring	364.7	8	5.03	8	75	1.43	1.0	1.0	25.7	No	CCTV	2031-2035	$ -				$ -	
09701120970111	Condition - with CCTV scoring	193.6	8	5.23	8	97	1.4	1.0	1.0	25.6	No	CCTV	2031-2035	$ -				$ -	
07701620770129	Condition - with CCTV scoring	105.6	8	4.2	8	77	1.4	1.0	1.0	25.6	No	CCTV	2031-2035	$ -				$ -	
07400670740069	Condition - with CCTV scoring	36.8	8	5.71	8	74	1.4	1.0	1.0	25.6	No	CCTV	2031-2035	$ -				$ -	
07201620720160	Condition - with CCTV scoring	227.6	8	4.77	8	72	1.38	1.0	1.0	25.5	No	CCTV	2031-2035	$ -				$ -	
07501310750092	Condition - with CCTV scoring	851.3	8	4.94	8	75	1.38	1.0	1.0	25.5	No	CCTV	2031-2035	$ -				$ -	
04500970450098	Condition - with CCTV scoring	396.9	8	5	8	45	1.37	1.0	1.0	25.5	No	CCTV	2031-2035	$ -				$ -	
04500900450091	Condition - with CCTV scoring	260.8	8	4.82	8	45	1.37	1.0	1.0	25.5	No	CCTV	2031-2035	$ -				$ -	
06200090620012	Condition - with CCTV scoring	262	8	6.16	8	62	1.35	1.0	1.0	25.4	No	CCTV	2031-2035	$ -				$ -	
07400260740025	Condition - with CCTV scoring	191.2	8	7.88	8	74	1.35	1.0	1.0	25.4	No	CCTV	2031-2035	$ -				$ -	
04501870450176	Condition - with CCTV scoring	340.7	8	5.26	8	45	1.32	1.0	1.0	25.3	No	CCTV	2031-2035	$ -				$ -	
06200190620020	Condition - with CCTV scoring	369.7	8	5.97	8	62	1.3	1.0	1.0	25.2	No	CCTV	2031-2035	$ -				$ -	
06200540620055	Condition - with CCTV scoring	283.5	8	5.5	8	62	1.3	1.0	1.0	25.2	No	CCTV	2031-2035	$ -				$ -	
06200580620054	Condition - with CCTV scoring	126.2	8	5.5	8	62	1.3	1.0	1.0	25.2	No	CCTV	2031-2035	$ -				$ -	
07301230740022	Condition - with CCTV scoring	296.8	8	4.34	8	74	1.3	1.0	1.0	25.2	No	CCTV	2031-2035	$ -				$ -	
07301230730121	Condition - with CCTV scoring	268.5	8	4.34	8	73	1.3	1.0	1.0	25.2	No	CCTV	2031-2035	$ -				$ -	
04502230450225	Condition - with CCTV scoring	188.4	8	5.72	8	45	1.2	1.0	1.0	24.8	No	CCTV	2031-2035	$ -				$ -	
04502250450241	Condition - with CCTV scoring	137.9	8	5.5	8	45	1.2	1.0	1.0	24.8	No	CCTV	2031-2035	$ -				$ -	
04502430450235	Condition - with CCTV scoring	218.7	8	5.1	8	45	1.2	1.0	1.0	24.8	No	CCTV	2031-2035	$ -				$ -	
06700120770139	Condition - with CCTV scoring	604.2	48	11.92	48	67	4.22	0.0	0.0	16.9	No	CCTV	2031-2035	$ -				$ -	
07601610760160	Condition - with CCTV scoring	717.8	54	20.47	54	76	4.22	0.0	0.0	16.9	No	CCTV	2031-2035	$ -				$ -	
04602450560016	Condition - with CCTV scoring	399.5	27	8.07	27	46	4.15	0.0	0.0	16.6	No	CCTV	2031-2035	$ -				$ -	
07701060770107	Condition - with CCTV scoring	582.4	48	14.41	48	77	4.13	0.0	0.0	16.5	No	CCTV	2031-2035	$ -				$ -	
05600160560018	Condition - with CCTV scoring	149.9	27	9.82	27	56	4.12	0.0	0.0	16.5	No	CCTV	2031-2035	$ -				$ -	
07601720760171	Condition - with CCTV scoring	391.5	42	11.71	42	76	4.08	0.0	0.0	16.3	No	CCTV	2031-2035	$ -				$ -	
06700150670014	Condition - with CCTV scoring	655.8	48	11.95	48	67	4.07	0.0	0.0	16.3	No	CCTV	2031-2035	$ -				$ -	
07701090770106	Condition - with CCTV scoring	614.1	48	14.76	48	77	4.07	0.0	0.0	16.3	No	CCTV	2031-2035	$ -				$ -	
09600280960027	Condition - with CCTV scoring	139.2	21	8.27	21	96	4.07	0.0	0.0	16.3	No	CCTV	2031-2035	$ -				$ -	
05602640560262	Condition - with CCTV scoring	309	27	12	27	56	4.06	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
08600720860073	Condition - with CCTV scoring	72.2	30	6.5	30	86	4.06	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
07701390770111	Condition - with CCTV scoring	249.6	48	14.26	48	77	4.05	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
07601580860115	Condition - with CCTV scoring	760.8	54	18.23	54	76	4.05	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
07601600760159	Condition - with CCTV scoring	785.9	54	20.23	54	76	4.05	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
05602540560264	Condition - with CCTV scoring	363.2	27	10.68	27	56	4.04	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
05602520560253	Condition - with CCTV scoring	351.6	27	9.24	27	56	4.04	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
07601070760126	Condition - with CCTV scoring	263.3	36	11.77	36	76	4.04	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
07601050760107	Condition - with CCTV scoring	696.9	36	10.87	36	76	4.04	0.0	0.0	16.2	No	CCTV	2031-2035	$ -				$ -	
09600590960028	Condition - with CCTV scoring	413	21	16.13	21	96	4.02	0.0	0.0	16.1	No	CCTV	2031-2035	$ -				$ -	
03600380360036	Condition - with CCTV scoring	228.8	30	10.45	30	36	4.01	0.0	0.0	16.0	No	CCTV	2031-2035	$ -				$ -	
03600390360038	Condition - with CCTV scoring	58.7	30	10.62	30	36	4.01	0.0	0.0	16.0	No	CCTV	2031-2035	$ -				$ -	
07701110770109	Condition - with CCTV scoring	252.8	48	13.69	48	77	4	0.0	0.0	16.0	No	CCTV	2031-2035	$ -				$ -	
07601860760172	Condition - with CCTV scoring	791.3	42	12.04	42	76	3.99	0.0	0.0	16.0	No	CCTV	2031-2035	$ -				$ -	
09600030960014	Condition - with CCTV scoring	232	27	5.71	27	96	3.99	0.0	0.0	16.0	No	CCTV	2031-2035	$ -				$ -	
08600730860078	Condition - with CCTV scoring	363.5	30	6.58	30	86	3.99	0.0	0.0	16.0	No	CCTV	2031-2035	$ -				$ -	
03600370360131	Condition - with CCTV scoring	340.4	27	7.64	27	36	3.98	0.0	0.0	15.9	No	CCTV	2031-2035	$ -				$ -	
03600350360037	Condition - with CCTV scoring	331.7	27	7.57	27	36	3.98	0.0	0.0	15.9	No	CCTV	2031-2035	$ -				$ -	
07701070770108	Condition - with CCTV scoring	597.9	48	13.33	48	77	3.97	0.0	0.0	15.9	No	CCTV	2031-2035	$ -				$ -	
05600180560261	Condition - with CCTV scoring	414.2	27	9.72	27	56	3.96	0.0	0.0	15.8	No	CCTV	2031-2035	$ -				$ -	
03600360360035	Condition - with CCTV scoring	251.6	30	8.19	30	36	3.96	0.0	0.0	15.8	No	CCTV	2031-2035	$ -				$ -	
06701090670110	Condition - with CCTV scoring	342.5	39	11.64	42	67	3.95	0.0	0.0	15.8	No	CCTV	2031-2035	$ -				$ -	
03601290360066	Condition - with CCTV scoring	116.5	27	7.02	27	36	3.94	0.0	0.0	15.8	No	CCTV	2031-2035	$ -				$ -	
03601300360128	Condition - with CCTV scoring	83.2	27	7.08	27	36	3.9	0.0	0.0	15.6	No	CCTV	2031-2035	$ -				$ -	
05602620560263	Condition - with CCTV scoring	353.5	27	12.95	27	56	3.89	0.0	0.0	15.6	No	CCTV	2031-2035	$ -				$ -	
08601150860116	Condition - with CCTV scoring	935.6	54	18.68	54	86	3.89	0.0	0.0	15.6	No	CCTV	2031-2035	$ -				$ -	
05602550560252	Condition - with CCTV scoring	380.5	27	9.16	27	56	3.86	0.0	0.0	15.4	No	CCTV	2031-2035	$ -				$ -	
03601550360156	Condition - with CCTV scoring	459.9	33	8.67	36	36	3.86	0.0	0.0	15.4	No	CCTV	2031-2035	$ -				$ -	
06602860660215	Condition - with CCTV scoring	328.4	30	9.45	30	66	3.85	0.0	0.0	15.4	No	CCTV	2031-2035	$ -				$ -	
03601320360130	Condition - with CCTV scoring	169.6	27	6.88	27	36	3.85	0.0	0.0	15.4	No	CCTV	2031-2035	$ -				$ -	
03601310360132	Condition - with CCTV scoring	265	27	7.43	27	36	3.85	0.0	0.0	15.4	No	CCTV	2031-2035	$ -				$ -	
09701360970103	Condition - with CCTV scoring	536.2	21	9.18	21	97	3.84	0.0	0.0	15.4	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
08600780860079	Condition - with CCTV scoring	367.3	30	6.94	30	86	3.84	0.0	0.0	15.4	No	CCTV	2031-2035	$ -				$ -	
06701080670109	Condition - with CCTV scoring	339.2	39	12.88	42	67	3.83	0.0	0.0	15.3	No	CCTV	2031-2035	$ -				$ -	
06603040660287	Condition - with CCTV scoring	332.2	30	12.7	30	66	3.83	0.0	0.0	15.3	No	CCTV	2031-2035	$ -				$ -	
06602870660286	Condition - with CCTV scoring	337.1	30	10.67	30	66	3.83	0.0	0.0	15.3	No	CCTV	2031-2035	$ -				$ -	
07601850760186	Condition - with CCTV scoring	625.6	42	14.54	42	76	3.83	0.0	0.0	15.3	No	CCTV	2031-2035	$ -				$ -	
04602310460226	Condition - with CCTV scoring	99.8	27	12.72	27	46	3.82	0.0	0.0	15.3	No	CCTV	2031-2035	$ -				$ -	
09600140960015	Condition - with CCTV scoring	245	27	6.04	27	96	3.82	0.0	0.0	15.3	No	CCTV	2031-2035	$ -				$ -	
07601790760180	Condition - with CCTV scoring	903.4	36	8.61	36	76	3.82	0.0	0.0	15.3	No	CCTV	2031-2035	$ -				$ -	
05602630660304	Condition - with CCTV scoring	315.1	30	14.73	30	56	3.81	0.0	0.0	15.2	No	CCTV	2031-2035	$ -				$ -	
07601820760183	Condition - with CCTV scoring	506.9	30	9.53	30	76	3.81	0.0	0.0	15.2	No	CCTV	2031-2035	$ -				$ -	
06602150660288	Condition - with CCTV scoring	348	30	7.86	30	66	3.8	0.0	0.0	15.2	No	CCTV	2031-2035	$ -				$ -	
06602880660289	Condition - with CCTV scoring	346.1	30	8.79	30	66	3.78	0.0	0.0	15.1	No	CCTV	2031-2035	$ -				$ -	
07601830760185	Condition - with CCTV scoring	64.3	27	11.45	27	76	3.78	0.0	0.0	15.1	No	CCTV	2031-2035	$ -				$ -	
06700790670108	Condition - with CCTV scoring	338.4	39	13.64	42	67	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
06700740670079	Condition - with CCTV scoring	651.8	39	15	42	67	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
05602560560255	Condition - with CCTV scoring	357.2	27	8.58	27	56	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
05602390560236	Condition - with CCTV scoring	377	27	8.15	27	56	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
07700410770023	Condition - with CCTV scoring	514.6	54	13.9	54	77	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
07701520770151	Condition - with CCTV scoring	459.9	54	11.25	54	77	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
07700970770091	Condition - with CCTV scoring	206.5	54	12.61	54	77	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
07700910770042	Condition - with CCTV scoring	396.8	54	14	54	77	3.76	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
04602440460245	Condition - with CCTV scoring	407.6	27	8	27	46	3.75	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
03600640360063	Condition - with CCTV scoring	402.3	27	8.23	27	36	3.75	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
06601980660199	Condition - with CCTV scoring	119.1	36	9.55	36	66	3.75	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
06601940660198	Condition - with CCTV scoring	13.1	36	9.69	36	66	3.75	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
09600160960017	Condition - with CCTV scoring	245.6	27	6.65	27	96	3.75	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
07600100760011	Condition - with CCTV scoring	452.5	36	9.3	36	76	3.75	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
07601800760184	Condition - with CCTV scoring	11.1	36	9.69	36	76	3.74	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
07601840760182	Condition - with CCTV scoring	11.5	36	9.4	36	76	3.74	0.0	0.0	15.0	No	CCTV	2031-2035	$ -				$ -	
06602890660290	Condition - with CCTV scoring	335.8	30	8.79	30	66	3.73	0.0	0.0	14.9	No	CCTV	2031-2035	$ -				$ -	
06602900660291	Condition - with CCTV scoring	347.6	30	9.12	30	66	3.73	0.0	0.0	14.9	No	CCTV	2031-2035	$ -				$ -	
09701020970104	Condition - with CCTV scoring	573.5	21	12.84	21	97	3.73	0.0	0.0	14.9	No	CCTV	2031-2035	$ -				$ -	
08700180870019	Condition - with CCTV scoring	249.9	54	13.43	54	87	3.72	0.0	0.0	14.9	No	CCTV	2031-2035	$ -				$ -	
08600750860040	Condition - with CCTV scoring	364.1	30	10.9	30	86	3.72	0.0	0.0	14.9	No	CCTV	2031-2035	$ -				$ -	
09600020960001	Condition - with CCTV scoring	236	27	6.79	27	96	3.72	0.0	0.0	14.9	No	CCTV	2031-2035	$ -				$ -	
05602360560240	Condition - with CCTV scoring	54.8	27	7.25	27	56	3.71	0.0	0.0	14.8	No	CCTV	2031-2035	$ -				$ -	
03601560360065	Condition - with CCTV scoring	425	27	7.86	27	36	3.71	0.0	0.0	14.8	No	CCTV	2031-2035	$ -				$ -	
06601910760178	Condition - with CCTV scoring	20.7	27	6.34	27	66	3.7	0.0	0.0	14.8	No	CCTV	2031-2035	$ -				$ -	
06602010660202	Condition - with CCTV scoring	43.9	36	6.69	36	66	3.7	0.0	0.0	14.8	No	CCTV	2031-2035	$ -				$ -	
06602000660201	Condition - with CCTV scoring	178	33	6.6	36	66	3.7	0.0	0.0	14.8	No	CCTV	2031-2035	$ -				$ -	
06601990660200	Condition - with CCTV scoring	30.6	36	6.87	36	66	3.7	0.0	0.0	14.8	No	CCTV	2031-2035	$ -				$ -	
08600790860077	Condition - with CCTV scoring	478	30	7.06	30	86	3.69	0.0	0.0	14.8	No	CCTV	2031-2035	$ -				$ -	
03300640330063	Condition - with CCTV scoring	356.8	30	11.3	30	33	3.68	0.0	0.0	14.7	No	CCTV	2031-2035	$ -				$ -	
08600760860075	Condition - with CCTV scoring	349.1	30	9.29	30	86	3.67	0.0	0.0	14.7	No	CCTV	2031-2035	$ -				$ -	
05602410560239	Condition - with CCTV scoring	369.9	27	8.45	27	56	3.66	0.0	0.0	14.6	No	CCTV	2031-2035	$ -				$ -	
03600400360039	Condition - with CCTV scoring	138	30	11.72	30	36	3.66	0.0	0.0	14.6	No	CCTV	2031-2035	$ -				$ -	
06602020660191	Condition - with CCTV scoring	91.7	36	4.52	36	66	3.65	0.0	0.0	14.6	No	CCTV	2031-2035	$ -				$ -	
06602060660236	Condition - with CCTV scoring	318.3	27	13.75	27	66	3.64	0.0	0.0	14.6	No	CCTV	2031-2035	$ -				$ -	
06700730670074	Condition - with CCTV scoring	486.5	36	5.75	36	67	3.64	0.0	0.0	14.6	No	CCTV	2031-2035	$ -				$ -	
04602460460244	Condition - with CCTV scoring	413.7	27	9.37	27	46	3.64	0.0	0.0	14.6	No	CCTV	2031-2035	$ -				$ -	
06701200670101	Condition - with CCTV scoring	397.2	27	11.63	27	67	3.63	0.0	0.0	14.5	No	CCTV	2031-2035	$ -				$ -	
05602570560256	Condition - with CCTV scoring	460.5	27	8	27	56	3.63	0.0	0.0	14.5	No	CCTV	2031-2035	$ -				$ -	
08700150870013	Condition - with CCTV scoring	463.7	54	11.99	54	87	3.63	0.0	0.0	14.5	No	CCTV	2031-2035	$ -				$ -	
03401110350115	Condition - with CCTV scoring	209.8	27	12.16	27	34	3.62	0.0	0.0	14.5	No	CCTV	2031-2035	$ -				$ -	
08700190870015	Condition - with CCTV scoring	458.5	54	12.43	54	87	3.62	0.0	0.0	14.5	No	CCTV	2031-2035	$ -				$ -	
08700200870018	Condition - with CCTV scoring	294.7	54	10.81	54	87	3.62	0.0	0.0	14.5	No	CCTV	2031-2035	$ -				$ -	
08600770860076	Condition - with CCTV scoring	265.1	30	7.17	30	86	3.62	0.0	0.0	14.5	No	CCTV	2031-2035	$ -				$ -	
05602400560257	Condition - with CCTV scoring	354.1	27	7.7	27	56	3.61	0.0	0.0	14.4	No	CCTV	2031-2035	$ -				$ -	
04602280460229	Condition - with CCTV scoring	295.9	27	11.53	27	46	3.61	0.0	0.0	14.4	No	CCTV	2031-2035	$ -				$ -	
09600270960005	Condition - with CCTV scoring	316.9	21	9.63	21	96	3.6	0.0	0.0	14.4	No	CCTV	2031-2035	$ -				$ -	
05602530560254	Condition - with CCTV scoring	375.8	27	10.1	27	56	3.59	0.0	0.0	14.4	No	CCTV	2031-2035	$ -				$ -	
07700230770022	Condition - with CCTV scoring	124.7	54	6.84	54	77	3.59	0.0	0.0	14.4	No	CCTV	2031-2035	$ -				$ -	
07601710760170	Condition - with CCTV scoring	190.7	24	11.83	24	76	3.59	0.0	0.0	14.4	No	CCTV	2031-2035	$ -				$ -	
06602910660292	Condition - with CCTV scoring	326.7	30	9.29	30	66	3.58	0.0	0.0	14.3	No	CCTV	2031-2035	$ -				$ -	
05602580560241	Condition - with CCTV scoring	382.1	27	8.75	27	56	3.58	0.0	0.0	14.3	No	CCTV	2031-2035	$ -				$ -	
05602610560260	Condition - with CCTV scoring	280.7	27	9.15	27	56	3.58	0.0	0.0	14.3	No	CCTV	2031-2035	$ -				$ -	
06701050670106	Condition - with CCTV scoring	473.5	33	14.28	36	67	3.57	0.0	0.0	14.3	No	CCTV	2031-2035	$ -				$ -	
06701060670107	Condition - with CCTV scoring	47	33	13.09	36	67	3.57	0.0	0.0	14.3	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
09600180860068	Condition - with CCTV scoring	122.1	27	9.74	27	96	3.57	0.0	0.0	14.3	No	CCTV	2031-2035	$ -				$ -	
04602300460231	Condition - with CCTV scoring	437.7	27	9.07	27	46	3.56	0.0	0.0	14.2	No	CCTV	2031-2035	$ -				$ -	
03600450360044	Condition - with CCTV scoring	400.7	30	16.7	30	36	3.56	0.0	0.0	14.2	No	CCTV	2031-2035	$ -				$ -	
06701010670100	Condition - with CCTV scoring	68.9	33	11.93	36	67	3.55	0.0	0.0	14.2	No	CCTV	2031-2035	$ -				$ -	
06700430670073	Condition - with CCTV scoring	544.4	36	9.08	36	67	3.53	0.0	0.0	14.1	No	CCTV	2031-2035	$ -				$ -	
04602430460246	Condition - with CCTV scoring	375.7	27	14.57	27	46	3.53	0.0	0.0	14.1	No	CCTV	2031-2035	$ -				$ -	
03500960350087	Condition - with CCTV scoring	257.1	27	10.9	27	35	3.53	0.0	0.0	14.1	No	CCTV	2031-2035	$ -				$ -	
09600050960004	Condition - with CCTV scoring	283.7	24	8.56	24	96	3.52	0.0	0.0	14.1	No	CCTV	2031-2035	$ -				$ -	
06602110660228	Condition - with CCTV scoring	367.3	30	11.52	30	66	3.51	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
06800340680035	Condition - with CCTV scoring	388.5	27	12.37	27	68	3.51	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
06800350670120	Condition - with CCTV scoring	403.1	27	12.52	27	67	3.51	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
05602590560258	Condition - with CCTV scoring	370.5	27	8.55	27	56	3.5	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
05602600560259	Condition - with CCTV scoring	375	27	8.85	27	56	3.5	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
04602420460243	Condition - with CCTV scoring	371.1	27	24.81	27	46	3.5	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
03300630330076	Condition - with CCTV scoring	150	27	14.15	27	33	3.5	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
03601810360180	Condition - with CCTV scoring	346.6	27	19.98	27	36	3.49	0.0	0.0	14.0	No	CCTV	2031-2035	$ -				$ -	
03300750340010	Condition - with CCTV scoring	182.2	27	15.3	27	33	3.48	0.0	0.0	13.9	No	CCTV	2031-2035	$ -				$ -	
03600630360181	Condition - with CCTV scoring	152.5	27	9.77	27	36	3.47	0.0	0.0	13.9	No	CCTV	2031-2035	$ -				$ -	
03300880330064	Condition - with CCTV scoring	282.6	27	9.9	27	33	3.47	0.0	0.0	13.9	No	CCTV	2031-2035	$ -				$ -	
03501060350107	Condition - with CCTV scoring	378.4	27	9.46	27	35	3.46	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
09701030970102	Condition - with CCTV scoring	581.2	21	16.07	21	97	3.46	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
03500950350096	Condition - with CCTV scoring	403.3	30	10.8	30	35	3.45	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
06601950660197	Condition - with CCTV scoring	311.2	27	12.3	27	66	3.45	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
06602090660211	Condition - with CCTV scoring	122.3	30	12.53	30	66	3.44	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
06602090660212	Condition - with CCTV scoring	329.2	30	12.53	30	66	3.44	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
03501040350102	Condition - with CCTV scoring	270.8	27	14.09	27	35	3.44	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
03501070350104	Condition - with CCTV scoring	63.1	27	12	27	35	3.44	0.0	0.0	13.8	No	CCTV	2031-2035	$ -				$ -	
06800270680033	Condition - with CCTV scoring	236.6	27	12.65	27	68	3.43	0.0	0.0	13.7	No	CCTV	2031-2035	$ -				$ -	
09701680970136	Condition - with CCTV scoring	558.7	24	12.62	24	97	3.43	0.0	0.0	13.7	No	CCTV	2031-2035	$ -				$ -	
06800280680025	Condition - with CCTV scoring	378.6	30	12.63	30	68	3.42	0.0	0.0	13.7	No	CCTV	2031-2035	$ -				$ -	
06800380680037	Condition - with CCTV scoring	368.7	27	15	27	68	3.42	0.0	0.0	13.7	No	CCTV	2031-2035	$ -				$ -	
03501020350103	Condition - with CCTV scoring	253.1	30	16.56	30	35	3.42	0.0	0.0	13.7	No	CCTV	2031-2035	$ -				$ -	
03501080350105	Condition - with CCTV scoring	359	24	10.37	24	35	3.42	0.0	0.0	13.7	No	CCTV	2031-2035	$ -				$ -	
04602520460239	Condition - with CCTV scoring	388.8	27	8.6	27	46	3.4	0.0	0.0	13.6	No	CCTV	2031-2035	$ -				$ -	
06601970660194	Condition - with CCTV scoring	14.8	27	8.67	27	66	3.4	0.0	0.0	13.6	No	CCTV	2031-2035	$ -				$ -	
09701750970168	Condition - with CCTV scoring	569	21	9.18	21	97	3.38	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
04602130460215	Condition - with CCTV scoring	432	27	14.84	27	46	3.37	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
04602150460252	Condition - with CCTV scoring	400.6	27	11.72	27	46	3.37	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
03601790360062	Condition - with CCTV scoring	415.3	27	10.09	27	36	3.37	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
03601800360179	Condition - with CCTV scoring	385.5	27	12.48	27	36	3.37	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
03501030350094	Condition - with CCTV scoring	28.2	30	13.42	30	35	3.37	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
03500940350095	Condition - with CCTV scoring	401.1	30	13.26	30	35	3.37	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
06601900660195	Condition - with CCTV scoring	18	27	12	27	66	3.37	0.0	0.0	13.5	No	CCTV	2031-2035	$ -				$ -	
03600440360042	Condition - with CCTV scoring	247.8	30	15.99	30	36	3.36	0.0	0.0	13.4	No	CCTV	2031-2035	$ -				$ -	
06602120660291	Condition - with CCTV scoring	330.1	30	10.28	30	66	3.35	0.0	0.0	13.4	No	CCTV	2031-2035	$ -				$ -	
06800250680026	Condition - with CCTV scoring	371.1	30	11.26	30	68	3.34	0.0	0.0	13.4	No	CCTV	2031-2035	$ -				$ -	
06800290680028	Condition - with CCTV scoring	372.4	30	12.44	30	68	3.34	0.0	0.0	13.4	No	CCTV	2031-2035	$ -				$ -	
06800260680027	Condition - with CCTV scoring	373.6	30	10.3	30	68	3.33	0.0	0.0	13.3	No	CCTV	2031-2035	$ -				$ -	
03500030350111	Condition - with CCTV scoring	391	24	10.94	24	35	3.33	0.0	0.0	13.3	No	CCTV	2031-2035	$ -				$ -	
06800320680030	Condition - with CCTV scoring	379.3	27	13.1	27	68	3.32	0.0	0.0	13.3	No	CCTV	2031-2035	$ -				$ -	
03600610460213	Condition - with CCTV scoring	402.5	27	8.48	27	36	3.32	0.0	0.0	13.3	No	CCTV	2031-2035	$ -				$ -	
03600620360061	Condition - with CCTV scoring	398.2	27	8.4	27	36	3.32	0.0	0.0	13.3	No	CCTV	2031-2035	$ -				$ -	
03400300340029	Condition - with CCTV scoring	23.3	27	15.94	27	34	3.32	0.0	0.0	13.3	No	CCTV	2031-2035	$ -				$ -	
06500890650085	Condition - with CCTV scoring	195.7	21	10.9	21	65	3.31	0.0	0.0	13.2	No	CCTV	2031-2035	$ -				$ -	
03600420360040	Condition - with CCTV scoring	318.3	30	14.43	30	36	3.31	0.0	0.0	13.2	No	CCTV	2031-2035	$ -				$ -	
09600880960087	Condition - with CCTV scoring	154.3	21	8.23	21	96	3.3	0.0	0.0	13.2	No	CCTV	2031-2035	$ -				$ -	
09600910960088	Condition - with CCTV scoring	175.2	21	8.63	21	96	3.3	0.0	0.0	13.2	No	CCTV	2031-2035	$ -				$ -	
09600870960059	Condition - with CCTV scoring	248.7	21	8.67	21	96	3.3	0.0	0.0	13.2	No	CCTV	2031-2035	$ -				$ -	
06800410680040	Condition - with CCTV scoring	240	24	12.45	24	68	3.27	0.0	0.0	13.1	No	CCTV	2031-2035	$ -				$ -	
03400290340031	Condition - with CCTV scoring	111.3	27	12.62	27	34	3.27	0.0	0.0	13.1	No	CCTV	2031-2035	$ -				$ -	
06601890660190	Condition - with CCTV scoring	183	24	14.36	24	66	3.27	0.0	0.0	13.1	No	CCTV	2031-2035	$ -				$ -	
09700510960091	Condition - with CCTV scoring	462.8	21	10.11	21	96	3.27	0.0	0.0	13.1	No	CCTV	2031-2035	$ -				$ -	
06700020670072	Condition - with CCTV scoring	448.3	36	10.75	36	67	3.26	0.0	0.0	13.0	No	CCTV	2031-2035	$ -				$ -	
03400100340039	Condition - with CCTV scoring	138.9	27	15	27	34	3.26	0.0	0.0	13.0	No	CCTV	2031-2035	$ -				$ -	
03400390340032	Condition - with CCTV scoring	170.9	27	14.38	27	34	3.26	0.0	0.0	13.0	No	CCTV	2031-2035	$ -				$ -	
03501110350110	Condition - with CCTV scoring	400	24	11.86	24	35	3.25	0.0	0.0	13.0	No	CCTV	2031-2035	$ -				$ -	
06800140680039	Condition - with CCTV scoring	85.4	27	11.38	27	68	3.24	0.0	0.0	13.0	No	CCTV	2031-2035	$ -				$ -	
06800300680031	Condition - with CCTV scoring	429.7	27	12.68	27	68	3.24	0.0	0.0	13.0	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
06800310680014	Condition - with CCTV scoring	268.5	27	12.25	27	68	3.24	0.0	0.0	13.0	No	CCTV	2031-2035	$ -				$ -	
06800370680029	Condition - with CCTV scoring	143.5	27	9.11	27	68	3.21	0.0	0.0	12.8	No	CCTV	2031-2035	$ -				$ -	
05800660580067	Condition - with CCTV scoring	170.1	24	14.79	24	58	3.19	0.0	0.0	12.8	No	CCTV	2031-2035	$ -				$ -	
05800640580065	Condition - with CCTV scoring	194.2	24	13.416	24	58	3.19	0.0	0.0	12.8	No	CCTV	2031-2035	$ -				$ -	
06800390680038	Condition - with CCTV scoring	518.3	27	4.25	27	68	3.19	0.0	0.0	12.8	No	CCTV	2031-2035	$ -				$ -	
03400310340051	Condition - with CCTV scoring	169.2	27	12.77	27	34	3.19	0.0	0.0	12.8	No	CCTV	2031-2035	$ -				$ -	
09701040970094	Condition - with CCTV scoring	300.8	21	10.38	21	97	3.19	0.0	0.0	12.8	No	CCTV	2031-2035	$ -				$ -	
03501150350098	Condition - with CCTV scoring	300	24	10.03	24	34	3.18	0.0	0.0	12.7	No	CCTV	2031-2035	$ -				$ -	
03501100350109	Condition - with CCTV scoring	400	24	11.53	24	35	3.17	0.0	0.0	12.7	No	CCTV	2031-2035	$ -				$ -	
06500930650092	Condition - with CCTV scoring	327.4	21	8.76	21	65	3.16	0.0	0.0	12.6	No	CCTV	2031-2035	$ -				$ -	
05601340560133	Condition - with CCTV scoring	399.1	24	10.42	24	56	3.16	0.0	0.0	12.6	No	CCTV	2031-2035	$ -				$ -	
06601920660194	Condition - with CCTV scoring	235.9	30	16	30	66	3.15	0.0	0.0	12.6	No	CCTV	2031-2035	$ -				$ -	
03501050350106	Condition - with CCTV scoring	410.9	24	11.11	24	35	3.14	0.0	0.0	12.6	No	CCTV	2031-2035	$ -				$ -	
09700940970093	Condition - with CCTV scoring	275.6	21	9.54	21	97	3.14	0.0	0.0	12.6	No	CCTV	2031-2035	$ -				$ -	
09700930970051	Condition - with CCTV scoring	82.5	21	9.43	21	97	3.14	0.0	0.0	12.6	No	CCTV	2031-2035	$ -				$ -	
06700720670043	Condition - with CCTV scoring	152.7	36	9.4	36	67	3.13	0.0	0.0	12.5	No	CCTV	2031-2035	$ -				$ -	
03400510340055	Condition - with CCTV scoring	255.8	27	8.27	27	34	3.09	0.0	0.0	12.4	No	CCTV	2031-2035	$ -				$ -	
04900280490027	Condition - with CCTV scoring	105	15	10.46	15	49	3.08	0.0	0.0	12.3	No	CCTV	2031-2035	$ -				$ -	
04600720560002	Condition - with CCTV scoring	431.4	18	8.9	18	46	3.08	0.0	0.0	12.3	No	CCTV	2031-2035	$ -				$ -	
05601350560134	Condition - with CCTV scoring	315.8	24	10.46	24	56	3.08	0.0	0.0	12.3	No	CCTV	2031-2035	$ -				$ -	
06603270660295	Condition - with CCTV scoring	279.2	21	12.98	21	66	3.08	0.0	0.0	12.3	No	CCTV	2031-2035	$ -				$ -	
07600770760076	Condition - with CCTV scoring	337.4	24	8.31	24	76	3.08	0.0	0.0	12.3	No	CCTV	2031-2035	$ -				$ -	
05600510560050	Condition - with CCTV scoring	438.4	21	8.25	21	56	3.06	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
03400720340073	Condition - with CCTV scoring	31.9	27	6.79	27	34	3.06	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
03400710340072	Condition - with CCTV scoring	236.2	27	7.51	27	34	3.06	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
03400700340071	Condition - with CCTV scoring	140.1	27	7.8	27	34	3.06	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
05900100590009	Condition - with CCTV scoring	340.6	15	15.94	15	59	3.05	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
05600020560003	Condition - with CCTV scoring	30.3	18	12.714	18	56	3.05	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
03401050340107	Condition - with CCTV scoring	335.6	12	8.82	12	34	3.05	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
06800430680042	Condition - with CCTV scoring	21.9	24	4	24	68	3.04	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
03400550340070	Condition - with CCTV scoring	48.7	27	8.24	27	34	3.04	0.0	0.0	12.2	No	CCTV	2031-2035	$ -				$ -	
04900120490013	Condition - with CCTV scoring	43.7	15	8.16	15	49	3.03	0.0	0.0	12.1	No	CCTV	2031-2035	$ -				$ -	
06602330660231	Condition - with CCTV scoring	72.4	21	13.73	21	66	3.02	0.0	0.0	12.1	No	CCTV	2031-2035	$ -				$ -	
06602960660298	Condition - with CCTV scoring	68	21	8.03	21	66	3.02	0.0	0.0	12.1	No	CCTV	2031-2035	$ -				$ -	
05400030540235	Condition - with CCTV scoring	227.8	27	15.12	27	54	3.02	0.0	0.0	12.1	No	CCTV	2031-2035	$ -				$ -	
07400610740060	Condition - with CCTV scoring	55.7	20	1.67	21	74	3.02	0.0	0.0	12.1	No	CCTV	2031-2035	$ -				$ -	
09600310960030	Condition - with CCTV scoring	141.5	12	12.53	12	96	3.02	0.0	0.0	12.1	No	CCTV	2031-2035	$ -				$ -	
09600120960010	Condition - with CCTV scoring	254.2	12	9.05	12	96	3.02	0.0	0.0	12.1	No	CCTV	2031-2035	$ -				$ -	
03400730340046	Condition - with CCTV scoring	357.6	27	1.75	27	34	3.01	0.0	0.0	12.0	No	CCTV	2031-2035	$ -				$ -	
02200540230206	Condition - with CCTV scoring	138.5	18	10.59	18	22	3.01	0.0	0.0	12.0	No	CCTV	2031-2035	$ -				$ -	
02200550220054	Condition - with CCTV scoring	411.6	18	10.47	18	22	3.01	0.0	0.0	12.0	No	CCTV	2031-2035	$ -				$ -	
08600480860047	Condition - with CCTV scoring	272.9	15	12.44	15	86	3.01	0.0	0.0	12.0	No	CCTV	2031-2035	$ -				$ -	
06502190650218	Condition - with CCTV scoring	693.7	24	7.64	24	65	3	0.0	0.0	12.0	No	CCTV	2031-2035	$ -				$ -	
07300790730080	Condition - with CCTV scoring	208.7	12	20.87	12	73	2.99	0.0	0.0	12.0	No	CCTV	2031-2035	$ -				$ -	
08600490860048	Condition - with CCTV scoring	124.1	15	20.03	15	86	2.98	0.0	0.0	11.9	No	CCTV	2031-2035	$ -				$ -	
02302060230141	Condition - with CCTV scoring	261.8	18	10.4	18	22	2.96	0.0	0.0	11.8	No	CCTV	2031-2035	$ -				$ -	
05701020570100	Condition - with CCTV scoring	459	15	11.02	15	57	2.95	0.0	0.0	11.8	No	CCTV	2031-2035	$ -				$ -	
05701180570102	Condition - with CCTV scoring	42.6	15	11.24	15	57	2.95	0.0	0.0	11.8	No	CCTV	2031-2035	$ -				$ -	
03401010340104	Condition - with CCTV scoring	189.4	21	8.05	21	34	2.94	0.0	0.0	11.8	No	CCTV	2031-2035	$ -				$ -	
02301410230142	Condition - with CCTV scoring	649.7	18	10.32	18	23	2.94	0.0	0.0	11.8	No	CCTV	2031-2035	$ -				$ -	
09600860960031	Condition - with CCTV scoring	505.1	12	14.33	12	96	2.94	0.0	0.0	11.8	No	CCTV	2031-2035	$ -				$ -	
04900100490012	Condition - with CCTV scoring	257.1	15	9.62	15	49	2.93	0.0	0.0	11.7	No	CCTV	2031-2035	$ -				$ -	
06502040650211	Condition - with CCTV scoring	139	15	7.63	15	65	2.91	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
04502080450195	Condition - with CCTV scoring	235.8	18	5.65	18	45	2.91	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
08600470860046	Condition - with CCTV scoring	359.2	15	7.53	15	86	2.91	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
05600520560051	Condition - with CCTV scoring	431.8	21	8.57	21	56	2.9	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
06401380640139	Condition - with CCTV scoring	1139.5	30	10.1	30	64	2.9	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
05800550580064	Condition - with CCTV scoring	433.6	24	11.06	24	58	2.89	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
05900090590008	Condition - with CCTV scoring	356.8	15	13.44	15	59	2.89	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
05700970570096	Condition - with CCTV scoring	451.7	15	8.11	15	57	2.89	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
04401910440192	Condition - with CCTV scoring	162.9	15	15.15	15	44	2.89	0.0	0.0	11.6	No	CCTV	2031-2035	$ -				$ -	
04602320460007	Condition - with CCTV scoring	303.4	21	13.2	21	46	2.87	0.0	0.0	11.5	No	CCTV	2031-2035	$ -				$ -	
04600070460226	Condition - with CCTV scoring	40.9	21	10.1	21	46	2.87	0.0	0.0	11.5	No	CCTV	2031-2035	$ -				$ -	
06401370640138	Condition - with CCTV scoring	690.6	27	16.8	27	64	2.87	0.0	0.0	11.5	No	CCTV	2031-2035	$ -				$ -	
03401040340105	Condition - with CCTV scoring	193.1	21	8.44	21	34	2.87	0.0	0.0	11.5	No	CCTV	2031-2035	$ -				$ -	
03300580330059	Condition - with CCTV scoring	431.9	18	9.74	18	33	2.87	0.0	0.0	11.5	No	CCTV	2031-2035	$ -				$ -	
09600060860052	Condition - with CCTV scoring	83.3	15	20.2	15	96	2.87	0.0	0.0	11.5	No	CCTV	2031-2035	$ -				$ -	
06700260660328	Condition - with CCTV scoring	316	21	12.23	21	66	2.86	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07301860740027	Condition - with CCTV scoring	286	15	6.77	15	73	2.86	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	
03300740330087	Condition - with CCTV scoring	228.2	18	10.65	18	33	2.85	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	
04501970450198	Condition - with CCTV scoring	315.8	12	5.48	12	45	2.84	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	
09701910970192	Condition - with CCTV scoring	417.9	24	12.05	24	97	2.84	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	
08800140870109	Condition - with CCTV scoring	406.2	21	10.86	21	87	2.84	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	
08701090870108	Condition - with CCTV scoring	151.9	21	11.15	21	87	2.84	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	
08600460860045	Condition - with CCTV scoring	345.4	15	7.38	15	86	2.84	0.0	0.0	11.4	No	CCTV	2031-2035	$ -				$ -	
05800610580060	Condition - with CCTV scoring	337.9	18	13.85	18	58	2.83	0.0	0.0	11.3	No	CCTV	2031-2035	$ -				$ -	
05502350550234	Condition - with CCTV scoring	478.8	12	5.35	12	55	2.83	0.0	0.0	11.3	No	CCTV	2031-2035	$ -				$ -	
05502340550233	Condition - with CCTV scoring	294.6	12	5.95	12	55	2.83	0.0	0.0	11.3	No	CCTV	2031-2035	$ -				$ -	
05900130590012	Condition - with CCTV scoring	286.5	15	7.95	15	59	2.82	0.0	0.0	11.3	No	CCTV	2031-2035	$ -				$ -	
05600540560053	Condition - with CCTV scoring	439.2	21	10.55	21	56	2.82	0.0	0.0	11.3	No	CCTV	2031-2035	$ -				$ -	
05600530560052	Condition - with CCTV scoring	431.2	21	8.62	21	56	2.82	0.0	0.0	11.3	No	CCTV	2031-2035	$ -				$ -	
05300120530088	Condition - with CCTV scoring	676	24	13.73	24	53	2.81	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
05701000570101	Condition - with CCTV scoring	422.4	15	9.33	15	57	2.81	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
05701010570099	Condition - with CCTV scoring	209.4	15	8.54	15	57	2.8	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
05800670580068	Condition - with CCTV scoring	338.9	21	13.73	21	58	2.79	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
06800440680043	Condition - with CCTV scoring	124.7	24	12.64	24	68	2.79	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
06800450680044	Condition - with CCTV scoring	22.8	24	12.25	24	68	2.79	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
06800460680045	Condition - with CCTV scoring	222.3	24	12.01	24	68	2.79	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
05700980570097	Condition - with CCTV scoring	449.1	15	8.45	15	57	2.79	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
02200390220055	Condition - with CCTV scoring	114.2	18	1.5	18	22	2.79	0.0	0.0	11.2	No	CCTV	2031-2035	$ -				$ -	
09701830970182	Condition - with CCTV scoring	339.3	21	11.43	21	97	2.78	0.0	0.0	11.1	No	CCTV	2031-2035	$ -				$ -	
02301420230162	Condition - with CCTV scoring	555.2	8	11.1	8	23	2.77	0.0	0.0	11.1	No	CCTV	2031-2035	$ -				$ -	
08800120880014	Condition - with CCTV scoring	431.4	21	10.91	21	88	2.77	0.0	0.0	11.1	No	CCTV	2031-2035	$ -				$ -	
09701920970184	Condition - with CCTV scoring	445.3	24	10.38	24	97	2.77	0.0	0.0	11.1	No	CCTV	2031-2035	$ -				$ -	
07201980720197	Condition - with CCTV scoring	244.9	12	12.71	12	72	2.77	0.0	0.0	11.1	No	CCTV	2031-2035	$ -				$ -	
04600590460072	Condition - with CCTV scoring	399.8	18	8.24	18	46	2.76	0.0	0.0	11.0	No	CCTV	2031-2035	$ -				$ -	
05600870560054	Condition - with CCTV scoring	474.7	18	9.1	18	56	2.75	0.0	0.0	11.0	No	CCTV	2031-2035	$ -				$ -	
05900030590013	Condition - with CCTV scoring	284.4	15	7.94	15	59	2.74	0.0	0.0	11.0	No	CCTV	2031-2035	$ -				$ -	
06401360640137	Condition - with CCTV scoring	706.6	27	13.38	27	64	2.74	0.0	0.0	11.0	No	CCTV	2031-2035	$ -				$ -	
03401000340101	Condition - with CCTV scoring	397.5	21	8.57	21	34	2.74	0.0	0.0	11.0	No	CCTV	2031-2035	$ -				$ -	
05800520680047	Condition - with CCTV scoring	275.5	21	10.35	21	58	2.73	0.0	0.0	10.9	No	CCTV	2031-2035	$ -				$ -	
04900140590001	Condition - with CCTV scoring	367.6	15	8.18	15	49	2.73	0.0	0.0	10.9	No	CCTV	2031-2035	$ -				$ -	
05700250570027	Condition - with CCTV scoring	449.1	21	14.22	21	57	2.73	0.0	0.0	10.9	No	CCTV	2031-2035	$ -				$ -	
09701820970175	Condition - with CCTV scoring	323.8	21	9.52	21	97	2.73	0.0	0.0	10.9	No	CCTV	2031-2035	$ -				$ -	
05601010560102	Condition - with CCTV scoring	466.3	18	9.68	18	56	2.72	0.0	0.0	10.9	No	CCTV	2031-2035	$ -				$ -	
05400440640136	Condition - with CCTV scoring	746	27	12.12	27	54	2.72	0.0	0.0	10.9	No	CCTV	2031-2035	$ -				$ -	
07501340750133	Condition - with CCTV scoring	551.9	36	15.62	36	75	2.72	0.0	0.0	10.9	No	CCTV	2031-2035	$ -				$ -	
02200260220023	Condition - with CCTV scoring	240	12	24.79	12	22	2.71	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
03300730330074	Condition - with CCTV scoring	173.3	18	9.55	18	33	2.7	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
03300720330073	Condition - with CCTV scoring	239.4	18	8.78	18	33	2.7	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
02300400330072	Condition - with CCTV scoring	191.7	18	8.08	18	33	2.7	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
02301570230099	Condition - with CCTV scoring	113.2	24	16.85	24	23	2.7	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
05501020550136	Condition - with CCTV scoring	119.1	14	8.7	15	55	2.69	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
08800090880010	Condition - with CCTV scoring	280.8	21	11.88	21	88	2.69	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
08600450860044	Condition - with CCTV scoring	358.1	15	7.73	15	86	2.69	0.0	0.0	10.8	No	CCTV	2031-2035	$ -				$ -	
05500700550080	Condition - with CCTV scoring	105.9	15	8.6	15	55	2.68	0.0	0.0	10.7	No	CCTV	2031-2035	$ -				$ -	
03501350350003	Condition - with CCTV scoring	350.1	15	12.57	15	35	2.68	0.0	0.0	10.7	No	CCTV	2031-2035	$ -				$ -	
08701070870106	Condition - with CCTV scoring	85.8	24	12.1	24	87	2.68	0.0	0.0	10.7	No	CCTV	2031-2035	$ -				$ -	
08701060870099	Condition - with CCTV scoring	257.3	24	13.14	24	87	2.68	0.0	0.0	10.7	No	CCTV	2031-2035	$ -				$ -	
06500010650003	Condition - with CCTV scoring	285.5	27	9.36	27	65	2.66	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
03400940340100	Condition - with CCTV scoring	283.1	21	9.25	21	34	2.66	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
08700960870095	Condition - with CCTV scoring	984.7	24	11.95	24	87	2.66	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
06502230650219	Condition - with CCTV scoring	516.4	24	9.42	24	65	2.65	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
05800680580052	Condition - with CCTV scoring	274.8	21	11.32	21	58	2.65	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
05800630580062	Condition - with CCTV scoring	207.9	15	8.77	15	58	2.65	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
05900040580063	Condition - with CCTV scoring	321.7	18	9.04	18	58	2.65	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
02300990230056	Condition - with CCTV scoring	267.1	24	14.74	24	23	2.65	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
07400620740061	Condition - with CCTV scoring	403.8	18	6.4	18	74	2.65	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
06600130760058	Condition - with CCTV scoring	317.1	24	10.28	24	66	2.65	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
04501930450194	Condition - with CCTV scoring	157.5	12	7.9	12	45	2.64	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
04501920450193	Condition - with CCTV scoring	275.4	12	7.18	12	45	2.64	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
06700270670026	Condition - with CCTV scoring	354.8	21	10.45	21	67	2.64	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
04400150440014	Condition - with CCTV scoring	428.8	15	7.04	15	44	2.64	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
03400160340088	Condition - with CCTV scoring	164.3	21	8.81	21	34	2.64	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
07501810750182	Condition - with CCTV scoring	376	27	9.51	27	75	2.64	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	
04401900440191	Condition - with CCTV scoring	151.6	15	9.6	15	44	2.64	0.0	0.0	10.6	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
06601810660162	Condition - with CCTV scoring	632	12	5.65	12	66	2.63	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
05800620580061	Condition - with CCTV scoring	220.1	15	8.67	15	58	2.63	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
04401170440116	Condition - with CCTV scoring	161.9	15	8.36	15	44	2.63	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
09600300960013	Condition - with CCTV scoring	349.9	12	11.89	12	96	2.63	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
04900210490023	Condition - with CCTV scoring	325.3	15	12.3	15	49	2.62	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
09600560960029	Condition - with CCTV scoring	73.2	12	9.06	12	96	2.62	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
09600290960027	Condition - with CCTV scoring	38.1	12	9.39	12	96	2.62	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
09600130960012	Condition - with CCTV scoring	302.1	12	10.45	12	96	2.62	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
06501010650102	Condition - with CCTV scoring	682	27	10.74	27	65	2.62	0.0	0.0	10.5	No	CCTV	2031-2035	$ -				$ -	
05800600580059	Condition - with CCTV scoring	326.3	18	10.34	18	58	2.61	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
05501000550102	Condition - with CCTV scoring	325.6	14	8.05	15	55	2.61	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
06401390640140	Condition - with CCTV scoring	189.5	27	8.81	27	64	2.61	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
05400010540002	Condition - with CCTV scoring	335.1	27	11.62	27	54	2.61	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
09600220960023	Condition - with CCTV scoring	301	8	4.51	8	96	2.61	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
05900070590006	Condition - with CCTV scoring	322.1	15	7.89	15	59	2.6	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
05601020560088	Condition - with CCTV scoring	479.4	18	9.48	18	56	2.6	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
05600880560087	Condition - with CCTV scoring	467.8	18	9.11	18	56	2.6	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
02300410230039	Condition - with CCTV scoring	215.5	18	8.31	18	23	2.6	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
02300560230055	Condition - with CCTV scoring	409.9	24	9.72	24	23	2.6	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
07400140740013	Condition - with CCTV scoring	240	15	7.33	15	74	2.6	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
03400420340016	Condition - with CCTV scoring	314.2	21	6.87	21	34	2.59	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
03400880340097	Condition - with CCTV scoring	268.1	21	7.27	21	34	2.59	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
07301710730185	Condition - with CCTV scoring	61.2	15	8.34	15	73	2.59	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
08600440860043	Condition - with CCTV scoring	370.2	15	8.08	15	86	2.59	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
07501330750132	Condition - with CCTV scoring	772	36	12.71	36	75	2.59	0.0	0.0	10.4	No	CCTV	2031-2035	$ -				$ -	
05900050590004	Condition - with CCTV scoring	333.2	18	8.07	18	59	2.57	0.0	0.0	10.3	No	CCTV	2031-2035	$ -				$ -	
04900230490014	Condition - with CCTV scoring	328.5	15	9.75	15	49	2.57	0.0	0.0	10.3	No	CCTV	2031-2035	$ -				$ -	
04900220490021	Condition - with CCTV scoring	330	15	8.2	15	49	2.57	0.0	0.0	10.3	No	CCTV	2031-2035	$ -				$ -	
08600410860038	Condition - with CCTV scoring	394	15	11.12	15	86	2.57	0.0	0.0	10.3	No	CCTV	2031-2035	$ -				$ -	
01100130110009	Condition - with CCTV scoring	447.9	15	9.63	15	11	2.57	0.0	0.0	10.3	No	CCTV	2031-2035	$ -				$ -	
06602250660184	Condition - with CCTV scoring	285.2	14	5.33	15	66	2.56	0.0	0.0	10.2	No	CCTV	2031-2035	$ -				$ -	
05700270670070	Condition - with CCTV scoring	344.6	21	6.65	21	57	2.56	0.0	0.0	10.2	No	CCTV	2031-2035	$ -				$ -	
04501020450103	Condition - with CCTV scoring	520.6	8	11.27	8	45	2.56	0.0	0.0	10.2	No	CCTV	2031-2035	$ -				$ -	
06401410640142	Condition - with CCTV scoring	650.5	27	10.09	27	64	2.56	0.0	0.0	10.2	No	CCTV	2031-2035	$ -				$ -	
02300390230040	Condition - with CCTV scoring	430.7	18	7.71	18	23	2.55	0.0	0.0	10.2	No	CCTV	2031-2035	$ -				$ -	
04602370460238	Condition - with CCTV scoring	268.3	10	6.3	10	46	2.54	0.0	0.0	10.2	No	CCTV	2031-2035	$ -				$ -	
09600570960056	Condition - with CCTV scoring	318.1	12	8.71	12	96	2.54	0.0	0.0	10.2	No	CCTV	2031-2035	$ -				$ -	
04502710450273	Condition - with CCTV scoring	355.6	21	8.9	21	45	2.53	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
07400270740014	Condition - with CCTV scoring	251.2	15	7.73	15	74	2.53	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
05900060590005	Condition - with CCTV scoring	325.4	15	7.59	15	59	2.52	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
04900310490030	Condition - with CCTV scoring	231.7	15	9.97	15	49	2.52	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
08700790870084	Condition - with CCTV scoring	298.9	15	6.081	15	87	2.52	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
07300800730081	Condition - with CCTV scoring	298.3	12	22.47	12	73	2.52	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
08600420860041	Condition - with CCTV scoring	343.6	15	9.78	15	86	2.52	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
06501000650101	Condition - with CCTV scoring	426.6	27	11.83	27	65	2.52	0.0	0.0	10.1	No	CCTV	2031-2035	$ -				$ -	
05800590580057	Condition - with CCTV scoring	327.8	15	8	15	58	2.51	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
04501950450192	Condition - with CCTV scoring	157.2	12	5.1	12	45	2.51	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
06700690670028	Condition - with CCTV scoring	45.9	21	8.95	21	67	2.51	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
06700280670027	Condition - with CCTV scoring	328.2	21	9.28	21	67	2.51	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
07400150740017	Condition - with CCTV scoring	387.8	21	7.56	21	74	2.51	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
07400170740064	Condition - with CCTV scoring	289.1	18	6.96	18	74	2.51	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
05402100540211	Condition - with CCTV scoring	208	27	10.05	27	54	2.5	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
02300470230041	Condition - with CCTV scoring	288.7	18	4.9	18	23	2.5	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
02300520230049	Condition - with CCTV scoring	354.8	18	9.35	18	23	2.5	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
09600250960023	Condition - with CCTV scoring	111	8	6.803	8	96	2.5	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
08701080870107	Condition - with CCTV scoring	946.5	12	11.46	12	87	2.49	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
08701080870107	Condition - with CCTV scoring	948.3	24	11.46	24	87	2.49	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
07301840730171	Condition - with CCTV scoring	297.9	10	7.46	10	73	2.49	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
07301830730184	Condition - with CCTV scoring	337.4	10	7.04	10	73	2.49	0.0	0.0	10.0	No	CCTV	2031-2035	$ -				$ -	
05800570580058	Condition - with CCTV scoring	321.7	15	8.08	15	58	2.48	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
05502360550235	Condition - with CCTV scoring	277.5	12	5.08	12	55	2.48	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
05401100540107	Condition - with CCTV scoring	674.8	24	13.3	24	54	2.48	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
07601220760120	Condition - with CCTV scoring	189.4	33	12.13	36	76	2.48	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
04900250490022	Condition - with CCTV scoring	329.4	15	8.08	15	49	2.47	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
05600470560039	Condition - with CCTV scoring	32.8	15	6.52	15	56	2.47	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
01100120110013	Condition - with CCTV scoring	383.9	15	11	15	11	2.47	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
01100190110012	Condition - with CCTV scoring	602.4	15	13.78	15	11	2.47	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
08701180870109	Condition - with CCTV scoring	240	10	7.7	10	87	2.47	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07300810730082	Condition - with CCTV scoring	299.6	12	11.75	12	73	2.47	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
08701180870109	Condition - with CCTV scoring	242.3	21	7.7	21	87	2.47	0.0	0.0	9.9	No	CCTV	2031-2035	$ -				$ -	
06401420650023	Condition - with CCTV scoring	855.2	27	0.23	27	64	2.46	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
05300710540210	Condition - with CCTV scoring	605.8	27	9.64	27	53	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
02300500230051	Condition - with CCTV scoring	262.5	18	6.9	18	23	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
01100150110016	Condition - with CCTV scoring	591	15	18.83	15	11	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
01100160110018	Condition - with CCTV scoring	459	15	17	15	11	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
01100180110019	Condition - with CCTV scoring	384	15	15.19	15	11	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
08700300870017	Condition - with CCTV scoring	900	24	10.75	24	87	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
06502210660017	Condition - with CCTV scoring	411.6	24	8.7	24	65	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
08600240860025	Condition - with CCTV scoring	52.6	10	8.921	10	86	2.45	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
05800540580055	Condition - with CCTV scoring	305.6	15	8.01	15	58	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
04900290490008	Condition - with CCTV scoring	290.8	15	8.57	15	49	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
04900080490009	Condition - with CCTV scoring	159.2	15	8.56	15	49	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
04700240470169	Condition - with CCTV scoring	349.6	21	10.08	21	47	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
07400120740011	Condition - with CCTV scoring	20	15	6.9	15	74	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
07301850730186	Condition - with CCTV scoring	312.4	15	8.55	15	73	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
07301770730178	Condition - with CCTV scoring	388.1	10	8.56	10	73	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
09600580960057	Condition - with CCTV scoring	505.7	12	11.99	12	96	2.44	0.0	0.0	9.8	No	CCTV	2031-2035	$ -				$ -	
06401400640141	Condition - with CCTV scoring	272.4	27	9.09	27	64	2.43	0.0	0.0	9.7	No	CCTV	2031-2035	$ -				$ -	
04900300490029	Condition - with CCTV scoring	251.2	15	4.57	15	49	2.42	0.0	0.0	9.7	No	CCTV	2031-2035	$ -				$ -	
01200010120006	Condition - with CCTV scoring	607	15	16.57	15	12	2.42	0.0	0.0	9.7	No	CCTV	2031-2035	$ -				$ -	
06700700670069	Condition - with CCTV scoring	293.9	8	5.04	8	67	2.41	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
05400430540044	Condition - with CCTV scoring	633.7	24	0.27	24	54	2.41	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
05800560580053	Condition - with CCTV scoring	431.5	15	8.2	15	58	2.4	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
05402110540001	Condition - with CCTV scoring	317.1	27	10.1	27	54	2.4	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
04602350460237	Condition - with CCTV scoring	399.8	10	6	10	46	2.4	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
08700950870029	Condition - with CCTV scoring	73.5	24	9.52	24	87	2.4	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
09600070960006	Condition - with CCTV scoring	44	15	20.08	15	96	2.4	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
09600090960011	Condition - with CCTV scoring	397.4	15	6.89	15	96	2.4	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
04900090490010	Condition - with CCTV scoring	122.9	15	9.35	15	49	2.39	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
07301160730112	Condition - with CCTV scoring	179	12	8.25	12	73	2.39	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
06300570730172	Condition - with CCTV scoring	372.6	12	8.31	12	63	2.39	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
07301790730180	Condition - with CCTV scoring	131.1	10	7.4	10	73	2.39	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
07301760730177	Condition - with CCTV scoring	349.5	10	7.95	10	73	2.39	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
07301330730134	Condition - with CCTV scoring	353.3	12	8.18	12	73	2.39	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
07301340730143	Condition - with CCTV scoring	355.2	12	8.46	12	73	2.39	0.0	0.0	9.6	No	CCTV	2031-2035	$ -				$ -	
04502720450271	Condition - with CCTV scoring	352	18	6.7	18	45	2.38	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
06603260660327	Condition - with CCTV scoring	362.4	12	10.52	12	66	2.38	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
05401090540043	Condition - with CCTV scoring	21	24	11.27	24	54	2.38	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
01201550120156	Condition - with CCTV scoring	15	8	14.17	8	12	2.38	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
08701200870119	Condition - with CCTV scoring	550.7	12	8.02	12	87	2.38	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
07201090720111	Condition - with CCTV scoring	428.7	8	8.66	8	72	2.38	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
01200060120007	Condition - with CCTV scoring	105	15	11.86	15	12	2.37	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
07400070740008	Condition - with CCTV scoring	121.7	15	9.41	15	74	2.37	0.0	0.0	9.5	No	CCTV	2031-2035	$ -				$ -	
01200070120008	Condition - with CCTV scoring	758.9	15	11.71	15	12	2.36	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
08700990870096	Condition - with CCTV scoring	404.9	24	12.66	24	87	2.36	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
05800530580054	Condition - with CCTV scoring	288	15	8.27	15	58	2.35	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
06600170660018	Condition - with CCTV scoring	392.3	24	4.83	24	66	2.35	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
04900260490025	Condition - with CCTV scoring	331	15	7.96	15	49	2.34	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
04801390480146	Condition - with CCTV scoring	299.9	15	8.55	15	48	2.34	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
08800270880029	Condition - with CCTV scoring	403.6	15	10.85	15	88	2.34	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
06601770760125	Condition - with CCTV scoring	329	33	10.015	36	66	2.34	0.0	0.0	9.4	No	CCTV	2031-2035	$ -				$ -	
05603010660326	Condition - with CCTV scoring	327.9	12	11.13	12	56	2.33	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
08800360880029	Condition - with CCTV scoring	358.2	24	11.27	24	88	2.33	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
08600210860022	Condition - with CCTV scoring	501.3	8	9.35	8	86	2.33	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
07502180750221	Condition - with CCTV scoring	203	24	10.27	24	75	2.33	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
07800040780005	Condition - with CCTV scoring	265.9	15	7.25	15	78	2.32	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
08701020870100	Condition - with CCTV scoring	353.3	8	11.14	8	87	2.32	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
07400100740006	Condition - with CCTV scoring	354	15	7.71	15	74	2.32	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
07400060740007	Condition - with CCTV scoring	350.8	15	7.99	15	74	2.32	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
07800040780005	Condition - with CCTV scoring	491.9	15	6.549	15	78	2.32	0.0	0.0	9.3	No	CCTV	2031-2035	$ -				$ -	
02200430220040	Condition - with CCTV scoring	254.4	18	10.7	18	22	2.31	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
08701150870102	Condition - with CCTV scoring	353	8	13.49	8	87	2.31	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
08701000870086	Condition - with CCTV scoring	523.5	8	11.9	8	87	2.31	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
08700860870085	Condition - with CCTV scoring	548.9	8	11.05	8	87	2.31	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
07600320760035	Condition - with CCTV scoring	84.7	16	6.03	18	76	2.31	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
04300520530010	Condition - with CCTV scoring	575.9	24	10.5	24	43	2.3	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
01100010110002	Condition - with CCTV scoring	939	15	32.46	15	11	2.3	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
08600640860063	Condition - with CCTV scoring	113.7	10	5.41	10	86	2.3	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
08800100880011	Condition - with CCTV scoring	143.8	21	11.62	21	88	2.29	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
07700940770043	Condition - with CCTV scoring	397	18	11.35	18	77	2.29	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
07300820730072	Condition - with CCTV scoring	133	12	6.26	12	73	2.29	0.0	0.0	9.2	No	CCTV	2031-2035	$ -				$ -	
01200080220019	Condition - with CCTV scoring	601.9	15	11.09	15	12	2.28	0.0	0.0	9.1	No	CCTV	2031-2035	$ -				$ -	
08600500860049	Condition - with CCTV scoring	22.4	15	18.42	15	86	2.28	0.0	0.0	9.1	No	CCTV	2031-2035	$ -				$ -	
08600530860050	Condition - with CCTV scoring	12.6	15	18.65	15	86	2.28	0.0	0.0	9.1	No	CCTV	2031-2035	$ -				$ -	
06502180650221	Condition - with CCTV scoring	228.3	24	2	24	65	2.27	0.0	0.0	9.1	No	CCTV	2031-2035	$ -				$ -	
07200930720095	Condition - with CCTV scoring	399	8	6.67	8	72	2.27	0.0	0.0	9.1	No	CCTV	2031-2035	$ -				$ -	
09600110960019	Condition - with CCTV scoring	156.1	15	5.7	15	96	2.27	0.0	0.0	9.1	No	CCTV	2031-2035	$ -				$ -	
04801440480145	Condition - with CCTV scoring	135.7	15	7.79	15	48	2.26	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
04600940460093	Condition - with CCTV scoring	390.6	10	5.97	10	46	2.26	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
02200400220038	Condition - with CCTV scoring	343.4	18	9.29	18	22	2.26	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
06500860650219	Condition - with CCTV scoring	343	12	6.48	12	65	2.25	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
05300690530070	Condition - with CCTV scoring	616	24	12.52	24	53	2.25	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
04501990450200	Condition - with CCTV scoring	348.8	12	6.74	12	45	2.25	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
04502730450196	Condition - with CCTV scoring	320.4	21	7.67	21	45	2.25	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
07400080740021	Condition - with CCTV scoring	216.2	15	9.4	15	74	2.25	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
07201450720092	Condition - with CCTV scoring	294	8	5.43	8	72	2.25	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
07500940750095	Condition - with CCTV scoring	680.5	12	7.3	12	75	2.25	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
05700950570094	Condition - with CCTV scoring	208.8	12	18.27	12	57	2.24	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
08800110880012	Condition - with CCTV scoring	262.4	21	9.5	21	88	2.24	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
08700850870076	Condition - with CCTV scoring	592.2	8	12.13	8	87	2.24	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
07701000770102	Condition - with CCTV scoring	278.8	15	10.32	15	77	2.24	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
07300720730132	Condition - with CCTV scoring	91.5	12	10.59	12	73	2.24	0.0	0.0	9.0	No	CCTV	2031-2035	$ -				$ -	
06502020650204	Condition - with CCTV scoring	10.3	8	5.38	8	65	2.23	0.0	0.0	8.9	No	CCTV	2031-2035	$ -				$ -	
05603020560301	Condition - with CCTV scoring	43.9	10	7.22	10	56	2.23	0.0	0.0	8.9	No	CCTV	2031-2035	$ -				$ -	
02200170220026	Condition - with CCTV scoring	164.4	18	10.74	18	22	2.23	0.0	0.0	8.9	No	CCTV	2031-2035	$ -				$ -	
07502160750218	Condition - with CCTV scoring	148.8	22	7.75	24	75	2.23	0.0	0.0	8.9	No	CCTV	2031-2035	$ -				$ -	
05300100530012	Condition - with CCTV scoring	90.7	24	13.9	24	53	2.22	0.0	0.0	8.9	No	CCTV	2031-2035	$ -				$ -	
07502360750235	Condition - with CCTV scoring	451	24	8.92	24	65	2.22	0.0	0.0	8.9	No	CCTV	2031-2035	$ -				$ -	
07200370720048	Condition - with CCTV scoring	429.1	10	10.48	10	72	2.22	0.0	0.0	8.9	No	CCTV	2031-2035	$ -				$ -	
06502110650210	Condition - with CCTV scoring	300.5	15	9.6	15	65	2.21	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
02200190220020	Condition - with CCTV scoring	543.5	15	11.51	15	22	2.21	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07800050780008	Condition - with CCTV scoring	539.5	15	8.05	15	78	2.21	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
08800290880037	Condition - with CCTV scoring	150.5	21	12.66	21	88	2.21	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
08800370880009	Condition - with CCTV scoring	148	21	12.38	21	88	2.21	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
09701390970135	Condition - with CCTV scoring	356	8	6.18	8	97	2.21	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
01100090110008	Condition - with CCTV scoring	335.5	15	18.1	15	11	2.21	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
05300880530069	Condition - with CCTV scoring	648.4	24	11.64	24	53	2.2	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
05700260570024	Condition - with CCTV scoring	125.5	12	14.04	12	57	2.2	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07201080720109	Condition - with CCTV scoring	190.8	8	6.95	8	72	2.2	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
09600190960008	Condition - with CCTV scoring	207.9	15	5.35	15	96	2.2	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07200480720049	Condition - with CCTV scoring	380.7	10	6.46	10	72	2.2	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
06300520630051	Condition - with CCTV scoring	104.7	10	10.44	10	63	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
04701330470135	Condition - with CCTV scoring	74.1	21	7.32	21	47	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
04500990450087	Condition - with CCTV scoring	183	8	4.97	8	45	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
01100230110017	Condition - with CCTV scoring	319.6	15	22.55	15	11	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07700920770093	Condition - with CCTV scoring	409.4	15	9.75	15	77	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07400200740018	Condition - with CCTV scoring	341.5	15	14.17	15	73	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07400190740016	Condition - with CCTV scoring	339.4	15	11.78	15	74	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07301420730116	Condition - with CCTV scoring	133.7	12	8.52	12	73	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
09600820960084	Condition - with CCTV scoring	444.6	8	9.28	8	96	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
07200390720036	Condition - with CCTV scoring	401.8	10	7.84	10	72	2.19	0.0	0.0	8.8	No	CCTV	2031-2035	$ -				$ -	
06600770660072	Condition - with CCTV scoring	336.9	8	7.02	8	66	2.18	0.0	0.0	8.7	Yes	CCTV	2031-2035	$ -				$ -	
04500690450068	Condition - with CCTV scoring	46.5	8	8.34	8	45	2.18	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
04500740450075	Condition - with CCTV scoring	85.2	8	3.87	8	45	2.18	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
08800040880003	Condition - with CCTV scoring	271.5	8	13.49	8	88	2.18	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
07700050770006	Condition - with CCTV scoring	607	12	7.3	12	77	2.18	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
05500620550069	Condition - with CCTV scoring	197.9	15	9.27	15	55	2.17	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
06502100650209	Condition - with CCTV scoring	302	15	8.66	15	65	2.17	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
05502150550216	Condition - with CCTV scoring	348.1	12	6.7	12	55	2.17	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
04602140460213	Condition - with CCTV scoring	47	12	9.2	12	46	2.17	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
08701010870100	Condition - with CCTV scoring	555.2	8	14.68	8	87	2.17	0.0	0.0	8.7	No	CCTV	2031-2035	$ -				$ -	
04300500430051	Condition - with CCTV scoring	675.5	24	7.54	24	43	2.16	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
04300440430045	Condition - with CCTV scoring	260.8	15	6.87	15	43	2.16	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
04300450440019	Condition - with CCTV scoring	509.5	15	6.7	15	43	2.16	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
02200420220041	Condition - with CCTV scoring	407.8	18	15.92	18	22	2.16	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
07700930770094	Condition - with CCTV scoring	425.4	15	10.16	15	77	2.16	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
07700990770100	Condition - with CCTV scoring	340.8	15	11.24	15	77	2.16	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
05300700530071	Condition - with CCTV scoring	719.6	24	11.9	24	53	2.15	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
02500100250011	Condition - with CCTV scoring	270.5	15	9.69	15	25	2.15	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
02200160220017	Condition - with CCTV scoring	756	18	10.75	18	22	2.15	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
08800050880004	Condition - with CCTV scoring	282.4	8	15.68	8	88	2.15	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
07400210740023	Condition - with CCTV scoring	81.7	15	7.73	15	74	2.15	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
04500240450151	Condition - with CCTV scoring	184.4	8	7.854	8	45	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
04602180460217	Condition - with CCTV scoring	14.2	10	5	10	46	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
06300920630074	Condition - with CCTV scoring	122.3	10	7.09	10	63	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
04500840450085	Condition - with CCTV scoring	176.5	8	5.3	8	45	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
02200200220021	Condition - with CCTV scoring	64.9	15	12.91	15	22	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
01100040110001	Condition - with CCTV scoring	917.5	15	31.06	15	11	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
07301430730142	Condition - with CCTV scoring	355	12	7.74	12	73	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
01100080120001	Condition - with CCTV scoring	335.4	15	18.26	15	11	2.14	0.0	0.0	8.6	No	CCTV	2031-2035	$ -				$ -	
05500690550070	Condition - with CCTV scoring	381.2	15	9.01	15	55	2.13	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
09700990970100	Condition - with CCTV scoring	355.5	8	6.4	8	97	2.13	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
09701380970135	Condition - with CCTV scoring	234.9	8	6.55	8	97	2.13	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
09701400970138	Condition - with CCTV scoring	204.8	8	7.78	8	97	2.13	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
07200090720010	Condition - with CCTV scoring	64.9	8	5.21	8	72	2.13	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
04502000450273	Condition - with CCTV scoring	306.4	12	5.52	12	45	2.12	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
05602440560237	Condition - with CCTV scoring	303.8	12	6.98	12	56	2.12	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
01100170110015	Condition - with CCTV scoring	495	15	20.97	15	11	2.12	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
07200950720108	Condition - with CCTV scoring	139.9	8	6.84	8	72	2.12	0.0	0.0	8.5	No	CCTV	2031-2035	$ -				$ -	
04300510430052	Condition - with CCTV scoring	658.4	24	8.15	24	43	2.11	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
02100040220010	Condition - with CCTV scoring	616.6	18	13.84	18	21	2.11	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
08800340880032	Condition - with CCTV scoring	373	15	12.95	15	88	2.11	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
07701120770110	Condition - with CCTV scoring	314	18	9.51	18	77	2.11	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
04501510450152	Condition - with CCTV scoring	138.3	8	5.55	8	45	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
04700320470025	Condition - with CCTV scoring	374.6	21	12.62	21	47	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
02200600220059	Condition - with CCTV scoring	338.6	21	7.57	21	22	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
02200220220042	Condition - with CCTV scoring	56	18	18.83	18	22	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
01100020110003	Condition - with CCTV scoring	439.2	15	11.01	15	11	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
07400180740016	Condition - with CCTV scoring	378.3	15	7.54	15	74	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
07201040720094	Condition - with CCTV scoring	227.8	8	6.42	8	72	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
07201050720104	Condition - with CCTV scoring	103.6	8	6.8	8	72	2.09	0.0	0.0	8.4	No	CCTV	2031-2035	$ -				$ -	
04801450490006	Condition - with CCTV scoring	221.4	15	7.96	15	48	2.08	0.0	0.0	8.3	No	CCTV	2031-2035	$ -				$ -	
09600710960070	Condition - with CCTV scoring	251.2	10	10.85	10	96	2.08	0.0	0.0	8.3	No	CCTV	2031-2035	$ -				$ -	
09600320960030	Condition - with CCTV scoring	111.9	8	13.63	8	96	2.08	0.0	0.0	8.3	No	CCTV	2031-2035	$ -				$ -	
07601520760150	Condition - with CCTV scoring	175.8	8	13.5	8	76	2.08	0.0	0.0	8.3	No	CCTV	2031-2035	$ -				$ -	
06501340650135	Condition - with CCTV scoring	92.6	15	1.76	15	65	2.07	0.0	0.0	8.3	No	CCTV	2031-2035	$ -				$ -	
04400180440015	Condition - with CCTV scoring	510.3	15	6.82	15	44	2.07	0.0	0.0	8.3	No	CCTV	2031-2035	$ -				$ -	
08800060880005	Condition - with CCTV scoring	88.7	8	15.44	8	88	2.07	0.0	0.0	8.3	No	CCTV	2031-2035	$ -				$ -	
08700050870007	Condition - with CCTV scoring	434.8	8	6.2	8	87	2.06	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
09701250970126	Condition - with CCTV scoring	292.4	8	7.408	8	97	2.06	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
08700820870081	Condition - with CCTV scoring	367.7	15	6.49	15	87	2.06	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
08600740860072	Condition - with CCTV scoring	326.4	8	4.3	8	86	2.06	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
06700650670064	Condition - with CCTV scoring	144.5	12	5.01	12	67	2.05	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
07201840720182	Condition - with CCTV scoring	106.1	8	8.13	8	72	2.05	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
07200470720039	Condition - with CCTV scoring	422.1	10	7.79	10	72	2.05	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
06501380650139	Condition - with CCTV scoring	326	18	10.63	18	65	2.04	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
05602430560244	Condition - with CCTV scoring	18.4	12	7.08	12	56	2.04	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
04700250470024	Condition - with CCTV scoring	302.9	21	8.68	21	47	2.04	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
07700520770110	Condition - with CCTV scoring	23.8	18	9.2	18	77	2.04	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
07601730760175	Condition - with CCTV scoring	39.2	12	7.78	12	76	2.04	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
07601740760173	Condition - with CCTV scoring	480.3	12	6.14	12	76	2.04	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
07502010750200	Condition - with CCTV scoring	148.6	8	4	8	75	2.04	0.0	0.0	8.2	No	CCTV	2031-2035	$ -				$ -	
06700630670025	Condition - with CCTV scoring	175.3	12	3.82	12	67	2.03	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
03601220360128	Condition - with CCTV scoring	279.8	12	5.28	12	36	2.03	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
08600950860094	Condition - with CCTV scoring	384.3	12	18.34	12	86	2.03	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
06502250650224	Condition - with CCTV scoring	324.9	8	4.96	8	65	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
06501400650138	Condition - with CCTV scoring	328.8	18	8.8	18	65	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
04900320490031	Condition - with CCTV scoring	23.7	15	9.92	15	49	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
06700890670090	Condition - with CCTV scoring	1017.1	12	15.49	12	67	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
05602470560246	Condition - with CCTV scoring	518.1	8	4.75	8	56	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
05602460560245	Condition - with CCTV scoring	134.5	8	4.67	8	56	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
04601500460152	Condition - with CCTV scoring	306.9	8	8.87	8	46	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04501720450171	Condition - with CCTV scoring	399.7	8	3.42	8	45	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
02500110250012	Condition - with CCTV scoring	213	15	7.94	15	25	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
08700070870004	Condition - with CCTV scoring	426.5	8	4.87	8	87	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
06700370670010	Condition - with CCTV scoring	28	8	5	8	67	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
07800070780006	Condition - with CCTV scoring	477.7	15	6.39	15	78	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
08800030870101	Condition - with CCTV scoring	553	8	12.89	8	87	2.02	0.0	0.0	8.1	No	CCTV	2031-2035	$ -				$ -	
04400190440018	Condition - with CCTV scoring	508.8	15	6.91	15	44	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
04501550450153	Condition - with CCTV scoring	337.7	8	4.9	8	45	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
04700810470092	Condition - with CCTV scoring	212.1	21	10.78	21	47	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
04700910470081	Condition - with CCTV scoring	205.7	21	11.31	21	47	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
04700880470091	Condition - with CCTV scoring	279.9	21	11.26	21	47	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
04700890470088	Condition - with CCTV scoring	249.6	21	10.56	21	47	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
06300530630052	Condition - with CCTV scoring	363.9	10	6.44	10	63	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07200110720009	Condition - with CCTV scoring	359.8	8	5.97	8	72	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07200120720009	Condition - with CCTV scoring	302.1	8	5.8	8	72	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07601340760132	Condition - with CCTV scoring	212.2	8	4.22	8	76	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07200410720105	Condition - with CCTV scoring	117.4	8	6.48	8	72	2.01	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
06300930630092	Condition - with CCTV scoring	150.9	10	6.53	10	63	2	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
06301060630093	Condition - with CCTV scoring	429	10	7.11	10	63	2	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07200830720084	Condition - with CCTV scoring	338.3	8	10.984	8	72	2	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
09600810960082	Condition - with CCTV scoring	390.7	8	4.99	8	96	2	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07600820860067	Condition - with CCTV scoring	285.5	10	8.44	10	76	2	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07600060760007	Condition - with CCTV scoring	557.2	12	15.22	12	76	2	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
04701350470192	Condition - with CCTV scoring	290.4	21	7.96	21	47	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
02501540350136	Condition - with CCTV scoring	326.1	15	8.37	15	25	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
02500100250013	Condition - with CCTV scoring	120.2	15	9.69	15	25	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07700510770048	Condition - with CCTV scoring	299.8	18	7.97	18	77	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
08800910880088	Condition - with CCTV scoring	452.4	8	7.82	8	88	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07700510770052	Condition - with CCTV scoring	29.8	18	7.97	18	77	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
07200940720093	Condition - with CCTV scoring	33	8	6.35	8	72	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
08500350850032	Condition - with CCTV scoring	197.9	10	8.13	10	86	1.99	0.0	0.0	8.0	No	CCTV	2031-2035	$ -				$ -	
04500250450026	Condition - with CCTV scoring	377	8	5.16	8	45	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
04500270450025	Condition - with CCTV scoring	359.8	8	5.2	8	45	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
06700860670087	Condition - with CCTV scoring	224.6	12	11.88	12	67	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
06700870670088	Condition - with CCTV scoring	474.6	12	12.68	12	67	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
04500760450121	Condition - with CCTV scoring	82.4	8	4.95	8	45	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
01200370120035	Condition - with CCTV scoring	429.6	12	9.32	12	12	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
07200150720012	Condition - with CCTV scoring	102.5	8	5.98	8	72	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
07201740720184	Condition - with CCTV scoring	382.3	8	6.39	8	72	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
07200400720034	Condition - with CCTV scoring	33.8	8	6.54	8	72	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
07200340720032	Condition - with CCTV scoring	329.7	8	6.63	8	72	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
07200380720035	Condition - with CCTV scoring	383.1	8	6.22	8	72	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
07200140720015	Condition - with CCTV scoring	305.1	8	5.6	8	72	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
04500260450032	Condition - with CCTV scoring	65.3	8	2.65	8	45	1.98	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
03601210360122	Condition - with CCTV scoring	362.8	12	6.37	12	36	1.97	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
01201210220053	Condition - with CCTV scoring	352.7	8	13.45	8	12	1.97	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
08800280880027	Condition - with CCTV scoring	475.6	15	9.22	15	88	1.97	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
08800180880015	Condition - with CCTV scoring	472.5	8	6.06	8	88	1.97	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
08600940860082	Condition - with CCTV scoring	381.7	12	19.11	12	86	1.97	0.0	0.0	7.9	No	CCTV	2031-2035	$ -				$ -	
06600650660064	Condition - with CCTV scoring	543.9	8	5.15	8	66	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
04501530450154	Condition - with CCTV scoring	393.9	8	5.23	8	45	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
04700900470089	Condition - with CCTV scoring	246.8	21	9.87	21	47	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
04701920470090	Condition - with CCTV scoring	263.2	21	8.74	21	47	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
05701480570124	Condition - with CCTV scoring	93.3	12	15.1	12	57	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
06603210660266	Condition - with CCTV scoring	23	15	1.25	15	66	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
08600090860010	Condition - with CCTV scoring	205.1	12	12.15	12	86	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
08600040860009	Condition - with CCTV scoring	206.3	12	10.85	12	86	1.96	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
06301050630106	Condition - with CCTV scoring	146.9	8	7.65	8	63	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
07800060780009	Condition - with CCTV scoring	454.9	15	8.05	15	78	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
09600770960085	Condition - with CCTV scoring	349.9	12	16.57	12	96	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
09600780960077	Condition - with CCTV scoring	347.7	12	18.51	12	96	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
07601760760174	Condition - with CCTV scoring	580.1	12	6.4	12	76	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
07600050760006	Condition - with CCTV scoring	86	12	14.95	12	76	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
07201120720109	Condition - with CCTV scoring	61.6	8	8.17	8	72	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
08700120870011	Condition - with CCTV scoring	359.6	8	8.69	8	87	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
09700500960112	Condition - with CCTV scoring	608.3	18	10.4	18	96	1.95	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
02501530250154	Condition - with CCTV scoring	68.1	15	6.71	15	25	1.94	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
02500120250008	Condition - with CCTV scoring	116.4	15	7.48	15	25	1.94	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
02500370250013	Condition - with CCTV scoring	221.5	15	7.64	15	25	1.94	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
08600980860097	Condition - with CCTV scoring	241.6	12	17.4	12	86	1.94	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
08600970860095	Condition - with CCTV scoring	149.8	12	17.99	12	86	1.94	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
07502240750225	Condition - with CCTV scoring	381	8	5.85	8	75	1.94	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
08700040870001	Condition - with CCTV scoring	446	8	5.71	8	87	1.94	0.0	0.0	7.8	No	CCTV	2031-2035	$ -				$ -	
04502720450149	Condition - with CCTV scoring	328.4	8	6.7	8	45	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04501560450157	Condition - with CCTV scoring	390.6	8	5.96	8	45	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04601040450208	Condition - with CCTV scoring	295.5	15	7.6	15	45	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04500610450060	Condition - with CCTV scoring	282.6	8	7.05	8	45	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
01000120110004	Condition - with CCTV scoring	339.3	15	10.4	15	11	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
09700530970041	Condition - with CCTV scoring	277.8	8	6.43	8	97	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
09701300970131	Condition - with CCTV scoring	545.3	8	11.44	8	97	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
08700170870013	Condition - with CCTV scoring	6.7	24	2.33	24	87	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
08800320880028	Condition - with CCTV scoring	462.7	15	6.92	15	88	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
09701660970167	Condition - with CCTV scoring	348.1	8	11.62	8	97	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
07200590720012	Condition - with CCTV scoring	195.5	8	5.96	8	72	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
07500170750015	Condition - with CCTV scoring	309.8	8	6.8	8	75	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
07201670720166	Condition - with CCTV scoring	608.9	8	6.1	8	72	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
07200290720038	Condition - with CCTV scoring	399.4	8	5.79	8	72	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
07200330720034	Condition - with CCTV scoring	269.9	8	5.12	8	72	1.93	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04502750450274	Condition - with CCTV scoring	352.4	18	9.34	18	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04501500450277	Condition - with CCTV scoring	329	18	8.18	18	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04502770450272	Condition - with CCTV scoring	366.7	18	9.73	18	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04502740450276	Condition - with CCTV scoring	220.2	18	9.06	18	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04500830450142	Condition - with CCTV scoring	362	15	8.02	15	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04500810450082	Condition - with CCTV scoring	52.5	15	8.01	15	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04500820450083	Condition - with CCTV scoring	367.7	15	8.31	15	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
04501430450275	Condition - with CCTV scoring	354.1	18	9.81	18	45	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
02200240320027	Condition - with CCTV scoring	1080	18	14.43	18	22	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
01200040120003	Condition - with CCTV scoring	594.5	12	7.96	12	12	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
08801010880102	Condition - with CCTV scoring	762.5	21	5	21	88	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
08800150870119	Condition - with CCTV scoring	392	8	5.76	8	87	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
07200840720210	Condition - with CCTV scoring	261.8	8	10.28	8	72	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
08600880860074	Condition - with CCTV scoring	303.5	8	4.93	8	86	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
07200040720006	Condition - with CCTV scoring	337.5	8	7.15	8	72	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
08500140850016	Condition - with CCTV scoring	321	8	8.1	8	85	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
08500320850033	Condition - with CCTV scoring	492.9	10	8.02	10	86	1.92	0.0	0.0	7.7	No	CCTV	2031-2035	$ -				$ -	
06601630660186	Condition - with CCTV scoring	342.3	8	4.833	8	66	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
03600410360040	Condition - with CCTV scoring	499.5	12	5.21	12	36	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08800990880087	Condition - with CCTV scoring	73.8	18	15.12	18	88	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08901030890102	Condition - with CCTV scoring	551.6	18	10.1	18	89	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07201130720181	Condition - with CCTV scoring	433.6	8	6.4	8	72	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07601480760149	Condition - with CCTV scoring	276.7	8	6	8	76	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
09600340960021	Condition - with CCTV scoring	238	8	6.04	8	96	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
09600210960022	Condition - with CCTV scoring	55	8	6.19	8	96	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07201110720113	Condition - with CCTV scoring	429.9	8	9.1	8	72	1.91	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
04900060490007	Condition - with CCTV scoring	48.1	15	7.33	15	49	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
05600120560216	Condition - with CCTV scoring	108.3	8	8.4	8	56	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08700060870005	Condition - with CCTV scoring	147.5	8	6.61	8	87	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08800190880018	Condition - with CCTV scoring	465.3	8	6.6	8	88	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08800440880034	Condition - with CCTV scoring	396.8	15	9.9	15	88	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08800430880044	Condition - with CCTV scoring	381	15	8.7	15	88	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07400240740019	Condition - with CCTV scoring	353.2	15	6.42	15	74	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
09600600960058	Condition - with CCTV scoring	504.6	12	13.12	12	96	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08601170960034	Condition - with CCTV scoring	289	8	6.18	8	86	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
08600650860064	Condition - with CCTV scoring	91.1	10	4.58	10	86	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07200070720005	Condition - with CCTV scoring	103.9	8	5.17	8	72	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07200320720029	Condition - with CCTV scoring	36	8	6.43	8	72	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07200050720004	Condition - with CCTV scoring	150	8	5.25	8	72	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07600230760024	Condition - with CCTV scoring	270.6	24	9.49	24	76	1.9	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
04600570460059	Condition - with CCTV scoring	531.1	18	8.55	18	46	1.89	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
06300060630079	Condition - with CCTV scoring	325.7	10	10.16	10	63	1.89	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
02200320220030	Condition - with CCTV scoring	226.2	12	7.85	12	22	1.89	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07600900760089	Condition - with CCTV scoring	457.3	21	9.26	21	76	1.89	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
07501480750147	Condition - with CCTV scoring	336.7	8	7.65	8	75	1.89	0.0	0.0	7.6	No	CCTV	2031-2035	$ -				$ -	
06600640660077	Condition - with CCTV scoring	359.9	8	6.45	8	66	1.88	0.0	0.0	7.5	Yes	CCTV	2031-2035	$ -				$ -	
06600530660054	Condition - with CCTV scoring	258.8	8	4.45	8	66	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
04501540450156	Condition - with CCTV scoring	289.3	8	5.1	8	45	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04500600450058	Condition - with CCTV scoring	231.3	8	0.67	8	45	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
06301010630104	Condition - with CCTV scoring	211.4	8	8.75	8	63	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
02200290220028	Condition - with CCTV scoring	251.6	12	18.83	12	22	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
09701310970126	Condition - with CCTV scoring	228.8	8	9.96	8	97	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
09701860970166	Condition - with CCTV scoring	357.6	8	8.4	8	97	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
07701540770138	Condition - with CCTV scoring	403.2	8	5.74	8	77	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
07300600730058	Condition - with CCTV scoring	294.5	8	8.11	8	73	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
07300580730059	Condition - with CCTV scoring	234.3	8	8.02	8	73	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
07300330730046	Condition - with CCTV scoring	406.7	8	8.17	8	73	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
07200800720085	Condition - with CCTV scoring	143.6	8	6.18	8	72	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
09700460970045	Condition - with CCTV scoring	112.3	8	9.75	8	97	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
07600040760005	Condition - with CCTV scoring	66.8	12	14.77	12	76	1.88	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
04502760450150	Condition - with CCTV scoring	226.2	18	7.48	18	45	1.87	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
05602370560235	Condition - with CCTV scoring	337.9	12	7.01	12	56	1.87	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
04501410450143	Condition - with CCTV scoring	277.7	15	7.07	15	45	1.87	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
02500410250042	Condition - with CCTV scoring	308.9	18	8.58	18	25	1.87	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
02200140220015	Condition - with CCTV scoring	767.3	18	11.53	18	22	1.87	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
02200110220012	Condition - with CCTV scoring	543.1	18	14.08	18	22	1.87	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
06601930660192	Condition - with CCTV scoring	130.6	18	10.08	18	66	1.87	0.0	0.0	7.5	No	CCTV	2031-2035	$ -				$ -	
05601200660075	Condition - with CCTV scoring	700.6	8	5.06	8	56	1.86	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08800970880096	Condition - with CCTV scoring	394.8	21	11.22	21	88	1.86	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08800960880095	Condition - with CCTV scoring	52.8	21	10.98	21	88	1.86	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
09800060970181	Condition - with CCTV scoring	251.5	8	10.98	8	98	1.86	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
07700060760176	Condition - with CCTV scoring	497.4	12	6.15	12	76	1.86	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
06601030660090	Condition - with CCTV scoring	341.3	8	4.96	8	66	1.85	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
06301040630105	Condition - with CCTV scoring	90.2	8	7.68	8	63	1.85	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08800220880021	Condition - with CCTV scoring	180.3	8	4.73	8	88	1.85	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
07200550720056	Condition - with CCTV scoring	230.4	8	8.64	8	72	1.85	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
07600890760091	Condition - with CCTV scoring	314.2	24	5.25	24	76	1.85	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08500090850011	Condition - with CCTV scoring	118.5	8	8.05	8	85	1.85	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
05601720560171	Condition - with CCTV scoring	547.3	8	2.8	8	56	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
06700900670091	Condition - with CCTV scoring	320.5	12	8.08	12	67	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
06300050630006	Condition - with CCTV scoring	334.3	10	8.55	10	63	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
06300550630053	Condition - with CCTV scoring	27.5	10	6.79	10	63	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
06300560630055	Condition - with CCTV scoring	230.5	10	7.51	10	63	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08700900870089	Condition - with CCTV scoring	500.9	12	8.76	12	87	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08600870860088	Condition - with CCTV scoring	32.4	8	4.51	8	86	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08600860860087	Condition - with CCTV scoring	358.8	8	4.7	8	86	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08600820860080	Condition - with CCTV scoring	372.3	12	13.53	12	86	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
08600030860004	Condition - with CCTV scoring	237.9	12	9.41	12	86	1.84	0.0	0.0	7.4	No	CCTV	2031-2035	$ -				$ -	
06600080660225	Condition - with CCTV scoring	364.7	8	5.6	8	66	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
04600630460043	Condition - with CCTV scoring	289.5	21	7.37	21	46	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
06603290660325	Condition - with CCTV scoring	167	8	5.16	8	66	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08900950880086	Condition - with CCTV scoring	392.1	10	8.48	10	88	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08900960890095	Condition - with CCTV scoring	424.3	10	8.86	10	88	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
09701880970187	Condition - with CCTV scoring	350.3	8	6.57	8	97	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07701400770141	Condition - with CCTV scoring	246.9	10	8.35	10	77	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07701320770131	Condition - with CCTV scoring	305	8	4.57	8	77	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
09600530960054	Condition - with CCTV scoring	94.2	8	6.75	8	96	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08600630860062	Condition - with CCTV scoring	88.4	10	5.82	10	86	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08600620860061	Condition - with CCTV scoring	491.6	10	5.68	10	86	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07500790750077	Condition - with CCTV scoring	319.5	8	6.47	8	75	1.83	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
06603170660302	Condition - with CCTV scoring	186.1	8	4.96	8	66	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
06501990650200	Condition - with CCTV scoring	348.7	8	5.3	8	65	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
05601070560108	Condition - with CCTV scoring	611.4	8	4	8	56	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
04602160460214	Condition - with CCTV scoring	220.4	12	9.06	12	46	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
06400970640098	Condition - with CCTV scoring	466.9	8	5.19	8	64	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
02400950240096	Condition - with CCTV scoring	390.7	12	11.33	12	24	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08700090870008	Condition - with CCTV scoring	151.4	8	7.21	8	87	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08800480880047	Condition - with CCTV scoring	190.7	8	6.67	8	88	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07701570770158	Condition - with CCTV scoring	191.3	8	5.36	8	77	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07301720730169	Condition - with CCTV scoring	12.3	12	5.86	12	73	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
09600700960069	Condition - with CCTV scoring	368.3	10	10.97	10	96	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07700040770003	Condition - with CCTV scoring	327.1	24	9.21	24	76	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08600810860056	Condition - with CCTV scoring	401.4	12	13	12	86	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07601400760129	Condition - with CCTV scoring	111.6	8	5.37	8	76	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07601380760139	Condition - with CCTV scoring	145.1	8	5.5	8	76	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07200130720014	Condition - with CCTV scoring	98.7	8	5.86	8	72	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
08500150850016	Condition - with CCTV scoring	151.1	8	8.05	8	85	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
08500110850015	Condition - with CCTV scoring	239.6	8	8.82	8	85	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07502350750234	Condition - with CCTV scoring	25.5	24	9.64	24	75	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07502340760023	Condition - with CCTV scoring	349.1	24	9.7	24	75	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
07200450720043	Condition - with CCTV scoring	273.3	8	10.25	8	72	1.82	0.0	0.0	7.3	No	CCTV	2031-2035	$ -				$ -	
06502320660053	Condition - with CCTV scoring	261.3	8	5	8	65	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06501970650234	Condition - with CCTV scoring	81.6	8	5.11	8	65	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
04400960430053	Condition - with CCTV scoring	443.1	15	6.5	15	43	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
04600580460057	Condition - with CCTV scoring	475.9	18	8.02	18	46	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
05602350560236	Condition - with CCTV scoring	13.4	12	7.05	12	56	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06200210620004	Condition - with CCTV scoring	275.3	10	8.61	10	62	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08900060890008	Condition - with CCTV scoring	345.8	15	10.76	15	89	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08900080890103	Condition - with CCTV scoring	326.2	15	11.3	15	89	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08800980880093	Condition - with CCTV scoring	597.7	21	8.67	21	88	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
07200610720059	Condition - with CCTV scoring	435.6	8	6.75	8	72	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08601230860121	Condition - with CCTV scoring	154.1	8	6.13	8	86	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08601260860124	Condition - with CCTV scoring	129	8	7.62	8	87	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08601030860106	Condition - with CCTV scoring	306.9	12	13.7	12	86	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
07201150720114	Condition - with CCTV scoring	354.9	8	7.73	8	72	1.81	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06602420660171	Condition - with CCTV scoring	689.4	8	5.44	8	66	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06501360650140	Condition - with CCTV scoring	25.8	18	7.55	18	65	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
04501750450208	Condition - with CCTV scoring	26.5	15	5.67	15	45	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
04501690450175	Condition - with CCTV scoring	351.3	15	5.52	15	45	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
01300200130008	Condition - with CCTV scoring	206.1	12	7.63	12	13	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
02200130220014	Condition - with CCTV scoring	732	18	11.66	18	22	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
09701850970186	Condition - with CCTV scoring	136.2	8	9.78	8	97	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
07300920730090	Condition - with CCTV scoring	95.5	6	8.05	8	73	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
07500320750033	Condition - with CCTV scoring	450.2	8	8.23	8	75	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06601290660132	Condition - with CCTV scoring	370.6	12	7.84	12	66	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06601320660130	Condition - with CCTV scoring	348.4	12	7.01	12	66	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
07200080720003	Condition - with CCTV scoring	181.8	8	7.12	8	72	1.8	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06300020630005	Condition - with CCTV scoring	193	10	7.56	10	63	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
04501030450104	Condition - with CCTV scoring	256.4	8	5.92	8	45	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08900110890010	Condition - with CCTV scoring	301.5	18	15.58	18	89	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08900100890001	Condition - with CCTV scoring	298.3	18	16.1	18	89	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
07301700730171	Condition - with CCTV scoring	250.9	12	7.4	12	73	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
07601940760144	Condition - with CCTV scoring	23.4	14	4.28	15	76	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08600590860054	Condition - with CCTV scoring	207.2	8	9.869	8	86	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
08500340860003	Condition - with CCTV scoring	184.5	12	7.15	12	86	1.79	0.0	0.0	7.2	No	CCTV	2031-2035	$ -				$ -	
06601530660150	Condition - with CCTV scoring	391.5	8	6.48	8	66	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
06601040660107	Condition - with CCTV scoring	340.9	8	6.31	8	66	1.78	0.0	0.0	7.1	Yes	CCTV	2031-2035	$ -				$ -	
05601040560105	Condition - with CCTV scoring	627.7	8	4.17	8	56	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
04600970460094	Condition - with CCTV scoring	286.3	10	6.07	10	46	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
04600960460097	Condition - with CCTV scoring	392.9	10	6.24	10	46	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
06602770660216	Condition - with CCTV scoring	670.9	8	5.73	8	66	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
03500720350071	Condition - with CCTV scoring	659	12	9.6	12	35	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
07700480770049	Condition - with CCTV scoring	309.9	18	7.07	18	77	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
08900970890096	Condition - with CCTV scoring	204.3	10	7.07	10	89	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
08900440890030	Condition - with CCTV scoring	132.1	10	8.7	10	89	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
08800080880007	Condition - with CCTV scoring	467.8	8	12.78	8	88	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
09701870970169	Condition - with CCTV scoring	356.2	8	5.98	8	97	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
07701410770153	Condition - with CCTV scoring	273.6	10	6.7	10	77	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
07500160750017	Condition - with CCTV scoring	483.9	8	5.8	8	75	1.78	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
05800230580025	Condition - with CCTV scoring	274	12	9.51	12	58	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
05800270580028	Condition - with CCTV scoring	189.7	12	8.7	12	58	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
05800280580029	Condition - with CCTV scoring	234.9	12	9.2	12	58	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
05800290580023	Condition - with CCTV scoring	40.3	12	9.25	12	58	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
05800710580027	Condition - with CCTV scoring	324.3	12	8.17	12	58	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
05601830560164	Condition - with CCTV scoring	78.6	8	6.42	8	56	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
09701290970130	Condition - with CCTV scoring	118.7	8	11.4	8	97	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
08900880890089	Condition - with CCTV scoring	306.4	8	7.92	8	89	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
08800170880016	Condition - with CCTV scoring	350.9	8	5.32	8	88	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
08500060850010	Condition - with CCTV scoring	328	8	8.05	8	85	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
08500070850011	Condition - with CCTV scoring	195	8	7.75	8	85	1.77	0.0	0.0	7.1	No	CCTV	2031-2035	$ -				$ -	
06501960650195	Condition - with CCTV scoring	234.9	8	6	8	65	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
06200040620024	Condition - with CCTV scoring	386.8	10	7.75	10	62	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
06200240630004	Condition - with CCTV scoring	336.1	10	6.33	10	63	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
06300040630002	Condition - with CCTV scoring	155.4	10	7.42	10	63	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
06200380620039	Condition - with CCTV scoring	381	8	11.8	8	62	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08800830880084	Condition - with CCTV scoring	454.7	10	8.6	10	88	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08901040890105	Condition - with CCTV scoring	427.2	8	10.84	8	89	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08901050890106	Condition - with CCTV scoring	367.1	8	10.67	8	89	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08901070890097	Condition - with CCTV scoring	235.7	10	9.64	10	89	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08800860880085	Condition - with CCTV scoring	426.5	10	8.1	10	88	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08700930870090	Condition - with CCTV scoring	499.3	12	8.95	12	87	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
09701540970153	Condition - with CCTV scoring	144.2	8	4.98	8	97	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07701330770132	Condition - with CCTV scoring	284.5	8	5.5	8	77	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07700900770089	Condition - with CCTV scoring	41.1	8	11	8	77	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07202040720202	Condition - with CCTV scoring	413.8	8	5	8	72	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07202060720207	Condition - with CCTV scoring	435.1	8	5.1	8	72	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07202100720209	Condition - with CCTV scoring	64.9	8	9.762	8	72	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08600850860086	Condition - with CCTV scoring	402.5	8	3.9	8	86	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08600800860081	Condition - with CCTV scoring	399.5	12	13.72	12	86	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07501500750149	Condition - with CCTV scoring	92.2	8	7.59	8	75	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07500810750079	Condition - with CCTV scoring	181.1	8	6.68	8	75	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08500010850003	Condition - with CCTV scoring	266.9	8	7.62	8	85	1.76	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
06600670660122	Condition - with CCTV scoring	338.3	8	6.046	8	66	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
04801070480109	Condition - with CCTV scoring	326	12	7.83	12	48	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
04500570450170	Condition - with CCTV scoring	241.8	15	9.33	15	45	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
04501680450169	Condition - with CCTV scoring	320.6	15	6.12	15	45	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
06200450620043	Condition - with CCTV scoring	299.5	8	8.51	8	62	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
02500310250033	Condition - with CCTV scoring	518.5	18	8.47	18	25	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08800330880028	Condition - with CCTV scoring	374.8	8	6.72	8	88	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08800300880027	Condition - with CCTV scoring	326.7	8	6.89	8	88	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
09701670970139	Condition - with CCTV scoring	349.6	8	6.18	8	97	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07701430770108	Condition - with CCTV scoring	26.5	8	5.72	8	77	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07300950730094	Condition - with CCTV scoring	136.4	6	8	8	73	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07300910730089	Condition - with CCTV scoring	241.7	6	7.9	8	73	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07300750730074	Condition - with CCTV scoring	365.5	6	7.3	8	73	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07201190720116	Condition - with CCTV scoring	495	8	7.69	8	72	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07202050720019	Condition - with CCTV scoring	419.8	8	5.1	8	72	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07200010720003	Condition - with CCTV scoring	213	8	5.9	8	72	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07602240770020	Condition - with CCTV scoring	366	8	4.8	8	77	1.75	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
05601630560161	Condition - with CCTV scoring	464.1	8	5.27	8	56	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
06600880660118	Condition - with CCTV scoring	39.3	10	5.96	10	66	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
04600610460062	Condition - with CCTV scoring	436.3	21	8.85	21	46	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
04401660450103	Condition - with CCTV scoring	339.9	8	5.92	8	44	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
09701320870071	Condition - with CCTV scoring	447.3	8	7.44	8	87	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08900020890003	Condition - with CCTV scoring	338.4	18	14.23	18	89	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08900030890004	Condition - with CCTV scoring	333	18	12.22	18	89	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08900040890005	Condition - with CCTV scoring	311.9	15	10.1	15	89	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08900050890007	Condition - with CCTV scoring	329.4	15	10.3	15	89	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08900070890006	Condition - with CCTV scoring	345.6	15	10.46	15	89	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08800310880027	Condition - with CCTV scoring	296.4	8	7.07	8	88	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08700530870054	Condition - with CCTV scoring	322.6	8	7.77	8	87	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08700520870053	Condition - with CCTV scoring	345.8	8	7.18	8	87	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
09701600970158	Condition - with CCTV scoring	514	8	6.89	8	97	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
09701410970140	Condition - with CCTV scoring	329	8	7.07	8	97	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
09701420970141	Condition - with CCTV scoring	368.9	8	7.07	8	97	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07701260770147	Condition - with CCTV scoring	416	12	11.62	12	77	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07701480770149	Condition - with CCTV scoring	357	15	8.68	15	77	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07500200750019	Condition - with CCTV scoring	345.3	12	7.05	12	75	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07500110750003	Condition - with CCTV scoring	484.3	8	6	8	75	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08601070860108	Condition - with CCTV scoring	399.2	8	6.17	8	86	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07700030760206	Condition - with CCTV scoring	147.1	21	9.04	21	76	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
08600890860091	Condition - with CCTV scoring	304	8	7.27	8	86	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
07600490760045	Condition - with CCTV scoring	275.2	8	16.82	8	76	1.74	0.0	0.0	7.0	No	CCTV	2031-2035	$ -				$ -	
04300470430044	Condition - with CCTV scoring	340.7	15	6.57	15	43	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
02500330250037	Condition - with CCTV scoring	375.4	15	9.29	15	25	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
02200120220013	Condition - with CCTV scoring	775.8	18	13.99	18	22	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
02200060220033	Condition - with CCTV scoring	457.5	12	7.35	12	22	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07700200770021	Condition - with CCTV scoring	417.3	8	6.62	8	77	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07700620770063	Condition - with CCTV scoring	33.7	8	6.4	8	77	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07700710770063	Condition - with CCTV scoring	64.3	8	7.2	8	77	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07900010790002	Condition - with CCTV scoring	338.6	12	19.39	12	79	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07701340770133	Condition - with CCTV scoring	304.1	8	6.5	8	77	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
06200430620044	Condition - with CCTV scoring	373.7	8	9.16	8	62	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07202160720217	Condition - with CCTV scoring	73.7	8	8.27	8	72	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
06602040660196	Condition - with CCTV scoring	138.5	18	10.39	18	66	1.73	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
04601760460177	Condition - with CCTV scoring	246	21	8.61	21	46	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
04601740460159	Condition - with CCTV scoring	392.3	21	9.1	21	46	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
05501590550161	Condition - with CCTV scoring	69.4	12	7.41	12	55	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
03501300350134	Condition - with CCTV scoring	89.7	15	8.24	15	35	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
03501340350135	Condition - with CCTV scoring	311	15	8.09	15	35	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
03501360350133	Condition - with CCTV scoring	97	15	8.44	15	35	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
09700960970052	Condition - with CCTV scoring	543.1	12	7.88	12	97	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
08600560860083	Condition - with CCTV scoring	138.4	12	7.13	12	86	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07501520750151	Condition - with CCTV scoring	128	8	4.53	8	75	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
07200430720044	Condition - with CCTV scoring	455.2	8	13.21	8	72	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
04500790440060	Condition - with CCTV scoring	137.7	15	9.309	15	45	1.72	0.0	0.0	6.9	No	CCTV	2031-2035	$ -				$ -	
04400980440097	Condition - with CCTV scoring	322.3	15	5.46	15	43	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
04401200450080	Condition - with CCTV scoring	609.2	8	6.45	8	44	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08700440870043	Condition - with CCTV scoring	227.3	8	5.87	8	87	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07700490770050	Condition - with CCTV scoring	305	18	6.8	18	77	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07700500770055	Condition - with CCTV scoring	163	18	6.58	18	77	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900830890084	Condition - with CCTV scoring	428.2	8	7.87	8	89	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07701050770150	Condition - with CCTV scoring	154.8	12	7.46	12	77	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08700970770090	Condition - with CCTV scoring	379.7	8	8.92	8	77	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07300050730004	Condition - with CCTV scoring	321.8	8	9.02	8	73	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07202020720203	Condition - with CCTV scoring	211.3	8	5.5	8	72	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07201180720209	Condition - with CCTV scoring	97.1	8	6.35	8	72	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07602120760213	Condition - with CCTV scoring	378.5	8	5.6	8	76	1.71	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
06602410660242	Condition - with CCTV scoring	359.5	8	4.52	8	66	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
06601220660103	Condition - with CCTV scoring	338.6	8	4.98	8	66	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
04500420450168	Condition - with CCTV scoring	42.9	15	5.84	15	45	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
05601820560179	Condition - with CCTV scoring	334.5	8	5.37	8	56	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900850880053	Condition - with CCTV scoring	442.6	10	8.28	10	88	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08800260880008	Condition - with CCTV scoring	448.6	8	13.18	8	88	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07200750720076	Condition - with CCTV scoring	251.6	8	4.74	8	72	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07200760720090	Condition - with CCTV scoring	96.1	8	5.02	8	72	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07600800760081	Condition - with CCTV scoring	601.3	8	5.5	8	76	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07501530750152	Condition - with CCTV scoring	396.7	8	6.09	8	75	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07200170720013	Condition - with CCTV scoring	10.8	8	5.96	8	72	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08500080850012	Condition - with CCTV scoring	212.1	8	8.05	8	85	1.7	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
04600430460061	Condition - with CCTV scoring	157.8	21	6.49	21	46	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
06401150640114	Condition - with CCTV scoring	314.7	8	11.73	8	64	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
01300390130041	Condition - with CCTV scoring	332.5	12	10.05	12	13	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
03200270320033	Condition - with CCTV scoring	422.9	8	8.7	8	32	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07700120770009	Condition - with CCTV scoring	186.4	10	8.79	10	77	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900920890093	Condition - with CCTV scoring	359.3	8	10.78	8	89	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08800820880083	Condition - with CCTV scoring	383.1	10	9.07	10	88	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08800850880082	Condition - with CCTV scoring	69.3	10	8.72	10	88	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900940890104	Condition - with CCTV scoring	396.5	8	10.1	8	89	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900120890011	Condition - with CCTV scoring	306.7	18	14.4	18	89	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900130890012	Condition - with CCTV scoring	268.2	18	11.71	18	89	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900320890028	Condition - with CCTV scoring	135.5	8	7.95	8	89	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08900350890034	Condition - with CCTV scoring	249.7	8	8	8	89	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07800240780013	Condition - with CCTV scoring	347.5	12	8.93	12	78	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07800220780024	Condition - with CCTV scoring	354.4	12	8.63	12	78	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07800230780021	Condition - with CCTV scoring	377.3	12	8.26	12	78	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
08800890880090	Condition - with CCTV scoring	444.9	8	10.92	8	88	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
09701700970150	Condition - with CCTV scoring	545.6	8	5.58	8	97	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07701460770126	Condition - with CCTV scoring	178.8	12	8.38	12	77	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07701490770105	Condition - with CCTV scoring	176	15	7.74	15	77	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07201950720193	Condition - with CCTV scoring	278.9	8	7.8	8	72	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07202010720202	Condition - with CCTV scoring	187.2	8	6.3	8	72	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07201020720042	Condition - with CCTV scoring	151.4	8	6.5	8	72	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07400510740050	Condition - with CCTV scoring	208.4	12	8.15	12	74	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
07400500750020	Condition - with CCTV scoring	354.8	12	8.35	12	74	1.69	0.0	0.0	6.8	No	CCTV	2031-2035	$ -				$ -	
04400990440098	Condition - with CCTV scoring	318.5	15	6.73	15	43	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
04600600460058	Condition - with CCTV scoring	473.9	18	6.74	18	46	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
03300540330055	Condition - with CCTV scoring	537.6	18	8.03	18	33	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07700660770065	Condition - with CCTV scoring	476.7	8	7.7	8	77	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07900050790006	Condition - with CCTV scoring	563.2	12	11.85	12	79	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07900060790007	Condition - with CCTV scoring	506.2	12	11.16	12	79	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07800020780003	Condition - with CCTV scoring	503	12	12.94	12	78	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
08800470880030	Condition - with CCTV scoring	488.3	8	7.01	8	88	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07700790770004	Condition - with CCTV scoring	322.7	18	8.73	18	77	1.68	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
06600510660087	Condition - with CCTV scoring	447.9	8	8	8	66	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
05602300560229	Condition - with CCTV scoring	877.1	8	2.4	8	56	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
05601750560125	Condition - with CCTV scoring	604.2	8	3.65	8	56	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
06401520640150	Condition - with CCTV scoring	250	8	5.49	8	64	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
06400830640084	Condition - with CCTV scoring	390.3	8	3.66	8	64	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
06401120640110	Condition - with CCTV scoring	285.3	8	4.69	8	64	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
02500400250041	Condition - with CCTV scoring	298	15	8.83	15	25	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07700100770011	Condition - with CCTV scoring	25	10	12.33	10	77	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07700090770010	Condition - with CCTV scoring	313	10	10.23	10	77	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
08700100870009	Condition - with CCTV scoring	219.4	8	7.36	8	87	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
08901000880092	Condition - with CCTV scoring	576.3	8	7.84	8	88	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
09701570970155	Condition - with CCTV scoring	337.2	8	6.82	8	97	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
09701580970152	Condition - with CCTV scoring	494.4	8	6.72	8	97	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07201000720098	Condition - with CCTV scoring	204.2	8	5.94	8	72	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07601680760155	Condition - with CCTV scoring	348.9	10	5.98	10	76	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
07200200720018	Condition - with CCTV scoring	266.5	8	5.5	8	72	1.67	0.0	0.0	6.7	No	CCTV	2031-2035	$ -				$ -	
06401760640172	Condition - with CCTV scoring	459	8	4.43	8	64	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08700430870040	Condition - with CCTV scoring	451.6	8	7.24	8	87	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08900200890021	Condition - with CCTV scoring	398.2	8	6.62	8	89	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08900280890024	Condition - with CCTV scoring	342.9	8	8.37	8	89	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08700980870097	Condition - with CCTV scoring	392.5	8	6.78	8	87	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07200600720058	Condition - with CCTV scoring	232.3	8	7.68	8	72	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07300070730009	Condition - with CCTV scoring	367.3	8	8.2	8	73	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07200790720078	Condition - with CCTV scoring	318.4	8	6.27	8	72	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07200780720080	Condition - with CCTV scoring	149.4	8	6.29	8	72	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06600380660080	Condition - with CCTV scoring	156.1	8	8.13	8	66	1.66	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
05601130550014	Condition - with CCTV scoring	608.3	8	5	8	55	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
05602120560200	Condition - with CCTV scoring	304.8	8	3.5	8	56	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06301110630112	Condition - with CCTV scoring	281.4	8	6.72	8	63	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06301150630111	Condition - with CCTV scoring	174.5	8	7	8	63	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08800550880056	Condition - with CCTV scoring	440.6	12	8.27	12	88	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08800510880052	Condition - with CCTV scoring	442.3	8	8.26	8	88	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07501420750140	Condition - with CCTV scoring	275.3	8	9.32	8	75	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08500120850013	Condition - with CCTV scoring	83.7	8	7.95	8	85	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08500100850013	Condition - with CCTV scoring	100.3	8	7.56	8	85	1.65	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
05601620560161	Condition - with CCTV scoring	55	8	6	8	56	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
04600620460067	Condition - with CCTV scoring	443.6	18	6.63	18	46	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06401450640143	Condition - with CCTV scoring	270.1	8	5	8	64	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06401500640149	Condition - with CCTV scoring	251.6	8	5.28	8	64	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06401790640163	Condition - with CCTV scoring	289.9	8	4.94	8	64	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06401170640115	Condition - with CCTV scoring	303.8	8	7.57	8	64	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08700350870036	Condition - with CCTV scoring	356.6	8	8.84	8	87	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07700210870035	Condition - with CCTV scoring	416	8	8.38	8	77	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07700130770012	Condition - with CCTV scoring	319.7	10	6.59	10	77	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07700140770012	Condition - with CCTV scoring	220	8	8.68	8	77	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08700410870042	Condition - with CCTV scoring	321.9	8	4.5	8	87	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
08900140890013	Condition - with CCTV scoring	376.1	18	10	18	89	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07800210780022	Condition - with CCTV scoring	359	12	7.81	12	78	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
09800240980023	Condition - with CCTV scoring	300.2	8	9.24	8	98	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
09701610970162	Condition - with CCTV scoring	245.6	8	7.21	8	97	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
09600390960041	Condition - with CCTV scoring	394.9	6	8.41	8	96	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
07601430760146	Condition - with CCTV scoring	82	15	3.54	15	76	1.64	0.0	0.0	6.6	No	CCTV	2031-2035	$ -				$ -	
06301070630108	Condition - with CCTV scoring	387.6	8	5.72	8	63	1.63	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07900040790005	Condition - with CCTV scoring	463.7	12	9.98	12	79	1.63	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07900070780001	Condition - with CCTV scoring	495.6	12	9.7	12	78	1.63	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07202030720019	Condition - with CCTV scoring	55.3	8	5.3	8	72	1.63	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07200190720018	Condition - with CCTV scoring	265.2	8	5.9	8	72	1.63	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
09700410960064	Condition - with CCTV scoring	350.3	8	11.1	8	97	1.63	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
06600930660067	Condition - with CCTV scoring	341.8	8	5.88	8	66	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
03300560330057	Condition - with CCTV scoring	701.9	18	7.98	18	33	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
01300410130040	Condition - with CCTV scoring	352	12	10.62	12	13	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
08800530880054	Condition - with CCTV scoring	450	10	8.3	10	88	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
08800540880055	Condition - with CCTV scoring	433.7	12	8.18	12	88	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
09800210980005	Condition - with CCTV scoring	335.9	8	13.71	8	98	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
09701650970156	Condition - with CCTV scoring	77.4	8	6	8	97	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07400420740041	Condition - with CCTV scoring	306.1	8	10.12	8	74	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
09600730960071	Condition - with CCTV scoring	347.1	8	4.53	8	96	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
06602530660203	Condition - with CCTV scoring	234.5	18	6.19	18	66	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07600810760060	Condition - with CCTV scoring	548.2	8	5.5	8	76	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07600600760027	Condition - with CCTV scoring	370.7	8	4.8	8	76	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
08600840860085	Condition - with CCTV scoring	269.5	8	3.97	8	86	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
08600580860054	Condition - with CCTV scoring	230.2	8	4.2	8	86	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
08600920860093	Condition - with CCTV scoring	385	8	5.01	8	86	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
07501430750142	Condition - with CCTV scoring	432.8	8	3.76	8	75	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
08500050850008	Condition - with CCTV scoring	169.5	8	8.4	8	85	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
08500020850004	Condition - with CCTV scoring	197.6	8	8.03	8	85	1.62	0.0	0.0	6.5	No	CCTV	2031-2035	$ -				$ -	
04801570480155	Condition - with CCTV scoring	338	12	16.78	12	48	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401860640168	Condition - with CCTV scoring	233.3	8	6	8	64	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401540640169	Condition - with CCTV scoring	283.5	8	4.8	8	64	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
03300530330054	Condition - with CCTV scoring	582.3	18	8.14	18	33	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07700640770080	Condition - with CCTV scoring	131.5	8	5.85	8	77	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08900340890037	Condition - with CCTV scoring	284.8	8	8	8	89	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08900470890034	Condition - with CCTV scoring	319.8	8	8	8	89	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
09701710970170	Condition - with CCTV scoring	148.2	8	5.43	8	97	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
09701590970152	Condition - with CCTV scoring	236.2	8	3.98	8	97	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
09701430970142	Condition - with CCTV scoring	348.1	8	6.2	8	97	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
09701440970143	Condition - with CCTV scoring	365.5	8	6.1	8	97	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07201890720052	Condition - with CCTV scoring	135.3	8	10.36	8	72	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07300060730004	Condition - with CCTV scoring	227.4	8	5.6	8	73	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07300040720058	Condition - with CCTV scoring	311.2	8	5.95	8	72	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07201940720193	Condition - with CCTV scoring	332.2	8	6.93	8	72	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07500910750090	Condition - with CCTV scoring	562.1	8	3.45	8	75	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07600370760038	Condition - with CCTV scoring	154.8	8	4.91	8	76	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07502300750229	Condition - with CCTV scoring	193.6	8	4.7	8	75	1.61	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06603100660307	Condition - with CCTV scoring	335.6	8	4.95	8	66	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06603220660310	Condition - with CCTV scoring	347.6	8	5.02	8	66	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
04601780460176	Condition - with CCTV scoring	280.9	21	7.9	21	46	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
04300250430026	Condition - with CCTV scoring	632.6	21	8.22	21	43	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
03300550330056	Condition - with CCTV scoring	103.1	18	8.09	18	33	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401700640171	Condition - with CCTV scoring	253.8	8	5.57	8	64	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401710640172	Condition - with CCTV scoring	270.8	8	5.59	8	64	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401730640170	Condition - with CCTV scoring	179.3	8	5.4	8	64	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401770640111	Condition - with CCTV scoring	266.6	8	5.57	8	64	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401100640096	Condition - with CCTV scoring	67	8	4.82	8	64	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06400980640106	Condition - with CCTV scoring	84.9	8	4.74	8	64	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
02500440250032	Condition - with CCTV scoring	183.5	18	7.16	18	25	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
02500420250044	Condition - with CCTV scoring	321.6	18	6.95	18	25	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
03300520330053	Condition - with CCTV scoring	711.2	18	9.81	18	33	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08700540870056	Condition - with CCTV scoring	315.5	8	6.93	8	87	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08900430890044	Condition - with CCTV scoring	188.1	8	7.98	8	89	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07800350780036	Condition - with CCTV scoring	135.5	21	8.86	21	78	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
09701530970155	Condition - with CCTV scoring	92.4	8	6.1	8	97	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
09701560970153	Condition - with CCTV scoring	508.1	8	6.5	8	97	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07300080730007	Condition - with CCTV scoring	121.3	8	6.83	8	73	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07202080720020	Condition - with CCTV scoring	256.1	8	5.3	8	72	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08500030850005	Condition - with CCTV scoring	249	8	7.58	8	85	1.6	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
04600470460046	Condition - with CCTV scoring	462.2	8	6.08	8	46	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
04600420460043	Condition - with CCTV scoring	305.5	8	6.82	8	46	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401550640166	Condition - with CCTV scoring	421	8	5.2	8	64	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06401530640150	Condition - with CCTV scoring	264.1	8	4.76	8	64	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08700400870036	Condition - with CCTV scoring	447.5	8	7.83	8	87	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07700150770013	Condition - with CCTV scoring	149.2	10	5.37	10	77	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
09701000970101	Condition - with CCTV scoring	382.3	8	6.18	8	97	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07700170770018	Condition - with CCTV scoring	326.9	12	4.93	12	77	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08800880880089	Condition - with CCTV scoring	463.7	8	7.78	8	88	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
08800920880091	Condition - with CCTV scoring	446.1	8	7.4	8	88	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07800390780040	Condition - with CCTV scoring	321.8	8	6.01	8	78	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07701280770127	Condition - with CCTV scoring	93.7	10	4.13	10	77	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07701270770123	Condition - with CCTV scoring	200.1	10	4.09	10	77	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07200860720080	Condition - with CCTV scoring	167.5	8	6.17	8	72	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07400310740041	Condition - with CCTV scoring	331.1	6	6.53	8	74	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
07400520740051	Condition - with CCTV scoring	462.1	12	5.01	12	74	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07602200760219	Condition - with CCTV scoring	353.8	8	7.25	8	76	1.59	0.0	0.0	6.4	No	CCTV	2031-2035	$ -				$ -	
06603160660243	Condition - with CCTV scoring	171	8	4.92	8	66	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
05601090560106	Condition - with CCTV scoring	265.5	6	4.41	8	56	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
04601590460065	Condition - with CCTV scoring	358.5	21	8.1	21	46	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07700700770068	Condition - with CCTV scoring	671.4	8	5.64	8	77	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08900220890026	Condition - with CCTV scoring	123.3	8	8.24	8	89	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08900230890018	Condition - with CCTV scoring	73.9	8	8.35	8	89	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08900180890019	Condition - with CCTV scoring	226	8	8.1	8	89	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08900690890068	Condition - with CCTV scoring	94.2	8	8.21	8	89	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08900680890066	Condition - with CCTV scoring	187.5	8	8.01	8	89	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07701350770134	Condition - with CCTV scoring	262.1	8	3.57	8	77	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07300010720054	Condition - with CCTV scoring	291.9	8	6.24	8	73	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07300560730055	Condition - with CCTV scoring	184.1	8	82.88	8	73	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07300550730047	Condition - with CCTV scoring	181.8	8	26.6	8	73	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07200810720079	Condition - with CCTV scoring	119.8	8	6.22	8	72	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
09700420960067	Condition - with CCTV scoring	273.4	8	7.63	8	97	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
06602030660204	Condition - with CCTV scoring	212.5	18	2.1	18	66	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
09700430960067	Condition - with CCTV scoring	395.6	8	6.56	8	97	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07800030780004	Condition - with CCTV scoring	234	12	10.96	12	78	1.58	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
03300470330046	Condition - with CCTV scoring	264.3	15	8.72	15	33	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
05602190560217	Condition - with CCTV scoring	181.7	8	5.77	8	56	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
06200030620002	Condition - with CCTV scoring	184.2	8	6.36	8	62	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
06301120630114	Condition - with CCTV scoring	279.1	8	7.12	8	63	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
04500800450079	Condition - with CCTV scoring	127.7	8	7.63	8	45	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
03200330320034	Condition - with CCTV scoring	169.9	18	8.92	18	32	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
03200340320036	Condition - with CCTV scoring	672	18	8.87	18	32	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07700400770019	Condition - with CCTV scoring	271	8	9.3	8	77	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08900870880049	Condition - with CCTV scoring	424.3	8	8.1	8	88	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08800490880050	Condition - with CCTV scoring	423.1	8	8.15	8	88	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08800500880051	Condition - with CCTV scoring	424.3	8	8.3	8	88	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07701200770121	Condition - with CCTV scoring	364.8	10	7.12	10	77	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07200630720062	Condition - with CCTV scoring	105	8	6.49	8	72	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07200960720097	Condition - with CCTV scoring	336.4	8	6.16	8	72	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07400430740042	Condition - with CCTV scoring	84.3	8	9.87	8	74	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07400410740040	Condition - with CCTV scoring	427.4	8	9.92	8	74	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07501800750075	Condition - with CCTV scoring	470.4	8	5.55	8	75	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
07200280720027	Condition - with CCTV scoring	452.2	8	6.33	8	72	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
08500040850005	Condition - with CCTV scoring	175.2	8	6.48	8	85	1.57	0.0	0.0	6.3	No	CCTV	2031-2035	$ -				$ -	
04600670460060	Condition - with CCTV scoring	27.3	18	6.38	18	46	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
05600970560096	Condition - with CCTV scoring	473.6	8	4.31	8	56	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
04300210430020	Condition - with CCTV scoring	11.5	21	9.46	21	43	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
06400230640022	Condition - with CCTV scoring	217.1	8	5.31	8	64	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
06400300640029	Condition - with CCTV scoring	455.1	8	3.71	8	64	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07700680770066	Condition - with CCTV scoring	599.6	8	6.83	8	77	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07900020790003	Condition - with CCTV scoring	497.9	12	8.05	12	79	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07800470780048	Condition - with CCTV scoring	305.5	8	6.73	8	78	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
09701720970144	Condition - with CCTV scoring	160	8	5.53	8	97	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07200260720024	Condition - with CCTV scoring	404.6	8	8.45	8	72	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
09700400970039	Condition - with CCTV scoring	148.4	8	5.7	8	97	1.56	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
04501700450042	Condition - with CCTV scoring	12.3	8	5	8	45	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
03300020430025	Condition - with CCTV scoring	695.5	21	7.05	21	33	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
05501910550220	Condition - with CCTV scoring	39.5	12	5.99	12	55	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
03200390330052	Condition - with CCTV scoring	667.9	18	7.79	18	32	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
09700560970043	Condition - with CCTV scoring	325.4	8	7.14	8	97	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
09700570970056	Condition - with CCTV scoring	352	8	7.64	8	97	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08700560870021	Condition - with CCTV scoring	64.9	8	5.74	8	87	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08800640880080	Condition - with CCTV scoring	49.5	10	8.1	10	88	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08800380880040	Condition - with CCTV scoring	505.4	12	8.86	12	88	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08800620880039	Condition - with CCTV scoring	17.6	10	8.97	10	88	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08800390880038	Condition - with CCTV scoring	112.5	10	9	10	88	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
09800220980021	Condition - with CCTV scoring	334	8	10.58	8	98	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07800360770164	Condition - with CCTV scoring	367	21	6.31	21	77	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07701220770124	Condition - with CCTV scoring	344.5	10	9.28	10	77	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07301400730141	Condition - with CCTV scoring	394.9	8	6.6	8	73	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07300880730131	Condition - with CCTV scoring	129.5	8	8.78	8	73	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07601810760118	Condition - with CCTV scoring	282.6	21	6.66	21	76	1.55	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
06600440660102	Condition - with CCTV scoring	339.6	8	5.64	8	66	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
06502030650199	Condition - with CCTV scoring	198.6	8	5.84	8	65	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04600340460035	Condition - with CCTV scoring	368.7	8	5	8	46	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
04602470460248	Condition - with CCTV scoring	316.9	18	6	18	46	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
06201020620101	Condition - with CCTV scoring	258.9	8	5.62	8	62	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
06401780640160	Condition - with CCTV scoring	274.1	8	5.14	8	64	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08700450870047	Condition - with CCTV scoring	318.1	8	5	8	87	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08700470870039	Condition - with CCTV scoring	18.5	8	5.12	8	87	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07700240770025	Condition - with CCTV scoring	277	8	3.92	8	77	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07700260770027	Condition - with CCTV scoring	277	8	3.92	8	77	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07800380780025	Condition - with CCTV scoring	328.2	10	10.2	10	78	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07201880720189	Condition - with CCTV scoring	131.8	8	6.73	8	72	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07201930720192	Condition - with CCTV scoring	224.4	8	7.69	8	72	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07201910720190	Condition - with CCTV scoring	127	8	7.27	8	72	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07200870720086	Condition - with CCTV scoring	318.6	8	5.98	8	72	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07501730750177	Condition - with CCTV scoring	310.7	8	6	8	75	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
09600510960048	Condition - with CCTV scoring	184	6	5.6	8	96	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
08601010860102	Condition - with CCTV scoring	400	8	5.77	8	86	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07602280760227	Condition - with CCTV scoring	261.9	8	3.4	8	76	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07602270760220	Condition - with CCTV scoring	366.5	8	5.15	8	76	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07600440760045	Condition - with CCTV scoring	292.7	8	5.06	8	76	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07501050750108	Condition - with CCTV scoring	85.1	8	4.62	8	75	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07501110750117	Condition - with CCTV scoring	319.8	8	5.12	8	75	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07501140750112	Condition - with CCTV scoring	635.5	8	6	8	75	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
07501120750111	Condition - with CCTV scoring	136.6	8	3.75	8	75	1.54	0.0	0.0	6.2	No	CCTV	2031-2035	$ -				$ -	
05601180560106	Condition - with CCTV scoring	272.7	8	6.6	8	56	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
04601400460132	Condition - with CCTV scoring	164.6	8	5.91	8	46	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06401670640164	Condition - with CCTV scoring	147.9	8	4.41	8	64	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06401510640170	Condition - with CCTV scoring	392	8	4.9	8	64	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06400610640060	Condition - with CCTV scoring	356.5	8	4.95	8	64	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06400840640085	Condition - with CCTV scoring	372.2	8	5.36	8	64	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08700270870028	Condition - with CCTV scoring	430.7	8	7.23	8	87	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08700240870016	Condition - with CCTV scoring	457.6	8	7.23	8	87	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900560890054	Condition - with CCTV scoring	340.9	8	7.58	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900390890040	Condition - with CCTV scoring	68.2	8	7.99	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900410890042	Condition - with CCTV scoring	440.1	8	8	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900540890048	Condition - with CCTV scoring	150.9	8	8	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900370890038	Condition - with CCTV scoring	145	8	8	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900380890039	Condition - with CCTV scoring	158.8	8	8	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900400890041	Condition - with CCTV scoring	442.6	8	8	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900520890043	Condition - with CCTV scoring	390.4	8	7.75	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900420890043	Condition - with CCTV scoring	256	8	8	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900840880057	Condition - with CCTV scoring	422.8	8	8.08	8	88	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
08900240890022	Condition - with CCTV scoring	309.1	8	7.9	8	89	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
09701740970173	Condition - with CCTV scoring	349.8	8	6.01	8	97	1.53	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06600190650221	Condition - with CCTV scoring	300.8	8	7.65	8	65	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06502310660039	Condition - with CCTV scoring	392.2	8	7.28	8	65	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
04900210490020	Condition - with CCTV scoring	354.7	10	12.3	10	49	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
05600940560078	Condition - with CCTV scoring	597.2	8	4.5	8	56	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
05600150560232	Condition - with CCTV scoring	301.7	8	7.04	8	56	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
05602110560203	Condition - with CCTV scoring	316	8	3.01	8	56	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
04602480460250	Condition - with CCTV scoring	296.3	18	6.93	18	46	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06401720640111	Condition - with CCTV scoring	180.6	8	5.58	8	64	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
06400990640100	Condition - with CCTV scoring	325.9	8	5.14	8	64	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
03200370320039	Condition - with CCTV scoring	658.5	18	8.2	18	32	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
03200360320037	Condition - with CCTV scoring	503.2	18	9.57	18	32	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
07700190770014	Condition - with CCTV scoring	221.2	8	7.92	8	77	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
07700390770019	Condition - with CCTV scoring	322.9	8	7.99	8	77	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
07701230770120	Condition - with CCTV scoring	211.1	10	5.46	10	77	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
07300780730028	Condition - with CCTV scoring	143.1	8	5.36	8	73	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
07200980720099	Condition - with CCTV scoring	243	8	6	8	72	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
09600470960046	Condition - with CCTV scoring	316	6	6.43	8	96	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
09600480960047	Condition - with CCTV scoring	229	6	6.9	8	96	1.52	0.0	0.0	6.1	No	CCTV	2031-2035	$ -				$ -	
04300200430019	Condition - with CCTV scoring	144.1	21	9.47	21	43	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
06200820620080	Condition - with CCTV scoring	65.2	8	5.72	8	62	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900580890047	Condition - with CCTV scoring	470.9	8	6.65	8	89	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07900030790004	Condition - with CCTV scoring	472.4	12	7.95	12	79	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900190890020	Condition - with CCTV scoring	396	8	7.84	8	89	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07201920720052	Condition - with CCTV scoring	330.2	8	6.94	8	73	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07200880720087	Condition - with CCTV scoring	80.9	8	6.24	8	72	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07400300740031	Condition - with CCTV scoring	319.9	6	3.91	8	74	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07501760750173	Condition - with CCTV scoring	242.8	8	4.67	8	75	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07600860760083	Condition - with CCTV scoring	460.9	8	10.86	8	76	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07600850760086	Condition - with CCTV scoring	271.1	8	10.19	8	76	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07200240720023	Condition - with CCTV scoring	264.1	8	7.86	8	72	1.51	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
04801560580014	Condition - with CCTV scoring	287.1	12	8.94	12	48	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
05502230550130	Condition - with CCTV scoring	449.1	12	8.26	12	55	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
06300300630026	Condition - with CCTV scoring	98.7	8	6.84	8	63	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
06301380630030	Condition - with CCTV scoring	249.2	8	7.04	8	63	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
06401430640144	Condition - with CCTV scoring	270.4	8	4.9	8	64	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
01200350120036	Condition - with CCTV scoring	499.5	12	9.03	12	12	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
09700730970072	Condition - with CCTV scoring	339.5	8	6.32	8	97	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
09700970970098	Condition - with CCTV scoring	107.4	12	7.29	12	97	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08800700880041	Condition - with CCTV scoring	62.5	8	8.78	8	88	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08800730880070	Condition - with CCTV scoring	197.6	8	8.88	8	88	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
09800200880073	Condition - with CCTV scoring	342.4	8	6.2	8	88	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900260890025	Condition - with CCTV scoring	113	8	8.44	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900610890059	Condition - with CCTV scoring	135.6	8	8.72	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900640890061	Condition - with CCTV scoring	202.9	8	8.16	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900620890063	Condition - with CCTV scoring	116	8	9.66	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900630890065	Condition - with CCTV scoring	141.6	8	9.56	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900590890060	Condition - with CCTV scoring	155.4	8	8.48	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900600890062	Condition - with CCTV scoring	175.9	8	9.07	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08900650890067	Condition - with CCTV scoring	150	8	9.2	8	89	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08800410880038	Condition - with CCTV scoring	218.8	8	8.93	8	88	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
08800400880042	Condition - with CCTV scoring	490.9	12	7.41	12	88	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
09800230980022	Condition - with CCTV scoring	339.9	8	9.1	8	98	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07701640770119	Condition - with CCTV scoring	65.9	21	4.59	21	77	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07701190770118	Condition - with CCTV scoring	316.3	21	4.1	21	77	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07701210770122	Condition - with CCTV scoring	356.9	10	7.48	10	77	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07301520730150	Condition - with CCTV scoring	254.3	8	7.51	8	73	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07300290720211	Condition - with CCTV scoring	228.7	8	6.1	8	73	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07300990730096	Condition - with CCTV scoring	350.4	8	7.78	8	73	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07200990720097	Condition - with CCTV scoring	267.1	8	6.05	8	72	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07400400740039	Condition - with CCTV scoring	278.7	8	8.33	8	74	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07201010720045	Condition - with CCTV scoring	245.2	8	7.88	8	72	1.5	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
03300570330002	Condition - with CCTV scoring	663.9	21	7.94	21	33	1.49	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07800260780027	Condition - with CCTV scoring	320.5	10	9.72	10	78	1.49	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07800250780026	Condition - with CCTV scoring	315.5	10	9.76	10	78	1.49	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07301570730158	Condition - with CCTV scoring	419.5	8	6.03	8	73	1.49	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
07501970750196	Condition - with CCTV scoring	155.4	8	5.3	8	75	1.49	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
09600400960039	Condition - with CCTV scoring	205	6	5.85	8	96	1.49	0.0	0.0	6.0	No	CCTV	2031-2035	$ -				$ -	
06601000660089	Condition - with CCTV scoring	89	8	4.83	8	66	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
04900200480159	Condition - with CCTV scoring	327.4	12	10.84	12	48	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
04600410460042	Condition - with CCTV scoring	183.4	8	8.61	8	46	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
06400220640024	Condition - with CCTV scoring	327.8	8	3.46	8	64	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
03600430360041	Condition - with CCTV scoring	501.2	12	5.63	12	36	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
09700700970040	Condition - with CCTV scoring	382.4	8	5.79	8	97	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
08700280870017	Condition - with CCTV scoring	34.3	8	4.69	8	87	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
08900250890023	Condition - with CCTV scoring	218.8	8	8.33	8	89	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07201860720187	Condition - with CCTV scoring	199.3	8	5.66	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300690730049	Condition - with CCTV scoring	130.5	8	8.14	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300620730060	Condition - with CCTV scoring	161.5	8	8.37	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300030730001	Condition - with CCTV scoring	286	8	9.82	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300590730041	Condition - with CCTV scoring	345.8	8	8.24	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300460730057	Condition - with CCTV scoring	271.4	8	8.16	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300400730048	Condition - with CCTV scoring	152	8	8.21	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300540730053	Condition - with CCTV scoring	143.2	8	8.36	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300680730055	Condition - with CCTV scoring	264.4	8	9.07	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300470730048	Condition - with CCTV scoring	262.3	8	8.2	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07300480730069	Condition - with CCTV scoring	135.5	8	8.18	8	73	1.48	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
06301140630116	Condition - with CCTV scoring	160.9	8	7.54	8	63	1.47	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
08700460870045	Condition - with CCTV scoring	269.4	8	5	8	87	1.47	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
08900450890033	Condition - with CCTV scoring	272.3	15	12.15	15	89	1.47	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07400680740067	Condition - with CCTV scoring	309.9	8	5.62	8	74	1.47	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07502100750209	Condition - with CCTV scoring	200.2	8	6.8	8	75	1.47	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07501790750174	Condition - with CCTV scoring	121.2	8	0.75	8	75	1.47	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	
07600840760085	Condition - with CCTV scoring	245.7	8	9.56	8	76	1.47	0.0	0.0	5.9	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04600460460044	Condition - with CCTV scoring	67	8	4.4	8	46	1.46	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06201040630032	Condition - with CCTV scoring	288	8	5.54	8	63	1.46	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06200100620009	Condition - with CCTV scoring	120.8	8	5.5	8	62	1.46	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06200130620011	Condition - with CCTV scoring	121.7	8	4.74	8	62	1.46	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
03300460330045	Condition - with CCTV scoring	632.9	15	7.44	15	33	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
04600200460025	Condition - with CCTV scoring	253.1	8	5.2	8	46	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
04500350450034	Condition - with CCTV scoring	316.4	8	3.93	8	45	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
05600800560077	Condition - with CCTV scoring	24.6	8	7.12	8	56	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06401650640162	Condition - with CCTV scoring	96.6	8	2.05	8	64	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06200010620002	Condition - with CCTV scoring	165.9	8	3.63	8	62	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06300230630019	Condition - with CCTV scoring	117.1	8	4.62	8	63	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06300280630027	Condition - with CCTV scoring	359.9	8	5.37	8	63	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06300290630031	Condition - with CCTV scoring	374.3	8	5.25	8	63	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06301130630112	Condition - with CCTV scoring	267.2	8	5.79	8	63	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06401620640161	Condition - with CCTV scoring	174.3	8	5	8	64	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06401640640162	Condition - with CCTV scoring	111.9	8	4.91	8	64	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06401660640164	Condition - with CCTV scoring	175.8	8	3.98	8	64	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06401680640166	Condition - with CCTV scoring	148.8	8	4.96	8	64	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
06400960640100	Condition - with CCTV scoring	198.5	8	4.9	8	64	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
01300400130020	Condition - with CCTV scoring	144.6	12	6.93	12	13	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700770970076	Condition - with CCTV scoring	164.3	8	5.28	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700720970074	Condition - with CCTV scoring	258.8	8	5.63	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700750970074	Condition - with CCTV scoring	108.5	8	5.13	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700760970075	Condition - with CCTV scoring	141.8	8	5.36	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09701060970057	Condition - with CCTV scoring	158.1	8	6.37	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09701210970123	Condition - with CCTV scoring	148.3	8	6.14	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700780970077	Condition - with CCTV scoring	178.9	8	5.15	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700800970073	Condition - with CCTV scoring	126.9	8	6.49	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700550970054	Condition - with CCTV scoring	325	8	7.41	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700710970070	Condition - with CCTV scoring	374.8	8	6.04	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08700230870024	Condition - with CCTV scoring	197.2	8	6.58	8	87	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08700260870027	Condition - with CCTV scoring	197.1	8	6.58	8	87	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09700080970006	Condition - with CCTV scoring	171	8	8.05	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09701130970114	Condition - with CCTV scoring	157	8	6.32	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09701150970088	Condition - with CCTV scoring	146	8	6.07	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09701140970115	Condition - with CCTV scoring	283.4	8	6.27	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09701340970107	Condition - with CCTV scoring	251.3	8	7	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09701070970106	Condition - with CCTV scoring	190.9	8	7.12	8	97	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900550890052	Condition - with CCTV scoring	354	8	6.85	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900490890040	Condition - with CCTV scoring	372	8	7.88	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900760890063	Condition - with CCTV scoring	437	8	6.91	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900750890060	Condition - with CCTV scoring	415	8	7.05	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900740890061	Condition - with CCTV scoring	400.8	8	6.86	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900730890066	Condition - with CCTV scoring	364.7	8	7.43	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900170890026	Condition - with CCTV scoring	240.9	8	7.2	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900500890051	Condition - with CCTV scoring	365.6	8	7.89	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900510890052	Condition - with CCTV scoring	349.4	8	7.75	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900290890040	Condition - with CCTV scoring	176	8	7.3	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900770890067	Condition - with CCTV scoring	472	8	7.05	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900660890064	Condition - with CCTV scoring	99.8	8	7.76	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08800570880058	Condition - with CCTV scoring	424.4	8	8.29	8	88	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08800580880059	Condition - with CCTV scoring	403.8	8	8.18	8	88	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08800590880060	Condition - with CCTV scoring	398.9	8	7.37	8	88	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900820890081	Condition - with CCTV scoring	339.5	10	4.76	10	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
08900530890050	Condition - with CCTV scoring	266.5	8	7.88	8	89	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07800430780041	Condition - with CCTV scoring	261	8	4.07	8	78	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07800460780043	Condition - with CCTV scoring	333.1	8	4.22	8	78	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07301110730124	Condition - with CCTV scoring	239.1	8	8.21	8	73	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07301540730153	Condition - with CCTV scoring	151.9	8	5.72	8	73	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07301490730148	Condition - with CCTV scoring	198.6	8	6.67	8	73	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07301240730088	Condition - with CCTV scoring	153.2	8	9.08	8	73	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07200970720101	Condition - with CCTV scoring	253.8	8	6	8	72	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
09600950960092	Condition - with CCTV scoring	167.2	8	6.3	8	96	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07601570860104	Condition - with CCTV scoring	295.4	8	13.8	8	76	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07400390740038	Condition - with CCTV scoring	279.4	8	6.97	8	74	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07201420720140	Condition - with CCTV scoring	344.3	8	6.22	8	72	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07502120750138	Condition - with CCTV scoring	130.9	8	3.29	8	75	1.45	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07300710730072	Condition - with CCTV scoring	280.1	8	8.62	8	73	1.44	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07301580730156	Condition - with CCTV scoring	308	8	4.33	8	73	1.44	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
07501730750172	Condition - with CCTV scoring	450.1	8	6	8	75	1.44	0.0	0.0	5.8	No	CCTV	2031-2035	$ -				$ -	
04600850460082	Condition - with CCTV scoring	447.8	8	5	8	46	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
04601460460145	Condition - with CCTV scoring	489.6	8	5	8	46	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
06300260630027	Condition - with CCTV scoring	265.6	8	6.85	8	63	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
06300430630042	Condition - with CCTV scoring	295.8	8	7.21	8	63	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
06301340630133	Condition - with CCTV scoring	352.4	8	7.49	8	63	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
06300070630134	Condition - with CCTV scoring	348.7	8	7.56	8	63	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
03900200390021	Condition - with CCTV scoring	224.8	8	6.01	8	39	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300700730049	Condition - with CCTV scoring	306.2	8	7.98	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300490730050	Condition - with CCTV scoring	128.4	8	8	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300020730001	Condition - with CCTV scoring	379.4	8	7.6	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300500730051	Condition - with CCTV scoring	42.3	8	6.45	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300430730049	Condition - with CCTV scoring	154	8	7.58	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300410730039	Condition - with CCTV scoring	192.3	8	7.74	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300370730036	Condition - with CCTV scoring	112.1	8	8.71	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300440730045	Condition - with CCTV scoring	155	8	7.39	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300450730047	Condition - with CCTV scoring	148.5	8	7.94	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300530730062	Condition - with CCTV scoring	126	8	7.99	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07300640730053	Condition - with CCTV scoring	108.5	8	7.93	8	73	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07200650720064	Condition - with CCTV scoring	95.7	8	6.24	8	72	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
07201640720162	Condition - with CCTV scoring	96.2	8	7.164	8	72	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
06300430630042	Condition - with CCTV scoring	136.7	8	7.6	8	63	1.43	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
05800260580033	Condition - with CCTV scoring	132.9	12	10.1	12	58	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
03300450330001	Condition - with CCTV scoring	487.3	15	8.15	15	33	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
03300010430057	Condition - with CCTV scoring	418.3	15	8.32	15	33	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
04300570430056	Condition - with CCTV scoring	584.3	15	8.38	15	43	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
04502140450054	Condition - with CCTV scoring	150	8	6.58	8	45	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
04500540450053	Condition - with CCTV scoring	688.2	8	6.21	8	45	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
01200360120004	Condition - with CCTV scoring	478.8	12	8.95	12	12	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
08601040860105	Condition - with CCTV scoring	242.8	12	13.82	12	86	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
08601050860103	Condition - with CCTV scoring	326.2	12	13.25	12	86	1.42	0.0	0.0	5.7	No	CCTV	2031-2035	$ -				$ -	
04601280450246	Condition - with CCTV scoring	336.7	8	5.57	8	45	1.41	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
04300260430027	Condition - with CCTV scoring	654.8	21	7.97	21	43	1.41	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08500190850018	Condition - with CCTV scoring	218.8	8	4	8	85	1.41	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
05600330560034	Condition - with CCTV scoring	112	8	4.14	8	56	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
06301360630104	Condition - with CCTV scoring	273.4	8	7.42	8	63	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
06200310620030	Condition - with CCTV scoring	299.6	8	5.18	8	62	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
06401610640144	Condition - with CCTV scoring	172.4	8	5.11	8	64	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
06401600640159	Condition - with CCTV scoring	255.3	8	4.56	8	64	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700220970021	Condition - with CCTV scoring	174	8	6.84	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700680870065	Condition - with CCTV scoring	383.9	8	4.18	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700620870063	Condition - with CCTV scoring	200.6	8	5.5	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700640870058	Condition - with CCTV scoring	414.6	8	5.5	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700630870057	Condition - with CCTV scoring	12.9	8	5.86	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700650870057	Condition - with CCTV scoring	7	8	5.86	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700620870059	Condition - with CCTV scoring	412.1	8	5.5	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700690870070	Condition - with CCTV scoring	7	8	5.01	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700670870070	Condition - with CCTV scoring	13	8	5.01	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07700250870067	Condition - with CCTV scoring	275.6	8	4.42	8	77	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07700270870069	Condition - with CCTV scoring	275.9	8	4.42	8	77	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700680870069	Condition - with CCTV scoring	206.4	8	4.18	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
08700660870063	Condition - with CCTV scoring	383	8	4.18	8	87	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09701080970080	Condition - with CCTV scoring	101.1	8	5.03	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700020970001	Condition - with CCTV scoring	111	8	6.99	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700150970011	Condition - with CCTV scoring	155	8	8.05	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700290970025	Condition - with CCTV scoring	122	8	8.45	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700250970027	Condition - with CCTV scoring	234	8	8.72	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700200970021	Condition - with CCTV scoring	86	8	6.61	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700180970020	Condition - with CCTV scoring	321	8	8.05	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700870970089	Condition - with CCTV scoring	117.6	8	5.82	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700880970087	Condition - with CCTV scoring	120	8	5.82	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09701110970113	Condition - with CCTV scoring	186	8	5.51	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07800400780041	Condition - with CCTV scoring	342.5	8	4.29	8	78	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07301100730111	Condition - with CCTV scoring	390	8	8.24	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300760730110	Condition - with CCTV scoring	215.1	8	8.19	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07301070730105	Condition - with CCTV scoring	258.9	8	6.52	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07301040730105	Condition - with CCTV scoring	267.9	8	6.53	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
07300900730086	Condition - with CCTV scoring	158.4	6	8.28	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300890730087	Condition - with CCTV scoring	165.8	6	9.45	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300870730088	Condition - with CCTV scoring	285.1	8	7.91	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300850730087	Condition - with CCTV scoring	276.2	8	8.12	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300860730085	Condition - with CCTV scoring	143.9	6	8.27	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07301060730125	Condition - with CCTV scoring	319.5	8	6.34	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300940730093	Condition - with CCTV scoring	108.9	6	8.18	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300930730084	Condition - with CCTV scoring	135.1	6	8.23	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07301500730148	Condition - with CCTV scoring	352.3	8	8.42	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07301220740026	Condition - with CCTV scoring	320.8	8	8.34	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07300730730070	Condition - with CCTV scoring	267.9	8	8.1	8	73	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09601100960109	Condition - with CCTV scoring	224.6	6	4.67	8	96	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09600930960092	Condition - with CCTV scoring	270.4	8	5.1	8	96	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09600990960098	Condition - with CCTV scoring	398.9	6	6.44	8	96	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700830970060	Condition - with CCTV scoring	229	8	7.37	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700840970042	Condition - with CCTV scoring	351.8	10	5.5	10	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700590970058	Condition - with CCTV scoring	193.8	6	6.25	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700580970049	Condition - with CCTV scoring	138	6	6.56	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700600970047	Condition - with CCTV scoring	126.2	8	6.67	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700490960114	Condition - with CCTV scoring	250	6	6.55	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09600460960044	Condition - with CCTV scoring	240	6	5.63	8	96	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
09700860970084	Condition - with CCTV scoring	448.3	8	5.73	8	97	1.4	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
04501000450099	Condition - with CCTV scoring	177.7	8	4.44	8	45	1.39	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07800270780023	Condition - with CCTV scoring	400.9	12	9.52	12	78	1.39	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
07501720750072	Condition - with CCTV scoring	313.7	8	6.7	8	75	1.39	0.0	0.0	5.6	No	CCTV	2031-2035	$ -				$ -	
04600190460020	Condition - with CCTV scoring	353.3	8	5.2	8	46	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04502100450188	Condition - with CCTV scoring	435.9	8	5.1	8	45	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04502370450231	Condition - with CCTV scoring	370.8	8	7.64	8	45	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06301200630121	Condition - with CCTV scoring	264.3	8	4.23	8	63	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06301220630121	Condition - with CCTV scoring	446.2	8	5.78	8	63	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06300330630021	Condition - with CCTV scoring	268.3	8	5.97	8	63	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06300250630021	Condition - with CCTV scoring	340.9	8	5.73	8	63	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06300100630009	Condition - with CCTV scoring	302.3	8	8.03	8	63	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06400370640034	Condition - with CCTV scoring	52.7	8	4.44	8	64	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
08900160890023	Condition - with CCTV scoring	309.5	8	5.4	8	89	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07300210730022	Condition - with CCTV scoring	169.6	8	7.6	8	73	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07300360730035	Condition - with CCTV scoring	276.6	8	6.21	8	73	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07300350730003	Condition - with CCTV scoring	272.8	8	6.1	8	73	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07300340730005	Condition - with CCTV scoring	468.8	8	6.88	8	73	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07300420730043	Condition - with CCTV scoring	351.2	8	6.72	8	73	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07300380730037	Condition - with CCTV scoring	262.6	8	7.71	8	73	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07200640720066	Condition - with CCTV scoring	321.1	8	4.61	8	72	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07501610750159	Condition - with CCTV scoring	388.6	8	5.92	8	75	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
07201560720142	Condition - with CCTV scoring	281.8	8	6	8	72	1.38	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
05601100550244	Condition - with CCTV scoring	517.9	8	5	8	55	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04502550450256	Condition - with CCTV scoring	368.8	8	5.97	8	45	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04502790450214	Condition - with CCTV scoring	29	8	6	8	45	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06200370620033	Condition - with CCTV scoring	173.3	8	5.69	8	62	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
06201210620112	Condition - with CCTV scoring	203.9	8	5.4	8	62	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04500950450090	Condition - with CCTV scoring	343.4	8	5	8	45	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04500940450090	Condition - with CCTV scoring	247.3	8	4.85	8	45	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04401310450094	Condition - with CCTV scoring	247.5	8	4.4	8	44	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04500930450091	Condition - with CCTV scoring	253.2	8	4.2	8	45	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04501260450125	Condition - with CCTV scoring	512.9	8	5.12	8	45	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04501230450122	Condition - with CCTV scoring	475.9	8	5.25	8	45	1.37	0.0	0.0	5.5	No	CCTV	2031-2035	$ -				$ -	
04500560450052	Condition - with CCTV scoring	220.6	12	8.44	12	45	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
04500540450215	Condition - with CCTV scoring	188.8	8	6.21	8	45	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
06401970640196	Condition - with CCTV scoring	308.5	8	6.3	8	64	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700900970085	Condition - with CCTV scoring	224	8	5.86	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700910970090	Condition - with CCTV scoring	427	8	5.83	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700890970090	Condition - with CCTV scoring	61	8	5.97	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700160970014	Condition - with CCTV scoring	145	8	8	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700110970008	Condition - with CCTV scoring	174	8	8.05	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700130970009	Condition - with CCTV scoring	196	8	6.89	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700380970034	Condition - with CCTV scoring	161	8	6.49	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700340970030	Condition - with CCTV scoring	273	8	6.27	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700280970027	Condition - with CCTV scoring	88	8	7.56	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700310970029	Condition - with CCTV scoring	246	8	7.64	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
09700260970025	Condition - with CCTV scoring	318	8	7.78	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700350970031	Condition - with CCTV scoring	183	8	6.65	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700190970018	Condition - with CCTV scoring	321	8	8.05	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07800500780044	Condition - with CCTV scoring	288.2	8	6.1	8	78	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07800490780050	Condition - with CCTV scoring	307.8	8	6.15	8	78	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07300840730085	Condition - with CCTV scoring	280.1	8	7.95	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07300830730084	Condition - with CCTV scoring	377.4	6	7.5	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07300740730076	Condition - with CCTV scoring	227.2	8	7.93	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301250730126	Condition - with CCTV scoring	197.9	8	5.78	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301210730122	Condition - with CCTV scoring	284.5	8	7.23	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301480730147	Condition - with CCTV scoring	157.8	8	6.57	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301470730144	Condition - with CCTV scoring	337.1	8	6.55	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301440730145	Condition - with CCTV scoring	336.8	8	6.68	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301390730140	Condition - with CCTV scoring	367.4	8	6.02	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301300730129	Condition - with CCTV scoring	333.7	8	6.63	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301290730127	Condition - with CCTV scoring	49.4	8	5.34	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
07301270730128	Condition - with CCTV scoring	150.9	8	5.09	8	73	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09601110960109	Condition - with CCTV scoring	85	6	5.13	8	96	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09601040960095	Condition - with CCTV scoring	190	6	6.09	8	96	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09601150970058	Condition - with CCTV scoring	123	6	5.15	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09601050960095	Condition - with CCTV scoring	240	6	6.07	8	96	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700850970084	Condition - with CCTV scoring	183.5	8	4.66	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
09700690970081	Condition - with CCTV scoring	118.8	8	5.88	8	97	1.35	0.0	0.0	5.4	No	CCTV	2031-2035	$ -				$ -	
04601340460135	Condition - with CCTV scoring	80.1	6	6.65	8	46	1.33	0.0	0.0	5.3	No	CCTV	2031-2035	$ -				$ -	
04601230460122	Condition - with CCTV scoring	236.5	6	6.85	8	46	1.33	0.0	0.0	5.3	No	CCTV	2031-2035	$ -				$ -	
06300090630137	Condition - with CCTV scoring	287	8	7.48	8	63	1.33	0.0	0.0	5.3	No	CCTV	2031-2035	$ -				$ -	
07201570720142	Condition - with CCTV scoring	125.7	8	4.9	8	72	1.33	0.0	0.0	5.3	No	CCTV	2031-2035	$ -				$ -	
06200320620020	Condition - with CCTV scoring	263.8	8	5.88	8	62	1.32	0.0	0.0	5.3	No	CCTV	2031-2035	$ -				$ -	
04501730450170	Condition - with CCTV scoring	20.1	8	8.07	8	45	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
04501890450188	Condition - with CCTV scoring	503	8	4.14	8	45	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06201090620110	Condition - with CCTV scoring	204.5	8	5.35	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06201120620111	Condition - with CCTV scoring	140.4	8	5.43	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200110620009	Condition - with CCTV scoring	263.3	8	6.04	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200150620016	Condition - with CCTV scoring	350.9	8	5.99	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200170620018	Condition - with CCTV scoring	370.6	8	5.84	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200200620018	Condition - with CCTV scoring	271.6	8	6.05	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200550620056	Condition - with CCTV scoring	86.1	8	5.5	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200630620064	Condition - with CCTV scoring	301	8	5.54	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200920620086	Condition - with CCTV scoring	247	8	5.51	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
06200870620085	Condition - with CCTV scoring	283.3	8	5.5	8	62	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700120970011	Condition - with CCTV scoring	129	8	7.95	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700050970003	Condition - with CCTV scoring	133	8	6.74	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700030970002	Condition - with CCTV scoring	106	8	6.79	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700300970028	Condition - with CCTV scoring	157	8	5.76	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700320970026	Condition - with CCTV scoring	394	8	5.29	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700330970035	Condition - with CCTV scoring	241	8	6.17	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700370970038	Condition - with CCTV scoring	218	8	5.74	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700360970037	Condition - with CCTV scoring	196	8	5.39	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09700100970012	Condition - with CCTV scoring	195	8	7.76	8	97	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
07800420780044	Condition - with CCTV scoring	237.3	8	4.54	8	78	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
07800480780049	Condition - with CCTV scoring	302.6	8	5.97	8	78	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
07301360730139	Condition - with CCTV scoring	374.2	8	5.48	8	73	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
07301530730150	Condition - with CCTV scoring	148.4	8	5.85	8	73	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
07300520730071	Condition - with CCTV scoring	349.6	8	8.1	8	73	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
07301380730136	Condition - with CCTV scoring	91.1	8	5	8	73	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
09601060960105	Condition - with CCTV scoring	180	6	5.78	8	96	1.3	0.0	0.0	5.2	No	CCTV	2031-2035	$ -				$ -	
04502340450233	Condition - with CCTV scoring	115.5	6	3.26	8	45	1.28	0.0	0.0	5.1	No	CCTV	2031-2035	$ -				$ -	
04601350460123	Condition - with CCTV scoring	118.1	6	5.5	8	46	1.28	0.0	0.0	5.1	No	CCTV	2031-2035	$ -				$ -	
04502330450232	Condition - with CCTV scoring	173.6	6	3.37	8	45	1.28	0.0	0.0	5.1	No	CCTV	2031-2035	$ -				$ -	
04502320460125	Condition - with CCTV scoring	190.7	6	4.79	8	45	1.28	0.0	0.0	5.1	No	CCTV	2031-2035	$ -				$ -	
04502160450101	Condition - with CCTV scoring	344.2	8	5	8	45	1.27	0.0	0.0	5.1	No	CCTV	2031-2035	$ -				$ -	
04500590450058	Condition - with CCTV scoring	357.3	8	6.74	8	45	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
04500410450040	Condition - with CCTV scoring	458.4	8	5	8	45	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
04500580450056	Condition - with CCTV scoring	268	8	7	8	45	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
04502240450223	Condition - with CCTV scoring	247.9	8	7.58	8	45	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
04502440450243	Condition - with CCTV scoring	271.2	8	6.05	8	45	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
06200180620016	Condition - with CCTV scoring	270.7	8	5.06	8	62	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
06200160620012	Condition - with CCTV scoring	266.8	8	5.24	8	62	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	PACP Score	Adjusted Risk Score	Capacity Study	Action	Time Horizon	ProjectCost	Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
04501010450095	Condition - with CCTV scoring	362.2	8	5	8	45	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
07300670730068	Condition - with CCTV scoring	378.1	8	7.9	8	73	1.25	0.0	0.0	5.0	No	CCTV	2031-2035	$ -				$ -	
04300550430054	Condition - with CCTV scoring	567.9	15	8.4	15	43	1.2	0.0	0.0	4.8	No	CCTV	2031-2035	$ -				$ -	
04300560430055	Condition - with CCTV scoring	576.8	15	8.15	15	43	1.2	0.0	0.0	4.8	No	CCTV	2031-2035	$ -				$ -	
04502600450258	Condition - with CCTV scoring	163.7	8	5	8	45	1.2	0.0	0.0	4.8	No	CCTV	2031-2035	$ -				$ -	
04500180450015	Condition - with CCTV scoring	482.1	8	5.4	8	45	1.2	0.0	0.0	4.8	No	CCTV	2031-2035	$ -				$ -	
04500430450042	Condition - with CCTV scoring	465.2	8	5	8	45	1.2	0.0	0.0	4.8	No	CCTV	2031-2035	$ -				$ -	
04601660460167	Condition - with CCTV scoring	233.9	8	4	8	46	1.2	0.0	0.0	4.8	No	CCTV	2031-2035	$ -				$ -	
04502190450220	Condition - with CCTV scoring	150.4	8	5	8	45	1.2	0.0	0.0	4.8	No	CCTV	2031-2035	$ -				$ -	

Adjusted Risk Scores -
Pipes Without CCTV Footage

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
0860134_SplitBox03	Condition - with no CCTV scoring	565.5	36	2.0	36	86	3.8	2.9	11.0	100.0	No	Highest Priority
05600490560039	Condition - with no CCTV scoring	39.9	8	7.3	8	56	3.1	3.5	10.7	97.8	Yes	Highest Priority
05501540560032	Condition - with no CCTV scoring	680	8	5.5	8	55	2.8	3.9	10.6	96.3	Yes	High Priority
05600320560031	Condition - with no CCTV scoring	736.7	8	4.9	8	56	2.6	3.9	10.2	92.5	Yes	Highest Priority
07601470760161	Condition - with no CCTV scoring	21	45	18.9	48	76	4.1	2.4	9.9	90.4	No	Highest Priority
07601260760147	Condition - with no CCTV scoring	407	45	21.6	48	76	4.1	2.4	9.9	90.4	No	Highest Priority
05600500560049	Condition - with no CCTV scoring	433	21	7.4	21	56	3.2	3.1	9.7	88.0	No	Highest Priority
0860134SPLITBOX	Condition - with no CCTV scoring	565.5	36	2.0	36	86	3.8	2.6	9.7	87.9	No	Highest Priority
05501480550154	Condition - with no CCTV scoring	487.7	15	7.4	15	55	2.7	3.5	9.6	87.3	Yes	High Priority
06800470680046	Condition - with no CCTV scoring	642.8	24	8.7	24	68	2.8	3.4	9.6	87.2	No	Lowest Priority
05800650580066	Condition - with no CCTV scoring	77.3	14	22.9	15	58	3.2	3.0	9.6	87.0	No	High Priority
05800650580066	Condition - with no CCTV scoring	94.6	24	22.9	24	58	3.2	3.0	9.6	87.0	No	High Priority
08600680860069	Condition - with no CCTV scoring	838	20	3.9	21	86	3.5	2.7	9.5	86.7	No	Highest Priority
08600680860069	Condition - with no CCTV scoring	829.6	16	3.9	18	86	3.5	2.7	9.5	86.7	No	Highest Priority
06602310660230	Condition - with no CCTV scoring	477.4	30	13.7	30	66	3.9	2.4	9.4	85.6	No	Highest Priority
06602300660210	Condition - with no CCTV scoring	483.8	30	12.3	30	66	3.9	2.4	9.4	85.6	No	Highest Priority
06601460660158	Condition - with no CCTV scoring	333.2	8	6.4	8	66	2.4	4.0	9.4	85.2	Yes	Highest Priority
08600700860071	Condition - with no CCTV scoring	352.4	30	6.1	30	86	4.1	2.3	9.3	85.0	No	Highest Priority
06600720660058	Condition - with no CCTV scoring	352.8	8	6.1	8	66	2.2	4.2	9.3	84.8	Yes	Highest Priority
08600120860036	Condition - with no CCTV scoring	493.1	10	1.0	10	86	3.2	2.9	9.3	84.2	No	Highest Priority
07501000750132	Condition - with no CCTV scoring	20.6	24	14.6	24	75	2.8	3.3	9.2	83.8	No	Highest Priority
07301780730179	Condition - with no CCTV scoring	99.7	10	7.1	10	73	2.4	3.9	9.2	83.7	No	High Priority
07301810730182	Condition - with no CCTV scoring	326.7	10	8.3	10	73	2.4	3.8	9.2	83.2	No	High Priority
07301800730181	Condition - with no CCTV scoring	316.7	10	8.7	10	73	2.4	3.8	9.2	83.2	No	High Priority
06602100660209	Condition - with no CCTV scoring	366.6	30	11.7	30	66	3.8	2.4	9.1	82.8	No	Highest Priority
06800420680041	Condition - with no CCTV scoring	137	14	12.4	15	68	3.2	2.9	9.1	82.7	No	Lowest Priority
06800420680041	Condition - with no CCTV scoring	143.7	24	12.4	24	68	3.2	2.9	9.1	82.7	No	Lowest Priority
05601330560132	Condition - with no CCTV scoring	435.5	27	15.5	27	56	3.8	2.4	9.0	82.1	No	Highest Priority
05600310560029	Condition - with no CCTV scoring	337.7	8	5.0	8	56	2.3	3.9	8.9	81.3	Yes	Highest Priority
08600050760030	Condition - with no CCTV scoring	1787.3	8	6.0	8	76	3.1	2.9	8.9	81.0	No	Highest Priority
04602380460232	Condition - with no CCTV scoring	316.1	21	8.4	21	46	2.8	3.2	8.9	80.8	No	Highest Priority
06601580660159	Condition - with no CCTV scoring	374.6	8	5.9	8	66	2.2	4.0	8.8	80.5	Yes	Highest Priority
06602280660229	Condition - with no CCTV scoring	532.1	27	9.0	27	66	3.5	2.5	8.8	80.1	No	Highest Priority
06602360660237	Condition - with no CCTV scoring	378.4	27	14.1	27	66	3.7	2.4	8.8	79.7	No	Highest Priority
07600580760251	Condition - with no CCTV scoring	265.5	24	10.2	24	76	2.7	3.3	8.7	79.6	No	Highest Priority
06602290660206	Condition - with no CCTV scoring	353.9	27	13.4	27	66	3.6	2.4	8.7	79.5	No	Highest Priority
05700100570006	Condition - with no CCTV scoring	239.7	10	5.0	10	57	2.5	3.5	8.6	78.7	Yes	Highest Priority
04701660460238	Condition - with no CCTV scoring	306.4	21	11.8	21	46	2.4	3.5	8.5	77.7	No	Highest Priority
06602340660232	Condition - with no CCTV scoring	394.2	27	10.1	27	66	3.6	2.4	8.5	77.5	No	Highest Priority
04800980480095	Condition - with no CCTV scoring	309.8	8	5.1	8	48	2.3	3.7	8.5	77.1	No	High Priority
05601320660235	Condition - with no CCTV scoring	376.5	27	13.9	27	56	3.5	2.4	8.5	77.1	No	Highest Priority
LIFTSTA0660157	Condition - with no CCTV scoring	192.6	8	6.0	8	66	2.5	3.4	8.5	77.0	No	Highest Priority
06602370660238	Condition - with no CCTV scoring	342.8	30	13.9	30	66	3.5	2.4	8.4	76.6	No	Highest Priority
05500160550008	Condition - with no CCTV scoring	683.6	10	6.3	10	55	2.5	3.3	8.3	76.0	No	High Priority
07700420770041	Condition - with no CCTV scoring	602.2	54	10.0	54	77	3.7	2.3	8.3	75.9	No	Highest Priority
05501490550147	Condition - with no CCTV scoring	547	12	7.2	12	55	2.4	3.5	8.3	75.5	No	High Priority
06602380660188	Condition - with no CCTV scoring	249.7	30	14.0	30	66	3.4	2.4	8.3	75.1	No	Highest Priority
03601570360154	Condition - with no CCTV scoring	295.9	33	11.3	36	36	4.0	2.1	8.2	74.8	No	High Priority
07301320730133	Condition - with no CCTV scoring	357.5	12	15.1	12	73	2.5	3.3	8.2	74.8	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05603120560312	Condition - with no CCTV scoring	606.8	8	12.0	8	56	2.0	4.1	8.1	74.1	No	Highest Priority
08700870970180	Condition - with no CCTV scoring	265.1	8	9.9	8	87	2.5	3.3	8.1	73.6	No	Moderate Priority
07201970730025	Condition - with no CCTV scoring	244.3	12	15.7	12	72	2.7	3.0	8.1	73.5	No	Moderate Priority
07502460750245	Condition - with no CCTV scoring	72.2	8	19.5	8	75	3.2	2.5	8.0	73.0	No	Highest Priority
07502460750245	Condition - with no CCTV scoring	714.7	8	20.7	8	75	3.2	2.5	8.0	73.0	No	Highest Priority
03801060380042	Condition - with no CCTV scoring	150	8	8.8	8	38	2.4	3.4	8.0	72.7	Yes	Low Priority
03601540360155	Condition - with no CCTV scoring	349.7	33	9.6	36	36	3.7	2.2	8.0	72.6	No	High Priority
08601160860002	Condition - with no CCTV scoring	305	54	20.6	54	86	3.9	2.1	8.0	72.6	No	Highest Priority
08600020860112	Condition - with no CCTV scoring	259.8	54	24.6	54	86	3.9	2.1	8.0	72.6	No	Highest Priority
08601120860113	Condition - with no CCTV scoring	41.6	54	23.1	54	86	3.9	2.1	8.0	72.6	No	Highest Priority
04602330460241	Condition - with no CCTV scoring	603.8	27	33.9	27	46	3.8	2.1	8.0	72.4	No	Highest Priority
07601700760169	Condition - with no CCTV scoring	19	8	13.2	8	76	2.8	2.9	8.0	72.3	No	Highest Priority
07600110760012	Condition - with no CCTV scoring	12.5	12	10.1	12	76	3.3	2.4	7.9	72.1	No	Highest Priority
08700140860134	Condition - with no CCTV scoring	634.3	54	10.5	54	86	3.8	2.1	7.9	71.6	No	Highest Priority
07701610770152	Condition - with no CCTV scoring	501.4	54	13.1	54	77	3.8	2.1	7.9	71.4	No	Highest Priority
03600650360189	Condition - with no CCTV scoring	31.8	27	8.5	27	36	3.6	2.2	7.8	70.6	No	High Priority
06602930670002	Condition - with no CCTV scoring	359.9	36	7.9	36	66	3.6	2.2	7.7	70.4	No	Highest Priority
08600710860072	Condition - with no CCTV scoring	280	30	7.0	30	86	4.1	1.9	7.7	70.2	No	Highest Priority
06602320660231	Condition - with no CCTV scoring	414.6	24	9.6	24	66	3.1	2.5	7.6	69.4	No	Highest Priority
07600400760010	Condition - with no CCTV scoring	510.8	36	13.0	36	76	3.7	2.1	7.6	69.2	No	Highest Priority
04501600550008	Condition - with no CCTV scoring	332.5	8	5.1	8	45	2.1	3.7	7.6	69.1	No	High Priority
03601890360064	Condition - with no CCTV scoring	331.6	27	9.8	27	36	3.5	2.2	7.6	69.1	No	High Priority
07301750730161	Condition - with no CCTV scoring	198.6	10	7.7	10	73	2.4	3.1	7.6	68.8	No	High Priority
06301020630100	Condition - with no CCTV scoring	407.9	8	6.6	8	63	2.2	3.5	7.5	68.5	No	Moderate Priority
07500840750100	Condition - with no CCTV scoring	680.6	24	9.6	24	75	3.0	2.6	7.5	68.4	No	Highest Priority
07600120760106	Condition - with no CCTV scoring	21.4	36	4.7	36	76	3.3	2.3	7.5	68.2	No	Highest Priority
04602390460228	Condition - with no CCTV scoring	379.3	27	8.8	27	46	3.5	2.2	7.5	68.1	No	Highest Priority
03800520380106	Condition - with no CCTV scoring	315.2	8	8.1	8	38	2.2	3.4	7.5	68.1	Yes	Low Priority
05500100550012	Condition - with no CCTV scoring	277.6	8	4.1	8	55	2.2	3.5	7.5	67.8	No	High Priority
04400340440035	Condition - with no CCTV scoring	221.3	8	6.8	8	44	2.0	3.7	7.4	67.3	No	Low Priority
07401250750254	Condition - with no CCTV scoring	846	24	6.8	24	74	2.7	2.7	7.4	67.3	No	Highest Priority
04400350440036	Condition - with no CCTV scoring	205.6	8	8.9	8	44	2.1	3.6	7.4	67.1	No	Low Priority
03601500360181	Condition - with no CCTV scoring	103.8	8	15.1	8	36	2.0	3.7	7.4	67.1	No	High Priority
04602410460242	Condition - with no CCTV scoring	676.1	27	27.6	27	46	3.5	2.1	7.4	66.9	No	Highest Priority
05500480550142	Condition - with no CCTV scoring	219.6	8	6.0	8	55	2.7	2.8	7.3	66.8	No	High Priority
04700850470033	Condition - with no CCTV scoring	19.4	8	6.5	8	47	2.2	3.4	7.3	66.8	No	High Priority
07301130730117	Condition - with no CCTV scoring	301.1	10	7.4	10	73	2.1	3.5	7.3	66.6	No	High Priority
07301120730113	Condition - with no CCTV scoring	61.7	10	7.6	10	73	2.1	3.5	7.3	66.6	No	High Priority
07701080770142	Condition - with no CCTV scoring	399.7	48	9.5	48	77	3.9	1.9	7.3	66.6	No	Highest Priority
02301320220059	Condition - with no CCTV scoring	1297.2	4	5.8	8	22	2.5	2.9	7.3	66.5	No	Low Priority
07201660720181	Condition - with no CCTV scoring	332.4	8	7.7	8	72	2.1	3.5	7.3	66.2	No	Moderate Priority
08500290750246	Condition - with no CCTV scoring	241.2	8	15.5	8	75	2.5	2.9	7.3	66.2	No	Highest Priority
06600230660060	Condition - with no CCTV scoring	393.6	8	7.0	8	66	2.3	3.2	7.3	66.2	Yes	Highest Priority
08600690860070	Condition - with no CCTV scoring	123.5	30	8.5	30	86	4.0	1.8	7.3	66.0	No	Highest Priority
06600730660092	Condition - with no CCTV scoring	680	8	5.1	8	66	2.0	3.7	7.3	66.0	Yes	Highest Priority
06600960660103	Condition - with no CCTV scoring	340.2	8	6.0	8	66	2.1	3.5	7.2	65.9	Yes	Highest Priority
07601060760105	Condition - with no CCTV scoring	10	36	31.7	36	76	3.5	2.1	7.2	65.8	No	Highest Priority
06701110670115	Condition - with no CCTV scoring	32.3	39	11.6	42	67	4.0	1.8	7.2	65.8	No	Highest Priority
06601740660189	Condition - with no CCTV scoring	15.8	8	6.4	8	66	2.4	3.1	7.2	65.8	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
08601270860118	Condition - with no CCTV scoring	819.2	10	13.7	10	86	2.4	3.0	7.2	65.5	No	Highest Priority
04401150440059	Condition - with no CCTV scoring	583.2	15	7.5	15	44	2.7	2.7	7.2	65.1	No	Low Priority
07301120730115	Condition - with no CCTV scoring	79.5	10	7.6	10	73	2.0	3.5	7.1	65.0	No	High Priority
07200920720091	Condition - with no CCTV scoring	106.2	8	9.5	8	72	1.9	3.9	7.1	64.8	No	Moderate Priority
03300380330037	Condition - with no CCTV scoring	258.7	8	9.8	8	33	2.1	3.4	7.1	64.7	No	Low Priority
06602350660234	Condition - with no CCTV scoring	400.3	24	10.6	24	66	3.0	2.4	7.1	64.4	No	Highest Priority
05400510540052	Condition - with no CCTV scoring	399.5	8	8.2	8	54	2.1	3.3	7.1	64.3	No	Moderate Priority
06502260660015	Condition - with no CCTV scoring	329.6	8	7.3	8	65	2.5	2.8	7.1	64.2	No	Moderate Priority
06601880660189	Condition - with no CCTV scoring	100	30	14.0	30	66	3.4	2.1	7.1	64.2	No	Highest Priority
05501330550135	Condition - with no CCTV scoring	425.9	8	6.5	8	55	2.5	2.9	7.0	64.0	No	High Priority
03600670360157	Condition - with no CCTV scoring	209.7	33	14.1	36	36	4.1	1.7	7.0	63.7	No	High Priority
06502000650202	Condition - with no CCTV scoring	658.9	8	4.7	8	65	2.5	2.8	7.0	63.4	No	Moderate Priority
07400640740063	Condition - with no CCTV scoring	243.5	18	6.9	18	74	2.6	2.7	7.0	63.4	No	Highest Priority
03800420480115	Condition - with no CCTV scoring	328.6	8	10.9	8	38	2.4	2.9	7.0	63.3	No	Low Priority
07301730730174	Condition - with no CCTV scoring	311.6	10	3.2	10	73	2.1	3.3	6.9	63.1	No	High Priority
07501320760013	Condition - with no CCTV scoring	886.8	36	14.9	36	75	3.9	1.8	6.9	63.1	No	Highest Priority
07202430720150	Condition - with no CCTV scoring	109.5	8	8.9	8	72	1.8	3.9	6.9	62.7	No	Moderate Priority
0860109LIFTSTA	Condition - with no CCTV scoring	960.9	54	25.7	54	86	4.1	1.7	6.9	62.6	No	Highest Priority
05600380560037	Condition - with no CCTV scoring	245.4	27	7.4	27	56	3.6	1.9	6.9	62.6	No	Highest Priority
05600390560038	Condition - with no CCTV scoring	62.9	27	6.9	27	56	3.6	1.9	6.9	62.6	No	Highest Priority
04602260460233	Condition - with no CCTV scoring	329.8	27	13.2	27	46	3.8	1.8	6.9	62.6	No	Highest Priority
06600600660077	Condition - with no CCTV scoring	275.6	8	6.7	8	66	2.3	3.1	6.9	62.4	Yes	Highest Priority
07601010760100	Condition - with no CCTV scoring	294.4	8	6.0	8	76	1.8	3.9	6.9	62.4	No	Highest Priority
04801260480118	Condition - with no CCTV scoring	382.6	8	5.1	8	48	2.1	3.2	6.8	62.3	No	High Priority
05800030580002	Condition - with no CCTV scoring	264.3	10	5.2	10	58	2.1	3.3	6.8	62.2	No	High Priority
05600030560101	Condition - with no CCTV scoring	473.4	18	9.9	18	56	3.2	2.2	6.8	61.6	No	Highest Priority
07700220870070	Condition - with no CCTV scoring	594.5	54	9.6	54	77	3.6	1.9	6.7	61.3	No	Highest Priority
06502260650225	Condition - with no CCTV scoring	338.2	8	7.3	8	65	2.4	2.8	6.7	60.9	No	Moderate Priority
05700960570023	Condition - with no CCTV scoring	393.8	15	9.2	15	57	3.0	2.3	6.7	60.8	No	Highest Priority
06701070670079	Condition - with no CCTV scoring	273.6	33	13.7	36	67	3.7	1.8	6.7	60.8	No	Highest Priority
07201530720150	Condition - with no CCTV scoring	40.4	8	0.2	8	72	1.7	4.0	6.7	60.7	No	Moderate Priority
03600660360067	Condition - with no CCTV scoring	177.4	33	14.0	36	36	3.9	1.7	6.7	60.6	No	High Priority
04800930480094	Condition - with no CCTV scoring	301.2	8	5.5	8	48	2.4	2.8	6.6	60.4	No	High Priority
08601140860109	Condition - with no CCTV scoring	32	54	25.5	54	86	3.9	1.7	6.6	60.2	No	Highest Priority
08601130860114	Condition - with no CCTV scoring	134	54	24.0	54	86	3.9	1.7	6.6	60.2	No	Highest Priority
07701420770161	Condition - with no CCTV scoring	133	48	8.6	48	77	3.5	1.9	6.6	60.2	No	Highest Priority
08600510860049	Condition - with no CCTV scoring	108.8	15	8.5	15	86	2.9	2.3	6.6	60.0	No	Highest Priority
05701130570114	Condition - with no CCTV scoring	508.2	8	13.1	8	57	2.1	3.2	6.6	59.7	No	Highest Priority
05501370550132	Condition - with no CCTV scoring	19.1	8	5.3	8	55	2.3	2.9	6.6	59.6	No	High Priority
06501680650226	Condition - with no CCTV scoring	338.5	8	5.0	8	65	2.3	2.8	6.6	59.6	No	Moderate Priority
07500820750084	Condition - with no CCTV scoring	679.5	24	10.4	24	75	3.2	2.1	6.5	59.3	No	Highest Priority
07200500720051	Condition - with no CCTV scoring	2539.1	8	907.6	8	72	3.0	2.2	6.5	59.3	No	Moderate Priority
07600130760250	Condition - with no CCTV scoring	317.3	36	7.8	36	76	3.6	1.8	6.5	59.1	No	Highest Priority
04800940480096	Condition - with no CCTV scoring	9.7	8	6.1	8	48	2.3	2.8	6.5	59.1	No	High Priority
07400160740015	Condition - with no CCTV scoring	358.4	21	8.6	21	74	2.5	2.6	6.5	58.9	No	Highest Priority
04700770470078	Condition - with no CCTV scoring	83.2	8	4.0	8	47	2.0	3.3	6.5	58.8	No	High Priority
06601520660333	Condition - with no CCTV scoring	20.4	10	11.9	10	66	2.0	3.3	6.5	58.8	No	Highest Priority
09701780970180	Condition - with no CCTV scoring	441.8	8	9.0	8	97	2.3	2.8	6.4	58.5	No	Lowest Priority
04400080440003	Condition - with no CCTV scoring	267.9	8	6.4	8	44	2.0	3.2	6.4	58.2	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07600970760091	Condition - with no CCTV scoring	100.4	18	6.0	18	76	2.8	2.3	6.4	57.9	No	Highest Priority
03800490380052	Condition - with no CCTV scoring	182.7	8	7.9	8	38	2.1	3.1	6.4	57.8	No	Low Priority
04700840470085	Condition - with no CCTV scoring	324.8	8	6.3	8	47	2.2	2.9	6.4	57.8	No	High Priority
08701250870077	Condition - with no CCTV scoring	288.8	8	6.9	8	87	2.0	3.3	6.3	57.7	No	Moderate Priority
06300740630072	Condition - with no CCTV scoring	335.2	10	9.6	10	63	2.4	2.7	6.3	57.6	No	Moderate Priority
07502530750083	Condition - with no CCTV scoring	1003.7	24	8.7	24	75	2.9	2.2	6.3	57.5	No	Highest Priority
07602500760018	Condition - with no CCTV scoring	218.6	36	10.1	36	76	3.7	1.7	6.3	57.4	No	Highest Priority
07600910760096	Condition - with no CCTV scoring	10.6	18	8.4	18	76	2.9	2.2	6.3	57.3	No	Highest Priority
04700180470017	Condition - with no CCTV scoring	63	8	5.6	8	47	2.2	2.9	6.3	57.3	No	High Priority
07201820720180	Condition - with no CCTV scoring	278.2	8	6.0	8	72	2.0	3.1	6.3	57.3	No	Moderate Priority
07601700760177	Condition - with no CCTV scoring	15.9	24	13.2	24	76	3.6	1.8	6.3	57.2	No	Highest Priority
04400490440115	Condition - with no CCTV scoring	227.8	15	8.2	15	44	2.4	2.6	6.2	56.8	No	Low Priority
06600920660102	Condition - with no CCTV scoring	338.9	8	5.0	8	66	1.9	3.3	6.2	56.7	No	Highest Priority
03600790360157	Condition - with no CCTV scoring	54.2	8	5.2	8	36	1.9	3.4	6.2	56.7	No	High Priority
07502540750252	Condition - with no CCTV scoring	476.5	24	9.9	24	75	2.9	2.2	6.2	56.5	No	Highest Priority
07502520750253	Condition - with no CCTV scoring	18.5	24	8.6	24	75	2.9	2.2	6.2	56.5	No	Highest Priority
07500830750082	Condition - with no CCTV scoring	926.9	24	12.8	24	75	3.0	2.1	6.2	56.5	No	Highest Priority
07701100770106	Condition - with no CCTV scoring	36.5	8	8.1	8	77	2.6	2.4	6.2	56.4	No	Highest Priority
06601900660192	Condition - with no CCTV scoring	94.3	27	12.0	27	66	3.0	2.1	6.2	56.3	No	Highest Priority
04801180480117	Condition - with no CCTV scoring	381.2	8	5.0	8	48	2.2	2.8	6.2	56.0	No	High Priority
03401070340111	Condition - with no CCTV scoring	78.3	27	11.7	27	34	3.6	1.7	6.2	56.0	No	Lowest Priority
05601370560136	Condition - with no CCTV scoring	47.4	27	9.0	27	56	3.4	1.8	6.1	55.7	No	Highest Priority
05601400560137	Condition - with no CCTV scoring	291.7	27	9.5	27	56	3.4	1.8	6.1	55.7	No	Highest Priority
06602050660206	Condition - with no CCTV scoring	448.7	6	4.0	8	66	2.0	3.1	6.1	55.6	No	Highest Priority
02301390230138	Condition - with no CCTV scoring	359	21	15.3	21	23	2.8	2.2	6.1	55.6	No	Lowest Priority
06500610650001	Condition - with no CCTV scoring	607.3	27	10.0	27	65	2.7	2.3	6.1	55.5	No	Moderate Priority
05601230560122	Condition - with no CCTV scoring	343.4	27	9.4	27	56	3.4	1.8	6.1	55.2	No	Highest Priority
05701250570119	Condition - with no CCTV scoring	461.7	15	9.5	15	57	2.8	2.2	6.1	55.0	No	Highest Priority
05801010570180	Condition - with no CCTV scoring	109.1	8	109.5	8	57	1.8	3.3	6.0	54.9	No	Highest Priority
05601220560126	Condition - with no CCTV scoring	270.5	27	9.9	27	56	3.4	1.8	6.0	54.9	No	Highest Priority
06800400680032	Condition - with no CCTV scoring	350.7	24	11.0	24	68	2.9	2.1	6.0	54.8	No	Lowest Priority
P2	Condition - with no CCTV scoring	2481.5	20	11.8	21	86	2.8	2.2	6.0	54.8	No	Highest Priority
05600320560047	Condition - with no CCTV scoring	14	8	4.9	8	56	2.0	3.1	6.0	54.7	No	Highest Priority
05800020580004	Condition - with no CCTV scoring	347.4	10	4.4	10	58	2.1	2.9	6.0	54.6	No	High Priority
04700530470052	Condition - with no CCTV scoring	250.4	8	5.4	8	47	2.2	2.8	6.0	54.3	No	High Priority
06600590660058	Condition - with no CCTV scoring	545.6	8	6.0	8	66	1.9	3.2	6.0	54.2	No	Highest Priority
07201340720092	Condition - with no CCTV scoring	208.7	8	9.6	8	72	2.0	3.1	5.9	54.1	No	Moderate Priority
05700790570078	Condition - with no CCTV scoring	406.9	10	5.5	10	57	2.1	2.8	5.9	54.0	No	Highest Priority
P12	Condition - with no CCTV scoring	244.4	54	7.2	54	86	2.8	2.2	5.9	54.0	No	Highest Priority
04800950480090	Condition - with no CCTV scoring	306.2	8	5.2	8	48	2.4	2.5	5.9	53.9	No	High Priority
07301150730119	Condition - with no CCTV scoring	260.4	10	8.0	10	73	1.7	3.4	5.9	53.8	No	High Priority
07301190730117	Condition - with no CCTV scoring	28.8	10	8.5	10	73	1.7	3.4	5.9	53.8	No	High Priority
04801340480136	Condition - with no CCTV scoring	316.3	10	7.4	10	48	2.2	2.7	5.9	53.8	No	High Priority
07400600740059	Condition - with no CCTV scoring	39.9	18	1.7	18	74	2.6	2.3	5.9	53.8	No	Highest Priority
07400590740058	Condition - with no CCTV scoring	42.6	18	1.5	18	74	2.6	2.3	5.9	53.8	No	Highest Priority
04800130580008	Condition - with no CCTV scoring	400.7	8	5.2	8	48	2.0	3.0	5.9	53.8	No	High Priority
04801160480095	Condition - with no CCTV scoring	500.2	8	5.4	8	48	2.4	2.5	5.9	53.7	No	High Priority
05700190560303	Condition - with no CCTV scoring	402.2	10	11.3	10	57	2.4	2.5	5.9	53.5	No	Highest Priority
04800800480126	Condition - with no CCTV scoring	313.5	8	5.8	8	48	2.1	2.8	5.9	53.2	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02301400230139	Condition - with no CCTV scoring	338.4	21	14.4	21	23	2.7	2.2	5.8	53.2	No	Lowest Priority
07200910720089	Condition - with no CCTV scoring	341.2	8	10.8	8	72	2.0	3.0	5.8	53.1	No	Moderate Priority
05500540550056	Condition - with no CCTV scoring	313.9	8	6.4	8	55	2.4	2.5	5.8	53.1	No	High Priority
06800330680034	Condition - with no CCTV scoring	35.7	27	11.5	27	68	3.4	1.7	5.8	53.1	No	Lowest Priority
06701100670111	Condition - with no CCTV scoring	316.6	39	11.4	42	67	4.0	1.5	5.8	53.0	No	Highest Priority
07400040740005	Condition - with no CCTV scoring	187.2	6	1.3	8	74	2.0	2.9	5.8	53.0	No	Highest Priority
03501090350108	Condition - with no CCTV scoring	397.4	24	11.3	24	35	3.4	1.7	5.8	52.9	No	Moderate Priority
07700110770016	Condition - with no CCTV scoring	209.8	4	18.9	8	77	2.4	2.5	5.8	52.8	No	Highest Priority
05601250560123	Condition - with no CCTV scoring	888.1	8	7.6	8	56	1.9	3.1	5.8	52.7	No	Highest Priority
05600370560071	Condition - with no CCTV scoring	336.1	27	8.1	27	56	3.4	1.7	5.8	52.4	No	Highest Priority
05701300570131	Condition - with no CCTV scoring	50.1	15	9.6	15	57	2.4	2.5	5.8	52.4	No	Highest Priority
06603350660321	Condition - with no CCTV scoring	80.5	8	4.5	8	66	2.1	2.7	5.8	52.3	No	Highest Priority
04700130470051	Condition - with no CCTV scoring	261.9	8	5.1	8	47	2.1	2.8	5.7	52.3	No	High Priority
07600870760088	Condition - with no CCTV scoring	49.5	24	6.8	24	76	2.6	2.3	5.7	52.2	No	Highest Priority
07601780760179	Condition - with no CCTV scoring	45.4	27	7.3	27	76	3.7	1.6	5.7	52.2	No	Highest Priority
05600730560123	Condition - with no CCTV scoring	299.7	27	10.1	27	56	3.4	1.7	5.7	52.1	No	Highest Priority
07401240740063	Condition - with no CCTV scoring	337.7	8	5.8	8	74	1.4	4.2	5.7	52.1	No	Highest Priority
05501470550146	Condition - with no CCTV scoring	464.4	8	7.2	8	55	2.5	2.3	5.7	51.9	Yes	High Priority
05501460550148	Condition - with no CCTV scoring	9	12	5.0	12	55	2.5	2.3	5.7	51.9	No	High Priority
06603280660327	Condition - with no CCTV scoring	49.5	21	13.8	21	66	2.8	2.1	5.7	51.9	No	Highest Priority
04701930470090	Condition - with no CCTV scoring	64.1	8	5.5	8	47	2.0	2.9	5.7	51.7	No	High Priority
05700060570005	Condition - with no CCTV scoring	410.8	10	5.8	10	57	2.1	2.7	5.7	51.6	No	Highest Priority
06601140660070	Condition - with no CCTV scoring	385.9	8	5.1	8	66	2.1	2.7	5.7	51.6	No	Highest Priority
08700840870083	Condition - with no CCTV scoring	956.3	15	6.1	15	87	2.5	2.3	5.7	51.6	No	Moderate Priority
08700840870083	Condition - with no CCTV scoring	944.8	10	6.1	10	87	2.5	2.3	5.7	51.6	No	Moderate Priority
04701710470170	Condition - with no CCTV scoring	299.8	8	4.8	8	47	2.1	2.8	5.7	51.5	No	High Priority
04500290550012	Condition - with no CCTV scoring	162.2	8	4.5	8	45	1.6	3.7	5.7	51.5	No	High Priority
08700360870037	Condition - with no CCTV scoring	1188.2	6	9.0	8	87	2.5	2.3	5.6	51.4	No	Moderate Priority
05601260560127	Condition - with no CCTV scoring	114.4	27	10.3	27	56	3.3	1.7	5.6	51.4	No	Highest Priority
05701290570130	Condition - with no CCTV scoring	266.5	12	9.8	12	57	2.3	2.5	5.6	51.3	No	Highest Priority
05600710560073	Condition - with no CCTV scoring	377.4	27	11.2	27	56	3.3	1.7	5.6	51.2	No	Highest Priority
07600390760040	Condition - with no CCTV scoring	295.1	24	10.6	24	76	3.3	1.7	5.6	51.2	No	Highest Priority
07600390760040	Condition - with no CCTV scoring	285.7	24	10.6	24	76	3.3	1.7	5.6	51.2	No	Highest Priority
06601350660125	Condition - with no CCTV scoring	344.2	8	5.5	8	66	1.8	3.1	5.6	51.1	No	Highest Priority
07501180750119	Condition - with no CCTV scoring	577.7	8	5.0	8	75	2.3	2.5	5.6	51.0	No	Highest Priority
07502280750229	Condition - with no CCTV scoring	182.8	8	4.6	8	75	2.3	2.5	5.6	51.0	No	Highest Priority
05601270560140	Condition - with no CCTV scoring	302.9	27	10.1	27	56	3.3	1.7	5.6	51.0	No	Highest Priority
05800080580003	Condition - with no CCTV scoring	258.7	10	5.2	10	58	2.1	2.7	5.6	50.9	No	High Priority
09600260960020	Condition - with no CCTV scoring	213.5	8	4.4	8	96	1.8	3.1	5.6	50.8	No	Low Priority
04401220450105	Condition - with no CCTV scoring	307.4	8	6.6	8	44	1.6	3.4	5.6	50.7	No	Low Priority
03400970340093	Condition - with no CCTV scoring	10.5	21	7.5	21	34	2.6	2.2	5.6	50.7	No	Lowest Priority
07301410730116	Condition - with no CCTV scoring	180.5	8	7.2	8	73	1.6	3.5	5.6	50.6	No	High Priority
07602520760145	Condition - with no CCTV scoring	642.7	12	3.7	12	76	2.1	2.7	5.6	50.6	No	Highest Priority
08601190960081	Condition - with no CCTV scoring	367.4	6	5.5	8	86	2.5	2.3	5.6	50.6	No	Highest Priority
06601440660146	Condition - with no CCTV scoring	380.7	8	6.2	8	66	2.0	2.8	5.6	50.5	Yes	Highest Priority
05702150570216	Condition - with no CCTV scoring	340	12	11.1	12	57	2.4	2.4	5.5	50.5	No	Highest Priority
06601450660146	Condition - with no CCTV scoring	793.3	8	6.0	8	66	2.1	2.7	5.5	50.4	No	Highest Priority
06603380660247	Condition - with no CCTV scoring	69.8	8	5.2	8	66	2.1	2.7	5.5	50.4	No	Highest Priority
04702340470171	Condition - with no CCTV scoring	28.8	8	4.8	8	47	2.0	2.8	5.5	50.3	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06502440650140	Condition - with no CCTV scoring	370.6	18	4.2	18	65	2.3	2.5	5.5	50.2	No	Moderate Priority
09600200960019	Condition - with no CCTV scoring	83.7	8	4.3	8	96	1.8	3.2	5.5	50.2	No	Low Priority
05700230570024	Condition - with no CCTV scoring	27.2	15	9.8	15	57	2.9	1.9	5.5	50.1	No	Highest Priority
03300370330025	Condition - with no CCTV scoring	23.3	8	7.0	8	33	2.0	2.7	5.5	50.1	No	Low Priority
04702000470199	Condition - with no CCTV scoring	187.1	8	4.9	8	47	2.3	2.4	5.5	50.0	No	High Priority
04701980470196	Condition - with no CCTV scoring	166	8	6.0	8	47	2.3	2.4	5.5	50.0	No	High Priority
06700140670012	Condition - with no CCTV scoring	599.4	48	12.8	48	67	4.1	1.4	5.5	50.0	No	Highest Priority
06601610660162	Condition - with no CCTV scoring	345.6	8	5.4	8	66	1.8	3.0	5.5	49.9	No	Highest Priority
04700330470025	Condition - with no CCTV scoring	35.5	8	8.9	8	47	2.2	2.5	5.5	49.9	No	High Priority
03600740360075	Condition - with no CCTV scoring	324	8	6.1	8	36	2.2	2.6	5.5	49.9	No	High Priority
05700780570077	Condition - with no CCTV scoring	345.7	10	6.8	10	57	2.0	2.7	5.5	49.9	No	Highest Priority
04600650460064	Condition - with no CCTV scoring	298.3	21	7.1	21	46	1.6	3.4	5.5	49.8	No	Highest Priority
07501850750186	Condition - with no CCTV scoring	695.1	36	10.7	36	75	2.7	2.1	5.5	49.8	No	Highest Priority
07501240750122	Condition - with no CCTV scoring	195.8	8	5.0	8	75	2.2	2.5	5.5	49.7	No	Highest Priority
07601770760161	Condition - with no CCTV scoring	52.9	30	13.6	30	76	4.0	1.4	5.5	49.6	No	Highest Priority
05502170550226	Condition - with no CCTV scoring	333.8	12	7.5	12	55	2.4	2.3	5.5	49.6	No	High Priority
05502260550150	Condition - with no CCTV scoring	23	12	7.1	12	55	2.4	2.3	5.5	49.6	No	High Priority
05501500550149	Condition - with no CCTV scoring	404.9	12	7.1	12	55	2.4	2.3	5.5	49.6	No	High Priority
04800960480097	Condition - with no CCTV scoring	149.1	8	5.5	8	48	2.3	2.4	5.4	49.6	No	High Priority
07501070750109	Condition - with no CCTV scoring	417	8	5.9	8	75	2.2	2.5	5.4	49.5	No	Highest Priority
07502260750225	Condition - with no CCTV scoring	139.6	8	6.0	8	75	2.2	2.5	5.4	49.5	No	Highest Priority
05400520540053	Condition - with no CCTV scoring	98.2	8	6.4	8	54	2.0	2.7	5.4	49.4	No	Moderate Priority
06501210650094	Condition - with no CCTV scoring	869.3	8	4.4	8	65	2.2	2.5	5.4	49.3	No	Moderate Priority
07502510750162	Condition - with no CCTV scoring	263.3	12	0.0	12	75	2.2	2.5	5.4	49.3	No	Highest Priority
06300960630102	Condition - with no CCTV scoring	279.8	8	6.4	8	63	2.1	2.6	5.4	49.2	No	Moderate Priority
05701330570129	Condition - with no CCTV scoring	616.3	8	5.3	8	57	1.8	3.0	5.4	49.1	No	Highest Priority
04701800470179	Condition - with no CCTV scoring	573.4	8	6.0	8	47	1.8	3.1	5.4	49.1	No	High Priority
04701150470205	Condition - with no CCTV scoring	193.2	8	4.9	8	47	2.0	2.8	5.4	49.0	No	High Priority
06500460650013	Condition - with no CCTV scoring	84.4	8	6.0	8	65	1.5	3.5	5.4	49.0	No	Moderate Priority
07301820730183	Condition - with no CCTV scoring	171.6	10	7.9	10	73	2.4	2.3	5.4	48.9	No	High Priority
04801360480141	Condition - with no CCTV scoring	230.9	10	7.5	10	48	2.0	2.7	5.4	48.9	No	High Priority
06502060650204	Condition - with no CCTV scoring	335.5	15	8.1	15	65	2.7	2.0	5.4	48.8	No	Moderate Priority
04800660480064	Condition - with no CCTV scoring	267.7	8	5.8	8	48	1.5	3.5	5.4	48.7	No	High Priority
06701270670025	Condition - with no CCTV scoring	148.5	8	2.7	8	67	1.9	2.8	5.3	48.7	No	Highest Priority
05501990550200	Condition - with no CCTV scoring	618.5	8	5.7	8	55	2.2	2.5	5.3	48.6	No	High Priority
05502480550014	Condition - with no CCTV scoring	387	8	6.0	8	55	2.2	2.5	5.3	48.6	No	High Priority
07401260710125	Condition - with no CCTV scoring	1064.7	24	7.3	24	74	3.1	1.7	5.3	48.6	No	Highest Priority
07201160720117	Condition - with no CCTV scoring	29	8	6.1	8	72	1.8	3.1	5.3	48.6	No	Moderate Priority
07501840750185	Condition - with no CCTV scoring	112.4	27	11.0	27	75	2.6	2.1	5.3	48.5	No	Highest Priority
04600060460007	Condition - with no CCTV scoring	12	8	6.7	8	46	2.2	2.5	5.3	48.4	No	Highest Priority
05500070550009	Condition - with no CCTV scoring	346.4	12	6.7	12	55	2.5	2.1	5.3	48.3	No	High Priority
07200510720181	Condition - with no CCTV scoring	26.1	8	7.6	8	72	2.3	2.4	5.3	48.3	No	Moderate Priority
06501740650175	Condition - with no CCTV scoring	699.6	27	9.3	27	65	2.5	2.2	5.3	48.3	No	Moderate Priority
05601360560135	Condition - with no CCTV scoring	18.7	24	9.8	24	56	3.0	1.8	5.3	48.3	No	Highest Priority
06500230650174	Condition - with no CCTV scoring	974.5	27	10.0	27	65	2.6	2.1	5.3	48.3	No	Moderate Priority
05701170570118	Condition - with no CCTV scoring	540.1	8	5.0	8	57	2.0	2.7	5.3	48.2	No	Highest Priority
05600010550012	Condition - with no CCTV scoring	494.6	8	5.0	8	55	1.6	3.3	5.3	48.2	No	High Priority
04601050460104	Condition - with no CCTV scoring	169.9	8	6.7	8	46	2.2	2.5	5.3	48.1	No	Highest Priority
07502330750232	Condition - with no CCTV scoring	186.2	8	6.0	8	75	2.2	2.5	5.3	48.1	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
08601470860127	Condition - with no CCTV scoring	247.4	10	6.5	10	86	1.8	3.0	5.3	48.0	No	Highest Priority
04801170480045	Condition - with no CCTV scoring	127.4	8	5.6	8	48	2.2	2.4	5.3	48.0	No	High Priority
06500380650086	Condition - with no CCTV scoring	348.9	12	1.0	12	65	2.2	2.4	5.3	48.0	No	Moderate Priority
06300770730173	Condition - with no CCTV scoring	196.4	10	6.3	10	63	1.9	2.9	5.3	48.0	No	Moderate Priority
06500990650100	Condition - with no CCTV scoring	628.2	27	15.0	27	65	2.6	2.1	5.3	47.9	No	Moderate Priority
06502430650244	Condition - with no CCTV scoring	355.9	8	5.0	8	65	2.2	2.5	5.3	47.9	No	Moderate Priority
07502230750224	Condition - with no CCTV scoring	67.2	8	6.0	8	75	2.2	2.5	5.3	47.9	No	Highest Priority
06602500660338	Condition - with no CCTV scoring	155.2	8	1.7	8	66	2.0	2.7	5.3	47.9	No	Highest Priority
06701250660338	Condition - with no CCTV scoring	73.3	8	4.8	8	66	2.0	2.7	5.3	47.9	No	Highest Priority
05500800650206	Condition - with no CCTV scoring	321.7	15	8.0	15	55	2.6	2.0	5.3	47.9	No	High Priority
06500660650065	Condition - with no CCTV scoring	654.5	8	4.6	8	65	2.0	2.6	5.3	47.8	No	Moderate Priority
03601110360110	Condition - with no CCTV scoring	433.7	8	4.7	8	36	1.6	3.3	5.2	47.7	No	High Priority
03601840360176	Condition - with no CCTV scoring	345.5	8	5.4	8	36	1.7	3.1	5.2	47.7	No	High Priority
03701310360176	Condition - with no CCTV scoring	471	8	5.3	8	36	1.7	3.1	5.2	47.7	No	High Priority
05500120550013	Condition - with no CCTV scoring	251.6	8	5.0	8	55	1.7	3.1	5.2	47.7	No	High Priority
04401640440147	Condition - with no CCTV scoring	85.3	8	5.9	8	44	2.1	2.5	5.2	47.5	No	Low Priority
05701280570127	Condition - with no CCTV scoring	386.2	8	4.1	8	57	2.0	2.7	5.2	47.5	No	Highest Priority
04400070440006	Condition - with no CCTV scoring	219.4	8	7.7	8	44	2.1	2.5	5.2	47.5	No	Low Priority
05500090550236	Condition - with no CCTV scoring	618.2	12	5.0	12	55	2.5	2.1	5.2	47.4	No	High Priority
07201510720152	Condition - with no CCTV scoring	259.7	8	10.4	8	72	2.4	2.2	5.2	47.3	No	Moderate Priority
03600800360075	Condition - with no CCTV scoring	440.5	8	4.6	8	36	2.0	2.6	5.2	47.3	No	High Priority
03700830370084	Condition - with no CCTV scoring	327.1	8	5.5	8	37	1.7	3.2	5.2	47.3	No	Low Priority
04701690470166	Condition - with no CCTV scoring	323.3	21	13.6	21	47	2.4	2.2	5.2	47.2	No	High Priority
07602510760078	Condition - with no CCTV scoring	74	24	10.5	24	76	3.1	1.7	5.2	47.2	No	Highest Priority
05400540540051	Condition - with no CCTV scoring	399	8	6.9	8	54	2.0	2.6	5.2	47.1	No	Moderate Priority
03500810350084	Condition - with no CCTV scoring	453	8	8.3	8	35	2.4	2.2	5.2	47.0	No	Moderate Priority
06500640650063	Condition - with no CCTV scoring	713.5	27	11.8	27	65	2.5	2.1	5.2	47.0	No	Moderate Priority
06500600650061	Condition - with no CCTV scoring	115.4	27	10.0	27	65	2.5	2.1	5.2	47.0	No	Moderate Priority
05300270540041	Condition - with no CCTV scoring	433.1	8	12.8	8	53	2.2	2.4	5.2	46.9	No	Moderate Priority
04602820460079	Condition - with no CCTV scoring	614.9	8	3.5	8	46	1.8	2.9	5.2	46.9	No	Highest Priority
05600350560046	Condition - with no CCTV scoring	322.3	8	4.8	8	56	1.8	2.9	5.2	46.9	No	Highest Priority
05700240570025	Condition - with no CCTV scoring	377.7	21	13.2	21	57	3.0	1.7	5.2	46.9	No	Highest Priority
03501000350099	Condition - with no CCTV scoring	66.7	8	7.8	8	35	2.0	2.6	5.1	46.8	No	Moderate Priority
05400410540050	Condition - with no CCTV scoring	244.8	8	7.9	8	54	2.0	2.6	5.1	46.8	No	Moderate Priority
08600520860051	Condition - with no CCTV scoring	804.1	12	18.9	12	86	2.6	2.0	5.1	46.7	No	Highest Priority
08600520860051	Condition - with no CCTV scoring	808.6	10	18.9	10	86	2.6	2.0	5.1	46.7	No	Highest Priority
04501860450062	Condition - with no CCTV scoring	16.6	8	4.9	8	45	2.0	2.6	5.1	46.6	No	High Priority
05601390560157	Condition - with no CCTV scoring	651.5	8	10.1	8	56	2.0	2.6	5.1	46.6	No	Highest Priority
05700770570048	Condition - with no CCTV scoring	402.8	10	8.1	10	57	2.0	2.6	5.1	46.6	No	Highest Priority
07400050740065	Condition - with no CCTV scoring	626.7	8	5.2	8	74	2.0	2.6	5.1	46.6	No	Highest Priority
07501830750184	Condition - with no CCTV scoring	85.9	27	11.4	27	75	2.5	2.1	5.1	46.6	No	Highest Priority
07501820750183	Condition - with no CCTV scoring	372.4	27	11.6	27	75	2.5	2.1	5.1	46.6	No	Highest Priority
07501100750113	Condition - with no CCTV scoring	571.6	8	49.0	8	75	2.5	2.1	5.1	46.4	No	Highest Priority
07400660740005	Condition - with no CCTV scoring	224.1	8	6.0	8	74	1.7	3.0	5.1	46.4	No	Highest Priority
08601350860030	Condition - with no CCTV scoring	234.1	8	9.7	8	86	1.7	3.0	5.1	46.4	No	Highest Priority
03701320370133	Condition - with no CCTV scoring	103.5	8	3.3	8	37	1.5	3.4	5.1	46.4	No	Low Priority
05502380550009	Condition - with no CCTV scoring	412	8	5.0	8	55	2.1	2.5	5.1	46.4	No	High Priority
05500110550010	Condition - with no CCTV scoring	63.3	8	6.0	8	55	2.1	2.5	5.1	46.4	No	High Priority
05700450570012	Condition - with no CCTV scoring	379	8	6.2	8	57	1.8	2.8	5.1	46.4	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07601040760105	Condition - with no CCTV scoring	66.4	36	10.9	36	76	2.5	2.1	5.1	46.3	No	Highest Priority
05600300560028	Condition - with no CCTV scoring	192.4	8	4.5	8	56	1.9	2.7	5.1	46.2	No	Highest Priority
04400410440005	Condition - with no CCTV scoring	264.8	8	6.1	8	44	2.0	2.5	5.1	46.2	No	Low Priority
05700480570019	Condition - with no CCTV scoring	357.2	10	10.0	10	57	2.0	2.6	5.1	46.2	No	Highest Priority
04502820450209	Condition - with no CCTV scoring	483	8	4.4	8	45	1.4	3.8	5.1	46.1	No	High Priority
04801150480114	Condition - with no CCTV scoring	500	8	7.8	8	48	2.2	2.3	5.1	46.0	No	High Priority
07500410750082	Condition - with no CCTV scoring	317.7	8	5.4	8	75	1.6	3.1	5.1	46.0	No	Highest Priority
05700330570032	Condition - with no CCTV scoring	688.5	8	4.4	8	57	2.2	2.4	5.1	46.0	No	Highest Priority
04700500470172	Condition - with no CCTV scoring	284.6	8	5.3	8	47	2.1	2.5	5.0	45.9	No	High Priority
06501230650093	Condition - with no CCTV scoring	358.1	21	10.7	21	65	2.5	2.1	5.0	45.9	No	Moderate Priority
06700990670097	Condition - with no CCTV scoring	322.5	10	9.0	10	67	2.2	2.3	5.0	45.9	No	Highest Priority
03500850350087	Condition - with no CCTV scoring	13.3	8	14.8	8	35	1.8	2.8	5.0	45.8	No	Moderate Priority
06500030650064	Condition - with no CCTV scoring	512.8	27	10.2	27	65	2.5	2.1	5.0	45.7	No	Moderate Priority
04801410480142	Condition - with no CCTV scoring	118.6	10	7.4	10	48	1.9	2.7	5.0	45.7	No	High Priority
08600400860148	Condition - with no CCTV scoring	97.3	30	12.1	30	86	3.7	1.4	5.0	45.7	No	Highest Priority
0860148LIFT	Condition - with no CCTV scoring	68.9	36	12.6	36	86	3.7	1.4	5.0	45.7	No	Highest Priority
05701260570125	Condition - with no CCTV scoring	444.4	15	7.5	15	57	2.5	2.0	5.0	45.7	No	Highest Priority
04701970470054	Condition - with no CCTV scoring	220.3	8	5.1	8	47	2.1	2.4	5.0	45.6	No	High Priority
04801270480126	Condition - with no CCTV scoring	289.7	8	5.8	8	48	2.1	2.4	5.0	45.6	No	High Priority
06700910670092	Condition - with no CCTV scoring	399.6	12	7.1	12	67	1.8	2.8	5.0	45.6	No	Highest Priority
07600180760039	Condition - with no CCTV scoring	25.9	36	11.0	36	76	3.7	1.4	5.0	45.6	No	Highest Priority
05700310670071	Condition - with no CCTV scoring	331.6	8	6.0	8	57	2.1	2.4	5.0	45.5	No	Highest Priority
07200100720016	Condition - with no CCTV scoring	24.3	8	5.7	8	72	2.1	2.4	5.0	45.5	No	Moderate Priority
03601760360178	Condition - with no CCTV scoring	60.4	8	3.8	8	36	1.6	3.1	5.0	45.5	No	High Priority
07600090760011	Condition - with no CCTV scoring	558.8	12	9.6	12	76	2.0	2.5	5.0	45.5	No	Highest Priority
05400230540021	Condition - with no CCTV scoring	353.2	12	6.9	12	54	2.0	2.6	5.0	45.5	No	Moderate Priority
06701040670105	Condition - with no CCTV scoring	482.8	33	13.6	36	67	3.6	1.4	5.0	45.5	No	Highest Priority
04400360440005	Condition - with no CCTV scoring	225.7	8	8.8	8	44	2.1	2.4	5.0	45.4	No	Low Priority
06700930670094	Condition - with no CCTV scoring	541.5	12	6.9	12	67	1.8	2.8	5.0	45.3	No	Highest Priority
06700970670075	Condition - with no CCTV scoring	23.6	10	6.5	10	67	2.1	2.4	5.0	45.3	No	Highest Priority
06700330670020	Condition - with no CCTV scoring	574.1	8	5.5	8	67	2.1	2.4	5.0	45.3	No	Highest Priority
06700750670039	Condition - with no CCTV scoring	333.1	10	5.0	10	67	2.1	2.4	5.0	45.3	No	Highest Priority
04800920480093	Condition - with no CCTV scoring	18.5	8	5.3	8	48	2.4	2.1	5.0	45.3	No	High Priority
07500930750098	Condition - with no CCTV scoring	345.9	8	6.1	8	75	2.4	2.1	5.0	45.3	No	Highest Priority
04501940450197	Condition - with no CCTV scoring	364.2	15	5.9	15	45	2.8	1.8	5.0	45.2	No	High Priority
05400500540055	Condition - with no CCTV scoring	150.1	8	6.6	8	54	1.9	2.6	5.0	45.2	No	Moderate Priority
06501750650060	Condition - with no CCTV scoring	583.2	27	10.1	27	65	2.4	2.1	5.0	45.1	No	Moderate Priority
06700240670034	Condition - with no CCTV scoring	342.5	8	4.0	8	67	2.2	2.3	5.0	45.0	No	Highest Priority
06500630650099	Condition - with no CCTV scoring	442.1	8	15.4	8	65	2.0	2.5	4.9	45.0	No	Moderate Priority
04700920470032	Condition - with no CCTV scoring	364.7	21	10.3	21	47	1.6	3.1	4.9	45.0	No	High Priority
05700140570045	Condition - with no CCTV scoring	184.1	8	6.0	8	57	1.8	2.7	4.9	45.0	No	Highest Priority
04601910560010	Condition - with no CCTV scoring	362.1	8	7.0	8	46	1.9	2.6	4.9	44.9	No	Highest Priority
05700310570093	Condition - with no CCTV scoring	21.4	10	6.0	10	57	2.1	2.4	4.9	44.9	No	Highest Priority
06700980670097	Condition - with no CCTV scoring	356	8	6.0	8	67	2.1	2.4	4.9	44.9	No	Highest Priority
06700390670040	Condition - with no CCTV scoring	339.5	10	6.2	10	67	2.1	2.4	4.9	44.9	No	Highest Priority
06600620660072	Condition - with no CCTV scoring	291.9	8	5.0	8	66	1.7	2.9	4.9	44.9	No	Highest Priority
07301740730175	Condition - with no CCTV scoring	292.5	10	4.7	10	73	1.7	2.9	4.9	44.9	No	High Priority
03601120360111	Condition - with no CCTV scoring	396.2	6	5.2	8	36	1.6	3.1	4.9	44.8	No	High Priority
06700710670075	Condition - with no CCTV scoring	342.5	8	5.9	8	67	2.1	2.4	4.9	44.7	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05700930670099	Condition - with no CCTV scoring	325.5	10	12.0	10	57	2.3	2.2	4.9	44.6	No	Highest Priority
04700820470078	Condition - with no CCTV scoring	99.3	8	4.5	8	47	2.0	2.5	4.9	44.6	No	High Priority
05400470540054	Condition - with no CCTV scoring	195.4	8	8.2	8	54	2.0	2.5	4.9	44.6	No	Moderate Priority
04800760480077	Condition - with no CCTV scoring	290.7	8	5.9	8	48	2.0	2.4	4.9	44.5	No	High Priority
07401270740126	Condition - with no CCTV scoring	417	24	4.1	24	74	2.6	1.9	4.9	44.4	No	Highest Priority
07400580740127	Condition - with no CCTV scoring	12.5	24	1.5	24	74	2.6	1.9	4.9	44.4	No	Highest Priority
05602790560270	Condition - with no CCTV scoring	592.2	8	4.9	8	56	2.2	2.3	4.9	44.4	No	Highest Priority
07601350760136	Condition - with no CCTV scoring	296.1	8	5.3	8	76	2.2	2.3	4.9	44.4	No	Highest Priority
04400590440060	Condition - with no CCTV scoring	296.2	15	10.1	15	44	2.1	2.3	4.9	44.4	No	Low Priority
06603330660137	Condition - with no CCTV scoring	342.4	8	12.1	8	66	2.0	2.5	4.9	44.4	No	Highest Priority
04800900480092	Condition - with no CCTV scoring	13	8	6.0	8	48	2.3	2.1	4.9	44.3	No	High Priority
07600070760008	Condition - with no CCTV scoring	300.5	12	11.0	12	76	2.0	2.4	4.9	44.3	No	Highest Priority
07201300720133	Condition - with no CCTV scoring	264.6	8	5.0	8	72	2.1	2.4	4.9	44.3	No	Moderate Priority
07400650750027	Condition - with no CCTV scoring	533.2	8	7.2	8	75	2.2	2.3	4.9	44.2	No	Highest Priority
05700090570180	Condition - with no CCTV scoring	337.8	10	6.0	10	57	2.1	2.3	4.9	44.2	No	Highest Priority
04401420440145	Condition - with no CCTV scoring	106.4	8	6.4	8	44	2.3	2.1	4.9	44.1	No	Low Priority
04601130460094	Condition - with no CCTV scoring	221.9	8	5.1	8	46	2.0	2.5	4.9	44.1	No	Highest Priority
05502250550224	Condition - with no CCTV scoring	454.4	8	5.5	8	55	2.0	2.5	4.9	44.1	No	High Priority
05502500550249	Condition - with no CCTV scoring	420.2	8	6.0	8	55	2.0	2.5	4.9	44.1	No	High Priority
06500910650089	Condition - with no CCTV scoring	263.6	8	7.1	8	65	2.3	2.1	4.9	44.1	No	Moderate Priority
08500250750098	Condition - with no CCTV scoring	387.8	8	5.0	8	75	2.3	2.1	4.9	44.1	No	Highest Priority
05800010580002	Condition - with no CCTV scoring	165.1	8	4.2	8	48	1.7	2.9	4.8	44.1	No	High Priority
06701240670071	Condition - with no CCTV scoring	403.9	8	7.8	8	67	2.1	2.4	4.8	44.0	No	Highest Priority
07601690760168	Condition - with no CCTV scoring	266.3	10	6.5	10	76	2.2	2.2	4.8	44.0	No	Highest Priority
05601290560066	Condition - with no CCTV scoring	173.3	8	4.5	8	56	1.9	2.6	4.8	44.0	No	Highest Priority
06601570660173	Condition - with no CCTV scoring	346.7	8	4.8	8	66	1.9	2.6	4.8	44.0	No	Highest Priority
07200490720016	Condition - with no CCTV scoring	112	10	5.1	10	72	2.5	2.0	4.8	44.0	No	Moderate Priority
09701940970137	Condition - with no CCTV scoring	232	8	9.3	8	97	1.8	2.7	4.8	44.0	No	Lowest Priority
02600980260243	Condition - with no CCTV scoring	231.5	8	6.7	8	26	2.3	2.1	4.8	43.9	No	Low Priority
04702030470204	Condition - with no CCTV scoring	194.6	8	5.2	8	47	2.0	2.4	4.8	43.9	No	High Priority
04702020470201	Condition - with no CCTV scoring	197.8	8	3.5	8	47	2.0	2.4	4.8	43.9	No	High Priority
04700480470049	Condition - with no CCTV scoring	310.9	8	5.6	8	47	2.0	2.4	4.8	43.9	No	High Priority
04801280480127	Condition - with no CCTV scoring	426.4	8	5.0	8	48	2.0	2.4	4.8	43.9	No	High Priority
06601250660123	Condition - with no CCTV scoring	31.6	8	6.8	8	66	1.8	2.7	4.8	43.9	No	Highest Priority
07502390750240	Condition - with no CCTV scoring	157.1	8	8.7	8	75	2.4	2.0	4.8	43.9	No	Highest Priority
05800490580050	Condition - with no CCTV scoring	488.2	8	6.3	8	57	1.9	2.6	4.8	43.8	No	Highest Priority
05402900540252	Condition - with no CCTV scoring	315.6	8	5.7	8	54	2.2	2.2	4.8	43.8	No	Moderate Priority
06400140640049	Condition - with no CCTV scoring	326.1	10	4.0	10	64	2.1	2.4	4.8	43.8	No	Moderate Priority
06400150640014	Condition - with no CCTV scoring	170	10	4.5	10	64	2.1	2.4	4.8	43.8	No	Moderate Priority
02700340270033	Condition - with no CCTV scoring	277.1	8	8.7	8	27	2.1	2.3	4.8	43.8	No	Moderate Priority
03700570370052	Condition - with no CCTV scoring	539.5	8	9.9	8	37	2.1	2.3	4.8	43.8	No	Low Priority
02602070360112	Condition - with no CCTV scoring	409.7	6	4.6	8	26	1.7	2.9	4.8	43.8	No	Low Priority
02401510240161	Condition - with no CCTV scoring	9	8	14.1	8	24	1.9	2.6	4.8	43.8	No	Lowest Priority
07602490760094	Condition - with no CCTV scoring	10.9	18	5.8	18	76	1.9	2.6	4.8	43.8	No	Highest Priority
02401560240155	Condition - with no CCTV scoring	72	10	7.0	10	24	1.8	2.7	4.8	43.7	No	Lowest Priority
C06603350660331	Condition - with no CCTV scoring	176.7	6	6.0	8	66	1.8	2.7	4.8	43.7	No	Highest Priority
05701310570126	Condition - with no CCTV scoring	319.1	15	10.4	15	57	2.4	2.0	4.8	43.7	No	Highest Priority
03500990350003	Condition - with no CCTV scoring	102	8	7.6	8	35	2.2	2.2	4.8	43.6	No	Moderate Priority
07300510730052	Condition - with no CCTV scoring	1586	6	11.6	8	73	2.2	2.2	4.8	43.6	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02700400270038	Condition - with no CCTV scoring	538	8	7.5	8	27	2.0	2.4	4.8	43.6	No	Moderate Priority
03801010380081	Condition - with no CCTV scoring	30.7	8	5.0	8	38	1.4	3.4	4.8	43.6	No	Low Priority
04701750570014	Condition - with no CCTV scoring	418.3	8	5.0	8	47	1.9	2.6	4.8	43.6	No	High Priority
07700630770008	Condition - with no CCTV scoring	471	8	7.2	8	77	2.1	2.3	4.8	43.6	No	Highest Priority
07700620770064	Condition - with no CCTV scoring	330.4	8	6.4	8	77	2.1	2.3	4.8	43.6	No	Highest Priority
C3	Condition - with no CCTV scoring	724.8	54	2.6	54	86	3.6	1.4	4.8	43.6	No	Highest Priority
07501250750241	Condition - with no CCTV scoring	211.3	8	7.5	8	75	2.3	2.1	4.8	43.6	No	Highest Priority
04801140480113	Condition - with no CCTV scoring	500.2	8	4.8	8	48	2.1	2.3	4.8	43.5	No	High Priority
07601660760165	Condition - with no CCTV scoring	336.7	8	3.3	8	76	1.8	2.7	4.8	43.5	No	Highest Priority
08700210870018	Condition - with no CCTV scoring	8.7	8	12.2	8	87	1.6	3.0	4.8	43.5	No	Moderate Priority
05702160570217	Condition - with no CCTV scoring	390.6	12	9.4	12	57	2.0	2.5	4.8	43.5	No	Highest Priority
0860024STN_006	Condition - with no CCTV scoring	35	10	8.2	10	86	2.5	2.0	4.8	43.5	No	Highest Priority
STN_006STN_008	Condition - with no CCTV scoring	137.9	10	8.4	10	86	2.5	2.0	4.8	43.5	No	Highest Priority
05402850540231	Condition - with no CCTV scoring	340.9	8	5.6	8	54	2.2	2.2	4.8	43.4	No	Moderate Priority
04700950470085	Condition - with no CCTV scoring	114.5	8	5.1	8	47	2.2	2.2	4.8	43.4	No	High Priority
06502550650254	Condition - with no CCTV scoring	543.4	24	11.0	24	65	2.5	1.9	4.8	43.4	No	Moderate Priority
05800040570010	Condition - with no CCTV scoring	60.5	10	3.6	10	57	2.1	2.3	4.8	43.3	No	Highest Priority
01101630110078	Condition - with no CCTV scoring	78.9	8	12.3	8	11	1.6	2.9	4.8	43.3	No	Lowest Priority
07701140770112	Condition - with no CCTV scoring	317.7	18	11.0	18	77	2.3	2.1	4.8	43.3	No	Highest Priority
05800500580051	Condition - with no CCTV scoring	214.4	8	9.9	8	57	1.9	2.5	4.8	43.2	No	Highest Priority
05300900530059	Condition - with no CCTV scoring	258.5	8	5.8	8	53	2.0	2.4	4.8	43.2	No	Moderate Priority
07502450760025	Condition - with no CCTV scoring	450.1	10	11.7	10	76	2.5	1.9	4.8	43.2	No	Highest Priority
04602250460152	Condition - with no CCTV scoring	7.7	8	10.0	8	46	2.0	2.4	4.7	43.2	No	Highest Priority
03600750360079	Condition - with no CCTV scoring	17.4	8	4.2	8	36	1.9	2.6	4.7	43.2	No	High Priority
05800510570231	Condition - with no CCTV scoring	528.3	12	1.0	12	57	1.9	2.6	4.7	43.2	No	Highest Priority
06600710660068	Condition - with no CCTV scoring	314.9	8	4.5	8	66	1.8	2.6	4.7	43.1	No	Highest Priority
06601830660184	Condition - with no CCTV scoring	620.5	8	7.7	8	66	1.8	2.6	4.7	43.1	No	Highest Priority
02500760250068	Condition - with no CCTV scoring	266.9	12	3.8	12	25	1.6	3.1	4.7	43.0	No	Lowest Priority
05602450560242	Condition - with no CCTV scoring	334.9	8	4.8	8	56	2.1	2.3	4.7	43.0	No	Highest Priority
05602500560300	Condition - with no CCTV scoring	1407.7	8	5.1	8	56	2.1	2.3	4.7	43.0	No	Highest Priority
06701030670104	Condition - with no CCTV scoring	464.7	33	13.5	36	67	3.4	1.4	4.7	42.9	No	Highest Priority
04700470570002	Condition - with no CCTV scoring	516.3	8	5.0	8	47	1.9	2.6	4.7	42.9	No	High Priority
05400380540037	Condition - with no CCTV scoring	83.3	8	6.2	8	54	2.5	1.9	4.7	42.9	No	Moderate Priority
05402820540281	Condition - with no CCTV scoring	171	8	6.5	8	54	2.1	2.2	4.7	42.8	No	Moderate Priority
05400550540047	Condition - with no CCTV scoring	204.5	8	6.9	8	54	1.8	2.6	4.7	42.8	No	Moderate Priority
04401470440145	Condition - with no CCTV scoring	251.1	8	6.7	8	44	2.2	2.1	4.7	42.8	No	Low Priority
04401620440147	Condition - with no CCTV scoring	233.9	8	6.5	8	44	2.2	2.1	4.7	42.8	No	Low Priority
04401410440142	Condition - with no CCTV scoring	332.6	8	6.4	8	44	2.2	2.1	4.7	42.8	No	Low Priority
04801280480124	Condition - with no CCTV scoring	239.2	8	5.0	8	48	2.0	2.4	4.7	42.8	No	High Priority
05402920540242	Condition - with no CCTV scoring	209.1	8	14.6	8	54	2.0	2.4	4.7	42.8	No	Moderate Priority
07500980750239	Condition - with no CCTV scoring	81.5	8	4.9	8	75	2.2	2.1	4.7	42.8	No	Highest Priority
07600080760009	Condition - with no CCTV scoring	436.8	12	10.7	12	76	2.0	2.4	4.7	42.8	No	Highest Priority
06700440670024	Condition - with no CCTV scoring	156.2	8	4.3	8	67	2.1	2.3	4.7	42.8	No	Highest Priority
06700700670124	Condition - with no CCTV scoring	424.5	8	5.0	8	67	1.7	2.8	4.7	42.8	No	Highest Priority
07302120730161	Condition - with no CCTV scoring	312.5	10	7.7	10	73	2.1	2.3	4.7	42.8	No	High Priority
07400330740034	Condition - with no CCTV scoring	311.7	6	9.2	8	74	1.7	2.8	4.7	42.8	No	Highest Priority
07502130750214	Condition - with no CCTV scoring	90.7	8	4.4	8	75	2.1	2.3	4.7	42.8	No	Highest Priority
05400460540047	Condition - with no CCTV scoring	340.3	8	8.1	8	54	1.9	2.5	4.7	42.8	No	Moderate Priority
06400480640014	Condition - with no CCTV scoring	403.5	8	5.2	8	64	2.0	2.4	4.7	42.8	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06700380670039	Condition - with no CCTV scoring	806.6	8	5.0	8	67	2.0	2.4	4.7	42.8	No	Highest Priority
04701630460218	Condition - with no CCTV scoring	324.2	8	5.3	8	46	1.7	2.7	4.7	42.7	No	Highest Priority
08500160850038	Condition - with no CCTV scoring	672.3	8	8.0	8	85	2.5	1.9	4.7	42.7	No	Lowest Priority
04602170460216	Condition - with no CCTV scoring	399.7	12	6.1	12	46	1.8	2.6	4.7	42.7	No	Highest Priority
05500190550025	Condition - with no CCTV scoring	693.1	8	5.5	8	55	1.8	2.6	4.7	42.7	No	High Priority
07201500720151	Condition - with no CCTV scoring	35.2	8	11.3	8	72	1.8	2.6	4.7	42.7	No	Moderate Priority
07301180740020	Condition - with no CCTV scoring	22.3	10	7.2	10	73	2.0	2.3	4.7	42.7	No	High Priority
06601030660143	Condition - with no CCTV scoring	274.1	8	5.0	8	66	1.8	2.7	4.7	42.7	No	Highest Priority
04502150450040	Condition - with no CCTV scoring	318	8	5.2	8	45	1.3	3.8	4.7	42.6	No	High Priority
04400030440004	Condition - with no CCTV scoring	146	8	12.8	8	44	2.1	2.2	4.7	42.6	No	Low Priority
05800470580048	Condition - with no CCTV scoring	162.8	8	5.8	8	58	2.1	2.2	4.7	42.6	No	High Priority
05800460580047	Condition - with no CCTV scoring	684.4	8	5.9	8	58	2.1	2.2	4.7	42.6	No	High Priority
04400060440004	Condition - with no CCTV scoring	113.6	8	6.4	8	44	2.2	2.1	4.7	42.6	No	Low Priority
05500560550080	Condition - with no CCTV scoring	20	8	5.4	8	55	2.2	2.1	4.7	42.6	No	High Priority
05500060550005	Condition - with no CCTV scoring	351.2	8	6.4	8	55	2.2	2.1	4.7	42.6	No	High Priority
07501260750125	Condition - with no CCTV scoring	200.2	8	5.0	8	75	2.2	2.1	4.7	42.6	No	Highest Priority
07502410750239	Condition - with no CCTV scoring	145.3	8	9.1	8	75	2.3	2.0	4.7	42.6	No	Highest Priority
07501680750166	Condition - with no CCTV scoring	394.1	8	10.5	8	75	1.9	2.5	4.7	42.5	No	Highest Priority
07502400750246	Condition - with no CCTV scoring	127.7	8	10.3	8	75	2.5	1.9	4.7	42.5	No	Highest Priority
07400030740004	Condition - with no CCTV scoring	90	6	1.8	8	74	1.6	2.9	4.7	42.5	No	Highest Priority
05400140540013	Condition - with no CCTV scoring	409	8	5.0	8	54	1.8	2.6	4.7	42.5	No	Moderate Priority
05501070550102	Condition - with no CCTV scoring	438.7	8	5.5	8	55	2.2	2.1	4.7	42.4	No	High Priority
04601520460226	Condition - with no CCTV scoring	53.1	8	10.1	8	46	2.1	2.3	4.7	42.4	No	Highest Priority
06602490660252	Condition - with no CCTV scoring	275.4	8	7.9	8	66	2.1	2.3	4.7	42.4	No	Highest Priority
06700480670024	Condition - with no CCTV scoring	177.4	10	3.3	10	67	2.1	2.3	4.7	42.4	No	Highest Priority
07600520760073	Condition - with no CCTV scoring	294.4	8	6.2	8	76	2.1	2.3	4.7	42.4	No	Highest Priority
04701870470181	Condition - with no CCTV scoring	307.1	8	5.3	8	47	1.9	2.5	4.7	42.4	No	High Priority
04701860470185	Condition - with no CCTV scoring	290.2	8	5.9	8	47	1.9	2.5	4.7	42.4	No	High Priority
06400490640051	Condition - with no CCTV scoring	414.5	10	5.5	10	64	2.0	2.4	4.7	42.3	No	Moderate Priority
06602200660256	Condition - with no CCTV scoring	684.6	8	6.0	8	66	2.0	2.4	4.7	42.3	No	Highest Priority
06700920670093	Condition - with no CCTV scoring	292.2	12	5.7	12	67	1.7	2.8	4.6	42.3	No	Highest Priority
08600230860021	Condition - with no CCTV scoring	97.7	8	5.5	8	86	2.2	2.2	4.6	42.3	No	Highest Priority
08700850870087	Condition - with no CCTV scoring	446.2	8	12.1	8	87	2.2	2.2	4.6	42.3	No	Moderate Priority
04801000480098	Condition - with no CCTV scoring	520.9	8	5.1	8	48	2.2	2.1	4.6	42.2	No	High Priority
04800990480098	Condition - with no CCTV scoring	219.7	8	5.0	8	48	2.2	2.1	4.6	42.2	No	High Priority
05501580550159	Condition - with no CCTV scoring	322.5	12	6.8	12	55	1.8	2.6	4.6	42.2	No	High Priority
05800890580092	Condition - with no CCTV scoring	349.1	8	7.8	8	58	1.6	2.9	4.6	42.2	No	High Priority
06603010660240	Condition - with no CCTV scoring	673.8	8	5.6	8	66	1.8	2.7	4.6	42.2	No	Highest Priority
06501860650188	Condition - with no CCTV scoring	341.1	10	7.0	10	65	2.1	2.3	4.6	42.2	No	Moderate Priority
09701480970180	Condition - with no CCTV scoring	36.3	8	7.3	8	97	1.9	2.5	4.6	42.1	No	Lowest Priority
06602460660275	Condition - with no CCTV scoring	667.7	8	3.8	8	66	2.0	2.4	4.6	42.1	No	Highest Priority
06502270650168	Condition - with no CCTV scoring	340.3	8	5.3	8	65	1.8	2.6	4.6	42.1	No	Moderate Priority
03801020380101	Condition - with no CCTV scoring	220.9	8	4.6	8	38	1.4	3.4	4.6	42.1	No	Low Priority
05400240540025	Condition - with no CCTV scoring	176.1	8	0.1	8	54	2.2	2.1	4.6	42.0	No	Moderate Priority
05400260540025	Condition - with no CCTV scoring	398	8	10.7	8	54	2.4	1.9	4.6	42.0	No	Moderate Priority
06700340670020	Condition - with no CCTV scoring	179.1	8	4.2	8	67	2.1	2.3	4.6	42.0	No	Highest Priority
06700200660335	Condition - with no CCTV scoring	18.2	8	4.3	8	67	2.1	2.3	4.6	42.0	No	Highest Priority
04701790470177	Condition - with no CCTV scoring	59.9	8	3.4	8	47	1.7	2.7	4.6	42.0	No	High Priority
04701770470178	Condition - with no CCTV scoring	103.8	8	4.1	8	47	1.7	2.7	4.6	42.0	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05501970550198	Condition - with no CCTV scoring	303.2	8	4.3	8	55	1.9	2.5	4.6	41.9	No	High Priority
06300760630077	Condition - with no CCTV scoring	402	10	4.8	10	63	1.9	2.5	4.6	41.9	No	Moderate Priority
03700850370083	Condition - with no CCTV scoring	279.9	8	5.5	8	37	1.5	3.1	4.6	41.9	No	Low Priority
02302160230217	Condition - with no CCTV scoring	151.1	8	16.9	8	23	1.8	2.6	4.6	41.9	No	Lowest Priority
06601700660169	Condition - with no CCTV scoring	129.7	8	5.1	8	66	1.8	2.6	4.6	41.9	No	Highest Priority
06601730660174	Condition - with no CCTV scoring	354.6	8	5.6	8	66	1.8	2.6	4.6	41.9	No	Highest Priority
07602060760205	Condition - with no CCTV scoring	337.9	21	8.9	21	76	2.1	2.2	4.6	41.9	No	Highest Priority
03800710380049	Condition - with no CCTV scoring	310.4	8	5.1	8	38	2.0	2.3	4.6	41.9	No	Low Priority
04401510440150	Condition - with no CCTV scoring	342.2	8	5.3	8	44	2.2	2.1	4.6	41.8	No	Low Priority
04800650480076	Condition - with no CCTV scoring	228.1	8	7.8	8	48	2.2	2.1	4.6	41.8	No	High Priority
05402810540288	Condition - with no CCTV scoring	303.4	8	9.2	8	54	2.2	2.1	4.6	41.8	No	Moderate Priority
06502450650250	Condition - with no CCTV scoring	476.7	18	5.7	18	65	2.2	2.1	4.6	41.8	No	Moderate Priority
05402800540281	Condition - with no CCTV scoring	121.5	8	4.2	8	54	2.1	2.2	4.6	41.8	No	Moderate Priority
07301660730168	Condition - with no CCTV scoring	481.1	8	4.5	8	73	1.8	2.6	4.6	41.8	No	High Priority
07601750760177	Condition - with no CCTV scoring	67.8	12	7.6	12	76	2.0	2.3	4.6	41.8	No	Highest Priority
08600360860053	Condition - with no CCTV scoring	364.1	15	3.9	15	86	2.6	1.8	4.6	41.7	No	Highest Priority
06502240660014	Condition - with no CCTV scoring	335.9	8	6.0	8	65	2.0	2.4	4.6	41.7	No	Moderate Priority
06700500670049	Condition - with no CCTV scoring	581.9	8	4.9	8	67	2.0	2.4	4.6	41.7	No	Highest Priority
04400600450081	Condition - with no CCTV scoring	336.1	15	7.9	15	45	1.9	2.5	4.6	41.7	No	High Priority
06601790660178	Condition - with no CCTV scoring	163.2	8	5.5	8	66	2.1	2.2	4.6	41.7	No	Highest Priority
04501200550006	Condition - with no CCTV scoring	340	8	5.5	8	45	2.2	2.1	4.6	41.7	No	High Priority
05500040550189	Condition - with no CCTV scoring	452.6	8	6.5	8	55	2.2	2.1	4.6	41.7	No	High Priority
05300250530026	Condition - with no CCTV scoring	468.8	8	5.0	8	53	2.1	2.2	4.6	41.6	No	Moderate Priority
06600630660062	Condition - with no CCTV scoring	250	8	5.3	8	66	1.8	2.6	4.6	41.6	No	Highest Priority
06700300670029	Condition - with no CCTV scoring	530.5	8	4.2	8	66	1.8	2.5	4.6	41.6	No	Highest Priority
08600110860012	Condition - with no CCTV scoring	414.5	12	16.2	12	86	2.7	1.7	4.6	41.6	No	Highest Priority
07501950750200	Condition - with no CCTV scoring	72.7	8	5.4	8	75	1.7	2.7	4.6	41.5	No	Highest Priority
07502210750235	Condition - with no CCTV scoring	304.3	24	8.5	24	75	2.3	2.0	4.6	41.5	No	Highest Priority
06601600660158	Condition - with no CCTV scoring	306.5	8	7.8	8	66	1.9	2.4	4.6	41.5	No	Highest Priority
06602690660246	Condition - with no CCTV scoring	684.2	8	4.3	8	66	1.9	2.4	4.6	41.5	No	Highest Priority
07600990760088	Condition - with no CCTV scoring	76.9	8	8.8	8	76	2.1	2.2	4.6	41.5	No	Highest Priority
06502070650134	Condition - with no CCTV scoring	109	15	10.5	15	65	2.2	2.1	4.6	41.4	No	Moderate Priority
06501670650168	Condition - with no CCTV scoring	339.7	8	4.6	8	65	1.8	2.6	4.6	41.4	No	Moderate Priority
06700830670082	Condition - with no CCTV scoring	291.2	10	4.8	10	67	1.8	2.5	4.6	41.4	No	Highest Priority
07600980760088	Condition - with no CCTV scoring	449.3	8	4.8	8	66	2.0	2.3	4.5	41.4	No	Highest Priority
08700760870125	Condition - with no CCTV scoring	318.1	8	8.7	8	87	2.0	2.3	4.5	41.4	No	Moderate Priority
05701200570117	Condition - with no CCTV scoring	324.7	8	2.5	8	57	1.8	2.6	4.5	41.3	No	Highest Priority
05800150580016	Condition - with no CCTV scoring	98.8	10	11.8	10	57	1.8	2.6	4.5	41.3	No	Highest Priority
05800150580016	Condition - with no CCTV scoring	96.1	8	11.8	8	57	1.8	2.6	4.5	41.3	No	Highest Priority
06602470660264	Condition - with no CCTV scoring	22.4	8	3.3	8	66	1.8	2.6	4.5	41.3	No	Highest Priority
05602690560171	Condition - with no CCTV scoring	295.9	8	9.0	8	56	2.1	2.2	4.5	41.3	No	Highest Priority
04600950460096	Condition - with no CCTV scoring	83.8	8	3.9	8	46	1.7	2.7	4.5	41.3	No	Highest Priority
04701610470147	Condition - with no CCTV scoring	172.4	8	6.1	8	47	2.2	2.1	4.5	41.3	No	High Priority
06500940650092	Condition - with no CCTV scoring	15.3	8	4.1	8	65	2.2	2.1	4.5	41.3	No	Moderate Priority
04401690440170	Condition - with no CCTV scoring	94.4	8	7.6	8	44	1.9	2.4	4.5	41.3	No	Low Priority
05700710570078	Condition - with no CCTV scoring	702.1	8	5.4	8	57	1.9	2.4	4.5	41.3	No	Highest Priority
05402180540214	Condition - with no CCTV scoring	406.2	8	5.8	8	54	2.5	1.9	4.5	41.2	No	Moderate Priority
05701110570109	Condition - with no CCTV scoring	403.3	8	4.7	8	57	1.7	2.7	4.5	41.2	No	Highest Priority
06400260640027	Condition - with no CCTV scoring	348.4	8	4.2	8	64	1.7	2.7	4.5	41.2	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06501880650142	Condition - with no CCTV scoring	341	10	6.6	10	65	2.0	2.3	4.5	41.1	No	Moderate Priority
07400250740023	Condition - with no CCTV scoring	279.7	8	7.7	8	74	1.4	3.4	4.5	41.1	No	Highest Priority
06700170670040	Condition - with no CCTV scoring	812.5	8	5.0	8	67	1.9	2.4	4.5	41.1	No	Highest Priority
05501440550142	Condition - with no CCTV scoring	331.5	8	6.5	8	55	2.1	2.2	4.5	41.0	No	High Priority
06600700660093	Condition - with no CCTV scoring	291.9	8	6.9	8	66	1.7	2.7	4.5	41.0	No	Highest Priority
04401680440169	Condition - with no CCTV scoring	415	8	6.4	8	44	2.0	2.3	4.5	41.0	No	Low Priority
07601000760099	Condition - with no CCTV scoring	327.1	8	4.4	8	76	1.7	2.7	4.5	41.0	No	Highest Priority
07600570760099	Condition - with no CCTV scoring	427.7	8	5.8	8	76	1.7	2.7	4.5	41.0	No	Highest Priority
01100300110031	Condition - with no CCTV scoring	457.1	12	9.8	12	11	2.3	2.0	4.5	41.0	No	Lowest Priority
01100330110034	Condition - with no CCTV scoring	287.7	12	9.5	12	11	2.3	2.0	4.5	41.0	No	Lowest Priority
09701350970103	Condition - with no CCTV scoring	36.7	8	10.3	8	97	2.3	2.0	4.5	41.0	No	Lowest Priority
03601910360131	Condition - with no CCTV scoring	39.4	27	9.3	27	36	2.5	1.8	4.5	40.9	No	High Priority
06601800660185	Condition - with no CCTV scoring	342.9	8	6.2	8	66	2.0	2.3	4.5	40.9	No	Highest Priority
06600110760053	Condition - with no CCTV scoring	333.5	8	8.2	8	66	1.8	2.5	4.5	40.9	No	Highest Priority
06700820670084	Condition - with no CCTV scoring	401.5	10	6.4	10	67	1.8	2.5	4.5	40.9	No	Highest Priority
02202130220026	Condition - with no CCTV scoring	237	12	5.8	12	22	2.4	1.9	4.5	40.9	No	Low Priority
04800810480080	Condition - with no CCTV scoring	200.2	8	2.5	8	48	2.1	2.1	4.5	40.9	No	High Priority
07800080780073	Condition - with no CCTV scoring	467.8	15	8.1	15	78	2.1	2.1	4.5	40.9	No	Low Priority
06501350650136	Condition - with no CCTV scoring	521.6	18	9.4	18	65	2.1	2.2	4.5	40.9	No	Moderate Priority
06602560660251	Condition - with no CCTV scoring	680.1	8	5.3	8	66	1.9	2.4	4.5	40.8	No	Highest Priority
04600150460066	Condition - with no CCTV scoring	518.4	21	12.6	21	46	2.6	1.7	4.5	40.8	No	Highest Priority
05300720530073	Condition - with no CCTV scoring	346.5	8	6.2	8	53	1.9	2.4	4.5	40.8	No	Moderate Priority
05401020540164	Condition - with no CCTV scoring	210.7	8	5.0	8	54	2.0	2.2	4.5	40.8	No	Moderate Priority
07601950760226	Condition - with no CCTV scoring	125.7	8	4.2	8	76	2.0	2.2	4.5	40.8	No	Highest Priority
04701850470181	Condition - with no CCTV scoring	278.2	8	7.5	8	47	2.0	2.3	4.5	40.8	No	High Priority
05600630560064	Condition - with no CCTV scoring	418.2	8	6.0	8	56	2.0	2.3	4.5	40.8	No	Highest Priority
06600290660027	Condition - with no CCTV scoring	328.9	8	7.7	8	66	1.7	2.7	4.5	40.8	No	Highest Priority
05602720560300	Condition - with no CCTV scoring	345.8	8	6.1	8	56	2.0	2.3	4.5	40.7	No	Highest Priority
07202220720221	Condition - with no CCTV scoring	476.2	8	9.9	8	72	2.0	2.3	4.5	40.7	No	Moderate Priority
07601330760145	Condition - with no CCTV scoring	383	8	7.1	8	76	2.0	2.3	4.5	40.7	No	Highest Priority
05502370550235	Condition - with no CCTV scoring	351.9	8	6.1	8	55	2.1	2.1	4.5	40.7	No	High Priority
06601690660171	Condition - with no CCTV scoring	335.3	8	5.3	8	66	1.7	2.6	4.5	40.7	No	Highest Priority
03801000380101	Condition - with no CCTV scoring	331	8	2.8	8	38	1.5	3.0	4.5	40.7	No	Low Priority
04400050440003	Condition - with no CCTV scoring	224.3	8	13.2	8	44	2.0	2.2	4.5	40.6	No	Low Priority
06601360660144	Condition - with no CCTV scoring	285.5	8	5.4	8	66	1.9	2.4	4.5	40.6	No	Highest Priority
04401160440049	Condition - with no CCTV scoring	114	15	8.2	15	44	1.9	2.4	4.5	40.6	No	Low Priority
05500890550086	Condition - with no CCTV scoring	352.3	8	5.6	8	55	1.8	2.6	4.5	40.6	No	High Priority
05701550570156	Condition - with no CCTV scoring	93.4	8	4.6	8	57	1.8	2.6	4.5	40.6	No	Highest Priority
07601630760165	Condition - with no CCTV scoring	460.5	8	5.3	8	76	1.9	2.3	4.5	40.6	No	Highest Priority
07501090750228	Condition - with no CCTV scoring	190.1	8	3.7	8	75	1.8	2.5	4.5	40.6	No	Highest Priority
03900600390053	Condition - with no CCTV scoring	410.4	8	11.6	8	39	1.4	3.3	4.5	40.5	No	Low Priority
03900530390068	Condition - with no CCTV scoring	227.7	8	11.8	8	39	1.4	3.3	4.5	40.5	No	Low Priority
05500370550039	Condition - with no CCTV scoring	322.1	10	7.8	10	55	2.0	2.3	4.5	40.5	No	High Priority
02700330270035	Condition - with no CCTV scoring	602	8	9.8	8	27	2.1	2.2	4.5	40.5	No	Moderate Priority
07701160770115	Condition - with no CCTV scoring	402.2	21	5.3	21	77	2.2	2.1	4.4	40.5	No	Highest Priority
03801210380122	Condition - with no CCTV scoring	271.7	8	4.0	8	38	2.3	1.9	4.4	40.5	No	Low Priority
06501720650227	Condition - with no CCTV scoring	339.8	8	5.3	8	65	1.7	2.6	4.4	40.5	No	Moderate Priority
06501690650227	Condition - with no CCTV scoring	345.6	8	6.0	8	65	1.7	2.6	4.4	40.5	No	Moderate Priority
07600460760052	Condition - with no CCTV scoring	426.9	12	7.3	12	76	1.7	2.6	4.4	40.5	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04601070460092	Condition - with no CCTV scoring	154.8	8	5.0	8	46	2.1	2.1	4.4	40.3	No	Highest Priority
05501030550101	Condition - with no CCTV scoring	299.1	15	6.4	15	55	2.1	2.1	4.4	40.3	No	High Priority
05501010550100	Condition - with no CCTV scoring	35.1	15	7.2	15	55	2.1	2.1	4.4	40.3	No	High Priority
04600660460059	Condition - with no CCTV scoring	23.7	21	8.6	21	46	2.5	1.8	4.4	40.3	No	Highest Priority
06601760660177	Condition - with no CCTV scoring	153.5	33	5.4	36	66	2.3	1.9	4.4	40.3	No	Highest Priority
07600340760032	Condition - with no CCTV scoring	333	15	4.2	15	76	2.3	1.9	4.4	40.3	No	Highest Priority
02401410340083	Condition - with no CCTV scoring	101.4	8	9.7	8	24	2.0	2.2	4.4	40.2	No	Lowest Priority
07501630750185	Condition - with no CCTV scoring	45.8	18	6.8	18	75	1.7	2.6	4.4	40.2	No	Highest Priority
07600530760054	Condition - with no CCTV scoring	363.7	8	5.0	8	76	1.7	2.6	4.4	40.2	No	Highest Priority
06700840670085	Condition - with no CCTV scoring	311.2	10	7.1	10	67	1.9	2.4	4.4	40.2	No	Highest Priority
05800310580015	Condition - with no CCTV scoring	157.3	10	9.6	10	57	1.7	2.6	4.4	40.1	No	Highest Priority
05602930560294	Condition - with no CCTV scoring	531.9	8	4.6	8	56	2.0	2.3	4.4	40.1	No	Highest Priority
06501420650137	Condition - with no CCTV scoring	338	10	6.7	10	65	2.0	2.3	4.4	40.1	No	Moderate Priority
06700880670089	Condition - with no CCTV scoring	366.3	12	13.1	12	67	2.1	2.2	4.4	40.1	No	Highest Priority
01100340110035	Condition - with no CCTV scoring	303	15	8.2	15	11	2.3	2.0	4.4	40.1	No	Lowest Priority
04700490470166	Condition - with no CCTV scoring	16.4	8	5.5	8	47	1.8	2.5	4.4	40.0	No	High Priority
06400560640050	Condition - with no CCTV scoring	604.3	8	5.1	8	64	1.9	2.4	4.4	40.0	No	Moderate Priority
07201330720134	Condition - with no CCTV scoring	36	8	5.6	8	72	1.9	2.4	4.4	40.0	No	Moderate Priority
04800790480080	Condition - with no CCTV scoring	176.2	6	6.7	8	48	2.1	2.1	4.4	39.9	No	High Priority
05300060540027	Condition - with no CCTV scoring	390.4	8	10.6	8	53	2.3	1.9	4.4	39.9	No	Moderate Priority
04700670570004	Condition - with no CCTV scoring	485	8	3.9	8	47	1.7	2.6	4.4	39.9	No	High Priority
04701730570012	Condition - with no CCTV scoring	408.7	8	5.2	8	47	1.8	2.5	4.4	39.9	No	High Priority
02301350230136	Condition - with no CCTV scoring	200.1	24	28.1	24	23	3.2	1.4	4.4	39.8	No	Lowest Priority
05702310570228	Condition - with no CCTV scoring	388.3	12	12.0	12	57	1.9	2.4	4.4	39.8	No	Highest Priority
05700500570077	Condition - with no CCTV scoring	340.3	8	4.9	8	57	1.9	2.4	4.4	39.8	No	Highest Priority
04701990470196	Condition - with no CCTV scoring	339.8	8	5.5	8	47	1.9	2.3	4.4	39.8	No	High Priority
05701210570099	Condition - with no CCTV scoring	280.9	8	5.9	8	57	1.9	2.3	4.4	39.8	No	Highest Priority
05502420550241	Condition - with no CCTV scoring	541.4	8	5.5	8	55	2.1	2.1	4.4	39.7	No	High Priority
07502220750220	Condition - with no CCTV scoring	175.7	8	4.7	8	75	2.1	2.1	4.4	39.7	No	Highest Priority
01100310110032	Condition - with no CCTV scoring	313.6	12	10.1	12	11	2.4	1.9	4.4	39.7	No	Lowest Priority
01100320110033	Condition - with no CCTV scoring	474.1	12	10.0	12	11	2.4	1.9	4.4	39.7	No	Lowest Priority
07600920760093	Condition - with no CCTV scoring	619	18	5.9	18	76	1.9	2.3	4.4	39.7	No	Highest Priority
05701570570155	Condition - with no CCTV scoring	272	8	3.8	8	57	1.7	2.6	4.4	39.7	No	Highest Priority
03501140350099	Condition - with no CCTV scoring	388	8	7.0	8	35	2.0	2.2	4.4	39.6	No	Moderate Priority
05402310540232	Condition - with no CCTV scoring	424.4	8	6.7	8	54	2.0	2.2	4.4	39.6	No	Moderate Priority
07201800720166	Condition - with no CCTV scoring	52.5	8	9.2	8	72	2.0	2.2	4.4	39.6	No	Moderate Priority
05701990570132	Condition - with no CCTV scoring	343.2	12	11.3	12	57	1.9	2.4	4.3	39.6	No	Highest Priority
04400380440034	Condition - with no CCTV scoring	108.3	8	6.4	8	44	2.1	2.1	4.3	39.6	No	Low Priority
06400780640076	Condition - with no CCTV scoring	412	8	5.8	8	64	1.6	2.7	4.3	39.5	No	Moderate Priority
07201630720153	Condition - with no CCTV scoring	55.8	8	9.5	8	72	1.6	2.7	4.3	39.5	No	Moderate Priority
05500390550045	Condition - with no CCTV scoring	181.9	10	7.5	10	55	1.9	2.3	4.3	39.5	No	High Priority
05500390650186	Condition - with no CCTV scoring	344	10	7.5	10	55	1.9	2.3	4.3	39.5	No	High Priority
06601800660179	Condition - with no CCTV scoring	172.6	8	6.2	8	66	1.9	2.3	4.3	39.5	No	Highest Priority
06700850670086	Condition - with no CCTV scoring	333	10	9.9	10	67	1.9	2.3	4.3	39.5	No	Highest Priority
07600930760106	Condition - with no CCTV scoring	62.8	18	6.3	18	76	1.9	2.3	4.3	39.5	No	Highest Priority
07600590760092	Condition - with no CCTV scoring	505.1	18	5.1	18	76	1.9	2.3	4.3	39.5	No	Highest Priority
05500750550068	Condition - with no CCTV scoring	315.2	8	5.8	8	55	1.7	2.6	4.3	39.5	No	High Priority
05600140560015	Condition - with no CCTV scoring	412	8	6.9	8	56	1.7	2.6	4.3	39.5	No	Highest Priority
05800950580100	Condition - with no CCTV scoring	311.7	8	7.8	8	58	1.6	2.8	4.3	39.5	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05800960580097	Condition - with no CCTV scoring	340.5	8	7.5	8	58	1.6	2.8	4.3	39.5	No	High Priority
05801000580098	Condition - with no CCTV scoring	39.9	8	6.3	8	58	1.6	2.8	4.3	39.5	No	High Priority
05300190530026	Condition - with no CCTV scoring	407.2	8	5.0	8	53	2.0	2.2	4.3	39.4	No	Moderate Priority
04501960460014	Condition - with no CCTV scoring	358	21	5.3	21	45	2.3	1.9	4.3	39.4	No	High Priority
05600400560047	Condition - with no CCTV scoring	306.3	15	7.3	15	56	2.3	1.9	4.3	39.4	No	Highest Priority
04500320450207	Condition - with no CCTV scoring	322.2	8	3.4	8	45	2.1	2.1	4.3	39.4	No	High Priority
04800720480068	Condition - with no CCTV scoring	113.6	8	6.2	8	48	2.1	2.1	4.3	39.4	No	High Priority
05501050550103	Condition - with no CCTV scoring	395.1	8	5.7	8	55	2.1	2.1	4.3	39.4	No	High Priority
05700290570031	Condition - with no CCTV scoring	761.1	8	5.2	8	57	2.2	2.0	4.3	39.3	No	Highest Priority
06502490650175	Condition - with no CCTV scoring	254.4	27	5.6	27	65	1.9	2.3	4.3	39.3	No	Moderate Priority
06502510650249	Condition - with no CCTV scoring	289.5	27	5.4	27	65	1.9	2.3	4.3	39.3	No	Moderate Priority
05401640540165	Condition - with no CCTV scoring	329.8	8	5.5	8	54	2.0	2.2	4.3	39.2	No	Moderate Priority
03600850360080	Condition - with no CCTV scoring	438	8	5.1	8	36	1.7	2.6	4.3	39.2	No	High Priority
06500340650033	Condition - with no CCTV scoring	342.6	8	6.0	8	65	1.7	2.6	4.3	39.2	No	Moderate Priority
04701740470173	Condition - with no CCTV scoring	275.1	8	5.3	8	47	1.9	2.3	4.3	39.1	No	High Priority
04701810470179	Condition - with no CCTV scoring	336.6	8	6.3	8	47	1.9	2.3	4.3	39.1	No	High Priority
06601360660135	Condition - with no CCTV scoring	342.7	8	5.4	8	66	1.8	2.4	4.3	39.1	No	Highest Priority
05800120580007	Condition - with no CCTV scoring	71.5	8	6.4	8	58	1.7	2.5	4.3	39.1	No	High Priority
06701180670083	Condition - with no CCTV scoring	307.7	10	4.2	10	67	1.7	2.5	4.3	39.1	No	Highest Priority
04900180490019	Condition - with no CCTV scoring	72.5	8	8.4	8	49	2.0	2.1	4.3	39.0	No	Lowest Priority
05800910580094	Condition - with no CCTV scoring	702.6	8	7.8	8	58	1.5	2.8	4.3	39.0	No	High Priority
05800920580093	Condition - with no CCTV scoring	699.6	8	7.8	8	58	1.5	2.8	4.3	39.0	No	High Priority
07601080760127	Condition - with no CCTV scoring	732	8	6.1	8	76	2.0	2.2	4.3	38.9	No	Highest Priority
04801420480143	Condition - with no CCTV scoring	332.6	10	7.3	10	48	1.9	2.3	4.3	38.9	No	High Priority
06700400670080	Condition - with no CCTV scoring	681.5	10	5.1	10	67	1.8	2.4	4.3	38.9	No	Highest Priority
05500380550037	Condition - with no CCTV scoring	326.8	10	7.7	10	55	1.9	2.3	4.3	38.9	No	High Priority
05602950560298	Condition - with no CCTV scoring	285.3	8	6.4	8	56	1.9	2.3	4.3	38.9	No	Highest Priority
06501910650182	Condition - with no CCTV scoring	445.5	8	5.3	8	65	1.9	2.3	4.3	38.9	No	Moderate Priority
07700070760191	Condition - with no CCTV scoring	685.3	8	6.2	8	76	1.9	2.3	4.3	38.9	No	Highest Priority
02200590220058	Condition - with no CCTV scoring	202.6	15	15.9	15	22	2.6	1.7	4.3	38.9	No	Low Priority
02700440270043	Condition - with no CCTV scoring	472.3	8	7.1	8	27	1.9	2.2	4.3	38.8	No	Moderate Priority
05402130540023	Condition - with no CCTV scoring	425.1	8	6.0	8	54	1.9	2.2	4.3	38.8	No	Moderate Priority
05402320540213	Condition - with no CCTV scoring	428.9	8	5.5	8	54	1.9	2.2	4.3	38.8	No	Moderate Priority
05402880540252	Condition - with no CCTV scoring	47.1	8	5.5	8	54	1.9	2.2	4.3	38.8	No	Moderate Priority
03300480330047	Condition - with no CCTV scoring	146.5	15	9.5	15	33	2.4	1.8	4.3	38.8	No	Low Priority
06501710650172	Condition - with no CCTV scoring	331.8	8	3.8	8	65	1.6	2.6	4.3	38.8	No	Moderate Priority
07301140730112	Condition - with no CCTV scoring	72.9	8	8.9	8	73	1.6	2.6	4.3	38.8	No	High Priority
04502580550015	Condition - with no CCTV scoring	292.9	8	16.0	8	45	1.7	2.5	4.3	38.8	No	High Priority
05500250550053	Condition - with no CCTV scoring	180.7	8	6.1	8	55	1.7	2.5	4.3	38.8	No	High Priority
05502510550246	Condition - with no CCTV scoring	475	8	4.5	8	55	2.0	2.1	4.3	38.8	No	High Priority
09700450960082	Condition - with no CCTV scoring	443.2	8	9.3	8	96	2.0	2.1	4.3	38.8	No	Low Priority
05300440530022	Condition - with no CCTV scoring	390.8	8	5.1	8	53	1.5	2.8	4.3	38.7	No	Moderate Priority
06400510640053	Condition - with no CCTV scoring	511.3	10	4.5	10	64	1.8	2.4	4.3	38.7	No	Moderate Priority
06602510660249	Condition - with no CCTV scoring	374.6	8	6.7	8	66	1.9	2.3	4.3	38.7	No	Highest Priority
05401690550039	Condition - with no CCTV scoring	625	8	4.8	8	54	1.9	2.3	4.2	38.5	No	Moderate Priority
05401060540094	Condition - with no CCTV scoring	261.9	8	5.5	8	54	1.9	2.3	4.2	38.5	No	Moderate Priority
05601650560143	Condition - with no CCTV scoring	719.4	8	4.6	8	56	1.9	2.3	4.2	38.5	No	Highest Priority
05701320570129	Condition - with no CCTV scoring	210.3	12	9.6	12	57	1.8	2.4	4.2	38.5	No	Highest Priority
05700520570002	Condition - with no CCTV scoring	339.4	8	4.9	8	57	1.9	2.3	4.2	38.5	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06700680670067	Condition - with no CCTV scoring	858.6	10	5.7	10	67	1.8	2.4	4.2	38.5	No	Highest Priority
06700670670045	Condition - with no CCTV scoring	603.7	10	4.1	10	67	1.8	2.4	4.2	38.5	No	Highest Priority
07601230760119	Condition - with no CCTV scoring	338.6	8	8.3	8	76	1.9	2.3	4.2	38.5	No	Highest Priority
05300890530090	Condition - with no CCTV scoring	431.1	8	6.0	8	53	1.8	2.4	4.2	38.4	No	Moderate Priority
06700290670070	Condition - with no CCTV scoring	461.8	8	4.8	8	67	1.8	2.4	4.2	38.4	No	Highest Priority
07701500770152	Condition - with no CCTV scoring	81.3	15	6.9	15	77	1.8	2.4	4.2	38.4	No	Highest Priority
04700790470077	Condition - with no CCTV scoring	187.2	8	7.8	8	47	2.0	2.1	4.2	38.4	No	High Priority
07600310760029	Condition - with no CCTV scoring	491.8	8	4.2	8	76	2.2	1.9	4.2	38.4	No	Highest Priority
03601510360150	Condition - with no CCTV scoring	26.9	8	20.5	8	36	1.7	2.5	4.2	38.3	No	High Priority
04700780470080	Condition - with no CCTV scoring	54.2	8	5.0	8	47	2.0	2.2	4.2	38.3	No	High Priority
06600270660028	Condition - with no CCTV scoring	377	8	5.6	8	66	1.6	2.6	4.2	38.3	No	Highest Priority
05702370570155	Condition - with no CCTV scoring	591.4	8	3.4	8	57	1.7	2.6	4.2	38.3	No	Highest Priority
06601780660181	Condition - with no CCTV scoring	387.5	8	5.4	8	66	1.9	2.3	4.2	38.3	No	Highest Priority
07202210720220	Condition - with no CCTV scoring	456.9	8	7.5	8	72	1.9	2.3	4.2	38.3	No	Moderate Priority
07201520720134	Condition - with no CCTV scoring	269.5	8	9.3	8	72	1.9	2.3	4.2	38.3	No	Moderate Priority
08500210850020	Condition - with no CCTV scoring	102.2	8	4.0	8	85	1.9	2.3	4.2	38.3	No	Lowest Priority
02500280250013	Condition - with no CCTV scoring	189.1	8	6.0	8	25	1.8	2.4	4.2	38.3	No	Lowest Priority
09701370970133	Condition - with no CCTV scoring	175.4	8	9.8	8	97	1.8	2.4	4.2	38.3	No	Lowest Priority
05402750540265	Condition - with no CCTV scoring	419.6	8	4.5	8	54	1.5	2.9	4.2	38.3	No	Moderate Priority
05402120540023	Condition - with no CCTV scoring	49.9	8	6.0	8	54	1.9	2.2	4.2	38.2	No	Moderate Priority
05402150540212	Condition - with no CCTV scoring	65.2	8	5.7	8	54	1.9	2.2	4.2	38.2	No	Moderate Priority
04600890460075	Condition - with no CCTV scoring	351.8	8	5.0	8	46	1.7	2.5	4.2	38.2	No	Highest Priority
05300050530072	Condition - with no CCTV scoring	437.4	8	5.5	8	53	1.8	2.4	4.2	38.2	No	Moderate Priority
05800970580098	Condition - with no CCTV scoring	423.7	8	4.1	8	58	1.5	2.8	4.2	38.2	No	High Priority
04600140460015	Condition - with no CCTV scoring	304	21	7.8	21	46	2.3	1.8	4.2	38.2	No	Highest Priority
02200580220057	Condition - with no CCTV scoring	277.6	15	11.7	15	22	2.5	1.7	4.2	38.1	No	Low Priority
06400330640027	Condition - with no CCTV scoring	344.6	8	4.5	8	64	1.7	2.5	4.2	38.1	No	Moderate Priority
02300030230004	Condition - with no CCTV scoring	157.2	8	9.4	8	23	1.4	3.0	4.2	38.1	No	Lowest Priority
03600330360034	Condition - with no CCTV scoring	602.5	8	5.0	8	36	1.9	2.3	4.2	38.1	No	High Priority
03600340460118	Condition - with no CCTV scoring	664.2	8	6.0	8	36	1.9	2.3	4.2	38.1	No	High Priority
06501900650189	Condition - with no CCTV scoring	591.4	8	5.2	8	65	1.9	2.3	4.2	38.1	No	Moderate Priority
06501530650154	Condition - with no CCTV scoring	309.3	8	6.0	8	65	1.9	2.3	4.2	38.1	No	Moderate Priority
06602750660321	Condition - with no CCTV scoring	28.4	8	3.5	8	66	1.9	2.3	4.2	38.1	No	Highest Priority
03300340330031	Condition - with no CCTV scoring	432.9	15	8.9	15	33	2.5	1.7	4.2	38.0	No	Low Priority
06501390650124	Condition - with no CCTV scoring	22.5	18	12.8	18	65	2.0	2.1	4.2	38.0	No	Moderate Priority
07602020760203	Condition - with no CCTV scoring	390.9	8	5.5	8	76	1.6	2.6	4.2	38.0	No	Highest Priority
07600140760025	Condition - with no CCTV scoring	233.8	10	5.4	10	76	2.2	1.9	4.2	38.0	No	Highest Priority
05400450540046	Condition - with no CCTV scoring	343.3	8	9.4	8	54	1.7	2.4	4.2	38.0	No	Moderate Priority
07600010760002	Condition - with no CCTV scoring	78.5	12	14.2	12	76	1.7	2.4	4.2	38.0	No	Highest Priority
07600020760003	Condition - with no CCTV scoring	86.9	12	14.4	12	76	1.7	2.4	4.2	38.0	No	Highest Priority
07600030760004	Condition - with no CCTV scoring	87.1	12	14.6	12	76	1.7	2.4	4.2	38.0	No	Highest Priority
05800070580006	Condition - with no CCTV scoring	299.4	8	4.8	8	58	1.7	2.5	4.2	38.0	No	High Priority
05800110580012	Condition - with no CCTV scoring	202.8	8	3.1	8	58	1.7	2.5	4.2	38.0	No	High Priority
02500680250043	Condition - with no CCTV scoring	271.2	12	6.2	12	25	2.1	2.0	4.2	38.0	No	Lowest Priority
06603310660141	Condition - with no CCTV scoring	235.5	6	5.8	8	66	1.9	2.3	4.2	37.9	No	Highest Priority
06600910660090	Condition - with no CCTV scoring	499	8	6.0	8	66	1.9	2.3	4.2	37.9	No	Highest Priority
06602470660249	Condition - with no CCTV scoring	667	8	3.3	8	66	1.9	2.3	4.2	37.9	No	Highest Priority
06700160670015	Condition - with no CCTV scoring	520.3	8	4.0	8	66	1.9	2.3	4.2	37.9	No	Highest Priority
07601100760096	Condition - with no CCTV scoring	343.8	15	3.0	15	76	1.9	2.3	4.2	37.9	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07602490760248	Condition - with no CCTV scoring	410.6	18	6.0	18	76	1.9	2.3	4.2	37.9	No	Highest Priority
06300720630073	Condition - with no CCTV scoring	322.2	10	11.0	10	63	2.0	2.1	4.2	37.9	No	Moderate Priority
03300250330036	Condition - with no CCTV scoring	291.2	8	7.8	8	33	2.2	1.9	4.2	37.9	No	Low Priority
04701650460234	Condition - with no CCTV scoring	300.6	8	6.2	8	46	1.6	2.7	4.2	37.9	No	Highest Priority
04400040540024	Condition - with no CCTV scoring	336.7	8	9.6	8	44	2.1	2.0	4.2	37.8	No	Low Priority
03400830340084	Condition - with no CCTV scoring	306	8	10.1	8	34	2.0	2.1	4.2	37.8	No	Lowest Priority
04500260450028	Condition - with no CCTV scoring	550.9	8	2.7	8	45	2.0	2.1	4.2	37.8	No	High Priority
05502520550245	Condition - with no CCTV scoring	466.7	8	4.6	8	55	2.0	2.1	4.2	37.8	No	High Priority
05501040550103	Condition - with no CCTV scoring	327.4	15	5.2	15	55	2.0	2.1	4.2	37.8	No	High Priority
05502540550244	Condition - with no CCTV scoring	423.5	8	4.8	8	55	2.0	2.1	4.2	37.8	No	High Priority
05701800570215	Condition - with no CCTV scoring	430.8	15	8.7	15	57	2.3	1.8	4.2	37.8	No	Highest Priority
05701840570185	Condition - with no CCTV scoring	153.8	8	5.8	8	57	1.9	2.2	4.2	37.8	No	Highest Priority
05401070540108	Condition - with no CCTV scoring	635.8	24	12.7	24	54	2.4	1.7	4.1	37.7	No	Moderate Priority
02200570220056	Condition - with no CCTV scoring	6.5	15	6.8	15	22	2.4	1.8	4.1	37.7	No	Low Priority
05402360540159	Condition - with no CCTV scoring	171	27	19.9	27	54	3.1	1.4	4.1	37.7	No	Moderate Priority
04801110480083	Condition - with no CCTV scoring	385.6	8	5.6	8	48	2.2	1.9	4.1	37.7	No	High Priority
04801120480111	Condition - with no CCTV scoring	197.9	8	4.8	8	48	2.2	1.9	4.1	37.7	No	High Priority
07601190760120	Condition - with no CCTV scoring	36.1	8	4.4	8	76	2.2	1.9	4.1	37.7	No	Highest Priority
04401460440121	Condition - with no CCTV scoring	451	8	9.1	8	44	2.5	1.7	4.1	37.7	No	Low Priority
06700090670008	Condition - with no CCTV scoring	339.5	8	5.5	8	67	1.8	2.3	4.1	37.7	No	Highest Priority
07500040750249	Condition - with no CCTV scoring	7.8	12	7.0	12	75	1.8	2.3	4.1	37.7	No	Highest Priority
07602530760252	Condition - with no CCTV scoring	728	8	3.7	8	76	1.8	2.3	4.1	37.7	No	Highest Priority
07601180760117	Condition - with no CCTV scoring	322.8	21	6.6	21	76	1.8	2.3	4.1	37.7	No	Highest Priority
07601170760116	Condition - with no CCTV scoring	350.6	21	6.2	21	76	1.8	2.3	4.1	37.7	No	Highest Priority
07601490760150	Condition - with no CCTV scoring	542	8	11.1	8	76	2.1	2.0	4.1	37.7	No	Highest Priority
08500280850029	Condition - with no CCTV scoring	485.9	8	10.9	8	85	2.0	2.1	4.1	37.6	No	Lowest Priority
05500460550047	Condition - with no CCTV scoring	293.6	8	6.1	8	55	1.9	2.2	4.1	37.6	No	High Priority
06700470670046	Condition - with no CCTV scoring	177.3	8	3.6	8	67	1.8	2.4	4.1	37.6	No	Highest Priority
06700210670047	Condition - with no CCTV scoring	361.6	8	5.7	8	67	1.8	2.4	4.1	37.6	No	Highest Priority
03300320330033	Condition - with no CCTV scoring	349.6	15	5.6	15	33	2.4	1.7	4.1	37.6	No	Low Priority
04701310470133	Condition - with no CCTV scoring	117.5	10	6.8	10	47	1.5	2.7	4.1	37.6	No	High Priority
01200520120053	Condition - with no CCTV scoring	335.7	8	8.6	8	12	1.4	3.0	4.1	37.6	No	Lowest Priority
04501420450141	Condition - with no CCTV scoring	374.2	15	9.2	15	45	1.9	2.2	4.1	37.6	No	High Priority
05402470540298	Condition - with no CCTV scoring	281.9	8	3.1	8	54	1.7	2.4	4.1	37.6	No	Moderate Priority
04602600560020	Condition - with no CCTV scoring	401.3	8	5.5	8	46	2.2	1.9	4.1	37.5	No	Highest Priority
05502160550217	Condition - with no CCTV scoring	338	12	7.0	12	55	2.2	1.9	4.1	37.5	No	High Priority
05400940540091	Condition - with no CCTV scoring	262.8	8	5.5	8	54	1.8	2.3	4.1	37.5	No	Moderate Priority
05600230560024	Condition - with no CCTV scoring	71.6	8	4.4	8	56	1.8	2.3	4.1	37.5	No	Highest Priority
05600240560025	Condition - with no CCTV scoring	253.9	8	4.7	8	56	1.8	2.3	4.1	37.5	No	Highest Priority
05700460570014	Condition - with no CCTV scoring	143.6	8	5.4	8	57	1.8	2.3	4.1	37.5	No	Highest Priority
06601510660333	Condition - with no CCTV scoring	340.1	8	4.6	8	66	1.8	2.3	4.1	37.5	No	Highest Priority
04602170460219	Condition - with no CCTV scoring	610.2	8	6.1	8	46	1.8	2.3	4.1	37.5	No	Highest Priority
04700980470173	Condition - with no CCTV scoring	396.4	8	4.9	8	47	1.8	2.3	4.1	37.5	No	High Priority
04700760470077	Condition - with no CCTV scoring	515.5	8	3.8	8	47	2.0	2.1	4.1	37.4	No	High Priority
04800740480069	Condition - with no CCTV scoring	86.5	8	6.0	8	48	2.0	2.1	4.1	37.4	No	High Priority
07400020740003	Condition - with no CCTV scoring	100	6	2.8	8	74	1.5	2.8	4.1	37.4	No	Highest Priority
07400010740002	Condition - with no CCTV scoring	106.2	6	4.8	8	74	1.5	2.8	4.1	37.4	No	Highest Priority
03601670360085	Condition - with no CCTV scoring	203.3	8	4.8	8	36	1.6	2.6	4.1	37.4	No	High Priority
05700070570009	Condition - with no CCTV scoring	305	10	8.8	10	57	2.3	1.8	4.1	37.3	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02501560350127	Condition - with no CCTV scoring	549.8	10	11.7	10	25	2.1	2.0	4.1	37.3	No	Lowest Priority
03701270370128	Condition - with no CCTV scoring	331.2	8	6.5	8	36	1.8	2.3	4.1	37.3	No	High Priority
03601820360183	Condition - with no CCTV scoring	311.4	8	5.5	8	36	1.8	2.3	4.1	37.3	No	High Priority
03601830360184	Condition - with no CCTV scoring	334	8	6.0	8	36	1.8	2.3	4.1	37.3	No	High Priority
05702000570133	Condition - with no CCTV scoring	572.6	12	9.0	12	57	2.0	2.1	4.1	37.3	No	Highest Priority
05700470570019	Condition - with no CCTV scoring	443.1	8	7.4	8	57	1.8	2.3	4.1	37.3	No	Highest Priority
05800900580091	Condition - with no CCTV scoring	348.2	8	7.8	8	58	1.9	2.2	4.1	37.2	No	High Priority
02301620230140	Condition - with no CCTV scoring	415	21	9.7	21	23	2.8	1.5	4.1	37.2	No	Lowest Priority
05702290570167	Condition - with no CCTV scoring	216.3	12	11.8	12	57	1.7	2.4	4.1	37.2	No	Highest Priority
06700800670081	Condition - with no CCTV scoring	687.2	10	4.3	10	67	1.7	2.4	4.1	37.2	No	Highest Priority
06700810670068	Condition - with no CCTV scoring	675.6	10	4.9	10	67	1.7	2.4	4.1	37.2	No	Highest Priority
07700430770041	Condition - with no CCTV scoring	104.8	18	11.2	18	77	2.2	1.9	4.1	37.2	No	Highest Priority
03300330330048	Condition - with no CCTV scoring	424.5	15	6.7	15	33	2.2	1.9	4.1	37.2	No	Low Priority
05501420550051	Condition - with no CCTV scoring	314.5	8	5.9	8	55	2.2	1.9	4.1	37.2	No	High Priority
02700250270026	Condition - with no CCTV scoring	130	8	6.0	8	27	2.0	2.0	4.1	37.1	No	Moderate Priority
03701830370121	Condition - with no CCTV scoring	189.2	8	4.8	8	37	1.7	2.4	4.1	37.1	No	Low Priority
05601710560174	Condition - with no CCTV scoring	367.8	8	10.7	8	56	2.0	2.1	4.1	37.1	No	Highest Priority
06602390660233	Condition - with no CCTV scoring	311.6	21	11.6	21	66	3.0	1.4	4.1	37.1	No	Highest Priority
04800120480013	Condition - with no CCTV scoring	399.2	8	5.2	8	48	1.6	2.5	4.1	37.1	No	High Priority
03600730360074	Condition - with no CCTV scoring	305.7	8	5.7	8	36	1.9	2.1	4.1	37.1	No	High Priority
08600020860098	Condition - with no CCTV scoring	33.4	12	17.4	12	86	1.9	2.1	4.1	37.1	No	Highest Priority
03601870360159	Condition - with no CCTV scoring	350	8	5.0	8	36	1.8	2.3	4.1	37.1	No	High Priority
05501640550165	Condition - with no CCTV scoring	257.4	12	7.0	12	55	1.8	2.3	4.1	37.1	No	High Priority
04700060570007	Condition - with no CCTV scoring	352.2	10	8.0	10	47	1.9	2.2	4.1	37.0	No	High Priority
04701760470175	Condition - with no CCTV scoring	419	8	5.0	8	47	1.7	2.5	4.1	37.0	No	High Priority
05500520550053	Condition - with no CCTV scoring	487	8	5.0	8	55	1.7	2.5	4.1	37.0	No	High Priority
04401890540034	Condition - with no CCTV scoring	315.8	8	6.4	8	44	2.1	1.9	4.1	37.0	No	Low Priority
05800940580095	Condition - with no CCTV scoring	337.6	8	7.9	8	58	1.5	2.8	4.1	36.9	No	High Priority
05800930580096	Condition - with no CCTV scoring	350.1	8	7.9	8	58	1.5	2.8	4.1	36.9	No	High Priority
04800410480040	Condition - with no CCTV scoring	197.5	8	5.1	8	48	1.6	2.5	4.1	36.8	No	High Priority
05400930540091	Condition - with no CCTV scoring	288.6	8	6.6	8	54	1.8	2.3	4.1	36.8	No	Moderate Priority
05500220550021	Condition - with no CCTV scoring	590.7	8	5.3	8	55	1.8	2.3	4.1	36.8	No	High Priority
05700020570004	Condition - with no CCTV scoring	379.8	8	5.9	8	57	1.8	2.3	4.1	36.8	No	Highest Priority
06600660660112	Condition - with no CCTV scoring	549.5	8	4.3	8	66	1.6	2.5	4.1	36.8	No	Highest Priority
07501690750255	Condition - with no CCTV scoring	303.5	8	4.5	8	75	1.5	2.7	4.1	36.8	No	Highest Priority
05300260530027	Condition - with no CCTV scoring	392.4	8	4.5	8	53	1.8	2.2	4.0	36.8	No	Moderate Priority
05701060570107	Condition - with no CCTV scoring	457.7	8	5.6	8	57	1.8	2.3	4.0	36.8	No	Highest Priority
04800310580011	Condition - with no CCTV scoring	325.8	8	6.1	8	48	1.7	2.4	4.0	36.8	No	High Priority
06300730630075	Condition - with no CCTV scoring	333.3	10	5.6	10	63	1.9	2.2	4.0	36.8	No	Moderate Priority
06700310670075	Condition - with no CCTV scoring	809.8	8	5.0	8	67	2.0	2.0	4.0	36.8	No	Highest Priority
07701150770114	Condition - with no CCTV scoring	396.4	21	15.1	21	77	2.0	2.1	4.0	36.7	No	Highest Priority
05300480530046	Condition - with no CCTV scoring	221.9	8	8.9	8	53	1.9	2.1	4.0	36.7	No	Moderate Priority
05702350570171	Condition - with no CCTV scoring	299.1	8	9.3	8	57	1.7	2.4	4.0	36.7	No	Highest Priority
06700950670096	Condition - with no CCTV scoring	385.5	12	5.3	12	67	1.9	2.1	4.0	36.7	No	Highest Priority
03601660360167	Condition - with no CCTV scoring	156.8	8	4.5	8	36	1.6	2.6	4.0	36.7	No	High Priority
03600780360165	Condition - with no CCTV scoring	392.7	10	5.0	10	36	2.1	1.9	4.0	36.6	No	High Priority
02700360270037	Condition - with no CCTV scoring	247.1	8	6.5	8	27	1.8	2.3	4.0	36.6	No	Moderate Priority
06600580660069	Condition - with no CCTV scoring	43.6	8	6.4	8	66	1.8	2.3	4.0	36.6	No	Highest Priority
06600690660068	Condition - with no CCTV scoring	291.1	8	6.7	8	66	1.8	2.3	4.0	36.6	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07500030750249	Condition - with no CCTV scoring	317.5	8	7.4	8	75	1.8	2.3	4.0	36.6	No	Highest Priority
07601150760114	Condition - with no CCTV scoring	433.7	21	4.7	21	76	1.8	2.3	4.0	36.6	No	Highest Priority
07601140760090	Condition - with no CCTV scoring	244.4	21	2.8	21	76	1.8	2.3	4.0	36.6	No	Highest Priority
05401680540165	Condition - with no CCTV scoring	424.1	8	5.0	8	54	1.8	2.2	4.0	36.6	No	Moderate Priority
05401650540167	Condition - with no CCTV scoring	145.2	8	5.2	8	54	1.8	2.2	4.0	36.6	No	Moderate Priority
07601650760156	Condition - with no CCTV scoring	32.9	8	6.2	8	76	1.8	2.3	4.0	36.6	No	Highest Priority
03501270350126	Condition - with no CCTV scoring	401.7	10	11.8	10	35	2.0	2.0	4.0	36.6	No	Moderate Priority
03701540370146	Condition - with no CCTV scoring	510.1	8	7.6	8	37	2.0	2.0	4.0	36.6	No	Low Priority
09701260970127	Condition - with no CCTV scoring	231	8	12.4	8	97	2.0	2.0	4.0	36.6	No	Lowest Priority
06400320640033	Condition - with no CCTV scoring	306.5	8	3.9	8	64	1.7	2.4	4.0	36.6	No	Moderate Priority
06400350640036	Condition - with no CCTV scoring	238.4	8	4.5	8	64	1.7	2.4	4.0	36.6	No	Moderate Priority
06600760660074	Condition - with no CCTV scoring	158.8	8	5.0	8	66	2.0	2.1	4.0	36.6	No	Highest Priority
07400360740029	Condition - with no CCTV scoring	214.4	10	6.4	10	74	1.6	2.5	4.0	36.6	No	Highest Priority
05500010550004	Condition - with no CCTV scoring	247	8	6.4	8	55	1.9	2.1	4.0	36.5	No	High Priority
05402350540236	Condition - with no CCTV scoring	33.2	27	17.3	27	54	3.0	1.4	4.0	36.5	No	Moderate Priority
02602400260227	Condition - with no CCTV scoring	314.2	8	5.5	8	26	2.1	1.9	4.0	36.5	No	Low Priority
05400320540033	Condition - with no CCTV scoring	289.5	8	5.2	8	54	2.1	1.9	4.0	36.5	No	Moderate Priority
03601050360106	Condition - with no CCTV scoring	460.2	6	14.9	8	36	1.7	2.4	4.0	36.5	No	High Priority
03300680330067	Condition - with no CCTV scoring	386.4	8	7.0	8	33	2.3	1.8	4.0	36.5	No	Low Priority
06502500650124	Condition - with no CCTV scoring	341.9	18	5.4	18	65	2.3	1.8	4.0	36.5	No	Moderate Priority
05601660560143	Condition - with no CCTV scoring	197.7	8	3.4	8	56	1.8	2.3	4.0	36.4	No	Highest Priority
05602480560247	Condition - with no CCTV scoring	187.9	8	5.0	8	56	1.8	2.3	4.0	36.4	No	Highest Priority
05700150560247	Condition - with no CCTV scoring	404.2	8	6.0	8	57	1.8	2.3	4.0	36.4	No	Highest Priority
06501890650191	Condition - with no CCTV scoring	250.6	8	5.0	8	65	1.8	2.3	4.0	36.4	No	Moderate Priority
06600220660020	Condition - with no CCTV scoring	376.6	8	4.3	8	66	1.8	2.3	4.0	36.4	No	Highest Priority
07600220760056	Condition - with no CCTV scoring	317.1	8	5.4	8	76	1.8	2.3	4.0	36.4	No	Highest Priority
07600560760054	Condition - with no CCTV scoring	413.7	8	4.5	8	76	1.8	2.3	4.0	36.4	No	Highest Priority
05400950540301	Condition - with no CCTV scoring	277	8	5.6	8	54	1.5	2.6	4.0	36.4	No	Moderate Priority
06502610650055	Condition - with no CCTV scoring	280	8	6.0	8	65	1.5	2.6	4.0	36.4	No	Moderate Priority
07501030750105	Condition - with no CCTV scoring	313.6	8	3.7	8	75	1.5	2.6	4.0	36.4	No	Highest Priority
02301090230110	Condition - with no CCTV scoring	454	8	7.3	8	23	2.2	1.8	4.0	36.4	No	Lowest Priority
03700840370086	Condition - with no CCTV scoring	101.4	8	7.8	8	37	1.7	2.4	4.0	36.3	No	Low Priority
07701130770110	Condition - with no CCTV scoring	927.4	8	4.6	8	77	2.4	1.7	4.0	36.3	No	Highest Priority
03601740360078	Condition - with no CCTV scoring	575.7	10	5.1	10	36	2.1	1.9	4.0	36.3	No	High Priority
05700050570007	Condition - with no CCTV scoring	278.3	10	6.0	10	57	2.1	1.9	4.0	36.3	No	Highest Priority
07602310760022	Condition - with no CCTV scoring	317.4	8	2.3	8	76	2.1	1.9	4.0	36.3	No	Highest Priority
03701290370127	Condition - with no CCTV scoring	16.6	8	6.6	8	36	1.8	2.3	4.0	36.2	No	High Priority
05402620540261	Condition - with no CCTV scoring	417	8	4.0	8	54	1.8	2.3	4.0	36.2	No	Moderate Priority
05501560550155	Condition - with no CCTV scoring	320	8	7.3	8	55	1.8	2.3	4.0	36.2	No	High Priority
06600570660022	Condition - with no CCTV scoring	594.5	8	4.2	8	66	1.8	2.3	4.0	36.2	No	Highest Priority
06602570660220	Condition - with no CCTV scoring	624.2	8	5.2	8	66	1.8	2.3	4.0	36.2	No	Highest Priority
06700180670017	Condition - with no CCTV scoring	1013.6	8	4.6	8	66	1.8	2.3	4.0	36.2	No	Highest Priority
07202200720215	Condition - with no CCTV scoring	422.6	8	6.7	8	72	1.8	2.3	4.0	36.2	No	Moderate Priority
05701630570164	Condition - with no CCTV scoring	317.5	8	4.8	8	57	1.8	2.2	4.0	36.2	No	Highest Priority
05702270570170	Condition - with no CCTV scoring	327.4	8	5.1	8	57	1.8	2.2	4.0	36.2	No	Highest Priority
05800480580049	Condition - with no CCTV scoring	428.2	8	3.4	8	58	1.8	2.2	4.0	36.2	No	High Priority
04601040460092	Condition - with no CCTV scoring	348.2	12	7.6	12	46	1.5	2.6	4.0	36.2	No	Highest Priority
04602830460287	Condition - with no CCTV scoring	332.9	8	6.0	8	46	1.6	2.6	4.0	36.2	No	Highest Priority
07502490750007	Condition - with no CCTV scoring	413.1	12	10.6	12	75	1.9	2.1	4.0	36.2	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05400530540097	Condition - with no CCTV scoring	249.7	8	6.1	8	54	2.1	1.9	4.0	36.1	No	Moderate Priority
05600200560022	Condition - with no CCTV scoring	197.2	8	5.5	8	56	2.1	1.9	4.0	36.1	No	Highest Priority
05700590560300	Condition - with no CCTV scoring	430	8	6.5	8	57	2.1	1.9	4.0	36.1	No	Highest Priority
06300540630052	Condition - with no CCTV scoring	401	8	9.0	8	63	2.1	1.9	4.0	36.1	No	Moderate Priority
03601520360163	Condition - with no CCTV scoring	874.8	8	5.0	8	36	1.9	2.1	4.0	36.1	No	High Priority
04800400480010	Condition - with no CCTV scoring	94.8	8	5.5	8	48	1.9	2.1	4.0	36.1	No	High Priority
02200560220039	Condition - with no CCTV scoring	263.3	18	7.5	18	22	2.6	1.6	4.0	36.1	No	Low Priority
05403000540301	Condition - with no CCTV scoring	374.3	8	5.6	8	54	1.8	2.2	4.0	36.0	No	Moderate Priority
05401580540136	Condition - with no CCTV scoring	515.4	8	4.9	8	54	1.8	2.2	4.0	36.0	No	Moderate Priority
05500410550043	Condition - with no CCTV scoring	381	10	7.9	10	55	1.8	2.3	4.0	36.0	No	High Priority
05501650550218	Condition - with no CCTV scoring	358.9	12	7.1	12	55	1.8	2.3	4.0	36.0	No	High Priority
05500470550040	Condition - with no CCTV scoring	292.8	8	7.4	8	55	1.8	2.2	4.0	36.0	No	High Priority
05500400550038	Condition - with no CCTV scoring	55	8	7.4	8	55	1.8	2.2	4.0	36.0	No	High Priority
06200230620021	Condition - with no CCTV scoring	75.4	8	8.1	8	62	1.8	2.3	4.0	36.0	No	Low Priority
02700350270036	Condition - with no CCTV scoring	125.2	8	9.6	8	27	1.8	2.2	4.0	36.0	No	Moderate Priority
03401060340105	Condition - with no CCTV scoring	271.6	8	7.1	8	34	1.7	2.3	4.0	36.0	No	Lowest Priority
04501050450106	Condition - with no CCTV scoring	300.9	8	6.5	8	45	1.7	2.3	4.0	36.0	No	High Priority
06501200650094	Condition - with no CCTV scoring	677.5	8	5.7	8	65	2.3	1.8	4.0	36.0	No	Moderate Priority
05701270570177	Condition - with no CCTV scoring	377.9	8	4.4	8	57	1.6	2.6	4.0	36.0	No	Highest Priority
02602060360104	Condition - with no CCTV scoring	397.4	6	5.1	8	26	1.5	2.6	4.0	36.0	No	Low Priority
04400300540038	Condition - with no CCTV scoring	218	8	6.1	8	44	2.1	1.9	4.0	36.0	No	Low Priority
04801130480112	Condition - with no CCTV scoring	499.5	8	4.5	8	48	2.1	1.9	4.0	36.0	No	High Priority
05400290540028	Condition - with no CCTV scoring	397.7	8	7.9	8	54	2.1	1.9	4.0	36.0	No	Moderate Priority
05400280540030	Condition - with no CCTV scoring	122.6	8	7.3	8	54	2.1	1.9	4.0	36.0	No	Moderate Priority
05400360540035	Condition - with no CCTV scoring	344.4	8	5.0	8	54	2.1	1.9	4.0	36.0	No	Moderate Priority
03500840350086	Condition - with no CCTV scoring	527.3	8	9.9	8	35	1.9	2.1	3.9	35.9	No	Moderate Priority
05402600540258	Condition - with no CCTV scoring	341	8	3.0	8	54	1.9	2.1	3.9	35.9	No	Moderate Priority
05501310550104	Condition - with no CCTV scoring	15.3	8	5.3	8	55	1.9	2.1	3.9	35.9	No	High Priority
07501230750125	Condition - with no CCTV scoring	202.5	8	6.3	8	75	1.9	2.1	3.9	35.9	No	Highest Priority
04700450470047	Condition - with no CCTV scoring	495.6	8	5.0	8	47	1.6	2.5	3.9	35.9	No	High Priority
04701780470061	Condition - with no CCTV scoring	441.2	8	4.3	8	47	1.6	2.5	3.9	35.9	No	High Priority
04701910470178	Condition - with no CCTV scoring	326.2	8	5.3	8	47	1.6	2.5	3.9	35.9	No	High Priority
04701900470191	Condition - with no CCTV scoring	374.6	8	4.4	8	47	1.6	2.5	3.9	35.9	No	High Priority
05401460540149	Condition - with no CCTV scoring	187.2	8	5.5	8	54	1.6	2.5	3.9	35.9	No	Moderate Priority
05701080570055	Condition - with no CCTV scoring	592.8	8	6.1	8	57	2.0	2.0	3.9	35.8	No	Highest Priority
05402510540248	Condition - with no CCTV scoring	335.3	8	5.2	8	54	1.8	2.2	3.9	35.8	No	Moderate Priority
05402520540251	Condition - with no CCTV scoring	87.5	8	5.5	8	54	1.8	2.2	3.9	35.8	No	Moderate Priority
05701490570148	Condition - with no CCTV scoring	372.8	8	5.5	8	57	1.8	2.2	3.9	35.8	No	Highest Priority
06601310760098	Condition - with no CCTV scoring	211.8	10	4.9	10	66	1.8	2.3	3.9	35.8	No	Highest Priority
05501380550148	Condition - with no CCTV scoring	166.7	8	8.5	8	55	1.8	2.2	3.9	35.8	No	High Priority
07700720770074	Condition - with no CCTV scoring	804	8	6.4	8	67	1.8	2.2	3.9	35.8	No	Highest Priority
04401200440122	Condition - with no CCTV scoring	143.7	8	6.5	8	44	1.7	2.3	3.9	35.8	No	Low Priority
05702170570200	Condition - with no CCTV scoring	371.8	12	9.2	12	57	1.9	2.1	3.9	35.7	No	Highest Priority
06501450650146	Condition - with no CCTV scoring	683	8	5.7	8	65	1.5	2.6	3.9	35.7	No	Moderate Priority
04800430480041	Condition - with no CCTV scoring	435.9	8	4.2	8	48	1.6	2.5	3.9	35.7	No	High Priority
07201320720133	Condition - with no CCTV scoring	57.7	8	5.4	8	72	1.7	2.4	3.9	35.7	No	Moderate Priority
02301300230131	Condition - with no CCTV scoring	160.3	8	6.5	8	23	2.1	1.9	3.9	35.7	No	Lowest Priority
03501010350102	Condition - with no CCTV scoring	110.5	8	5.9	8	35	2.1	1.9	3.9	35.7	No	Moderate Priority
03700610370060	Condition - with no CCTV scoring	437.9	8	6.0	8	37	2.0	2.0	3.9	35.7	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06602450660246	Condition - with no CCTV scoring	448.5	8	5.7	8	66	2.0	2.0	3.9	35.7	No	Highest Priority
09600890960088	Condition - with no CCTV scoring	87.7	8	5.3	8	96	2.2	1.8	3.9	35.7	No	Low Priority
09701450970148	Condition - with no CCTV scoring	327.9	8	4.9	8	97	2.2	1.8	3.9	35.7	No	Lowest Priority
05401840550088	Condition - with no CCTV scoring	704.9	8	5.5	8	54	1.8	2.2	3.9	35.6	No	Moderate Priority
05500920550090	Condition - with no CCTV scoring	317.8	8	5.5	8	55	1.8	2.2	3.9	35.6	No	High Priority
05500880550090	Condition - with no CCTV scoring	328.4	8	5.7	8	55	1.8	2.2	3.9	35.6	No	High Priority
05500900550091	Condition - with no CCTV scoring	608.6	8	5.3	8	55	1.8	2.2	3.9	35.6	No	High Priority
05601740660300	Condition - with no CCTV scoring	296.2	8	11.8	8	56	1.9	2.1	3.9	35.6	No	Highest Priority
07500060750249	Condition - with no CCTV scoring	493	8	6.0	8	75	1.7	2.3	3.9	35.6	No	Highest Priority
07601950760196	Condition - with no CCTV scoring	92.8	8	4.2	8	76	1.7	2.3	3.9	35.6	No	Highest Priority
05400340540035	Condition - with no CCTV scoring	113.9	8	7.8	8	54	2.1	1.9	3.9	35.6	No	Moderate Priority
03700820370084	Condition - with no CCTV scoring	314.5	8	5.6	8	37	1.6	2.4	3.9	35.6	No	Low Priority
04800150580001	Condition - with no CCTV scoring	137.5	8	4.5	8	48	1.6	2.4	3.9	35.6	No	High Priority
04800040580001	Condition - with no CCTV scoring	140.6	8	4.0	8	48	1.6	2.4	3.9	35.6	No	High Priority
03500830350081	Condition - with no CCTV scoring	397.3	8	7.1	8	35	1.7	2.3	3.9	35.6	No	Moderate Priority
03800460380055	Condition - with no CCTV scoring	62.5	8	6.0	8	38	1.7	2.3	3.9	35.6	No	Low Priority
03601880360130	Condition - with no CCTV scoring	291	27	4.6	27	36	2.5	1.6	3.9	35.5	No	High Priority
05402430540240	Condition - with no CCTV scoring	218.6	8	6.1	8	54	1.9	2.1	3.9	35.5	No	Moderate Priority
05500020550001	Condition - with no CCTV scoring	31.1	8	6.0	8	55	1.9	2.1	3.9	35.5	No	High Priority
02500300250029	Condition - with no CCTV scoring	310.2	8	5.8	8	25	1.3	3.1	3.9	35.5	No	Lowest Priority
03900450390031	Condition - with no CCTV scoring	143	8	2.7	8	39	1.3	3.1	3.9	35.5	No	Low Priority
04602870450283	Condition - with no CCTV scoring	345.4	8	5.4	8	45	1.5	2.6	3.9	35.5	No	High Priority
04700200470018	Condition - with no CCTV scoring	146.3	8	5.3	8	47	1.5	2.6	3.9	35.5	No	High Priority
05400210540020	Condition - with no CCTV scoring	323.2	12	6.9	12	54	1.5	2.6	3.9	35.5	No	Moderate Priority
09701900970189	Condition - with no CCTV scoring	315.2	24	15.9	24	97	2.9	1.4	3.9	35.5	No	Lowest Priority
06400530640054	Condition - with no CCTV scoring	277.4	10	4.0	10	64	1.7	2.4	3.9	35.5	No	Moderate Priority
06500870650084	Condition - with no CCTV scoring	350.3	18	5.2	18	65	2.0	2.0	3.9	35.5	No	Moderate Priority
07400340740035	Condition - with no CCTV scoring	159.1	8	6.0	8	74	1.6	2.5	3.9	35.4	No	Highest Priority
07502470750183	Condition - with no CCTV scoring	369.2	22	12.9	24	75	1.9	2.1	3.9	35.4	No	Highest Priority
05300610530048	Condition - with no CCTV scoring	268	8	6.1	8	53	1.8	2.2	3.9	35.4	No	Moderate Priority
05402830540284	Condition - with no CCTV scoring	324.9	8	4.5	8	54	1.8	2.2	3.9	35.4	No	Moderate Priority
05702400570169	Condition - with no CCTV scoring	400.3	8	7.6	8	57	1.8	2.2	3.9	35.4	No	Highest Priority
06602170660216	Condition - with no CCTV scoring	489	8	4.8	8	66	1.7	2.3	3.9	35.4	No	Highest Priority
07700610770062	Condition - with no CCTV scoring	521.6	8	6.6	8	77	1.7	2.3	3.9	35.4	No	Highest Priority
04700800470081	Condition - with no CCTV scoring	38.5	8	7.7	8	47	1.8	2.2	3.9	35.4	No	High Priority
04801370480139	Condition - with no CCTV scoring	330.9	10	8.1	10	48	2.2	1.8	3.9	35.4	No	High Priority
04700970470098	Condition - with no CCTV scoring	405.2	8	5.0	8	47	1.7	2.3	3.9	35.4	No	High Priority
04700940470095	Condition - with no CCTV scoring	434.2	8	4.9	8	47	2.2	1.8	3.9	35.3	No	High Priority
STN_0030650139	Condition - with no CCTV scoring	417.4	18	6.0	18	65	2.2	1.8	3.9	35.3	No	Moderate Priority
06700940670095	Condition - with no CCTV scoring	431.1	12	5.5	12	67	1.9	2.1	3.9	35.3	No	Highest Priority
08600910860098	Condition - with no CCTV scoring	222.8	12	15.5	12	86	1.9	2.0	3.9	35.3	No	Highest Priority
06500670750215	Condition - with no CCTV scoring	504.8	8	4.8	8	65	2.0	1.9	3.9	35.3	No	Moderate Priority
05300750530074	Condition - with no CCTV scoring	328.4	8	6.4	8	53	1.9	2.1	3.9	35.3	No	Moderate Priority
05500450550044	Condition - with no CCTV scoring	439.4	10	8.5	10	55	1.9	2.1	3.9	35.3	No	High Priority
05300020530003	Condition - with no CCTV scoring	310.7	8	7.2	8	53	1.8	2.2	3.9	35.2	No	Moderate Priority
05400680540067	Condition - with no CCTV scoring	604	8	4.5	8	54	1.8	2.2	3.9	35.2	No	Moderate Priority
05400820540080	Condition - with no CCTV scoring	269.8	8	5.7	8	54	1.8	2.2	3.9	35.2	No	Moderate Priority
05400800540077	Condition - with no CCTV scoring	364	8	5.2	8	54	1.8	2.2	3.9	35.2	No	Moderate Priority
07700360770151	Condition - with no CCTV scoring	22.5	8	11.1	8	77	1.8	2.2	3.9	35.2	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04700660470067	Condition - with no CCTV scoring	469.6	8	5.0	8	47	1.6	2.5	3.9	35.2	No	High Priority
02700410270039	Condition - with no CCTV scoring	114.5	8	7.5	8	27	1.7	2.3	3.9	35.2	No	Moderate Priority
03700590360098	Condition - with no CCTV scoring	162	8	6.0	8	36	1.7	2.3	3.9	35.2	No	High Priority
03600980370129	Condition - with no CCTV scoring	64.7	8	4.3	8	36	1.7	2.3	3.9	35.2	No	High Priority
03701260370127	Condition - with no CCTV scoring	447	8	5.0	8	36	1.7	2.3	3.9	35.2	No	High Priority
06501600650159	Condition - with no CCTV scoring	617.4	8	5.3	8	65	1.7	2.3	3.9	35.2	No	Moderate Priority
07600730760012	Condition - with no CCTV scoring	215.1	8	9.4	8	76	1.8	2.2	3.9	35.2	No	Highest Priority
07700020760195	Condition - with no CCTV scoring	469.3	8	4.5	8	76	1.7	2.3	3.9	35.2	No	Highest Priority
03300670330022	Condition - with no CCTV scoring	428.6	8	7.0	8	33	2.2	1.8	3.9	35.2	No	Low Priority
05500640550063	Condition - with no CCTV scoring	305.8	14	7.4	15	55	2.8	1.4	3.9	35.2	No	High Priority
05701720570175	Condition - with no CCTV scoring	349.3	8	5.7	8	57	1.4	2.7	3.9	35.1	No	Highest Priority
05701720570155	Condition - with no CCTV scoring	338	8	5.7	8	57	1.4	2.7	3.9	35.1	No	Highest Priority
03500860350085	Condition - with no CCTV scoring	18.4	8	11.5	8	35	1.9	2.0	3.9	35.1	No	Moderate Priority
03701550370148	Condition - with no CCTV scoring	495	8	6.8	8	37	1.9	2.0	3.9	35.1	No	Low Priority
07501860750134	Condition - with no CCTV scoring	258	24	11.0	24	75	2.3	1.7	3.9	35.1	No	Highest Priority
07501860750134	Condition - with no CCTV scoring	249.8	18	11.0	18	75	2.3	1.7	3.9	35.1	No	Highest Priority
04400550540032	Condition - with no CCTV scoring	424.6	8	5.2	8	44	2.0	1.9	3.9	35.1	No	Low Priority
05400370540032	Condition - with no CCTV scoring	254.7	8	5.8	8	54	2.0	1.9	3.9	35.1	No	Moderate Priority
05400300540038	Condition - with no CCTV scoring	49.7	8	5.8	8	54	2.0	1.9	3.9	35.1	No	Moderate Priority
06300750630076	Condition - with no CCTV scoring	329.2	10	5.7	10	63	1.9	2.1	3.9	35.1	No	Moderate Priority
06700220670021	Condition - with no CCTV scoring	70	8	5.8	8	67	1.6	2.4	3.9	35.1	No	Highest Priority
05501850550186	Condition - with no CCTV scoring	390	8	5.1	8	55	1.5	2.6	3.9	35.0	No	High Priority
03601690360170	Condition - with no CCTV scoring	39.2	8	2.8	8	36	1.8	2.2	3.9	35.0	No	High Priority
05401740550047	Condition - with no CCTV scoring	594.4	8	5.0	8	54	1.8	2.2	3.9	35.0	No	Moderate Priority
05500930550046	Condition - with no CCTV scoring	519.9	8	4.5	8	55	1.8	2.2	3.9	35.0	No	High Priority
05500910550046	Condition - with no CCTV scoring	94.2	8	6.0	8	55	1.8	2.2	3.9	35.0	No	High Priority
06500370650038	Condition - with no CCTV scoring	1779	12	1.0	12	65	2.2	1.8	3.9	35.0	No	Moderate Priority
07602040760195	Condition - with no CCTV scoring	241.3	8	4.2	8	76	1.5	2.5	3.9	35.0	No	Highest Priority
03500330350104	Condition - with no CCTV scoring	121.6	8	8.9	8	35	1.8	2.2	3.8	35.0	No	Moderate Priority
05500260550024	Condition - with no CCTV scoring	550.6	8	5.5	8	55	1.8	2.2	3.8	35.0	No	High Priority
07200560720015	Condition - with no CCTV scoring	419	8	8.2	8	72	2.1	1.9	3.8	35.0	No	Moderate Priority
07200160720050	Condition - with no CCTV scoring	14.7	10	7.8	10	72	2.5	1.6	3.8	35.0	No	Moderate Priority
02601260260124	Condition - with no CCTV scoring	421.7	8	6.1	8	26	1.8	2.1	3.8	35.0	No	Low Priority
02601250260243	Condition - with no CCTV scoring	201.1	8	6.6	8	26	1.8	2.1	3.8	35.0	No	Low Priority
02602430260238	Condition - with no CCTV scoring	170.7	8	6.4	8	26	1.8	2.1	3.8	35.0	No	Low Priority
07501220750123	Condition - with no CCTV scoring	201.6	8	5.9	8	75	1.8	2.1	3.8	35.0	No	Highest Priority
05501790550167	Condition - with no CCTV scoring	232.9	8	6.1	8	55	1.7	2.3	3.8	34.9	No	High Priority
06600780660079	Condition - with no CCTV scoring	445	8	7.5	8	66	1.7	2.3	3.8	34.9	No	Highest Priority
06600790660120	Condition - with no CCTV scoring	42.5	8	7.8	8	66	1.7	2.3	3.8	34.9	No	Highest Priority
03601040360105	Condition - with no CCTV scoring	392.8	6	12.6	8	36	1.6	2.4	3.8	34.9	No	High Priority
05701070570110	Condition - with no CCTV scoring	478.2	8	5.2	8	57	1.9	2.0	3.8	34.9	No	Highest Priority
05501520560041	Condition - with no CCTV scoring	422.4	6	6.1	8	55	2.0	1.9	3.8	34.9	No	High Priority
06500730650072	Condition - with no CCTV scoring	478	8	4.2	8	65	2.0	1.9	3.8	34.9	No	Moderate Priority
07601620760163	Condition - with no CCTV scoring	321.1	8	4.2	8	76	2.0	1.9	3.8	34.9	No	Highest Priority
02301340230135	Condition - with no CCTV scoring	50.7	21	19.2	21	23	2.8	1.4	3.8	34.9	No	Lowest Priority
02301380230134	Condition - with no CCTV scoring	153.9	21	17.0	21	23	2.8	1.4	3.8	34.9	No	Lowest Priority
09701890970191	Condition - with no CCTV scoring	320.7	24	12.9	24	97	2.8	1.4	3.8	34.9	No	Lowest Priority
05500980550100	Condition - with no CCTV scoring	439.2	8	7.0	8	55	2.2	1.8	3.8	34.9	No	High Priority
05402140540212	Condition - with no CCTV scoring	375.2	8	5.8	8	54	2.1	1.9	3.8	34.8	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03900630390064	Condition - with no CCTV scoring	94	8	5.5	8	39	1.7	2.2	3.8	34.8	No	Low Priority
08600260860012	Condition - with no CCTV scoring	424.5	10	12.3	10	86	2.6	1.5	3.8	34.8	No	Highest Priority
05700320570029	Condition - with no CCTV scoring	340.4	8	4.9	8	57	1.8	2.2	3.8	34.8	No	Highest Priority
06603000660301	Condition - with no CCTV scoring	334.9	8	8.8	8	66	1.8	2.2	3.8	34.8	No	Highest Priority
07601280760108	Condition - with no CCTV scoring	652.8	8	5.8	8	76	1.8	2.2	3.8	34.8	No	Highest Priority
04502830450031	Condition - with no CCTV scoring	66.8	8	6.9	8	45	1.5	2.6	3.8	34.8	No	High Priority
05402610540039	Condition - with no CCTV scoring	460.8	8	4.0	8	54	1.7	2.3	3.8	34.8	No	Moderate Priority
05602500560248	Condition - with no CCTV scoring	184.9	8	5.1	8	56	1.7	2.3	3.8	34.8	No	Highest Priority
06600750660114	Condition - with no CCTV scoring	309.8	8	4.6	8	66	1.7	2.3	3.8	34.8	No	Highest Priority
06603150660241	Condition - with no CCTV scoring	432.9	8	3.7	8	66	1.7	2.3	3.8	34.8	No	Highest Priority
06603070660272	Condition - with no CCTV scoring	345.1	8	4.6	8	66	1.7	2.3	3.8	34.8	No	Highest Priority
06602540660255	Condition - with no CCTV scoring	149.5	18	6.9	18	66	1.7	2.3	3.8	34.8	No	Highest Priority
06601390760100	Condition - with no CCTV scoring	444	8	5.4	8	66	1.7	2.3	3.8	34.8	No	Highest Priority
07600540760057	Condition - with no CCTV scoring	222.1	8	4.6	8	76	1.7	2.3	3.8	34.8	No	Highest Priority
07600210760022	Condition - with no CCTV scoring	391.6	8	3.9	8	76	1.7	2.3	3.8	34.8	No	Highest Priority
04900190490004	Condition - with no CCTV scoring	131.7	8	8.5	8	49	1.8	2.1	3.8	34.8	No	Lowest Priority
C05603120560216	Condition - with no CCTV scoring	149.6	6	8.0	8	56	1.8	2.1	3.8	34.8	No	Highest Priority
05701690570162	Condition - with no CCTV scoring	215	8	9.4	8	57	1.8	2.1	3.8	34.8	No	Highest Priority
06601420660136	Condition - with no CCTV scoring	286.7	8	5.4	8	66	1.9	2.0	3.8	34.8	No	Highest Priority
05400350540039	Condition - with no CCTV scoring	390.7	8	5.1	8	54	2.0	1.9	3.8	34.7	No	Moderate Priority
05402450540241	Condition - with no CCTV scoring	166.1	8	7.1	8	54	1.6	2.4	3.8	34.7	No	Moderate Priority
07501550750156	Condition - with no CCTV scoring	289.8	8	9.1	8	75	2.1	1.8	3.8	34.7	No	Highest Priority
03501390350085	Condition - with no CCTV scoring	525.9	8	6.2	8	35	1.7	2.2	3.8	34.6	No	Moderate Priority
06700490670048	Condition - with no CCTV scoring	557.9	8	4.0	8	67	1.8	2.2	3.8	34.6	No	Highest Priority
06400660650011	Condition - with no CCTV scoring	695.5	8	4.1	8	64	1.7	2.3	3.8	34.6	No	Moderate Priority
06502240650259	Condition - with no CCTV scoring	104.5	8	6.0	8	65	2.0	2.0	3.8	34.6	No	Moderate Priority
06500650750213	Condition - with no CCTV scoring	554.2	8	4.9	8	65	1.7	2.3	3.8	34.6	No	Moderate Priority
06602710660272	Condition - with no CCTV scoring	502.7	8	5.3	8	66	1.7	2.3	3.8	34.6	No	Highest Priority
05401230540098	Condition - with no CCTV scoring	504.2	8	5.6	8	54	1.8	2.1	3.8	34.6	No	Moderate Priority
04400290440030	Condition - with no CCTV scoring	484.8	8	6.6	8	44	2.0	1.9	3.8	34.6	No	Low Priority
04900240490021	Condition - with no CCTV scoring	343	10	12.0	10	49	1.5	2.5	3.8	34.6	No	Lowest Priority
05701100570113	Condition - with no CCTV scoring	667.9	8	4.3	8	57	1.9	2.0	3.8	34.6	No	Highest Priority
06501460650121	Condition - with no CCTV scoring	117.1	8	7.1	8	65	1.5	2.6	3.8	34.6	No	Moderate Priority
05801000580040	Condition - with no CCTV scoring	145.6	8	7.1	8	58	1.6	2.5	3.8	34.6	No	High Priority
05400020540003	Condition - with no CCTV scoring	75.2	27	17.3	27	54	2.8	1.4	3.8	34.5	No	Moderate Priority
07501670750139	Condition - with no CCTV scoring	540.6	12	10.7	12	75	1.9	2.1	3.8	34.5	No	Highest Priority
05501870550274	Condition - with no CCTV scoring	311.3	8	6.4	8	55	1.8	2.2	3.8	34.4	No	High Priority
05500860550088	Condition - with no CCTV scoring	341.2	8	6.2	8	55	1.7	2.2	3.8	34.4	No	High Priority
05601230560124	Condition - with no CCTV scoring	44.2	8	9.4	8	56	1.7	2.2	3.8	34.4	No	Highest Priority
05701710570169	Condition - with no CCTV scoring	224.4	8	1.1	8	57	1.7	2.2	3.8	34.4	No	Highest Priority
05702280570229	Condition - with no CCTV scoring	362.4	12	9.4	12	57	1.6	2.4	3.8	34.4	No	Highest Priority
06500350650033	Condition - with no CCTV scoring	222	8	6.0	8	65	1.6	2.4	3.8	34.4	No	Moderate Priority
07700820770081	Condition - with no CCTV scoring	245.5	8	5.9	8	77	1.6	2.4	3.8	34.4	No	Highest Priority
03300230330025	Condition - with no CCTV scoring	303.1	8	7.3	8	33	2.4	1.6	3.8	34.4	No	Low Priority
03700410370042	Condition - with no CCTV scoring	579	8	5.2	8	37	2.0	1.9	3.8	34.4	No	Low Priority
05400330540036	Condition - with no CCTV scoring	341.2	8	4.9	8	54	2.0	1.9	3.8	34.4	No	Moderate Priority
05601240560131	Condition - with no CCTV scoring	795.3	8	7.7	8	56	2.0	1.9	3.8	34.4	No	Highest Priority
07502190750215	Condition - with no CCTV scoring	379.3	8	7.0	8	75	2.0	1.9	3.8	34.4	No	Highest Priority
03300890330088	Condition - with no CCTV scoring	20	8	8.9	8	33	1.8	2.1	3.8	34.4	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03300870330058	Condition - with no CCTV scoring	173.2	18	9.9	18	33	2.8	1.4	3.8	34.4	No	Low Priority
04400470440048	Condition - with no CCTV scoring	205	8	6.1	8	44	1.8	2.1	3.8	34.4	No	Low Priority
04601800460182	Condition - with no CCTV scoring	327.1	8	5.8	8	46	1.7	2.3	3.8	34.4	No	Highest Priority
04600750460063	Condition - with no CCTV scoring	14.6	8	5.5	8	46	1.7	2.3	3.8	34.4	No	Highest Priority
05502180550219	Condition - with no CCTV scoring	333.3	12	7.2	12	55	1.7	2.3	3.8	34.4	No	High Priority
05500420550041	Condition - with no CCTV scoring	350.5	10	7.9	10	55	1.7	2.3	3.8	34.4	No	High Priority
05500180550019	Condition - with no CCTV scoring	382.7	8	5.4	8	55	1.7	2.3	3.8	34.4	No	High Priority
05700920570079	Condition - with no CCTV scoring	366.4	8	4.6	8	57	1.9	2.0	3.8	34.4	No	Highest Priority
06600250660043	Condition - with no CCTV scoring	336.8	8	4.4	8	66	1.7	2.3	3.8	34.4	No	Highest Priority
07601110760096	Condition - with no CCTV scoring	126.3	8	4.8	8	76	1.7	2.3	3.8	34.4	No	Highest Priority
07700080770007	Condition - with no CCTV scoring	500.3	8	5.9	8	76	1.7	2.3	3.8	34.4	No	Highest Priority
07601410760253	Condition - with no CCTV scoring	663.5	8	3.2	8	76	1.7	2.3	3.8	34.4	No	Highest Priority
08601490860023	Condition - with no CCTV scoring	224.1	8	6.0	8	86	2.2	1.8	3.8	34.4	No	Highest Priority
03600810360082	Condition - with no CCTV scoring	331.4	8	4.9	8	36	1.5	2.6	3.8	34.3	No	High Priority
03600820360083	Condition - with no CCTV scoring	127.4	8	5.1	8	36	1.5	2.6	3.8	34.3	No	High Priority
03600830360167	Condition - with no CCTV scoring	182.9	8	5.2	8	36	1.5	2.6	3.8	34.3	No	High Priority
05400130540012	Condition - with no CCTV scoring	406.2	8	5.0	8	54	1.5	2.6	3.8	34.3	No	Moderate Priority
07400290740034	Condition - with no CCTV scoring	322.5	8	5.7	8	74	1.5	2.5	3.8	34.3	No	Highest Priority
03500800350081	Condition - with no CCTV scoring	166.1	8	9.1	8	35	1.8	2.2	3.8	34.2	No	Moderate Priority
06700460670048	Condition - with no CCTV scoring	323.9	10	3.3	10	67	1.8	2.2	3.8	34.2	No	Highest Priority
07501010750102	Condition - with no CCTV scoring	589.2	8	5.0	8	75	2.2	1.8	3.8	34.2	No	Highest Priority
07501620750163	Condition - with no CCTV scoring	144.6	18	9.7	18	75	1.8	2.2	3.8	34.2	No	Highest Priority
03700420370003	Condition - with no CCTV scoring	261.1	8	8.8	8	37	2.1	1.8	3.8	34.2	No	Low Priority
04800330480032	Condition - with no CCTV scoring	287.8	8	5.5	8	48	1.7	2.2	3.8	34.2	No	High Priority
04801470480033	Condition - with no CCTV scoring	282.9	8	5.2	8	48	1.7	2.2	3.8	34.2	No	High Priority
05300010530002	Condition - with no CCTV scoring	145	8	4.7	8	53	1.7	2.2	3.8	34.2	No	Moderate Priority
05701740570172	Condition - with no CCTV scoring	246.9	8	4.9	8	57	1.7	2.2	3.8	34.2	No	Highest Priority
07301170730118	Condition - with no CCTV scoring	320.1	10	8.9	10	73	2.1	1.8	3.8	34.2	No	High Priority
02602380260237	Condition - with no CCTV scoring	260.2	8	10.2	8	26	1.9	2.0	3.8	34.2	No	Low Priority
03501260350125	Condition - with no CCTV scoring	382.3	10	9.9	10	35	1.9	2.0	3.8	34.2	No	Moderate Priority
07800340780035	Condition - with no CCTV scoring	453.3	15	8.6	15	78	1.6	2.4	3.8	34.2	No	Low Priority
07800320780033	Condition - with no CCTV scoring	557.3	15	9.7	15	78	1.6	2.4	3.8	34.2	No	Low Priority
04800100480011	Condition - with no CCTV scoring	381.1	8	5.2	8	48	1.8	2.1	3.8	34.2	No	High Priority
02700390270037	Condition - with no CCTV scoring	146.9	8	5.2	8	27	1.7	2.3	3.8	34.2	No	Moderate Priority
06401560640152	Condition - with no CCTV scoring	364.2	8	5.0	8	64	1.7	2.3	3.8	34.2	No	Moderate Priority
06500220650248	Condition - with no CCTV scoring	343.3	10	6.6	10	65	1.7	2.3	3.8	34.2	No	Moderate Priority
06501300650022	Condition - with no CCTV scoring	329.1	10	6.8	10	65	1.7	2.3	3.8	34.2	No	Moderate Priority
06600680660070	Condition - with no CCTV scoring	362.3	8	5.8	8	66	1.7	2.3	3.8	34.2	No	Highest Priority
07501460750154	Condition - with no CCTV scoring	198.9	8	6.4	8	75	1.7	2.3	3.8	34.2	No	Highest Priority
02700380270037	Condition - with no CCTV scoring	434.7	8	14.0	8	27	1.8	2.1	3.8	34.1	No	Moderate Priority
04700440470045	Condition - with no CCTV scoring	52.3	8	4.5	8	47	1.5	2.5	3.7	34.1	No	High Priority
04702130470060	Condition - with no CCTV scoring	400.1	8	4.1	8	47	1.5	2.5	3.7	34.1	No	High Priority
05400170540016	Condition - with no CCTV scoring	335.6	12	7.2	12	54	1.5	2.6	3.7	34.1	No	Moderate Priority
05400150550158	Condition - with no CCTV scoring	320.2	12	6.8	12	54	1.5	2.6	3.7	34.1	No	Moderate Priority
05400180540017	Condition - with no CCTV scoring	320.3	12	7.4	12	54	1.5	2.6	3.7	34.1	No	Moderate Priority
02700260270027	Condition - with no CCTV scoring	456.7	8	7.9	8	27	2.0	1.9	3.7	34.1	No	Moderate Priority
04800830480082	Condition - with no CCTV scoring	402	8	5.8	8	48	2.0	1.9	3.7	34.1	No	High Priority
06500680650067	Condition - with no CCTV scoring	626.9	8	4.3	8	65	2.0	1.9	3.7	34.1	No	Moderate Priority
06500710650070	Condition - with no CCTV scoring	436.1	8	3.2	8	65	2.0	1.9	3.7	34.1	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04801100480108	Condition - with no CCTV scoring	278.4	8	9.3	8	48	1.7	2.2	3.7	34.0	No	High Priority
05300330530028	Condition - with no CCTV scoring	176.9	8	5.5	8	53	1.7	2.2	3.7	34.0	No	Moderate Priority
05701610570150	Condition - with no CCTV scoring	303	8	5.6	8	57	1.7	2.2	3.7	34.0	No	Highest Priority
05800380570235	Condition - with no CCTV scoring	339.1	8	7.1	8	57	1.7	2.2	3.7	34.0	No	Highest Priority
06601120660343	Condition - with no CCTV scoring	586.1	8	4.4	8	66	1.7	2.2	3.7	34.0	No	Highest Priority
02301360230157	Condition - with no CCTV scoring	281	24	23.7	24	23	2.8	1.4	3.7	34.0	No	Lowest Priority
02602440260126	Condition - with no CCTV scoring	418	8	5.5	8	26	1.8	2.1	3.7	34.0	No	Low Priority
02601240260125	Condition - with no CCTV scoring	160.5	8	6.0	8	26	1.8	2.1	3.7	34.0	No	Low Priority
05402040540218	Condition - with no CCTV scoring	352	8	6.3	8	54	2.0	1.9	3.7	34.0	No	Moderate Priority
01100360110029	Condition - with no CCTV scoring	463.4	10	7.1	10	11	1.7	2.3	3.7	34.0	No	Lowest Priority
05501220550121	Condition - with no CCTV scoring	709.1	8	6.0	8	55	1.7	2.3	3.7	34.0	No	High Priority
05501690550190	Condition - with no CCTV scoring	273.9	8	5.2	8	55	1.7	2.3	3.7	34.0	No	High Priority
05501680550169	Condition - with no CCTV scoring	320.8	8	5.2	8	55	1.7	2.3	3.7	34.0	No	High Priority
05501510560040	Condition - with no CCTV scoring	379.2	15	8.4	15	55	2.1	1.8	3.7	33.9	No	High Priority
06301270630126	Condition - with no CCTV scoring	178.5	8	5.5	8	63	1.4	2.7	3.7	33.9	No	Moderate Priority
05400270540026	Condition - with no CCTV scoring	417.7	8	10.5	8	54	2.0	1.9	3.7	33.9	No	Moderate Priority
05400960540093	Condition - with no CCTV scoring	534.4	8	5.5	8	54	2.0	1.9	3.7	33.9	No	Moderate Priority
05500610550059	Condition - with no CCTV scoring	111.3	15	7.4	15	55	2.7	1.4	3.7	33.9	No	High Priority
06402000650188	Condition - with no CCTV scoring	675	8	4.9	8	64	2.0	1.9	3.7	33.9	No	Moderate Priority
06300510630048	Condition - with no CCTV scoring	255.4	10	12.4	10	63	2.2	1.7	3.7	33.9	No	Moderate Priority
08700290870030	Condition - with no CCTV scoring	71.8	24	9.3	24	87	2.4	1.6	3.7	33.8	No	Moderate Priority
06601820660178	Condition - with no CCTV scoring	259.2	6	6.0	8	66	1.7	2.2	3.7	33.8	No	Highest Priority
08900300890021	Condition - with no CCTV scoring	234	8	8.9	8	89	1.7	2.2	3.7	33.8	No	Low Priority
02602090260208	Condition - with no CCTV scoring	23.5	8	8.1	8	26	1.7	2.2	3.7	33.8	No	Low Priority
07301560730120	Condition - with no CCTV scoring	313.2	8	6.1	8	73	1.7	2.2	3.7	33.8	No	High Priority
07400450750006	Condition - with no CCTV scoring	391.3	8	6.4	8	74	1.7	2.2	3.7	33.8	No	Highest Priority
07502560750166	Condition - with no CCTV scoring	317.4	8	7.0	8	75	1.4	2.6	3.7	33.8	No	Highest Priority
07502550750166	Condition - with no CCTV scoring	299.3	8	4.8	8	75	1.4	2.6	3.7	33.8	No	Highest Priority
05501950550193	Condition - with no CCTV scoring	496.8	8	5.5	8	55	1.7	2.3	3.7	33.8	No	High Priority
06600260660024	Condition - with no CCTV scoring	350	8	6.0	8	66	1.7	2.3	3.7	33.8	No	Highest Priority
06603060660307	Condition - with no CCTV scoring	530.2	8	6.4	8	66	1.7	2.3	3.7	33.8	No	Highest Priority
07201030720094	Condition - with no CCTV scoring	413.9	8	6.8	8	72	2.3	1.7	3.7	33.8	No	Moderate Priority
04400620440046	Condition - with no CCTV scoring	222.3	8	5.6	8	44	2.0	1.9	3.7	33.7	No	Low Priority
04400460440030	Condition - with no CCTV scoring	161.3	8	5.6	8	44	2.0	1.9	3.7	33.7	No	Low Priority
04800890480086	Condition - with no CCTV scoring	455.8	8	6.2	8	48	2.0	1.9	3.7	33.7	No	High Priority
04800860480088	Condition - with no CCTV scoring	310.6	8	7.1	8	48	2.0	1.9	3.7	33.7	No	High Priority
06500260750192	Condition - with no CCTV scoring	330.5	8	4.9	8	65	2.0	1.9	3.7	33.7	No	Moderate Priority
07201830720174	Condition - with no CCTV scoring	131.1	8	6.4	8	72	2.0	1.9	3.7	33.7	No	Moderate Priority
04700960470097	Condition - with no CCTV scoring	439.4	8	5.1	8	47	1.6	2.3	3.7	33.7	No	High Priority
07501040750103	Condition - with no CCTV scoring	234.7	8	5.2	8	75	1.5	2.5	3.7	33.7	No	Highest Priority
07501700750256	Condition - with no CCTV scoring	285.2	8	4.0	8	75	1.4	2.7	3.7	33.7	No	Highest Priority
03300800330079	Condition - with no CCTV scoring	286.5	8	8.4	8	33	1.7	2.2	3.7	33.6	No	Low Priority
05501550550157	Condition - with no CCTV scoring	68.2	8	8.0	8	55	1.7	2.2	3.7	33.6	No	High Priority
04500330450283	Condition - with no CCTV scoring	162.2	8	5.0	8	45	1.5	2.6	3.7	33.6	No	High Priority
05400200540018	Condition - with no CCTV scoring	328.6	12	7.1	12	54	1.5	2.6	3.7	33.6	No	Moderate Priority
02600770260076	Condition - with no CCTV scoring	332.6	8	7.0	8	26	1.7	2.2	3.7	33.6	No	Low Priority
02602370260227	Condition - with no CCTV scoring	89.3	8	6.6	8	26	1.7	2.2	3.7	33.6	No	Low Priority
02601230260121	Condition - with no CCTV scoring	378.5	8	5.0	8	26	1.8	2.1	3.7	33.6	No	Low Priority
02601270260123	Condition - with no CCTV scoring	260.1	8	4.6	8	26	1.8	2.1	3.7	33.6	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02601000260101	Condition - with no CCTV scoring	330.7	8	6.0	8	26	1.8	2.1	3.7	33.6	No	Low Priority
03501230350072	Condition - with no CCTV scoring	660.7	10	9.6	10	35	1.8	2.1	3.7	33.6	No	Moderate Priority
03701650370167	Condition - with no CCTV scoring	195.3	8	5.0	8	37	1.5	2.4	3.7	33.6	No	Low Priority
04300490430048	Condition - with no CCTV scoring	306	8	6.5	8	43	1.7	2.2	3.7	33.6	No	Low Priority
05400220540020	Condition - with no CCTV scoring	453.3	8	6.2	8	54	1.7	2.2	3.7	33.6	No	Moderate Priority
05402970540246	Condition - with no CCTV scoring	69.3	8	4.6	8	54	1.5	2.4	3.7	33.6	No	Moderate Priority
05402460540245	Condition - with no CCTV scoring	281.5	8	5.0	8	54	1.5	2.4	3.7	33.6	No	Moderate Priority
05401130540136	Condition - with no CCTV scoring	322.9	8	5.0	8	54	1.7	2.2	3.7	33.6	No	Moderate Priority
05401360540135	Condition - with no CCTV scoring	116.2	8	3.9	8	54	1.7	2.2	3.7	33.6	No	Moderate Priority
05401350540134	Condition - with no CCTV scoring	84.3	8	4.9	8	54	1.7	2.2	3.7	33.6	No	Moderate Priority
05400790540175	Condition - with no CCTV scoring	359.7	8	5.1	8	54	1.5	2.4	3.7	33.6	No	Moderate Priority
05800450580044	Condition - with no CCTV scoring	348.3	8	4.6	8	58	1.7	2.2	3.7	33.6	No	High Priority
04401450440146	Condition - with no CCTV scoring	275.9	8	7.4	8	44	2.1	1.8	3.7	33.6	No	Low Priority
04501750450201	Condition - with no CCTV scoring	280.1	8	5.7	8	45	2.1	1.8	3.7	33.6	No	High Priority
01100290110028	Condition - with no CCTV scoring	417.8	10	26.1	10	11	1.8	2.1	3.7	33.6	No	Lowest Priority
03601780360175	Condition - with no CCTV scoring	102.3	8	5.9	8	36	1.6	2.3	3.7	33.6	No	High Priority
06401490640147	Condition - with no CCTV scoring	410.4	8	5.4	8	64	1.6	2.3	3.7	33.6	No	Moderate Priority
06400760640075	Condition - with no CCTV scoring	389.1	8	5.2	8	64	1.6	2.3	3.7	33.6	No	Moderate Priority
06501160650115	Condition - with no CCTV scoring	218.5	8	4.0	8	65	1.6	2.3	3.7	33.6	No	Moderate Priority
06500100650045	Condition - with no CCTV scoring	328.3	8	4.8	8	65	1.6	2.3	3.7	33.6	No	Moderate Priority
06500130650034	Condition - with no CCTV scoring	293.4	8	4.1	8	65	1.6	2.3	3.7	33.6	No	Moderate Priority
07400700750188	Condition - with no CCTV scoring	597.8	8	3.1	8	74	1.6	2.3	3.7	33.6	No	Highest Priority
05401010540102	Condition - with no CCTV scoring	457.7	8	5.9	8	54	1.9	1.9	3.7	33.5	No	Moderate Priority
05600660560131	Condition - with no CCTV scoring	407	8	5.0	8	56	1.9	1.9	3.7	33.5	No	Highest Priority
05603070560010	Condition - with no CCTV scoring	622	8	4.7	8	56	1.9	1.9	3.7	33.5	No	Highest Priority
06501830650180	Condition - with no CCTV scoring	680.7	8	5.5	8	65	1.9	1.9	3.7	33.5	No	Moderate Priority
03400410340042	Condition - with no CCTV scoring	119.9	21	7.4	21	34	2.5	1.5	3.7	33.5	No	Lowest Priority
05700530570055	Condition - with no CCTV scoring	382.3	8	4.8	8	57	1.8	2.0	3.7	33.5	No	Highest Priority
05700550570056	Condition - with no CCTV scoring	373	8	5.2	8	57	1.8	2.0	3.7	33.5	No	Highest Priority
05501840550185	Condition - with no CCTV scoring	391.4	8	4.7	8	55	1.7	2.2	3.7	33.5	No	High Priority
05700220570020	Condition - with no CCTV scoring	481.8	8	5.1	8	57	1.7	2.2	3.7	33.5	No	Highest Priority
02601010260243	Condition - with no CCTV scoring	104.3	8	6.7	8	26	1.8	2.1	3.7	33.4	No	Low Priority
04300400430035	Condition - with no CCTV scoring	418.8	8	4.6	8	43	1.8	2.1	3.7	33.4	No	Low Priority
05300970530095	Condition - with no CCTV scoring	506.2	8	6.0	8	53	1.8	2.1	3.7	33.4	No	Moderate Priority
06400060740001	Condition - with no CCTV scoring	78.1	6	4.6	8	64	1.5	2.5	3.7	33.4	No	Moderate Priority
04800160580006	Condition - with no CCTV scoring	360.3	8	5.5	8	48	1.7	2.2	3.7	33.4	No	High Priority
05402670550179	Condition - with no CCTV scoring	466.1	8	7.2	8	55	1.7	2.2	3.7	33.4	No	High Priority
05500850550086	Condition - with no CCTV scoring	382.1	8	5.0	8	55	1.7	2.2	3.7	33.4	No	High Priority
05501670550166	Condition - with no CCTV scoring	338.9	8	6.2	8	55	1.7	2.2	3.7	33.4	No	High Priority
09600840960032	Condition - with no CCTV scoring	421.6	8	10.8	8	96	2.2	1.7	3.7	33.4	No	Low Priority
05502310550195	Condition - with no CCTV scoring	466.7	8	5.0	8	55	1.6	2.3	3.7	33.4	No	High Priority
06602160660257	Condition - with no CCTV scoring	746.9	8	5.3	8	66	1.6	2.3	3.7	33.4	No	Highest Priority
05400900540086	Condition - with no CCTV scoring	514.2	8	6.0	8	54	1.9	1.9	3.7	33.4	No	Moderate Priority
05501430550144	Condition - with no CCTV scoring	205.5	8	6.0	8	55	1.9	1.9	3.7	33.4	No	High Priority
05500300550032	Condition - with no CCTV scoring	370.8	8	6.4	8	55	1.9	1.9	3.7	33.4	No	High Priority
07602470760113	Condition - with no CCTV scoring	336.9	15	3.9	15	76	1.9	1.9	3.7	33.4	No	Highest Priority
07600290760032	Condition - with no CCTV scoring	381.5	16	4.4	18	76	1.9	1.9	3.7	33.4	No	Highest Priority
03800810380079	Condition - with no CCTV scoring	299.3	8	4.7	8	38	1.4	2.6	3.7	33.4	No	Low Priority
03702030370082	Condition - with no CCTV scoring	205.5	8	6.4	8	37	1.8	2.0	3.7	33.3	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03702020370203	Condition - with no CCTV scoring	116.1	8	6.1	8	37	1.8	2.0	3.7	33.3	No	Low Priority
03701210370202	Condition - with no CCTV scoring	429.3	8	6.0	8	37	1.8	2.0	3.7	33.3	No	Low Priority
07501560750158	Condition - with no CCTV scoring	250.9	8	6.7	8	75	1.6	2.3	3.7	33.3	No	Highest Priority
07501580750099	Condition - with no CCTV scoring	271.2	8	6.1	8	75	1.6	2.3	3.7	33.3	No	Highest Priority
02601340260099	Condition - with no CCTV scoring	64.2	8	6.9	8	26	2.0	1.8	3.7	33.2	No	Low Priority
05402660540263	Condition - with no CCTV scoring	321.4	8	5.1	8	54	1.7	2.1	3.7	33.2	No	Moderate Priority
05701900570185	Condition - with no CCTV scoring	489.7	8	4.0	8	57	1.7	2.1	3.7	33.2	No	Highest Priority
05701850570188	Condition - with no CCTV scoring	140.4	8	5.2	8	57	1.7	2.1	3.7	33.2	No	Highest Priority
07301450730120	Condition - with no CCTV scoring	305.4	8	9.0	8	73	1.7	2.1	3.7	33.2	No	High Priority
05400660540065	Condition - with no CCTV scoring	78	8	5.4	8	54	1.7	2.2	3.7	33.2	No	Moderate Priority
05400650540062	Condition - with no CCTV scoring	352.7	8	5.2	8	54	1.7	2.2	3.7	33.2	No	Moderate Priority
05501400550137	Condition - with no CCTV scoring	377.6	8	5.3	8	55	1.7	2.2	3.7	33.2	No	High Priority
05600680560071	Condition - with no CCTV scoring	25.8	8	5.3	8	56	1.7	2.2	3.7	33.2	No	Highest Priority
03701780370175	Condition - with no CCTV scoring	324.4	8	5.2	8	37	1.9	1.9	3.6	33.2	No	Low Priority
04602340460235	Condition - with no CCTV scoring	637.8	10	6.0	10	46	1.9	1.9	3.6	33.2	No	Highest Priority
05402980540297	Condition - with no CCTV scoring	290.5	8	4.4	8	54	1.5	2.4	3.6	33.2	No	Moderate Priority
05600430560042	Condition - with no CCTV scoring	88.7	6	5.0	8	56	1.9	1.9	3.6	33.2	No	Highest Priority
06500700750219	Condition - with no CCTV scoring	298.6	8	7.7	8	65	1.9	1.9	3.6	33.2	No	Moderate Priority
02600680260069	Condition - with no CCTV scoring	366.1	8	5.3	8	26	1.4	2.6	3.6	33.2	No	Low Priority
05701580570159	Condition - with no CCTV scoring	401.8	8	4.5	8	57	1.4	2.6	3.6	33.2	No	Highest Priority
05701560570158	Condition - with no CCTV scoring	517.8	8	4.3	8	57	1.4	2.6	3.6	33.2	No	Highest Priority
06602720660269	Condition - with no CCTV scoring	339.4	8	4.4	8	66	1.6	2.3	3.6	33.2	No	Highest Priority
07202150720214	Condition - with no CCTV scoring	451.6	10	7.0	10	72	1.6	2.3	3.6	33.2	No	Moderate Priority
07502320760021	Condition - with no CCTV scoring	253.4	8	5.3	8	75	1.6	2.3	3.6	33.2	No	Highest Priority
07501570750146	Condition - with no CCTV scoring	457.7	8	4.5	8	75	1.6	2.3	3.6	33.2	No	Highest Priority
07501210750124	Condition - with no CCTV scoring	73.4	8	5.3	8	75	1.6	2.3	3.6	33.2	No	Highest Priority
07800630780032	Condition - with no CCTV scoring	146.9	15	10.3	15	78	1.6	2.4	3.6	33.1	No	Low Priority
02302000230199	Condition - with no CCTV scoring	129.7	6	7.2	8	23	2.1	1.8	3.6	33.1	No	Lowest Priority
04501710450062	Condition - with no CCTV scoring	429.8	8	7.2	8	45	2.1	1.8	3.6	33.1	No	High Priority
02700560270057	Condition - with no CCTV scoring	396.4	8	6.2	8	27	2.0	1.8	3.6	33.1	No	Moderate Priority
06601400660142	Condition - with no CCTV scoring	394.4	8	9.9	8	66	2.0	1.8	3.6	33.1	No	Highest Priority
02400850240077	Condition - with no CCTV scoring	165.1	8	7.4	8	24	1.7	2.2	3.6	33.1	No	Lowest Priority
04700170470169	Condition - with no CCTV scoring	16.1	8	7.3	8	47	1.7	2.1	3.6	33.1	No	High Priority
05400990540084	Condition - with no CCTV scoring	171.7	8	5.0	8	54	1.7	2.1	3.6	33.1	No	Moderate Priority
05300920530061	Condition - with no CCTV scoring	366.7	8	5.7	8	53	1.7	2.2	3.6	33.0	No	Moderate Priority
08700130870123	Condition - with no CCTV scoring	133.6	60	10.1	60	87	3.6	1.0	3.6	33.0	No	Moderate Priority
04400560540033	Condition - with no CCTV scoring	379	8	6.0	8	44	1.9	1.9	3.6	33.0	No	Low Priority
05401670550038	Condition - with no CCTV scoring	686.4	8	5.6	8	54	1.9	1.9	3.6	33.0	No	Moderate Priority
05401000540101	Condition - with no CCTV scoring	439.1	8	6.1	8	54	1.9	1.9	3.6	33.0	No	Moderate Priority
07601360760137	Condition - with no CCTV scoring	311	8	11.9	8	76	1.8	2.1	3.6	33.0	No	Highest Priority
06400280640025	Condition - with no CCTV scoring	59.6	8	3.6	8	64	1.5	2.5	3.6	33.0	No	Moderate Priority
05701380570241	Condition - with no CCTV scoring	104.2	8	4.4	8	57	1.5	2.5	3.6	33.0	No	Highest Priority
04600240450033	Condition - with no CCTV scoring	536.2	8	4.8	8	45	1.6	2.3	3.6	33.0	No	High Priority
04600300460032	Condition - with no CCTV scoring	365	8	5.2	8	46	1.6	2.3	3.6	33.0	No	Highest Priority
04600090460005	Condition - with no CCTV scoring	299.8	8	5.7	8	46	1.6	2.3	3.6	33.0	No	Highest Priority
06602680660269	Condition - with no CCTV scoring	501	8	5.0	8	66	1.6	2.3	3.6	33.0	No	Highest Priority
07700810770064	Condition - with no CCTV scoring	357.2	8	3.7	8	77	1.6	2.3	3.6	33.0	No	Highest Priority
03300310330032	Condition - with no CCTV scoring	500.9	15	8.6	15	33	2.1	1.7	3.6	32.9	No	Low Priority
03501240350123	Condition - with no CCTV scoring	347.9	10	10.4	10	35	1.8	2.0	3.6	32.9	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03701560370150	Condition - with no CCTV scoring	498.3	8	5.0	8	37	1.8	2.0	3.6	32.9	No	Low Priority
03701250370124	Condition - with no CCTV scoring	151.1	8	3.3	8	37	1.8	2.0	3.6	32.9	No	Low Priority
03701280360182	Condition - with no CCTV scoring	351.7	8	5.5	8	36	1.7	2.2	3.6	32.9	No	High Priority
05300080530007	Condition - with no CCTV scoring	154.3	8	9.6	8	53	1.7	2.1	3.6	32.9	No	Moderate Priority
05402380540285	Condition - with no CCTV scoring	336.5	8	5.6	8	54	1.7	2.1	3.6	32.9	No	Moderate Priority
05402390540238	Condition - with no CCTV scoring	360.1	8	5.6	8	54	1.7	2.1	3.6	32.9	No	Moderate Priority
08901010890100	Condition - with no CCTV scoring	292.8	8	8.2	8	89	1.7	2.1	3.6	32.9	No	Low Priority
09600740960071	Condition - with no CCTV scoring	246.7	8	11.2	8	96	1.7	2.2	3.6	32.9	No	Low Priority
04900340490032	Condition - with no CCTV scoring	440	8	7.0	8	49	1.6	2.3	3.6	32.9	No	Lowest Priority
03400850350114	Condition - with no CCTV scoring	380	8	7.0	8	34	1.9	1.9	3.6	32.8	No	Lowest Priority
04800870480086	Condition - with no CCTV scoring	46.6	8	5.8	8	48	1.9	1.9	3.6	32.8	No	High Priority
05601450560142	Condition - with no CCTV scoring	507.6	8	5.0	8	56	1.9	1.9	3.6	32.8	No	Highest Priority
05601470560138	Condition - with no CCTV scoring	517	8	4.2	8	56	1.9	1.9	3.6	32.8	No	Highest Priority
07201780720183	Condition - with no CCTV scoring	163.5	8	5.3	8	72	1.9	1.9	3.6	32.8	No	Moderate Priority
02500670250060	Condition - with no CCTV scoring	240.6	8	6.0	8	25	1.6	2.2	3.6	32.8	No	Lowest Priority
03501280350129	Condition - with no CCTV scoring	165.7	8	7.0	8	34	1.6	2.2	3.6	32.8	No	Lowest Priority
03501310350132	Condition - with no CCTV scoring	165.5	8	7.0	8	35	1.6	2.2	3.6	32.8	No	Moderate Priority
04300060430005	Condition - with no CCTV scoring	178.6	8	4.9	8	43	1.6	2.2	3.6	32.8	No	Low Priority
04400650440026	Condition - with no CCTV scoring	295.8	8	7.0	8	44	1.8	2.1	3.6	32.8	No	Low Priority
04900170490018	Condition - with no CCTV scoring	94.8	8	9.8	8	49	1.6	2.2	3.6	32.8	No	Lowest Priority
05702390570240	Condition - with no CCTV scoring	152.7	8	6.0	8	57	1.6	2.2	3.6	32.8	No	Highest Priority
02600990260098	Condition - with no CCTV scoring	502.2	8	6.8	8	26	1.9	2.0	3.6	32.8	No	Low Priority
06502590650098	Condition - with no CCTV scoring	251.7	8	6.3	8	65	1.9	2.0	3.6	32.8	No	Moderate Priority
07200030720007	Condition - with no CCTV scoring	252.6	8	6.1	8	72	2.0	1.9	3.6	32.8	No	Moderate Priority
05502190550191	Condition - with no CCTV scoring	299.3	12	6.8	12	55	1.6	2.3	3.6	32.8	No	High Priority
05701150570116	Condition - with no CCTV scoring	324.7	8	4.3	8	57	1.8	2.0	3.6	32.8	No	Highest Priority
06501370650130	Condition - with no CCTV scoring	350.8	10	6.7	10	65	1.6	2.3	3.6	32.8	No	Moderate Priority
06600210660024	Condition - with no CCTV scoring	272.2	8	4.4	8	66	1.6	2.3	3.6	32.8	No	Highest Priority
06602520660253	Condition - with no CCTV scoring	118.1	8	6.4	8	66	1.6	2.3	3.6	32.8	No	Highest Priority
06800010670118	Condition - with no CCTV scoring	120.9	8	3.3	8	67	1.4	2.5	3.6	32.8	No	Highest Priority
04401270440168	Condition - with no CCTV scoring	415.3	8	6.3	8	44	1.9	1.9	3.6	32.7	No	Low Priority
04800110480012	Condition - with no CCTV scoring	418.6	8	5.2	8	48	1.7	2.1	3.6	32.7	No	High Priority
06603020660301	Condition - with no CCTV scoring	346.3	8	5.1	8	66	1.9	1.9	3.6	32.7	No	Highest Priority
07701040770105	Condition - with no CCTV scoring	455.7	8	8.3	8	77	1.7	2.1	3.6	32.7	No	Highest Priority
08601440860091	Condition - with no CCTV scoring	224.4	8	9.3	8	86	1.7	2.1	3.6	32.7	No	Highest Priority
02301190230120	Condition - with no CCTV scoring	190.5	8	8.1	8	23	1.7	2.2	3.6	32.7	No	Lowest Priority
05500430550082	Condition - with no CCTV scoring	342	10	7.5	10	55	1.7	2.2	3.6	32.7	No	High Priority
06700450670046	Condition - with no CCTV scoring	557	10	4.1	10	67	1.7	2.2	3.6	32.7	No	Highest Priority
08601400850035	Condition - with no CCTV scoring	414.2	8	8.1	8	86	1.9	1.9	3.6	32.7	No	Highest Priority
03500730350071	Condition - with no CCTV scoring	310.1	8	6.0	8	35	1.6	2.2	3.6	32.6	No	Moderate Priority
04800370480036	Condition - with no CCTV scoring	306.9	8	5.0	8	48	1.6	2.2	3.6	32.6	No	High Priority
02100020210003	Condition - with no CCTV scoring	998.5	15	12.8	15	11	2.2	1.7	3.6	32.6	No	Lowest Priority
01100200210002	Condition - with no CCTV scoring	568.3	15	12.5	15	11	2.2	1.7	3.6	32.6	No	Lowest Priority
07201060720104	Condition - with no CCTV scoring	339	8	6.4	8	72	2.2	1.7	3.6	32.6	No	Moderate Priority
02600620260055	Condition - with no CCTV scoring	262.5	8	10.4	8	26	1.8	2.0	3.6	32.6	No	Low Priority
03701790370167	Condition - with no CCTV scoring	233.9	8	6.4	8	37	1.8	2.0	3.6	32.6	No	Low Priority
03701240370179	Condition - with no CCTV scoring	379.9	8	6.2	8	37	1.8	2.0	3.6	32.6	No	Low Priority
03700930370085	Condition - with no CCTV scoring	316.3	8	5.0	8	37	1.6	2.3	3.6	32.5	No	Low Priority
04602800460098	Condition - with no CCTV scoring	617	8	5.5	8	46	1.6	2.3	3.6	32.5	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06401470640146	Condition - with no CCTV scoring	273.4	8	5.5	8	64	1.6	2.3	3.6	32.5	No	Moderate Priority
06500550650031	Condition - with no CCTV scoring	351.6	8	6.2	8	65	1.6	2.3	3.6	32.5	No	Moderate Priority
06500310650016	Condition - with no CCTV scoring	35.3	8	5.6	8	65	1.6	2.3	3.6	32.5	No	Moderate Priority
06600940660093	Condition - with no CCTV scoring	631.8	8	3.9	8	66	1.6	2.3	3.6	32.5	No	Highest Priority
04700410470061	Condition - with no CCTV scoring	337.1	8	4.1	8	47	1.5	2.5	3.6	32.5	No	High Priority
05500280550029	Condition - with no CCTV scoring	746.5	8	5.5	8	55	1.9	1.9	3.6	32.5	No	High Priority
05602860560285	Condition - with no CCTV scoring	559.1	8	3.7	8	56	1.9	1.9	3.6	32.5	No	Highest Priority
06601640660175	Condition - with no CCTV scoring	285.7	10	7.0	10	66	1.9	1.9	3.6	32.5	No	Highest Priority
06601210660164	Condition - with no CCTV scoring	673	10	6.6	10	66	1.9	1.9	3.6	32.5	No	Highest Priority
02600690360095	Condition - with no CCTV scoring	546.5	8	4.8	8	26	1.4	2.6	3.6	32.5	No	Low Priority
03500710350074	Condition - with no CCTV scoring	679.7	12	9.8	12	35	1.7	2.1	3.6	32.5	No	Moderate Priority
03600720360073	Condition - with no CCTV scoring	402.2	8	5.2	8	36	1.7	2.1	3.6	32.5	No	High Priority
03600950360081	Condition - with no CCTV scoring	157	8	5.1	8	36	1.4	2.6	3.6	32.5	No	High Priority
03600960360095	Condition - with no CCTV scoring	378.9	8	4.1	8	36	1.4	2.6	3.6	32.5	No	High Priority
05300460530047	Condition - with no CCTV scoring	428.8	8	5.4	8	53	1.7	2.1	3.6	32.5	No	Moderate Priority
08701240870014	Condition - with no CCTV scoring	168.5	60	9.0	60	87	3.6	1.0	3.6	32.5	No	Moderate Priority
08701230870124	Condition - with no CCTV scoring	292.8	60	8.3	60	87	3.6	1.0	3.6	32.5	No	Moderate Priority
02700490270050	Condition - with no CCTV scoring	358.6	8	6.3	8	27	1.7	2.2	3.6	32.5	No	Moderate Priority
05500530550055	Condition - with no CCTV scoring	176.9	8	6.2	8	55	1.7	2.2	3.6	32.5	No	High Priority
05700900570089	Condition - with no CCTV scoring	662.2	8	4.0	8	57	1.7	2.2	3.6	32.5	No	Highest Priority
06501540650155	Condition - with no CCTV scoring	308.7	8	4.5	8	65	1.7	2.2	3.6	32.5	No	Moderate Priority
06501550650157	Condition - with no CCTV scoring	315	8	5.5	8	65	1.7	2.2	3.6	32.5	No	Moderate Priority
07502380760026	Condition - with no CCTV scoring	373.9	12	6.1	12	75	1.7	2.2	3.6	32.5	No	Highest Priority
02200250220213	Condition - with no CCTV scoring	295	12	6.0	12	22	1.7	2.1	3.6	32.5	No	Low Priority
04800630480064	Condition - with no CCTV scoring	307.4	8	5.8	8	48	1.6	2.3	3.6	32.4	No	High Priority
02700570270043	Condition - with no CCTV scoring	337	8	6.9	8	27	1.6	2.2	3.6	32.4	No	Moderate Priority
04300480530007	Condition - with no CCTV scoring	288	8	6.0	8	43	1.6	2.2	3.6	32.4	No	Low Priority
STN_0040480164	Condition - with no CCTV scoring	451.5	8	6.0	8	48	1.6	2.2	3.6	32.4	No	High Priority
04800580580010	Condition - with no CCTV scoring	408.1	8	6.0	8	48	1.6	2.2	3.6	32.4	No	High Priority
05300910530092	Condition - with no CCTV scoring	330	8	7.3	8	53	1.6	2.2	3.6	32.4	No	Moderate Priority
05501630550160	Condition - with no CCTV scoring	216.5	8	4.8	8	55	1.6	2.2	3.6	32.4	No	High Priority
C05801030580084	Condition - with no CCTV scoring	139	8	6.0	8	58	1.6	2.2	3.6	32.4	No	High Priority
07500230750022	Condition - with no CCTV scoring	106.5	12	8.7	12	75	2.0	1.8	3.6	32.4	No	Highest Priority
STN_0100570194	Condition - with no CCTV scoring	159.3	8	6.0	8	57	1.4	2.6	3.6	32.4	No	Highest Priority
03701220370202	Condition - with no CCTV scoring	273.3	8	5.0	8	37	1.8	2.0	3.6	32.4	No	Low Priority
03700790370203	Condition - with no CCTV scoring	506.9	8	4.5	8	37	1.8	2.0	3.6	32.4	No	Low Priority
04400140440190	Condition - with no CCTV scoring	51.6	15	5.8	15	44	2.5	1.4	3.6	32.4	No	Low Priority
03700220370023	Condition - with no CCTV scoring	88.9	8	6.0	8	37	1.6	2.3	3.6	32.3	No	Low Priority
05501080550106	Condition - with no CCTV scoring	489.6	8	5.5	8	55	1.6	2.3	3.6	32.3	No	High Priority
05501900550273	Condition - with no CCTV scoring	477.7	8	5.1	8	55	1.6	2.3	3.6	32.3	No	High Priority
05501180550117	Condition - with no CCTV scoring	799.9	8	4.5	8	55	1.6	2.3	3.6	32.3	No	High Priority
05500240550019	Condition - with no CCTV scoring	708.2	8	5.5	8	55	1.6	2.3	3.6	32.3	No	High Priority
03701960360183	Condition - with no CCTV scoring	317	8	6.8	8	36	1.9	1.9	3.6	32.3	No	High Priority
06601150660117	Condition - with no CCTV scoring	221.7	10	6.5	10	66	1.9	1.9	3.6	32.3	No	Highest Priority
03300180330015	Condition - with no CCTV scoring	186.5	8	6.0	8	33	2.0	1.8	3.6	32.3	No	Low Priority
03600290360030	Condition - with no CCTV scoring	73.4	8	6.2	8	36	1.9	1.9	3.6	32.3	No	High Priority
07501060750103	Condition - with no CCTV scoring	224.8	8	6.0	8	75	1.5	2.4	3.6	32.3	No	Highest Priority
06701000670102	Condition - with no CCTV scoring	359.7	33	13.5	36	67	3.6	1.0	3.6	32.3	No	Highest Priority
05402400540242	Condition - with no CCTV scoring	283.4	8	5.9	8	54	1.7	2.1	3.5	32.3	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03700400370036	Condition - with no CCTV scoring	414.6	8	4.9	8	37	1.7	2.2	3.5	32.3	No	Low Priority
0860118xxxxxxx	Condition - with no CCTV scoring	621.1	10	16.9	10	86	1.7	2.1	3.5	32.3	No	Highest Priority
04600640460286	Condition - with no CCTV scoring	97.1	21	7.2	21	46	1.6	2.2	3.5	32.2	No	Highest Priority
05300310530025	Condition - with no CCTV scoring	443.1	8	5.0	8	53	1.6	2.2	3.5	32.2	No	Moderate Priority
05300300530031	Condition - with no CCTV scoring	425.6	8	5.0	8	53	1.6	2.2	3.5	32.2	No	Moderate Priority
05300320530030	Condition - with no CCTV scoring	469.1	8	5.1	8	53	1.6	2.2	3.5	32.2	No	Moderate Priority
05300030530005	Condition - with no CCTV scoring	337.6	8	5.3	8	53	1.6	2.2	3.5	32.2	No	Moderate Priority
06800050680001	Condition - with no CCTV scoring	176	8	3.2	8	68	1.5	2.3	3.5	32.2	No	Lowest Priority
01100630110062	Condition - with no CCTV scoring	348	8	5.7	8	11	1.2	3.0	3.5	32.2	No	Lowest Priority
05300070530006	Condition - with no CCTV scoring	17.2	8	10.6	8	53	1.8	2.0	3.5	32.2	No	Moderate Priority
05700120570108	Condition - with no CCTV scoring	656.7	8	6.0	8	57	1.8	2.0	3.5	32.2	No	Highest Priority
07202270720228	Condition - with no CCTV scoring	297.8	6	9.3	8	72	2.0	1.8	3.5	32.2	No	Moderate Priority
02401150240116	Condition - with no CCTV scoring	450	10	7.0	10	24	1.9	1.9	3.5	32.2	No	Lowest Priority
04401230440051	Condition - with no CCTV scoring	298.9	8	5.0	8	44	1.9	1.9	3.5	32.2	No	Low Priority
06700320670031	Condition - with no CCTV scoring	1011.7	8	4.0	8	66	1.9	1.9	3.5	32.2	No	Highest Priority
07602460760247	Condition - with no CCTV scoring	164.2	15	4.1	15	76	1.9	1.9	3.5	32.2	No	Highest Priority
03700360370035	Condition - with no CCTV scoring	421.3	8	5.8	8	37	1.6	2.3	3.5	32.1	No	Low Priority
05600790560077	Condition - with no CCTV scoring	536.6	6	5.4	8	56	1.6	2.3	3.5	32.1	No	Highest Priority
06401340650022	Condition - with no CCTV scoring	681.7	8	5.6	8	64	1.6	2.3	3.5	32.1	No	Moderate Priority
02601210260100	Condition - with no CCTV scoring	361.8	8	5.9	8	26	1.7	2.1	3.5	32.1	No	Low Priority
04600990460095	Condition - with no CCTV scoring	345.7	8	5.0	8	46	1.7	2.1	3.5	32.1	No	Highest Priority
05701140570115	Condition - with no CCTV scoring	403.3	8	11.2	8	57	2.0	1.8	3.5	32.1	No	Highest Priority
06400020640003	Condition - with no CCTV scoring	40.3	6	2.2	8	64	1.5	2.4	3.5	32.1	No	Moderate Priority
06400010640002	Condition - with no CCTV scoring	93.6	6	2.7	8	64	1.5	2.4	3.5	32.1	No	Moderate Priority
06400050640006	Condition - with no CCTV scoring	74	6	5.0	8	64	1.5	2.4	3.5	32.1	No	Moderate Priority
06400040640005	Condition - with no CCTV scoring	98.1	6	3.9	8	64	1.5	2.4	3.5	32.1	No	Moderate Priority
06400030640004	Condition - with no CCTV scoring	100	6	2.9	8	64	1.5	2.4	3.5	32.1	No	Moderate Priority
02700500270017	Condition - with no CCTV scoring	132.4	8	6.6	8	27	1.6	2.2	3.5	32.1	No	Moderate Priority
05500440550042	Condition - with no CCTV scoring	332.2	10	7.8	10	55	1.6	2.2	3.5	32.1	No	High Priority
06400880640117	Condition - with no CCTV scoring	41.9	8	7.2	8	64	1.6	2.2	3.5	32.1	No	Moderate Priority
07400690740070	Condition - with no CCTV scoring	112.9	8	8.4	8	74	1.5	2.4	3.5	32.1	No	Highest Priority
03701330370134	Condition - with no CCTV scoring	41.4	8	5.3	8	37	1.6	2.2	3.5	32.0	No	Low Priority
04800340480031	Condition - with no CCTV scoring	293.9	8	5.8	8	48	1.6	2.2	3.5	32.0	No	High Priority
05300280530023	Condition - with no CCTV scoring	224.9	8	7.1	8	53	1.6	2.2	3.5	32.0	No	Moderate Priority
05400080540007	Condition - with no CCTV scoring	445	8	5.9	8	54	1.6	2.2	3.5	32.0	No	Moderate Priority
05401500540151	Condition - with no CCTV scoring	329.2	8	5.0	8	54	1.6	2.2	3.5	32.0	No	Moderate Priority
05701090570107	Condition - with no CCTV scoring	84.7	8	5.6	8	57	1.8	2.0	3.5	32.0	No	Highest Priority
05700340570056	Condition - with no CCTV scoring	473.1	8	5.1	8	57	1.8	2.0	3.5	32.0	No	Highest Priority
06400190640020	Condition - with no CCTV scoring	378.5	8	4.8	8	64	1.8	2.0	3.5	32.0	No	Moderate Priority
02700520270024	Condition - with no CCTV scoring	199.5	8	8.6	8	27	2.1	1.7	3.5	32.0	No	Moderate Priority
03300190330018	Condition - with no CCTV scoring	462	8	7.1	8	33	2.0	1.8	3.5	32.0	No	Low Priority
03300220330021	Condition - with no CCTV scoring	424.9	8	7.0	8	33	2.0	1.8	3.5	32.0	No	Low Priority
03300210330020	Condition - with no CCTV scoring	347.9	8	7.1	8	33	2.0	1.8	3.5	32.0	No	Low Priority
03300200330019	Condition - with no CCTV scoring	324.8	8	7.2	8	33	2.0	1.8	3.5	32.0	No	Low Priority
04502020450024	Condition - with no CCTV scoring	134.3	8	4.7	8	45	2.0	1.8	3.5	32.0	No	High Priority
03400870340113	Condition - with no CCTV scoring	250.7	10	6.8	10	34	1.9	1.9	3.5	32.0	No	Lowest Priority
03801350380136	Condition - with no CCTV scoring	167.1	8	7.7	8	38	1.9	1.9	3.5	32.0	No	Low Priority
04801010480102	Condition - with no CCTV scoring	463.7	8	5.0	8	48	1.9	1.9	3.5	32.0	No	High Priority
05400920540089	Condition - with no CCTV scoring	610.7	8	5.4	8	54	1.9	1.9	3.5	32.0	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05501530560042	Condition - with no CCTV scoring	419.5	6	6.0	8	55	1.9	1.9	3.5	32.0	No	High Priority
05500360550032	Condition - with no CCTV scoring	721.7	8	6.5	8	55	1.9	1.9	3.5	32.0	No	High Priority
06502580650225	Condition - with no CCTV scoring	283.1	24	3.2	24	65	1.9	1.9	3.5	32.0	No	Moderate Priority
06602740660275	Condition - with no CCTV scoring	309.5	8	4.1	8	66	1.9	1.9	3.5	32.0	No	Highest Priority
06601380660340	Condition - with no CCTV scoring	276.6	8	4.0	8	66	1.9	1.9	3.5	32.0	No	Highest Priority
07201850720178	Condition - with no CCTV scoring	167.4	8	6.0	8	72	1.9	1.9	3.5	32.0	No	Moderate Priority
07600330760034	Condition - with no CCTV scoring	304.9	15	4.2	15	76	1.9	1.9	3.5	32.0	No	Highest Priority
07601130760110	Condition - with no CCTV scoring	325.6	15	3.5	15	76	1.9	1.9	3.5	32.0	No	Highest Priority
03300150330016	Condition - with no CCTV scoring	275	8	9.0	8	33	2.1	1.7	3.5	32.0	No	Low Priority
05501300550104	Condition - with no CCTV scoring	457.8	15	7.5	15	55	2.1	1.7	3.5	32.0	No	High Priority
04600230460024	Condition - with no CCTV scoring	73.8	8	4.0	8	46	1.6	2.3	3.5	31.9	No	Highest Priority
04600220460023	Condition - with no CCTV scoring	143.4	8	4.7	8	46	1.6	2.3	3.5	31.9	No	Highest Priority
04600210460022	Condition - with no CCTV scoring	188	8	5.4	8	46	1.6	2.3	3.5	31.9	No	Highest Priority
05500330550030	Condition - with no CCTV scoring	473.1	8	6.3	8	55	2.0	1.8	3.5	31.9	No	High Priority
07201690720168	Condition - with no CCTV scoring	163.6	8	5.0	8	72	2.0	1.8	3.5	31.9	No	Moderate Priority
07500310750030	Condition - with no CCTV scoring	544.9	8	5.4	8	75	1.6	2.3	3.5	31.9	No	Highest Priority
08801020880103	Condition - with no CCTV scoring	600	21	9.7	21	88	2.4	1.5	3.5	31.9	No	Low Priority
02601020260103	Condition - with no CCTV scoring	271.7	8	6.2	8	26	1.7	2.1	3.5	31.9	No	Low Priority
05701340570122	Condition - with no CCTV scoring	300.8	8	5.3	8	57	1.7	2.1	3.5	31.9	No	Highest Priority
02700370370050	Condition - with no CCTV scoring	331.2	8	7.0	8	27	1.6	2.2	3.5	31.9	No	Moderate Priority
05400640540172	Condition - with no CCTV scoring	351.1	8	5.2	8	54	1.5	2.4	3.5	31.9	No	Moderate Priority
04700560470057	Condition - with no CCTV scoring	292.9	8	5.1	8	47	1.4	2.5	3.5	31.9	No	High Priority
04700600470214	Condition - with no CCTV scoring	211.3	8	6.9	8	47	1.4	2.5	3.5	31.9	No	High Priority
04700580470059	Condition - with no CCTV scoring	360.6	8	4.8	8	47	1.4	2.5	3.5	31.9	No	High Priority
01101600110025	Condition - with no CCTV scoring	146.1	10	8.4	10	11	2.0	1.8	3.5	31.8	No	Lowest Priority
05300770530081	Condition - with no CCTV scoring	521.5	8	12.5	8	53	1.8	2.0	3.5	31.8	No	Moderate Priority
04700990470011	Condition - with no CCTV scoring	374.1	8	4.9	8	47	1.6	2.2	3.5	31.8	No	High Priority
01100140210005	Condition - with no CCTV scoring	457.6	8	7.5	8	11	1.9	1.9	3.5	31.8	No	Lowest Priority
02100050210001	Condition - with no CCTV scoring	224.2	8	7.5	8	21	1.9	1.9	3.5	31.8	No	Lowest Priority
03601190360114	Condition - with no CCTV scoring	655.9	10	5.1	10	36	1.8	1.9	3.5	31.8	No	High Priority
03701750370176	Condition - with no CCTV scoring	337.3	8	5.1	8	37	1.8	1.9	3.5	31.8	No	Low Priority
05700800570048	Condition - with no CCTV scoring	436.6	8	7.9	8	57	1.8	1.9	3.5	31.8	No	Highest Priority
06700070670008	Condition - with no CCTV scoring	807.7	8	4.3	8	67	1.8	1.9	3.5	31.8	No	Highest Priority
05400110540010	Condition - with no CCTV scoring	62.6	8	5.3	8	54	1.4	2.6	3.5	31.8	No	Moderate Priority
05400100540009	Condition - with no CCTV scoring	448.7	8	5.2	8	54	1.4	2.6	3.5	31.8	No	Moderate Priority
05400120540011	Condition - with no CCTV scoring	408	8	5.0	8	54	1.4	2.6	3.5	31.8	No	Moderate Priority
05502320560100	Condition - with no CCTV scoring	497.2	8	5.0	8	55	1.4	2.6	3.5	31.8	No	High Priority
02500310250030	Condition - with no CCTV scoring	178.5	8	8.5	8	25	1.6	2.3	3.5	31.7	No	Lowest Priority
05502200550121	Condition - with no CCTV scoring	142	8	6.5	8	55	1.6	2.3	3.5	31.7	No	High Priority
05502730550220	Condition - with no CCTV scoring	25.9	12	4.8	12	55	1.6	2.3	3.5	31.7	No	High Priority
06501580650157	Condition - with no CCTV scoring	564	8	4.6	8	65	1.6	2.3	3.5	31.7	No	Moderate Priority
02601200260117	Condition - with no CCTV scoring	475.7	8	6.1	8	26	1.7	2.1	3.5	31.7	No	Low Priority
02601570260113	Condition - with no CCTV scoring	277.4	8	6.1	8	26	1.7	2.1	3.5	31.7	No	Low Priority
02601290260114	Condition - with no CCTV scoring	406.9	8	6.1	8	26	1.7	2.1	3.5	31.7	No	Low Priority
02601640260128	Condition - with no CCTV scoring	126.9	8	6.2	8	26	1.7	2.1	3.5	31.7	No	Low Priority
02601650260164	Condition - with no CCTV scoring	99.8	8	6.1	8	26	1.7	2.1	3.5	31.7	No	Low Priority
04701830470174	Condition - with no CCTV scoring	415.9	8	5.3	8	47	1.7	2.1	3.5	31.7	No	High Priority
04701960470054	Condition - with no CCTV scoring	164.2	8	6.4	8	47	1.7	2.1	3.5	31.7	No	High Priority
05402910540287	Condition - with no CCTV scoring	135.5	8	6.4	8	54	1.7	2.1	3.5	31.7	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05402420540291	Condition - with no CCTV scoring	141.6	8	6.4	8	54	1.7	2.1	3.5	31.7	No	Moderate Priority
05401490540113	Condition - with no CCTV scoring	504.4	8	5.3	8	54	1.7	2.1	3.5	31.7	No	Moderate Priority
05701880570186	Condition - with no CCTV scoring	139	8	4.8	8	57	1.7	2.1	3.5	31.7	No	Highest Priority
05701860570187	Condition - with no CCTV scoring	498.5	8	5.3	8	57	1.7	2.1	3.5	31.7	No	Highest Priority
05800440580043	Condition - with no CCTV scoring	349.8	8	7.7	8	58	1.7	2.1	3.5	31.7	No	High Priority
02200520230145	Condition - with no CCTV scoring	278	8	6.3	8	22	1.6	2.2	3.5	31.7	No	Low Priority
02301440220052	Condition - with no CCTV scoring	72.3	8	7.2	8	22	1.6	2.2	3.5	31.7	No	Low Priority
03601020360144	Condition - with no CCTV scoring	171.9	8	9.1	8	36	1.6	2.2	3.5	31.7	No	High Priority
05401630540169	Condition - with no CCTV scoring	57.3	8	4.1	8	54	1.6	2.2	3.5	31.7	No	Moderate Priority
05501120550111	Condition - with no CCTV scoring	470.6	8	5.1	8	55	1.6	2.2	3.5	31.7	No	High Priority
09600330960021	Condition - with no CCTV scoring	351.2	8	6.4	8	96	2.0	1.8	3.5	31.7	No	Low Priority
03701580370152	Condition - with no CCTV scoring	495.3	8	6.0	8	37	1.7	2.0	3.5	31.7	No	Low Priority
03701230370124	Condition - with no CCTV scoring	347.6	8	6.3	8	37	1.7	2.0	3.5	31.7	No	Low Priority
08901140890115	Condition - with no CCTV scoring	357	8	8.2	8	89	1.7	2.0	3.5	31.7	No	Low Priority
05601590560157	Condition - with no CCTV scoring	596.8	8	6.1	8	56	1.8	1.9	3.5	31.6	No	Highest Priority
04701110470006	Condition - with no CCTV scoring	300.4	10	6.6	10	47	1.6	2.2	3.5	31.6	No	High Priority
04701130470010	Condition - with no CCTV scoring	345.7	10	6.1	10	47	1.6	2.2	3.5	31.6	No	High Priority
04700100470008	Condition - with no CCTV scoring	371.3	10	6.4	10	47	1.6	2.2	3.5	31.6	No	High Priority
04800320480030	Condition - with no CCTV scoring	406.1	8	7.6	8	48	1.6	2.2	3.5	31.6	No	High Priority
05701750570177	Condition - with no CCTV scoring	654.4	8	6.9	8	57	1.6	2.2	3.5	31.6	No	Highest Priority
04401670440166	Condition - with no CCTV scoring	444	8	6.8	8	44	1.9	1.8	3.5	31.6	No	Low Priority
06701020670103	Condition - with no CCTV scoring	138.5	33	12.8	36	67	3.5	1.0	3.5	31.6	No	Highest Priority
03501320350133	Condition - with no CCTV scoring	209	8	7.9	8	35	1.7	2.1	3.5	31.5	No	Moderate Priority
03601640360165	Condition - with no CCTV scoring	347.2	8	3.1	8	36	1.5	2.3	3.5	31.5	No	High Priority
04502670550017	Condition - with no CCTV scoring	560.8	8	5.0	8	45	1.5	2.3	3.5	31.5	No	High Priority
04601000460280	Condition - with no CCTV scoring	666	8	5.5	8	46	1.5	2.3	3.5	31.5	No	Highest Priority
05300950530101	Condition - with no CCTV scoring	336.2	8	5.2	8	53	1.7	2.1	3.5	31.5	No	Moderate Priority
05502100550131	Condition - with no CCTV scoring	326.8	8	5.4	8	55	2.0	1.8	3.5	31.5	No	High Priority
05500150550016	Condition - with no CCTV scoring	42	8	6.0	8	55	1.5	2.3	3.5	31.5	No	High Priority
05700490570050	Condition - with no CCTV scoring	370.9	8	4.5	8	57	1.5	2.3	3.5	31.5	No	Highest Priority
06400770640079	Condition - with no CCTV scoring	406.9	8	5.1	8	64	1.5	2.3	3.5	31.5	No	Moderate Priority
06400790650013	Condition - with no CCTV scoring	424	8	2.6	8	64	1.5	2.3	3.5	31.5	No	Moderate Priority
06400750640077	Condition - with no CCTV scoring	450.6	8	4.9	8	64	1.5	2.3	3.5	31.5	No	Moderate Priority
06502480650017	Condition - with no CCTV scoring	339.3	10	6.5	10	65	1.5	2.3	3.5	31.5	No	Moderate Priority
06500540650055	Condition - with no CCTV scoring	292.1	8	5.9	8	65	1.5	2.3	3.5	31.5	No	Moderate Priority
07301600730212	Condition - with no CCTV scoring	267.6	10	7.4	10	73	1.5	2.3	3.5	31.5	No	High Priority
07501170750118	Condition - with no CCTV scoring	96.8	8	5.4	8	75	1.5	2.3	3.5	31.5	No	Highest Priority
01100660110067	Condition - with no CCTV scoring	326.1	8	10.5	8	11	1.7	2.1	3.5	31.5	No	Lowest Priority
07201610720163	Condition - with no CCTV scoring	307.8	8	13.3	8	72	1.7	2.1	3.5	31.5	No	Moderate Priority
05500550550054	Condition - with no CCTV scoring	357.1	8	6.3	8	55	1.6	2.2	3.5	31.5	No	High Priority
05600090560008	Condition - with no CCTV scoring	444.7	8	6.0	8	56	1.6	2.2	3.5	31.5	No	Highest Priority
06501560650155	Condition - with no CCTV scoring	627.6	8	4.3	8	65	1.6	2.2	3.5	31.5	No	Moderate Priority
06700150670038	Condition - with no CCTV scoring	494.1	8	4.1	8	67	1.6	2.2	3.5	31.5	No	Highest Priority
07502370750238	Condition - with no CCTV scoring	99.3	10	5.2	10	75	1.6	2.2	3.5	31.5	No	Highest Priority
05402560540254	Condition - with no CCTV scoring	423	8	3.1	8	54	1.7	2.0	3.5	31.5	No	Moderate Priority
06601160660115	Condition - with no CCTV scoring	13.9	10	5.7	10	66	1.8	1.9	3.5	31.5	No	Highest Priority
07201710720174	Condition - with no CCTV scoring	297	8	5.0	8	72	1.8	1.9	3.5	31.5	No	Moderate Priority
08600600860059	Condition - with no CCTV scoring	242.4	8	6.4	8	86	1.8	1.9	3.5	31.5	No	Highest Priority
05400870540088	Condition - with no CCTV scoring	389.5	8	7.0	8	54	1.9	1.8	3.5	31.4	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05600420560041	Condition - with no CCTV scoring	327.5	6	5.4	8	56	1.9	1.8	3.5	31.4	No	Highest Priority
04700610470060	Condition - with no CCTV scoring	310.9	8	5.3	8	47	1.4	2.5	3.5	31.4	No	High Priority
04702120470061	Condition - with no CCTV scoring	169.9	8	3.8	8	47	1.4	2.5	3.5	31.4	No	High Priority
05300600530092	Condition - with no CCTV scoring	380.9	8	5.0	8	53	1.6	2.2	3.5	31.4	No	Moderate Priority
05400310540029	Condition - with no CCTV scoring	397.4	8	10.3	8	54	2.0	1.7	3.5	31.4	No	Moderate Priority
07500280750023	Condition - with no CCTV scoring	365.4	12	10.5	12	75	2.0	1.7	3.5	31.4	No	Highest Priority
05402630540264	Condition - with no CCTV scoring	329.7	8	4.4	8	54	1.4	2.5	3.5	31.4	No	Moderate Priority
02601720260245	Condition - with no CCTV scoring	161.9	8	5.1	8	26	1.6	2.1	3.4	31.3	No	Low Priority
02602450260244	Condition - with no CCTV scoring	152.1	8	5.5	8	26	1.6	2.1	3.4	31.3	No	Low Priority
02601160260117	Condition - with no CCTV scoring	313.4	8	6.1	8	26	1.6	2.1	3.4	31.3	No	Low Priority
04800380480147	Condition - with no CCTV scoring	312	8	5.0	8	48	1.6	2.1	3.4	31.3	No	High Priority
04300020530001	Condition - with no CCTV scoring	464.3	8	4.7	8	53	1.6	2.1	3.4	31.3	No	Moderate Priority
05401900550092	Condition - with no CCTV scoring	323.9	8	5.1	8	54	1.6	2.1	3.4	31.3	No	Moderate Priority
05402200540221	Condition - with no CCTV scoring	520	8	5.5	8	54	1.6	2.1	3.4	31.3	No	Moderate Priority
05701890570185	Condition - with no CCTV scoring	248.2	8	6.0	8	57	1.6	2.1	3.4	31.3	No	Highest Priority
02300540230052	Condition - with no CCTV scoring	372.5	18	10.1	18	23	2.6	1.4	3.4	31.3	No	Lowest Priority
04600450460036	Condition - with no CCTV scoring	304.6	8	5.1	8	46	1.5	2.3	3.4	31.3	No	Highest Priority
04600690460045	Condition - with no CCTV scoring	486.1	8	4.8	8	46	1.5	2.3	3.4	31.3	No	Highest Priority
04600400460045	Condition - with no CCTV scoring	325	8	5.0	8	46	1.5	2.3	3.4	31.3	No	Highest Priority
05501110550113	Condition - with no CCTV scoring	319.5	8	4.9	8	55	1.5	2.3	3.4	31.3	No	High Priority
06602180660257	Condition - with no CCTV scoring	367.8	8	4.7	8	66	1.5	2.3	3.4	31.3	No	Highest Priority
06603430660113	Condition - with no CCTV scoring	339	8	6.9	8	66	1.9	1.9	3.4	31.3	No	Highest Priority
03700600370056	Condition - with no CCTV scoring	324	8	6.0	8	37	1.6	2.2	3.4	31.3	No	Low Priority
05700690570070	Condition - with no CCTV scoring	401.6	8	4.7	8	57	1.6	2.2	3.4	31.3	No	Highest Priority
06400180640019	Condition - with no CCTV scoring	381.7	8	6.7	8	64	1.6	2.2	3.4	31.3	No	Moderate Priority
03601620360161	Condition - with no CCTV scoring	271.9	8	2.9	8	36	1.8	1.9	3.4	31.3	No	High Priority
04801380480137	Condition - with no CCTV scoring	328.9	10	7.4	10	48	1.8	1.9	3.4	31.3	No	High Priority
05400670540066	Condition - with no CCTV scoring	131.5	8	6.1	8	54	1.8	1.9	3.4	31.3	No	Moderate Priority
05501100550076	Condition - with no CCTV scoring	203.4	8	6.0	8	55	1.8	1.9	3.4	31.3	No	High Priority
06601170660152	Condition - with no CCTV scoring	486.8	10	0.8	10	66	1.8	1.9	3.4	31.3	No	Highest Priority
02500600250059	Condition - with no CCTV scoring	144.5	8	5.8	8	25	1.6	2.2	3.4	31.2	No	Lowest Priority
05702080570207	Condition - with no CCTV scoring	347.3	8	5.7	8	57	1.6	2.2	3.4	31.2	No	Highest Priority
07200400720041	Condition - with no CCTV scoring	239.6	8	6.5	8	72	2.1	1.7	3.4	31.2	No	Moderate Priority
04700360470034	Condition - with no CCTV scoring	567.9	8	4.9	8	47	1.5	2.4	3.4	31.2	No	High Priority
06400250640026	Condition - with no CCTV scoring	272.9	8	3.7	8	64	1.4	2.5	3.4	31.2	No	Moderate Priority
06502020650239	Condition - with no CCTV scoring	428.2	15	5.4	15	65	2.5	1.4	3.4	31.2	No	Moderate Priority
05401080540109	Condition - with no CCTV scoring	798.4	24	11.6	24	54	2.5	1.4	3.4	31.2	No	Moderate Priority
07500210750167	Condition - with no CCTV scoring	581.9	12	10.9	12	75	1.7	2.1	3.4	31.1	No	Highest Priority
02601170260100	Condition - with no CCTV scoring	283	8	6.0	8	26	1.6	2.1	3.4	31.1	No	Low Priority
04701020470006	Condition - with no CCTV scoring	319.9	10	8.1	10	47	1.6	2.1	3.4	31.1	No	High Priority
04800140480015	Condition - with no CCTV scoring	370.3	8	5.0	8	48	1.6	2.1	3.4	31.1	No	High Priority
05300410530039	Condition - with no CCTV scoring	353	8	5.0	8	53	1.6	2.1	3.4	31.1	No	Moderate Priority
05300580530041	Condition - with no CCTV scoring	357.2	8	5.0	8	53	1.6	2.1	3.4	31.1	No	Moderate Priority
05400390540259	Condition - with no CCTV scoring	307.5	8	3.7	8	54	1.6	2.1	3.4	31.1	No	Moderate Priority
05402840540276	Condition - with no CCTV scoring	420	8	4.7	8	54	1.6	2.1	3.4	31.1	No	Moderate Priority
02800020280001	Condition - with no CCTV scoring	133.7	8	10.3	8	28	1.7	2.0	3.4	31.1	No	Lowest Priority
03400840340087	Condition - with no CCTV scoring	76.6	8	6.2	8	34	1.8	1.9	3.4	31.1	No	Lowest Priority
03600760360077	Condition - with no CCTV scoring	415	8	5.0	8	36	1.8	1.9	3.4	31.1	No	High Priority
03600770360174	Condition - with no CCTV scoring	298.5	8	5.0	8	36	1.8	1.9	3.4	31.1	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03601680360169	Condition - with no CCTV scoring	480.5	8	6.3	8	36	1.8	1.9	3.4	31.1	No	High Priority
03800920380146	Condition - with no CCTV scoring	284.4	8	4.2	8	38	1.8	1.9	3.4	31.1	No	Low Priority
04400610440062	Condition - with no CCTV scoring	489.3	8	5.2	8	44	1.8	1.9	3.4	31.1	No	Low Priority
04601980460199	Condition - with no CCTV scoring	330.7	8	5.3	8	46	1.5	2.3	3.4	31.1	No	Highest Priority
04602590560027	Condition - with no CCTV scoring	600.5	10	5.6	10	46	1.8	1.9	3.4	31.1	No	Highest Priority
05401050540092	Condition - with no CCTV scoring	58.6	8	5.0	8	54	1.8	1.9	3.4	31.1	No	Moderate Priority
05401610540088	Condition - with no CCTV scoring	501.7	8	5.3	8	54	1.9	1.8	3.4	31.1	No	Moderate Priority
05402990540300	Condition - with no CCTV scoring	40.7	8	5.1	8	54	1.9	1.8	3.4	31.1	No	Moderate Priority
05500720550068	Condition - with no CCTV scoring	741.6	8	8.3	8	55	1.9	1.8	3.4	31.1	No	High Priority
05501230550125	Condition - with no CCTV scoring	404.4	8	5.0	8	55	1.9	1.8	3.4	31.1	No	High Priority
05600100560012	Condition - with no CCTV scoring	75.9	8	8.1	8	56	1.9	1.8	3.4	31.1	No	Highest Priority
05602890560304	Condition - with no CCTV scoring	342.1	8	4.7	8	56	1.8	1.9	3.4	31.1	No	Highest Priority
05600270560238	Condition - with no CCTV scoring	670.1	8	5.0	8	56	1.8	1.9	3.4	31.1	No	Highest Priority
05700040560027	Condition - with no CCTV scoring	395.5	8	6.3	8	57	1.8	1.9	3.4	31.1	No	Highest Priority
06400450640020	Condition - with no CCTV scoring	29.5	8	4.5	8	64	1.7	2.0	3.4	31.1	No	Moderate Priority
06400200650009	Condition - with no CCTV scoring	341.6	8	4.5	8	64	1.7	2.0	3.4	31.1	No	Moderate Priority
06400270640045	Condition - with no CCTV scoring	308.3	8	4.9	8	64	1.7	2.0	3.4	31.1	No	Moderate Priority
06400430640036	Condition - with no CCTV scoring	361.1	8	4.8	8	64	1.7	2.0	3.4	31.1	No	Moderate Priority
06400500640043	Condition - with no CCTV scoring	330.6	8	4.1	8	64	1.7	2.0	3.4	31.1	No	Moderate Priority
06400360640033	Condition - with no CCTV scoring	366	8	5.2	8	64	1.7	2.0	3.4	31.1	No	Moderate Priority
06400540640050	Condition - with no CCTV scoring	39.3	8	3.2	8	64	1.7	2.0	3.4	31.1	No	Moderate Priority
06501410650137	Condition - with no CCTV scoring	390	8	5.0	8	65	1.8	1.9	3.4	31.1	No	Moderate Priority
06501870650141	Condition - with no CCTV scoring	537.8	8	5.0	8	65	1.8	1.9	3.4	31.1	No	Moderate Priority
06501780650182	Condition - with no CCTV scoring	678.7	8	5.5	8	65	1.8	1.9	3.4	31.1	No	Moderate Priority
06500410650040	Condition - with no CCTV scoring	724.3	8	5.0	8	65	1.7	2.0	3.4	31.1	No	Moderate Priority
06500090650043	Condition - with no CCTV scoring	389.1	8	5.3	8	65	1.7	2.0	3.4	31.1	No	Moderate Priority
06601270660128	Condition - with no CCTV scoring	93.4	10	7.8	10	66	1.8	1.9	3.4	31.1	No	Highest Priority
06601200660119	Condition - with no CCTV scoring	208.5	10	7.4	10	66	1.8	1.9	3.4	31.1	No	Highest Priority
07201680720171	Condition - with no CCTV scoring	329.9	8	5.2	8	72	1.9	1.8	3.4	31.1	No	Moderate Priority
07502500750032	Condition - with no CCTV scoring	558.9	8	5.0	8	75	1.8	1.9	3.4	31.1	No	Highest Priority
07600610760104	Condition - with no CCTV scoring	117.1	16	5.3	18	76	1.8	1.9	3.4	31.1	No	Highest Priority
08601460860145	Condition - with no CCTV scoring	320.8	8	9.4	8	86	1.7	2.0	3.4	31.1	No	Highest Priority
05500820550081	Condition - with no CCTV scoring	350.4	10	7.8	10	55	1.6	2.2	3.4	31.1	No	High Priority
05700700570071	Condition - with no CCTV scoring	329.6	8	4.7	8	57	1.6	2.2	3.4	31.1	No	Highest Priority
07201100720108	Condition - with no CCTV scoring	85	8	5.9	8	72	2.1	1.7	3.4	31.1	No	Moderate Priority
03300930330038	Condition - with no CCTV scoring	384.7	8	8.9	8	33	2.0	1.8	3.4	31.0	No	Low Priority
07701440770108	Condition - with no CCTV scoring	49.8	8	5.8	8	77	1.8	2.0	3.4	31.0	No	Highest Priority
09701690970136	Condition - with no CCTV scoring	35.5	8	7.2	8	97	1.8	2.0	3.4	31.0	No	Lowest Priority
02600810260082	Condition - with no CCTV scoring	321.5	8	5.8	8	26	1.6	2.2	3.4	31.0	No	Low Priority
02600820260077	Condition - with no CCTV scoring	44.9	8	5.0	8	26	1.6	2.2	3.4	31.0	No	Low Priority
02600890260077	Condition - with no CCTV scoring	471	8	5.5	8	26	1.6	2.2	3.4	31.0	No	Low Priority
04800640480065	Condition - with no CCTV scoring	8.7	8	8.5	8	48	1.6	2.2	3.4	31.0	No	High Priority
09600610960054	Condition - with no CCTV scoring	575.3	12	6.6	12	96	2.2	1.6	3.4	31.0	No	Low Priority
02501600250034	Condition - with no CCTV scoring	236	8	9.4	8	25	1.6	2.1	3.4	31.0	No	Lowest Priority
02601140260103	Condition - with no CCTV scoring	411.1	8	5.5	8	26	1.6	2.1	3.4	31.0	No	Low Priority
02601060260105	Condition - with no CCTV scoring	396.1	8	5.8	8	26	1.6	2.1	3.4	31.0	No	Low Priority
02601030260115	Condition - with no CCTV scoring	261.1	8	6.0	8	26	1.6	2.1	3.4	31.0	No	Low Priority
04300050530001	Condition - with no CCTV scoring	313.5	8	6.2	8	43	1.6	2.1	3.4	31.0	No	Low Priority
04800450480044	Condition - with no CCTV scoring	306.8	8	5.9	8	48	1.6	2.1	3.4	31.0	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04800440480043	Condition - with no CCTV scoring	438.9	8	4.4	8	48	1.6	2.1	3.4	31.0	No	High Priority
05300470530029	Condition - with no CCTV scoring	281.6	8	5.5	8	53	1.6	2.1	3.4	31.0	No	Moderate Priority
05400770540078	Condition - with no CCTV scoring	342.3	8	4.9	8	54	1.6	2.1	3.4	31.0	No	Moderate Priority
05600410560030	Condition - with no CCTV scoring	150	6	5.9	8	56	1.9	1.8	3.4	31.0	No	Highest Priority
07601840760194	Condition - with no CCTV scoring	39.2	14	9.4	15	76	1.9	1.8	3.4	31.0	No	Highest Priority
02501550250156	Condition - with no CCTV scoring	324.2	10	7.1	10	25	1.8	1.9	3.4	30.9	No	Lowest Priority
02602350260233	Condition - with no CCTV scoring	113.4	6	7.0	8	26	1.8	1.9	3.4	30.9	No	Low Priority
03601650360119	Condition - with no CCTV scoring	766.3	10	6.0	10	36	1.8	1.9	3.4	30.9	No	High Priority
03801450380078	Condition - with no CCTV scoring	264.7	8	4.8	8	38	1.8	1.9	3.4	30.9	No	Low Priority
03801240380135	Condition - with no CCTV scoring	327.5	8	5.1	8	38	1.8	1.9	3.4	30.9	No	Low Priority
03801220380123	Condition - with no CCTV scoring	270.3	8	7.4	8	38	1.8	1.9	3.4	30.9	No	Low Priority
03801200380121	Condition - with no CCTV scoring	224.1	8	5.0	8	38	1.8	1.9	3.4	30.9	No	Low Priority
06300580630057	Condition - with no CCTV scoring	323.4	12	7.9	12	63	1.8	1.9	3.4	30.9	No	Moderate Priority
06502270660016	Condition - with no CCTV scoring	329.6	8	5.3	8	65	1.8	1.9	3.4	30.9	No	Moderate Priority
06500290650028	Condition - with no CCTV scoring	765.5	8	5.6	8	65	1.8	1.9	3.4	30.9	No	Moderate Priority
07202230720222	Condition - with no CCTV scoring	133.7	8	9.3	8	72	1.8	1.9	3.4	30.9	No	Moderate Priority
03700860370099	Condition - with no CCTV scoring	197.2	8	5.0	8	37	1.7	2.0	3.4	30.9	No	Low Priority
03701800370121	Condition - with no CCTV scoring	285.5	8	5.9	8	37	1.7	2.0	3.4	30.9	No	Low Priority
06502540650253	Condition - with no CCTV scoring	271.6	24	10.7	24	65	2.0	1.7	3.4	30.9	No	Moderate Priority
07201390720138	Condition - with no CCTV scoring	371.9	8	11.5	8	72	2.0	1.7	3.4	30.9	No	Moderate Priority
03701460370144	Condition - with no CCTV scoring	479.3	8	7.4	8	37	1.6	2.2	3.4	30.9	No	Low Priority
04400110440007	Condition - with no CCTV scoring	385.9	8	6.0	8	44	1.6	2.2	3.4	30.9	No	Low Priority
06502470650246	Condition - with no CCTV scoring	638.1	8	5.5	8	65	1.6	2.2	3.4	30.9	No	Moderate Priority
06502460650021	Condition - with no CCTV scoring	308.5	8	5.1	8	65	1.6	2.2	3.4	30.9	No	Moderate Priority
02100010220001	Condition - with no CCTV scoring	727.5	8	9.3	8	21	1.9	1.8	3.4	30.9	No	Lowest Priority
09800080970190	Condition - with no CCTV scoring	298.5	18	7.1	18	98	2.3	1.5	3.4	30.9	No	Lowest Priority
09800280980008	Condition - with no CCTV scoring	52	18	6.4	18	98	2.3	1.5	3.4	30.9	No	Lowest Priority
07301680730167	Condition - with no CCTV scoring	400	8	2.3	8	73	1.3	2.7	3.4	30.9	No	High Priority
05402170550166	Condition - with no CCTV scoring	466.4	8	6.0	8	55	1.5	2.2	3.4	30.8	No	High Priority
03200290320068	Condition - with no CCTV scoring	465.2	15	11.3	15	32	1.7	2.1	3.4	30.8	No	Lowest Priority
07601160760115	Condition - with no CCTV scoring	35.1	21	4.5	21	76	1.7	2.1	3.4	30.8	No	Highest Priority
02401470340112	Condition - with no CCTV scoring	450	10	7.3	10	24	1.8	1.9	3.4	30.8	No	Lowest Priority
02401170240147	Condition - with no CCTV scoring	449.9	10	7.1	10	24	1.8	1.9	3.4	30.8	No	Lowest Priority
03401120340087	Condition - with no CCTV scoring	196.4	10	7.2	10	34	1.8	1.9	3.4	30.8	No	Lowest Priority
04400510440050	Condition - with no CCTV scoring	50.7	8	6.0	8	44	1.8	1.9	3.4	30.8	No	Low Priority
04801400480138	Condition - with no CCTV scoring	331.5	10	7.2	10	48	1.8	1.9	3.4	30.8	No	High Priority
04801430480140	Condition - with no CCTV scoring	18.3	10	6.2	10	48	1.8	1.9	3.4	30.8	No	High Priority
05400490540050	Condition - with no CCTV scoring	388.4	8	6.0	8	54	1.8	1.9	3.4	30.8	No	Moderate Priority
05401040540105	Condition - with no CCTV scoring	274.7	8	5.9	8	54	1.8	1.9	3.4	30.8	No	Moderate Priority
05702360570007	Condition - with no CCTV scoring	432.5	6	5.0	8	57	1.8	1.9	3.4	30.8	No	Highest Priority
05700210570020	Condition - with no CCTV scoring	307.6	8	4.7	8	57	1.8	1.9	3.4	30.8	No	Highest Priority
05800850580069	Condition - with no CCTV scoring	444.4	8	4.4	8	58	1.8	1.9	3.4	30.8	No	High Priority
07601410760143	Condition - with no CCTV scoring	279	15	3.2	15	76	1.8	1.9	3.4	30.8	No	Highest Priority
02601670260166	Condition - with no CCTV scoring	136.8	8	5.5	8	26	1.6	2.1	3.4	30.8	No	Low Priority
02601660260127	Condition - with no CCTV scoring	198.3	8	5.6	8	26	1.6	2.1	3.4	30.8	No	Low Priority
02800010380111	Condition - with no CCTV scoring	248.6	8	7.6	8	28	1.6	2.1	3.4	30.8	No	Lowest Priority
04702080470118	Condition - with no CCTV scoring	303.7	8	6.4	8	47	1.4	2.5	3.4	30.8	No	High Priority
04702010470199	Condition - with no CCTV scoring	285.9	8	3.4	8	47	1.6	2.1	3.4	30.8	No	High Priority
04700590470060	Condition - with no CCTV scoring	341.6	8	5.0	8	47	1.4	2.5	3.4	30.8	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04700420470041	Condition - with no CCTV scoring	305.8	8	4.1	8	47	1.4	2.5	3.4	30.8	No	High Priority
04702150470176	Condition - with no CCTV scoring	417	8	5.0	8	47	1.4	2.5	3.4	30.8	No	High Priority
04700550470056	Condition - with no CCTV scoring	308.4	8	5.0	8	47	1.4	2.5	3.4	30.8	No	High Priority
05301000530035	Condition - with no CCTV scoring	144	8	5.2	8	53	1.6	2.1	3.4	30.8	No	Moderate Priority
05300170530018	Condition - with no CCTV scoring	373.1	8	5.1	8	53	1.6	2.1	3.4	30.8	No	Moderate Priority
05300450530046	Condition - with no CCTV scoring	19.7	8	5.0	8	53	1.6	2.1	3.4	30.8	No	Moderate Priority
05300360530035	Condition - with no CCTV scoring	374.8	8	5.1	8	53	1.6	2.1	3.4	30.8	No	Moderate Priority
05300350530034	Condition - with no CCTV scoring	515.9	8	5.6	8	53	1.6	2.1	3.4	30.8	No	Moderate Priority
05401870540188	Condition - with no CCTV scoring	277.8	8	5.5	8	54	1.4	2.5	3.4	30.8	No	Moderate Priority
05401860540187	Condition - with no CCTV scoring	302	8	5.6	8	54	1.4	2.5	3.4	30.8	No	Moderate Priority
06400550640053	Condition - with no CCTV scoring	625.5	8	4.4	8	64	1.7	2.0	3.4	30.8	No	Moderate Priority
02300950230094	Condition - with no CCTV scoring	154.1	6	6.1	8	23	1.9	1.8	3.4	30.7	No	Lowest Priority
06502230650253	Condition - with no CCTV scoring	164.8	24	13.0	24	65	1.9	1.8	3.4	30.7	No	Moderate Priority
02700300270032	Condition - with no CCTV scoring	126	8	6.0	8	27	1.6	2.2	3.4	30.7	No	Moderate Priority
04601600460086	Condition - with no CCTV scoring	278.4	8	6.0	8	46	1.6	2.2	3.4	30.7	No	Highest Priority
01201380120137	Condition - with no CCTV scoring	298.5	8	6.8	8	12	1.5	2.3	3.4	30.7	No	Lowest Priority
05501210550117	Condition - with no CCTV scoring	333	8	5.7	8	55	1.5	2.3	3.4	30.7	No	High Priority
07201200720122	Condition - with no CCTV scoring	256.8	8	6.2	8	72	1.5	2.3	3.4	30.7	No	Moderate Priority
02401320240131	Condition - with no CCTV scoring	100.8	8	7.0	8	24	1.7	2.0	3.4	30.7	No	Lowest Priority
04701030470101	Condition - with no CCTV scoring	157.7	10	6.2	10	47	1.5	2.2	3.4	30.6	No	High Priority
04700080470009	Condition - with no CCTV scoring	437.3	10	6.7	10	47	1.5	2.2	3.4	30.6	No	High Priority
04700090470011	Condition - with no CCTV scoring	120.6	10	6.3	10	47	1.5	2.2	3.4	30.6	No	High Priority
04700110470012	Condition - with no CCTV scoring	267.6	10	6.4	10	47	1.5	2.2	3.4	30.6	No	High Priority
04700120470100	Condition - with no CCTV scoring	400.4	10	6.1	10	47	1.5	2.2	3.4	30.6	No	High Priority
04700050470006	Condition - with no CCTV scoring	81.5	8	6.8	8	47	1.5	2.2	3.4	30.6	No	High Priority
04800550480053	Condition - with no CCTV scoring	521.5	8	5.4	8	48	1.5	2.2	3.4	30.6	No	High Priority
04800390480038	Condition - with no CCTV scoring	298	8	4.9	8	48	1.5	2.2	3.4	30.6	No	High Priority
04801250480123	Condition - with no CCTV scoring	289.3	8	4.9	8	48	1.5	2.2	3.4	30.6	No	High Priority
05300370530032	Condition - with no CCTV scoring	413.6	8	5.0	8	53	1.5	2.2	3.4	30.6	No	Moderate Priority
05501260550123	Condition - with no CCTV scoring	441.9	8	7.5	8	55	1.9	1.8	3.4	30.6	No	High Priority
05601210560122	Condition - with no CCTV scoring	312.9	8	4.0	8	56	1.5	2.2	3.4	30.6	No	Highest Priority
05701730570172	Condition - with no CCTV scoring	589.3	8	4.3	8	57	1.5	2.2	3.4	30.6	No	Highest Priority
05701540570153	Condition - with no CCTV scoring	392.8	8	4.6	8	57	1.5	2.2	3.4	30.6	No	Highest Priority
06300610630060	Condition - with no CCTV scoring	324.7	10	6.7	10	63	2.0	1.7	3.4	30.6	No	Moderate Priority
03401140340115	Condition - with no CCTV scoring	423.7	10	6.9	10	34	1.8	1.9	3.4	30.6	No	Lowest Priority
03401150340107	Condition - with no CCTV scoring	59.6	10	6.9	10	34	1.8	1.9	3.4	30.6	No	Lowest Priority
03401130340114	Condition - with no CCTV scoring	440.5	10	7.5	10	34	1.8	1.9	3.4	30.6	No	Lowest Priority
03701760370172	Condition - with no CCTV scoring	490.7	8	5.0	8	37	1.8	1.9	3.4	30.6	No	Low Priority
03801270380135	Condition - with no CCTV scoring	190.7	8	6.3	8	38	1.8	1.9	3.4	30.6	No	Low Priority
05500770550035	Condition - with no CCTV scoring	690.9	8	5.5	8	55	1.8	1.9	3.4	30.6	No	High Priority
05500290550034	Condition - with no CCTV scoring	220.5	8	6.2	8	55	1.8	1.9	3.4	30.6	No	High Priority
05500320550029	Condition - with no CCTV scoring	417.8	8	6.5	8	55	1.8	1.9	3.4	30.6	No	High Priority
05602130560214	Condition - with no CCTV scoring	313.1	8	7.7	8	56	1.8	1.9	3.4	30.6	No	Highest Priority
05602140560308	Condition - with no CCTV scoring	152.6	8	7.6	8	56	1.8	1.9	3.4	30.6	No	Highest Priority
03500140350015	Condition - with no CCTV scoring	220.2	8	9.4	8	35	1.6	2.1	3.4	30.6	No	Moderate Priority
04401480440026	Condition - with no CCTV scoring	337.2	8	5.8	8	44	1.6	2.1	3.4	30.6	No	Low Priority
07701170770116	Condition - with no CCTV scoring	399.1	21	6.0	21	77	1.6	2.1	3.4	30.6	No	Highest Priority
04701160470208	Condition - with no CCTV scoring	304.3	8	8.3	8	47	1.4	2.4	3.4	30.6	No	High Priority
03500600350061	Condition - with no CCTV scoring	334.1	8	9.8	8	35	1.9	1.8	3.4	30.6	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03500570350059	Condition - with no CCTV scoring	119	8	9.8	8	35	1.9	1.8	3.4	30.6	No	Moderate Priority
03500590350060	Condition - with no CCTV scoring	60	8	9.9	8	35	1.9	1.8	3.4	30.6	No	Moderate Priority
03600710360072	Condition - with no CCTV scoring	397.3	8	4.7	8	36	1.6	2.1	3.4	30.6	No	High Priority
04300280430029	Condition - with no CCTV scoring	213.5	8	5.0	8	43	1.6	2.1	3.4	30.6	No	Low Priority
05300150530017	Condition - with no CCTV scoring	433.1	8	5.0	8	53	1.6	2.1	3.4	30.6	No	Moderate Priority
05300430530042	Condition - with no CCTV scoring	354.6	8	5.0	8	53	1.6	2.1	3.4	30.6	No	Moderate Priority
05402580540257	Condition - with no CCTV scoring	381	8	3.8	8	54	1.6	2.1	3.4	30.6	No	Moderate Priority
05402890540290	Condition - with no CCTV scoring	168.1	8	5.0	8	54	1.6	2.1	3.4	30.6	No	Moderate Priority
05402860540287	Condition - with no CCTV scoring	171.2	8	5.0	8	54	1.6	2.1	3.4	30.6	No	Moderate Priority
06500420650087	Condition - with no CCTV scoring	354	8	5.3	8	65	1.7	2.0	3.4	30.6	No	Moderate Priority
06401890540093	Condition - with no CCTV scoring	331.2	8	4.0	8	54	1.6	2.2	3.4	30.5	No	Moderate Priority
06600950660096	Condition - with no CCTV scoring	293.9	6	6.0	8	66	1.6	2.2	3.4	30.5	No	Highest Priority
06602130660215	Condition - with no CCTV scoring	328.2	8	5.0	8	66	1.7	2.0	3.4	30.5	No	Highest Priority
06500120650044	Condition - with no CCTV scoring	199.9	8	6.8	8	65	1.5	2.3	3.4	30.5	No	Moderate Priority
07202140730159	Condition - with no CCTV scoring	434.8	10	5.2	10	72	1.5	2.3	3.4	30.5	No	Moderate Priority
02200360220044	Condition - with no CCTV scoring	580.2	15	11.0	15	22	2.0	1.7	3.3	30.5	No	Low Priority
07701310770113	Condition - with no CCTV scoring	152.5	8	5.2	8	77	2.0	1.7	3.3	30.5	No	Highest Priority
02602270260225	Condition - with no CCTV scoring	308.8	8	8.9	8	26	1.9	1.8	3.3	30.5	No	Low Priority
05700300570028	Condition - with no CCTV scoring	482.7	8	4.5	8	57	1.9	1.8	3.3	30.5	No	Highest Priority
07500270750028	Condition - with no CCTV scoring	399.1	12	8.3	12	75	1.9	1.8	3.3	30.5	No	Highest Priority
04701700460272	Condition - with no CCTV scoring	327.4	8	6.0	8	46	1.5	2.2	3.3	30.4	No	Highest Priority
05300590530091	Condition - with no CCTV scoring	383.8	8	5.6	8	53	1.5	2.2	3.3	30.4	No	Moderate Priority
05401540540155	Condition - with no CCTV scoring	360.6	8	5.5	8	54	1.5	2.2	3.3	30.4	No	Moderate Priority
05501280550127	Condition - with no CCTV scoring	386.9	8	6.3	8	55	1.8	1.9	3.3	30.4	No	High Priority
03700520370050	Condition - with no CCTV scoring	436.7	8	9.1	8	37	1.6	2.1	3.3	30.4	No	Low Priority
01000130100003	Condition - with no CCTV scoring	353.2	15	11.3	15	10	2.6	1.3	3.3	30.4	No	Lowest Priority
04702210470030	Condition - with no CCTV scoring	427.1	8	6.2	8	47	1.7	2.0	3.3	30.4	No	High Priority
07201280720129	Condition - with no CCTV scoring	190.1	8	5.0	8	72	1.7	2.0	3.3	30.4	No	Moderate Priority
02600780260076	Condition - with no CCTV scoring	331.8	8	3.7	8	26	1.6	2.1	3.3	30.4	No	Low Priority
02601190260118	Condition - with no CCTV scoring	312.5	8	6.1	8	26	1.6	2.1	3.3	30.4	No	Low Priority
02601130260106	Condition - with no CCTV scoring	71.3	8	6.2	8	26	1.6	2.1	3.3	30.4	No	Low Priority
02601690260172	Condition - with no CCTV scoring	338	8	5.1	8	26	1.6	2.1	3.3	30.4	No	Low Priority
04300360430037	Condition - with no CCTV scoring	259.4	8	5.1	8	43	1.6	2.1	3.3	30.4	No	Low Priority
04300350430036	Condition - with no CCTV scoring	136.5	8	5.0	8	43	1.6	2.1	3.3	30.4	No	Low Priority
04300370430041	Condition - with no CCTV scoring	407.2	8	4.9	8	43	1.6	2.1	3.3	30.4	No	Low Priority
05402410540240	Condition - with no CCTV scoring	54.5	8	7.0	8	54	1.6	2.1	3.3	30.4	No	Moderate Priority
05402440540241	Condition - with no CCTV scoring	130.9	8	6.5	8	54	1.6	2.1	3.3	30.4	No	Moderate Priority
0860037LIFT	Condition - with no CCTV scoring	97.4	8	12.6	8	86	2.5	1.4	3.3	30.3	No	Highest Priority
08600380860037	Condition - with no CCTV scoring	23.6	8	13.2	8	86	2.5	1.4	3.3	30.3	No	Highest Priority
03600300360031	Condition - with no CCTV scoring	201.7	8	12.4	8	36	2.0	1.7	3.3	30.3	No	High Priority
06701260670125	Condition - with no CCTV scoring	427	8	3.3	8	67	2.0	1.7	3.3	30.3	No	Highest Priority
01201370120135	Condition - with no CCTV scoring	40.1	8	9.0	8	12	1.6	2.2	3.3	30.3	No	Lowest Priority
06400670650012	Condition - with no CCTV scoring	436.5	8	6.0	8	64	1.6	2.2	3.3	30.3	No	Moderate Priority
09600800960079	Condition - with no CCTV scoring	359.8	12	3.0	12	96	2.2	1.6	3.3	30.3	No	Low Priority
09700640970069	Condition - with no CCTV scoring	158.2	6	55.7	8	97	1.6	2.2	3.3	30.3	No	Lowest Priority
04700390470040	Condition - with no CCTV scoring	468.5	8	5.0	8	47	1.4	2.5	3.3	30.3	No	High Priority
05501160550115	Condition - with no CCTV scoring	717.5	8	4.0	8	55	1.5	2.3	3.3	30.3	No	High Priority
06601190660121	Condition - with no CCTV scoring	365.6	10	8.4	10	66	1.9	1.8	3.3	30.3	No	Highest Priority
07201700720168	Condition - with no CCTV scoring	339.2	8	5.9	8	72	1.9	1.8	3.3	30.3	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07600300760025	Condition - with no CCTV scoring	55.5	8	8.5	8	76	1.9	1.8	3.3	30.3	No	Highest Priority
02600100260009	Condition - with no CCTV scoring	349.8	8	7.9	8	26	1.8	1.9	3.3	30.3	No	Low Priority
02600110260010	Condition - with no CCTV scoring	339.4	8	7.8	8	26	1.8	1.9	3.3	30.3	No	Low Priority
03601700360175	Condition - with no CCTV scoring	147.4	8	3.4	8	36	1.8	1.9	3.3	30.3	No	High Priority
03601600360161	Condition - with no CCTV scoring	202	8	5.0	8	36	1.8	1.9	3.3	30.3	No	High Priority
03800510380106	Condition - with no CCTV scoring	478.5	8	5.2	8	38	1.8	1.9	3.3	30.3	No	Low Priority
03800300380136	Condition - with no CCTV scoring	555.9	8	6.8	8	38	1.8	1.9	3.3	30.3	No	Low Priority
C8	Condition - with no CCTV scoring	127.5	8	6.0	8	46	1.3	2.5	3.3	30.3	No	Highest Priority
04801030480085	Condition - with no CCTV scoring	257.2	8	5.0	8	48	1.8	1.9	3.3	30.3	No	High Priority
05500650550066	Condition - with no CCTV scoring	294.9	8	7.7	8	55	1.8	1.9	3.3	30.3	No	High Priority
05601490560150	Condition - with no CCTV scoring	727	8	5.3	8	56	1.8	1.9	3.3	30.3	No	Highest Priority
05600250560027	Condition - with no CCTV scoring	61.3	8	5.4	8	56	1.8	1.9	3.3	30.3	No	Highest Priority
06603200660303	Condition - with no CCTV scoring	307.1	8	2.8	8	66	1.8	1.9	3.3	30.3	No	Highest Priority
06601750660187	Condition - with no CCTV scoring	55.2	10	4.2	10	66	1.8	1.9	3.3	30.3	No	Highest Priority
06600330660078	Condition - with no CCTV scoring	446.1	8	6.0	8	66	1.8	1.9	3.3	30.3	No	Highest Priority
06600320660033	Condition - with no CCTV scoring	460.5	8	6.9	8	66	1.8	1.9	3.3	30.3	No	Highest Priority
07601560760154	Condition - with no CCTV scoring	62.6	8	6.8	8	76	1.8	1.9	3.3	30.3	No	Highest Priority
08801150880114	Condition - with no CCTV scoring	369.9	8	9.4	8	88	1.9	1.8	3.3	30.3	No	Low Priority
08801140880112	Condition - with no CCTV scoring	397.7	8	8.1	8	88	1.9	1.8	3.3	30.3	No	Low Priority
03801050380102	Condition - with no CCTV scoring	385.7	8	4.7	8	38	1.5	2.2	3.3	30.2	No	Low Priority
05401240540123	Condition - with no CCTV scoring	555.1	8	4.0	8	54	1.5	2.2	3.3	30.2	No	Moderate Priority
04401060440065	Condition - with no CCTV scoring	296	8	7.1	8	44	1.6	2.1	3.3	30.2	No	Low Priority
05702300570171	Condition - with no CCTV scoring	366.4	8	5.2	8	57	1.7	2.0	3.3	30.2	No	Highest Priority
06500400650042	Condition - with no CCTV scoring	685.9	8	5.2	8	65	1.7	2.0	3.3	30.2	No	Moderate Priority
03701920370191	Condition - with no CCTV scoring	218.5	8	8.4	8	37	1.6	2.1	3.3	30.2	No	Low Priority
04300030430001	Condition - with no CCTV scoring	460.7	8	4.9	8	43	1.6	2.1	3.3	30.2	No	Low Priority
04300010430002	Condition - with no CCTV scoring	454.7	8	5.9	8	53	1.6	2.1	3.3	30.2	No	Moderate Priority
05402870540290	Condition - with no CCTV scoring	256.4	8	6.2	8	54	1.6	2.1	3.3	30.2	No	Moderate Priority
05702340570235	Condition - with no CCTV scoring	424.5	8	5.3	8	57	1.6	2.1	3.3	30.2	No	Highest Priority
05701040570105	Condition - with no CCTV scoring	348.6	8	4.9	8	57	1.6	2.1	3.3	30.2	No	Highest Priority
05800690580099	Condition - with no CCTV scoring	2648.9	8	8.9	8	58	1.6	2.1	3.3	30.2	No	High Priority
03300360330028	Condition - with no CCTV scoring	295.3	8	5.0	8	33	2.1	1.6	3.3	30.2	No	Low Priority
07201070720041	Condition - with no CCTV scoring	332	8	7.4	8	72	2.0	1.7	3.3	30.2	No	Moderate Priority
03801230380124	Condition - with no CCTV scoring	329.2	8	9.5	8	38	1.8	1.8	3.3	30.1	No	Low Priority
03600210460131	Condition - with no CCTV scoring	311.9	8	6.5	8	36	1.5	2.2	3.3	30.1	No	High Priority
03600200360021	Condition - with no CCTV scoring	405.7	8	6.5	8	36	1.5	2.2	3.3	30.1	No	High Priority
05501340550133	Condition - with no CCTV scoring	390.1	8	5.9	8	55	1.5	2.2	3.3	30.1	No	High Priority
01100650110066	Condition - with no CCTV scoring	259.6	8	5.2	8	11	1.5	2.3	3.3	30.1	No	Lowest Priority
01100380110037	Condition - with no CCTV scoring	348.8	8	8.8	8	11	1.9	1.8	3.3	30.1	No	Lowest Priority
02300550230054	Condition - with no CCTV scoring	4.9	24	8.3	24	23	2.5	1.4	3.3	30.1	No	Lowest Priority
03601370360136	Condition - with no CCTV scoring	155.1	6	2.8	8	36	1.5	2.3	3.3	30.1	No	High Priority
03700370370035	Condition - with no CCTV scoring	408.8	10	6.0	10	37	1.5	2.3	3.3	30.1	No	Low Priority
04700630470064	Condition - with no CCTV scoring	76.5	8	5.0	8	47	1.4	2.5	3.3	30.1	No	High Priority
04700380470062	Condition - with no CCTV scoring	374.8	8	5.3	8	47	1.4	2.5	3.3	30.1	No	High Priority
04700460470044	Condition - with no CCTV scoring	597.1	8	5.0	8	47	1.4	2.5	3.3	30.1	No	High Priority
05400160540015	Condition - with no CCTV scoring	323	12	7.3	12	54	1.5	2.3	3.3	30.1	No	Moderate Priority
05603100550227	Condition - with no CCTV scoring	255	8	5.5	8	55	1.5	2.3	3.3	30.1	No	High Priority
05502720550227	Condition - with no CCTV scoring	384.4	8	5.5	8	55	1.5	2.3	3.3	30.1	No	High Priority
02602080360113	Condition - with no CCTV scoring	424.6	8	7.4	8	26	1.7	1.9	3.3	30.1	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04400930440127	Condition - with no CCTV scoring	417	8	7.3	8	44	1.7	1.9	3.3	30.1	No	Low Priority
06301390630056	Condition - with no CCTV scoring	134.5	10	8.5	10	63	1.7	1.9	3.3	30.1	No	Moderate Priority
06501770650176	Condition - with no CCTV scoring	666.6	8	5.0	8	65	1.7	1.9	3.3	30.1	No	Moderate Priority
05500790550078	Condition - with no CCTV scoring	374.9	10	8.9	10	55	1.6	2.1	3.3	30.0	No	High Priority
05500810550079	Condition - with no CCTV scoring	251.4	10	8.1	10	55	1.6	2.1	3.3	30.0	No	High Priority
02600720260248	Condition - with no CCTV scoring	430	8	4.6	8	26	1.5	2.2	3.3	30.0	No	Low Priority
03601270360125	Condition - with no CCTV scoring	645.9	8	6.2	8	36	1.5	2.2	3.3	30.0	No	High Priority
02601050260107	Condition - with no CCTV scoring	12.1	8	4.9	8	26	1.6	2.1	3.3	30.0	No	Low Priority
02601040260105	Condition - with no CCTV scoring	282.9	8	6.0	8	26	1.6	2.1	3.3	30.0	No	Low Priority
03501290350130	Condition - with no CCTV scoring	264.6	8	7.7	8	35	1.6	2.1	3.3	30.0	No	Moderate Priority
04300300430031	Condition - with no CCTV scoring	127.8	8	5.1	8	43	1.6	2.1	3.3	30.0	No	Low Priority
04300310430032	Condition - with no CCTV scoring	402.4	8	5.0	8	43	1.6	2.1	3.3	30.0	No	Low Priority
04701510470105	Condition - with no CCTV scoring	479.6	8	5.2	8	47	1.6	2.1	3.3	30.0	No	High Priority
04800020480006	Condition - with no CCTV scoring	347	8	4.3	8	48	1.6	2.1	3.3	30.0	No	High Priority
04800070480008	Condition - with no CCTV scoring	360.8	8	5.6	8	48	1.6	2.1	3.3	30.0	No	High Priority
04800010480002	Condition - with no CCTV scoring	126.8	8	4.3	8	48	1.6	2.1	3.3	30.0	No	High Priority
05301010530034	Condition - with no CCTV scoring	304.7	8	5.6	8	53	1.6	2.1	3.3	30.0	No	Moderate Priority
05702000570199	Condition - with no CCTV scoring	455.3	15	9.0	15	57	1.6	2.1	3.3	30.0	No	Highest Priority
05702380570080	Condition - with no CCTV scoring	315.5	8	5.3	8	57	1.6	2.1	3.3	30.0	No	Highest Priority
04602850460063	Condition - with no CCTV scoring	165.3	21	7.5	21	46	1.8	1.8	3.3	30.0	No	Highest Priority
05400250540031	Condition - with no CCTV scoring	399.8	8	9.6	8	54	1.8	1.8	3.3	30.0	No	Moderate Priority
05800160570101	Condition - with no CCTV scoring	867	8	9.4	8	57	1.8	1.8	3.3	30.0	No	Highest Priority
06401800640181	Condition - with no CCTV scoring	350	8	6.3	8	64	1.8	1.8	3.3	30.0	No	Moderate Priority
06500280650030	Condition - with no CCTV scoring	350.2	8	9.6	8	65	1.8	1.8	3.3	30.0	No	Moderate Priority
08901150890103	Condition - with no CCTV scoring	416.8	8	8.1	8	89	1.9	1.8	3.3	29.9	No	Low Priority
04601320460121	Condition - with no CCTV scoring	404.4	8	6.0	8	46	1.5	2.2	3.3	29.9	No	Highest Priority
04700190470020	Condition - with no CCTV scoring	440.8	8	5.3	8	47	1.5	2.2	3.3	29.9	No	High Priority
05700890570088	Condition - with no CCTV scoring	698.1	8	4.9	8	57	1.5	2.2	3.3	29.9	No	Highest Priority
04401430440140	Condition - with no CCTV scoring	413.4	8	6.1	8	44	1.7	1.9	3.3	29.9	No	Low Priority
04401400440141	Condition - with no CCTV scoring	322.1	8	6.2	8	44	1.7	1.9	3.3	29.9	No	Low Priority
05501460550145	Condition - with no CCTV scoring	54.5	8	5.0	8	55	1.7	1.9	3.3	29.9	No	High Priority
06501940650228	Condition - with no CCTV scoring	680.9	8	5.0	8	65	1.7	1.9	3.3	29.9	No	Moderate Priority
06502350660022	Condition - with no CCTV scoring	478.4	8	0.0	8	65	1.7	1.9	3.3	29.9	No	Moderate Priority
04500880450084	Condition - with no CCTV scoring	120.9	8	4.6	8	45	1.5	2.3	3.3	29.9	No	High Priority
05800860580077	Condition - with no CCTV scoring	263.3	8	14.0	8	58	2.2	1.5	3.3	29.9	No	High Priority
02700160270014	Condition - with no CCTV scoring	309.3	8	11.4	8	27	1.9	1.7	3.3	29.9	No	Moderate Priority
06601330660132	Condition - with no CCTV scoring	328.9	8	10.7	8	66	1.9	1.7	3.3	29.9	No	Highest Priority
02800050280007	Condition - with no CCTV scoring	175.1	8	10.9	8	28	1.6	2.0	3.3	29.8	No	Lowest Priority
03501250350124	Condition - with no CCTV scoring	312.1	10	10.4	10	35	1.6	2.0	3.3	29.8	No	Moderate Priority
06200590620060	Condition - with no CCTV scoring	369.7	8	7.5	8	62	1.6	2.0	3.3	29.8	No	Low Priority
06200600620061	Condition - with no CCTV scoring	268.4	8	7.9	8	62	1.6	2.0	3.3	29.8	No	Low Priority
06200620620059	Condition - with no CCTV scoring	234.8	8	7.5	8	62	1.6	2.0	3.3	29.8	No	Low Priority
08601450860144	Condition - with no CCTV scoring	331.4	8	9.3	8	86	1.6	2.0	3.3	29.8	No	Highest Priority
08901130890114	Condition - with no CCTV scoring	698.4	8	8.1	8	89	1.6	2.0	3.3	29.8	No	Low Priority
04401630440160	Condition - with no CCTV scoring	113.6	8	7.2	8	44	1.5	2.2	3.3	29.8	No	Low Priority
04401580440159	Condition - with no CCTV scoring	153.2	8	6.4	8	44	1.5	2.2	3.3	29.8	No	Low Priority
04401570440158	Condition - with no CCTV scoring	119	8	6.4	8	44	1.5	2.2	3.3	29.8	No	Low Priority
02601280260122	Condition - with no CCTV scoring	207	8	6.0	8	26	1.6	2.1	3.3	29.8	No	Low Priority
04300340430007	Condition - with no CCTV scoring	429.4	8	6.5	8	43	1.6	2.1	3.3	29.8	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04801480480147	Condition - with no CCTV scoring	149.2	8	5.0	8	48	1.6	2.1	3.3	29.8	No	High Priority
04800360480038	Condition - with no CCTV scoring	293.4	8	4.9	8	48	1.6	2.1	3.3	29.8	No	High Priority
05300340530033	Condition - with no CCTV scoring	406.2	8	5.6	8	53	1.6	2.1	3.3	29.8	No	Moderate Priority
05300960530036	Condition - with no CCTV scoring	190.2	8	5.1	8	53	1.6	2.1	3.3	29.8	No	Moderate Priority
05501240550123	Condition - with no CCTV scoring	170.8	8	5.0	8	55	1.8	1.8	3.3	29.8	No	High Priority
05501290550031	Condition - with no CCTV scoring	360.3	8	5.4	8	55	1.8	1.8	3.3	29.8	No	High Priority
05600690560068	Condition - with no CCTV scoring	501.3	8	3.8	8	56	1.8	1.8	3.3	29.8	No	Highest Priority
05700580570059	Condition - with no CCTV scoring	492.6	8	4.9	8	57	1.8	1.8	3.3	29.8	No	Highest Priority
06502380650237	Condition - with no CCTV scoring	142.1	15	8.6	15	65	2.5	1.3	3.3	29.8	No	Moderate Priority
06603180660302	Condition - with no CCTV scoring	536.9	8	6.0	8	66	1.8	1.8	3.3	29.8	No	Highest Priority
07201730720171	Condition - with no CCTV scoring	366	8	1.2	8	72	1.8	1.8	3.3	29.8	No	Moderate Priority
02700270270028	Condition - with no CCTV scoring	266.4	8	6.2	8	27	1.7	1.9	3.3	29.7	No	Moderate Priority
02700450270017	Condition - with no CCTV scoring	88.4	8	6.0	8	27	1.5	2.2	3.3	29.7	No	Moderate Priority
03601630360164	Condition - with no CCTV scoring	392	8	5.5	8	36	1.7	1.9	3.3	29.7	No	High Priority
03701510370131	Condition - with no CCTV scoring	218.8	8	5.2	8	37	1.7	1.9	3.3	29.7	No	Low Priority
03700040370003	Condition - with no CCTV scoring	534.8	8	3.7	8	37	1.7	1.9	3.3	29.7	No	Low Priority
04600290460021	Condition - with no CCTV scoring	331	8	5.3	8	46	1.5	2.2	3.3	29.7	No	Highest Priority
04900040490002	Condition - with no CCTV scoring	43.3	8	6.8	8	49	1.7	1.9	3.3	29.7	No	Lowest Priority
05500870550085	Condition - with no CCTV scoring	409.8	8	5.2	8	55	1.7	1.9	3.3	29.7	No	High Priority
05800060580005	Condition - with no CCTV scoring	267.6	10	4.7	10	58	1.7	1.9	3.3	29.7	No	High Priority
06501820650192	Condition - with no CCTV scoring	348.7	8	5.7	8	65	1.7	1.9	3.3	29.7	No	Moderate Priority
06502420650207	Condition - with no CCTV scoring	150	15	5.6	15	65	1.7	1.9	3.3	29.7	No	Moderate Priority
06603320660048	Condition - with no CCTV scoring	260.7	8	4.3	8	66	1.7	1.9	3.3	29.7	No	Highest Priority
06602790660278	Condition - with no CCTV scoring	300.4	8	3.6	8	66	1.7	1.9	3.3	29.7	No	Highest Priority
07202330720235	Condition - with no CCTV scoring	214.6	6	7.6	8	72	2.0	1.7	3.3	29.7	No	Moderate Priority
03700300370032	Condition - with no CCTV scoring	387.6	10	6.1	10	37	1.5	2.3	3.3	29.7	No	Low Priority
04501900450029	Condition - with no CCTV scoring	167.9	8	5.0	8	45	1.5	2.3	3.3	29.7	No	High Priority
04600250450038	Condition - with no CCTV scoring	328.9	8	5.0	8	45	1.5	2.3	3.3	29.7	No	High Priority
04701290470136	Condition - with no CCTV scoring	424	10	7.0	10	47	1.5	2.3	3.3	29.7	No	High Priority
04701360470137	Condition - with no CCTV scoring	242.8	10	7.0	10	47	1.5	2.3	3.3	29.7	No	High Priority
04701370470132	Condition - with no CCTV scoring	127.6	10	6.1	10	47	1.5	2.3	3.3	29.7	No	High Priority
04701320470130	Condition - with no CCTV scoring	383.6	10	7.0	10	47	1.5	2.3	3.3	29.7	No	High Priority
05501200550113	Condition - with no CCTV scoring	258.2	8	5.5	8	55	1.5	2.3	3.3	29.7	No	High Priority
05501130550119	Condition - with no CCTV scoring	130.8	8	5.5	8	55	1.5	2.3	3.3	29.7	No	High Priority
06501590650161	Condition - with no CCTV scoring	69.8	8	5.1	8	65	1.5	2.3	3.3	29.7	No	Moderate Priority
06501570650159	Condition - with no CCTV scoring	346.4	8	5.7	8	65	1.5	2.3	3.3	29.7	No	Moderate Priority
04701180470119	Condition - with no CCTV scoring	106.5	8	6.5	8	47	1.3	2.5	3.3	29.6	No	High Priority
04701220470121	Condition - with no CCTV scoring	382.5	8	5.2	8	47	1.3	2.5	3.3	29.6	No	High Priority
04701230470122	Condition - with no CCTV scoring	358	8	5.2	8	47	1.3	2.5	3.3	29.6	No	High Priority
04701190470123	Condition - with no CCTV scoring	252.2	8	6.3	8	47	1.3	2.5	3.3	29.6	No	High Priority
04702040470205	Condition - with no CCTV scoring	441.1	8	4.6	8	47	1.3	2.5	3.3	29.6	No	High Priority
04701170470116	Condition - with no CCTV scoring	145.3	6	6.1	8	47	1.3	2.5	3.3	29.6	No	High Priority
04702050470116	Condition - with no CCTV scoring	195.3	8	6.9	8	47	1.3	2.5	3.3	29.6	No	High Priority
04702110470119	Condition - with no CCTV scoring	109.9	8	7.2	8	47	1.3	2.5	3.3	29.6	No	High Priority
04702100470209	Condition - with no CCTV scoring	364	8	6.1	8	47	1.3	2.5	3.3	29.6	No	High Priority
05401880550089	Condition - with no CCTV scoring	352.2	8	5.5	8	54	1.3	2.5	3.3	29.6	No	Moderate Priority
06502360660055	Condition - with no CCTV scoring	254.8	8	5.5	8	65	1.8	1.8	3.3	29.6	No	Moderate Priority
06600550660053	Condition - with no CCTV scoring	126.4	8	5.8	8	66	1.8	1.8	3.3	29.6	No	Highest Priority
08800600880109	Condition - with no CCTV scoring	154	8	7.0	8	88	1.7	2.0	3.3	29.6	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03600840360082	Condition - with no CCTV scoring	501.3	8	5.4	8	36	1.5	2.2	3.3	29.6	No	High Priority
04701070470103	Condition - with no CCTV scoring	335.8	10	5.3	10	47	1.5	2.2	3.3	29.6	No	High Priority
04700070470005	Condition - with no CCTV scoring	308.4	8	6.6	8	47	1.5	2.2	3.3	29.6	No	High Priority
04800350480034	Condition - with no CCTV scoring	326.3	8	4.9	8	48	1.5	2.2	3.3	29.6	No	High Priority
05702070570209	Condition - with no CCTV scoring	371.3	8	5.4	8	57	1.5	2.2	3.3	29.6	No	Highest Priority
07700890770043	Condition - with no CCTV scoring	184.8	8	11.2	8	77	1.8	1.9	3.3	29.6	No	Highest Priority
03500620350033	Condition - with no CCTV scoring	349.9	8	9.1	8	35	1.9	1.8	3.3	29.6	No	Moderate Priority
05402190540204	Condition - with no CCTV scoring	185.5	8	10.0	8	54	1.9	1.8	3.3	29.6	No	Moderate Priority
06602070660208	Condition - with no CCTV scoring	373.4	8	5.1	8	66	2.0	1.7	3.3	29.6	No	Highest Priority
05402640540303	Condition - with no CCTV scoring	255.7	8	4.7	8	54	1.3	2.5	3.3	29.6	No	Moderate Priority
02401400240141	Condition - with no CCTV scoring	201.2	8	5.6	8	24	1.7	1.9	3.2	29.6	No	Lowest Priority
03801510380100	Condition - with no CCTV scoring	428.5	8	5.0	8	38	1.7	1.9	3.2	29.6	No	Low Priority
06200400620023	Condition - with no CCTV scoring	406.9	8	9.1	8	62	1.7	1.9	3.2	29.6	No	Low Priority
07600190760013	Condition - with no CCTV scoring	14.3	12	6.6	12	76	1.7	1.9	3.2	29.6	No	Highest Priority
04400130440001	Condition - with no CCTV scoring	134.2	8	6.6	8	44	1.5	2.2	3.2	29.5	No	Low Priority
04400010440012	Condition - with no CCTV scoring	215.4	8	6.6	8	44	1.5	2.2	3.2	29.5	No	Low Priority
05501860550188	Condition - with no CCTV scoring	383.3	8	5.7	8	55	1.5	2.2	3.2	29.5	No	High Priority
05501880550231	Condition - with no CCTV scoring	231.1	8	5.0	8	55	1.5	2.2	3.2	29.5	No	High Priority
05502740550186	Condition - with no CCTV scoring	32.7	8	5.7	8	55	1.5	2.2	3.2	29.5	No	High Priority
06500430650041	Condition - with no CCTV scoring	731.7	8	5.2	8	65	1.4	2.3	3.2	29.5	No	Moderate Priority
03300290330031	Condition - with no CCTV scoring	338.3	8	3.5	8	33	2.4	1.4	3.2	29.5	No	Low Priority
03701670370180	Condition - with no CCTV scoring	286.1	8	5.8	8	37	1.6	2.0	3.2	29.5	No	Low Priority
04702180470030	Condition - with no CCTV scoring	414.7	8	5.0	8	47	1.6	2.0	3.2	29.5	No	High Priority
04700830470084	Condition - with no CCTV scoring	63.9	8	6.1	8	47	1.6	2.0	3.2	29.5	No	High Priority
04700300470028	Condition - with no CCTV scoring	650.9	8	5.9	8	47	1.6	2.0	3.2	29.5	No	High Priority
04700870470030	Condition - with no CCTV scoring	201	8	2.9	8	47	1.6	2.0	3.2	29.5	No	High Priority
05400880540170	Condition - with no CCTV scoring	210	8	5.3	8	54	1.8	1.8	3.2	29.5	No	Moderate Priority
05601360560139	Condition - with no CCTV scoring	38.6	8	9.8	8	56	1.8	1.8	3.2	29.5	No	Highest Priority
06500180650017	Condition - with no CCTV scoring	502.2	8	5.3	8	65	1.4	2.3	3.2	29.5	No	Moderate Priority
06500450650011	Condition - with no CCTV scoring	333.1	8	5.4	8	65	1.4	2.3	3.2	29.5	No	Moderate Priority
06500110650044	Condition - with no CCTV scoring	332.2	8	5.9	8	65	1.4	2.3	3.2	29.5	No	Moderate Priority
07500190750004	Condition - with no CCTV scoring	18.8	12	6.3	12	75	1.4	2.3	3.2	29.5	No	Highest Priority
06601960660193	Condition - with no CCTV scoring	58.2	18	2.1	18	66	1.6	2.1	3.2	29.5	No	Highest Priority
08900900890069	Condition - with no CCTV scoring	206.8	8	8.1	8	89	1.6	2.1	3.2	29.5	No	Low Priority
08900910890133	Condition - with no CCTV scoring	511.2	8	6.1	8	89	1.8	1.9	3.2	29.5	No	Low Priority
02600750260074	Condition - with no CCTV scoring	571	8	5.5	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02600650260075	Condition - with no CCTV scoring	166	8	0.2	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02600760260075	Condition - with no CCTV scoring	472.5	8	5.0	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02600640260065	Condition - with no CCTV scoring	392	6	5.0	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02601090260104	Condition - with no CCTV scoring	362.8	8	4.9	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02601690260168	Condition - with no CCTV scoring	249.9	8	5.1	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02601430260119	Condition - with no CCTV scoring	297	8	5.8	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02601180260115	Condition - with no CCTV scoring	126.9	8	5.9	8	26	1.5	2.1	3.2	29.4	No	Low Priority
02800060280005	Condition - with no CCTV scoring	158.7	8	6.0	8	28	1.5	2.1	3.2	29.4	No	Lowest Priority
02800070280012	Condition - with no CCTV scoring	374.4	8	7.7	8	28	1.5	2.1	3.2	29.4	No	Lowest Priority
02800100280011	Condition - with no CCTV scoring	195.5	8	6.3	8	28	1.5	2.1	3.2	29.4	No	Lowest Priority
02800080280009	Condition - with no CCTV scoring	401.2	8	6.0	8	28	1.5	2.1	3.2	29.4	No	Lowest Priority
02800090280010	Condition - with no CCTV scoring	252.3	8	6.0	8	28	1.5	2.1	3.2	29.4	No	Lowest Priority
02800110280002	Condition - with no CCTV scoring	354.1	8	6.3	8	28	1.5	2.1	3.2	29.4	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04602720460247	Condition - with no CCTV scoring	609.1	8	6.0	8	46	1.5	2.2	3.2	29.4	No	Highest Priority
04700540470052	Condition - with no CCTV scoring	333.6	8	6.2	8	47	1.5	2.1	3.2	29.4	No	High Priority
04800490480048	Condition - with no CCTV scoring	376.7	8	5.5	8	48	1.5	2.1	3.2	29.4	No	High Priority
04800500480048	Condition - with no CCTV scoring	389.3	8	6.8	8	48	1.5	2.1	3.2	29.4	No	High Priority
04800480480046	Condition - with no CCTV scoring	289.3	8	7.6	8	48	1.5	2.1	3.2	29.4	No	High Priority
04800470480042	Condition - with no CCTV scoring	461.4	8	5.9	8	48	1.5	2.1	3.2	29.4	No	High Priority
04800420480040	Condition - with no CCTV scoring	99.5	8	5.4	8	48	1.5	2.1	3.2	29.4	No	High Priority
04801190480049	Condition - with no CCTV scoring	425	8	5.6	8	48	1.5	2.1	3.2	29.4	No	High Priority
05401780540176	Condition - with no CCTV scoring	110.6	8	6.0	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401790540176	Condition - with no CCTV scoring	72.6	8	6.0	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401830540173	Condition - with no CCTV scoring	429.3	8	5.3	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401820540183	Condition - with no CCTV scoring	38	8	5.3	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401810540182	Condition - with no CCTV scoring	172.9	8	4.1	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401770540176	Condition - with no CCTV scoring	153.9	8	4.8	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401730540168	Condition - with no CCTV scoring	433	8	5.5	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401380540134	Condition - with no CCTV scoring	135	8	5.3	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05401340540137	Condition - with no CCTV scoring	321.8	8	4.7	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05400810540082	Condition - with no CCTV scoring	490.3	8	5.2	8	54	1.5	2.1	3.2	29.4	No	Moderate Priority
05701640570165	Condition - with no CCTV scoring	346.5	8	5.2	8	57	1.5	2.1	3.2	29.4	No	Highest Priority
05701660570167	Condition - with no CCTV scoring	301.5	8	5.2	8	57	1.5	2.1	3.2	29.4	No	Highest Priority
05701700570166	Condition - with no CCTV scoring	336.1	8	5.2	8	57	1.5	2.1	3.2	29.4	No	Highest Priority
07200890720076	Condition - with no CCTV scoring	156.5	8	7.4	8	72	2.0	1.7	3.2	29.4	No	Moderate Priority
07400570740056	Condition - with no CCTV scoring	161.8	12	5.3	12	74	1.5	2.2	3.2	29.4	No	Highest Priority
07400580740057	Condition - with no CCTV scoring	22.2	12	1.5	12	74	1.5	2.2	3.2	29.4	No	Highest Priority
C09701970970191	Condition - with no CCTV scoring	146.1	8	6.0	8	97	1.5	2.1	3.2	29.4	No	Lowest Priority
02401160240024	Condition - with no CCTV scoring	450	10	7.3	10	24	1.7	1.9	3.2	29.4	No	Lowest Priority
03700640360174	Condition - with no CCTV scoring	341.9	8	5.4	8	36	1.7	1.9	3.2	29.4	No	High Priority
03701740370173	Condition - with no CCTV scoring	210.9	8	5.0	8	37	1.7	1.9	3.2	29.4	No	Low Priority
04400500450067	Condition - with no CCTV scoring	218.1	8	5.6	8	44	1.7	1.9	3.2	29.4	No	Low Priority
05500830550031	Condition - with no CCTV scoring	295.2	8	6.0	8	55	1.7	1.9	3.2	29.4	No	High Priority
05601780560179	Condition - with no CCTV scoring	520.8	8	6.0	8	56	1.7	1.9	3.2	29.4	No	Highest Priority
05602090560207	Condition - with no CCTV scoring	330.5	8	6.0	8	56	1.7	1.9	3.2	29.4	No	Highest Priority
05800840580085	Condition - with no CCTV scoring	135.8	8	4.4	8	58	1.7	1.9	3.2	29.4	No	High Priority
05800830580085	Condition - with no CCTV scoring	424.3	8	5.0	8	58	1.7	1.9	3.2	29.4	No	High Priority
06500300650026	Condition - with no CCTV scoring	397.1	8	6.8	8	65	1.7	1.9	3.2	29.4	No	Moderate Priority
06600160660043	Condition - with no CCTV scoring	351.6	8	5.2	8	66	1.7	1.9	3.2	29.4	No	Highest Priority
06600120760055	Condition - with no CCTV scoring	337.3	8	6.0	8	66	1.7	1.9	3.2	29.4	No	Highest Priority
06600810660078	Condition - with no CCTV scoring	227.4	8	4.9	8	66	1.7	1.9	3.2	29.4	No	Highest Priority
06603390660137	Condition - with no CCTV scoring	21.5	8	4.2	8	66	1.7	1.9	3.2	29.4	No	Highest Priority
07600550760022	Condition - with no CCTV scoring	327.8	8	5.5	8	76	1.7	1.9	3.2	29.4	No	Highest Priority
05800190580020	Condition - with no CCTV scoring	460.3	8	5.4	8	58	1.5	2.2	3.2	29.3	No	High Priority
06400740650014	Condition - with no CCTV scoring	342.8	8	5.8	8	64	1.5	2.2	3.2	29.3	No	Moderate Priority
06500140650034	Condition - with no CCTV scoring	27.1	8	5.9	8	65	1.5	2.2	3.2	29.3	No	Moderate Priority
02300210240118	Condition - with no CCTV scoring	531.9	10	7.3	10	23	2.1	1.6	3.2	29.3	No	Lowest Priority
04400270440029	Condition - with no CCTV scoring	430	8	6.8	8	44	1.8	1.8	3.2	29.3	No	Low Priority
02202130220208	Condition - with no CCTV scoring	217.2	8	6.7	8	22	1.8	1.8	3.2	29.3	No	Low Priority
03501220350073	Condition - with no CCTV scoring	363.4	8	8.0	8	35	1.6	2.0	3.2	29.3	No	Moderate Priority
03500610350062	Condition - with no CCTV scoring	302.9	8	10.0	8	35	1.8	1.8	3.2	29.3	No	Moderate Priority
03701570370153	Condition - with no CCTV scoring	541.5	8	5.7	8	37	1.6	2.0	3.2	29.3	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05702290570230	Condition - with no CCTV scoring	398.1	8	11.8	8	57	1.6	2.0	3.2	29.3	No	Highest Priority
07300190720173	Condition - with no CCTV scoring	198.8	8	5.1	8	73	1.7	1.9	3.2	29.3	No	High Priority
02602110260213	Condition - with no CCTV scoring	76.6	8	3.8	8	26	1.4	2.3	3.2	29.3	No	Low Priority
07701300770131	Condition - with no CCTV scoring	63.1	8	4.7	8	77	2.0	1.7	3.2	29.3	No	Highest Priority
08700780870077	Condition - with no CCTV scoring	467.7	6	6.1	8	87	2.0	1.7	3.2	29.3	No	Moderate Priority
02601110260109	Condition - with no CCTV scoring	259.7	8	5.0	8	26	1.5	2.1	3.2	29.2	No	Low Priority
02601620260129	Condition - with no CCTV scoring	90.4	8	6.0	8	26	1.5	2.1	3.2	29.2	No	Low Priority
02601580260157	Condition - with no CCTV scoring	350.6	8	6.0	8	26	1.5	2.1	3.2	29.2	No	Low Priority
04701120470108	Condition - with no CCTV scoring	276.4	8	9.0	8	47	1.5	2.1	3.2	29.2	No	High Priority
04800030480004	Condition - with no CCTV scoring	329.8	8	4.5	8	48	1.5	2.1	3.2	29.2	No	High Priority
05300180530019	Condition - with no CCTV scoring	402.2	8	5.2	8	53	1.5	2.1	3.2	29.2	No	Moderate Priority
05300220530020	Condition - with no CCTV scoring	353.5	8	5.1	8	53	1.5	2.1	3.2	29.2	No	Moderate Priority
05300210530020	Condition - with no CCTV scoring	178.6	8	5.0	8	53	1.5	2.1	3.2	29.2	No	Moderate Priority
05300200530017	Condition - with no CCTV scoring	299.6	8	5.1	8	53	1.5	2.1	3.2	29.2	No	Moderate Priority
05300560530055	Condition - with no CCTV scoring	390.8	8	5.0	8	53	1.5	2.1	3.2	29.2	No	Moderate Priority
05300420530040	Condition - with no CCTV scoring	354.8	8	5.0	8	53	1.5	2.1	3.2	29.2	No	Moderate Priority
05402210540222	Condition - with no CCTV scoring	263.6	8	6.1	8	54	1.5	2.1	3.2	29.2	No	Moderate Priority
07800600780059	Condition - with no CCTV scoring	376.7	8	10.5	8	78	1.9	1.7	3.2	29.2	No	Low Priority
04600700460022	Condition - with no CCTV scoring	242.1	8	6.9	8	46	1.7	1.9	3.2	29.2	No	Highest Priority
05600840560085	Condition - with no CCTV scoring	454.1	8	5.8	8	56	1.7	1.9	3.2	29.2	No	Highest Priority
05600820560060	Condition - with no CCTV scoring	544.1	6	4.9	8	56	1.7	1.9	3.2	29.2	No	Highest Priority
02601740260144	Condition - with no CCTV scoring	61.3	8	7.0	8	26	1.8	1.8	3.2	29.2	No	Low Priority
02602460260145	Condition - with no CCTV scoring	359.8	8	6.2	8	26	1.8	1.8	3.2	29.2	No	Low Priority
02601300260132	Condition - with no CCTV scoring	344.8	8	6.4	8	26	1.8	1.8	3.2	29.2	No	Low Priority
04801020480103	Condition - with no CCTV scoring	237.8	8	5.0	8	48	1.8	1.8	3.2	29.2	No	High Priority
05501250550033	Condition - with no CCTV scoring	494.1	8	5.8	8	55	1.8	1.8	3.2	29.2	No	High Priority
03600180360020	Condition - with no CCTV scoring	313.1	8	6.3	8	36	1.5	2.2	3.2	29.1	No	High Priority
03600150360016	Condition - with no CCTV scoring	331.7	8	6.6	8	36	1.5	2.2	3.2	29.1	No	High Priority
02200350220036	Condition - with no CCTV scoring	407.6	8	7.1	8	22	1.8	1.8	3.2	29.1	No	Low Priority
02202080220210	Condition - with no CCTV scoring	193.3	8	11.6	8	22	1.9	1.7	3.2	29.1	No	Low Priority
02202100220057	Condition - with no CCTV scoring	289	8	11.1	8	22	1.9	1.7	3.2	29.1	No	Low Priority
08700810870080	Condition - with no CCTV scoring	33.7	15	5.9	15	87	1.9	1.7	3.2	29.1	No	Moderate Priority
08800070880006	Condition - with no CCTV scoring	433.5	8	13.2	8	88	1.9	1.7	3.2	29.1	No	Low Priority
02500770250068	Condition - with no CCTV scoring	363.7	8	4.8	8	25	1.7	1.9	3.2	29.1	No	Lowest Priority
02500780250076	Condition - with no CCTV scoring	445.6	8	4.3	8	25	1.7	1.9	3.2	29.1	No	Lowest Priority
02500490250051	Condition - with no CCTV scoring	276.1	8	7.0	8	25	1.6	2.0	3.2	29.1	No	Lowest Priority
07201360720135	Condition - with no CCTV scoring	132.6	8	9.7	8	72	1.6	2.1	3.2	29.1	No	Moderate Priority
03300350330034	Condition - with no CCTV scoring	205.7	15	13.3	15	33	1.9	1.7	3.2	29.1	No	Low Priority
03300070330008	Condition - with no CCTV scoring	43	15	10.6	15	33	1.9	1.7	3.2	29.1	No	Low Priority
05501170550115	Condition - with no CCTV scoring	334.9	8	5.5	8	55	1.4	2.3	3.2	29.1	No	High Priority
02600590260227	Condition - with no CCTV scoring	299.3	8	6.2	8	26	1.7	1.9	3.2	29.0	No	Low Priority
02600580260059	Condition - with no CCTV scoring	418.6	8	6.0	8	26	1.7	1.9	3.2	29.0	No	Low Priority
02600570260058	Condition - with no CCTV scoring	330.4	8	7.8	8	26	1.7	1.9	3.2	29.0	No	Low Priority
02601070260062	Condition - with no CCTV scoring	60.4	8	5.1	8	26	1.5	2.1	3.2	29.0	No	Low Priority
02601590260158	Condition - with no CCTV scoring	348.4	8	6.0	8	26	1.5	2.1	3.2	29.0	No	Low Priority
02700430270042	Condition - with no CCTV scoring	48.3	8	8.2	8	27	1.5	2.1	3.2	29.0	No	Moderate Priority
03800900380089	Condition - with no CCTV scoring	96.1	8	5.7	8	38	1.7	1.9	3.2	29.0	No	Low Priority
04300290430036	Condition - with no CCTV scoring	244.8	8	6.0	8	43	1.5	2.1	3.2	29.0	No	Low Priority
04701050470099	Condition - with no CCTV scoring	581.3	8	5.3	8	47	1.5	2.1	3.2	29.0	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04800970480045	Condition - with no CCTV scoring	151.7	8	5.0	8	48	1.5	2.1	3.2	29.0	No	High Priority
05300160530015	Condition - with no CCTV scoring	136.2	8	5.0	8	53	1.5	2.1	3.2	29.0	No	Moderate Priority
05300130530014	Condition - with no CCTV scoring	205.1	8	5.0	8	53	1.5	2.1	3.2	29.0	No	Moderate Priority
05602660560195	Condition - with no CCTV scoring	52.6	8	4.8	8	56	1.7	1.9	3.2	29.0	No	Highest Priority
06603030660301	Condition - with no CCTV scoring	284.2	8	4.1	8	66	1.7	1.9	3.2	29.0	No	Highest Priority
02301310230132	Condition - with no CCTV scoring	181.8	8	6.9	8	23	2.2	1.5	3.2	29.0	No	Lowest Priority
03601250360124	Condition - with no CCTV scoring	10.7	8	5.5	8	36	1.5	2.2	3.2	29.0	No	High Priority
04800560480051	Condition - with no CCTV scoring	464.4	8	5.0	8	48	1.5	2.2	3.2	29.0	No	High Priority
05702040570205	Condition - with no CCTV scoring	430	8	5.4	8	57	1.5	2.2	3.2	29.0	No	Highest Priority
05702010570202	Condition - with no CCTV scoring	377.5	8	3.9	8	57	1.5	2.2	3.2	29.0	No	Highest Priority
02401140240111	Condition - with no CCTV scoring	322.2	8	6.0	8	24	1.8	1.8	3.2	29.0	No	Lowest Priority
02600090260209	Condition - with no CCTV scoring	340	8	8.7	8	26	1.8	1.8	3.2	29.0	No	Low Priority
05400910540089	Condition - with no CCTV scoring	268.7	8	8.1	8	54	1.8	1.8	3.2	29.0	No	Moderate Priority
02200370220034	Condition - with no CCTV scoring	392.4	8	6.7	8	22	1.8	1.8	3.2	29.0	No	Low Priority
04702140470215	Condition - with no CCTV scoring	413.1	8	5.0	8	47	1.3	2.5	3.2	29.0	No	High Priority
04700650470066	Condition - with no CCTV scoring	386.9	8	4.8	8	47	1.3	2.5	3.2	29.0	No	High Priority
04700640470065	Condition - with no CCTV scoring	361	8	4.9	8	47	1.3	2.5	3.2	29.0	No	High Priority
04700370470038	Condition - with no CCTV scoring	381.8	8	5.3	8	47	1.3	2.5	3.2	29.0	No	High Priority
05401470540145	Condition - with no CCTV scoring	424.9	8	8.4	8	54	1.8	1.8	3.2	29.0	No	Moderate Priority
05701950570199	Condition - with no CCTV scoring	24	8	5.9	8	57	1.3	2.5	3.2	29.0	No	Highest Priority
05701120570111	Condition - with no CCTV scoring	404.5	8	3.1	8	57	1.3	2.5	3.2	29.0	No	Highest Priority
06502390650238	Condition - with no CCTV scoring	156.4	15	8.5	15	65	2.5	1.3	3.2	29.0	No	Moderate Priority
06400520640049	Condition - with no CCTV scoring	413.8	8	5.5	8	64	1.9	1.7	3.2	29.0	No	Moderate Priority
07200310720032	Condition - with no CCTV scoring	209.7	8	5.2	8	72	1.9	1.7	3.2	29.0	No	Moderate Priority
04301000430102	Condition - with no CCTV scoring	379.5	15	6.7	15	43	1.7	1.9	3.2	29.0	No	Low Priority
04601040460103	Condition - with no CCTV scoring	15.1	8	7.6	8	46	1.5	2.2	3.2	29.0	No	Highest Priority
05700880570047	Condition - with no CCTV scoring	298.6	8	5.3	8	57	1.5	2.2	3.2	29.0	No	Highest Priority
08901340890091	Condition - with no CCTV scoring	274.5	8	6.0	8	89	1.7	1.9	3.2	29.0	No	Low Priority
02500660260110	Condition - with no CCTV scoring	184	8	9.9	8	25	1.6	2.0	3.2	28.9	No	Lowest Priority
02800040280007	Condition - with no CCTV scoring	150.1	8	9.3	8	28	1.6	2.0	3.2	28.9	No	Lowest Priority
07400550740054	Condition - with no CCTV scoring	463.5	12	5.8	12	74	1.6	2.0	3.2	28.9	No	Highest Priority
02700580270059	Condition - with no CCTV scoring	58.3	8	11.0	8	27	1.9	1.7	3.2	28.9	No	Moderate Priority
02700590270047	Condition - with no CCTV scoring	268.2	8	10.8	8	27	1.9	1.7	3.2	28.9	No	Moderate Priority
03200680320067	Condition - with no CCTV scoring	111.7	15	7.6	15	32	1.6	2.1	3.2	28.9	No	Lowest Priority
02600070260006	Condition - with no CCTV scoring	332.3	8	5.7	8	26	1.7	1.9	3.2	28.9	No	Low Priority
03601750360076	Condition - with no CCTV scoring	568.7	8	5.8	8	36	1.7	1.9	3.2	28.9	No	High Priority
03701490370151	Condition - with no CCTV scoring	318.9	8	5.4	8	37	1.7	1.9	3.2	28.9	No	Low Priority
03701520370151	Condition - with no CCTV scoring	434.7	8	5.7	8	37	1.7	1.9	3.2	28.9	No	Low Priority
03800780380076	Condition - with no CCTV scoring	435.3	8	6.1	8	38	1.7	1.9	3.2	28.9	No	Low Priority
04800850480082	Condition - with no CCTV scoring	304.4	8	5.0	8	48	1.7	1.9	3.2	28.9	No	High Priority
04500670550002	Condition - with no CCTV scoring	168.6	8	7.2	8	55	1.7	1.9	3.2	28.9	No	High Priority
05501890550179	Condition - with no CCTV scoring	623.9	8	4.9	8	55	1.7	1.9	3.2	28.9	No	High Priority
05501620550160	Condition - with no CCTV scoring	270.2	8	6.0	8	55	1.7	1.9	3.2	28.9	No	High Priority
05500840550085	Condition - with no CCTV scoring	273.8	8	5.8	8	55	1.7	1.9	3.2	28.9	No	High Priority
05700160560250	Condition - with no CCTV scoring	358.8	8	4.1	8	57	1.7	1.9	3.2	28.9	No	Highest Priority
05800050580010	Condition - with no CCTV scoring	268.4	10	5.6	10	58	1.7	1.9	3.2	28.9	No	High Priority
05800090580008	Condition - with no CCTV scoring	237	10	5.9	10	58	1.7	1.9	3.2	28.9	No	High Priority
05800100580009	Condition - with no CCTV scoring	240	10	5.2	10	58	1.7	1.9	3.2	28.9	No	High Priority
06401520640155	Condition - with no CCTV scoring	72.4	8	5.5	8	64	1.7	1.9	3.2	28.9	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06401520640154	Condition - with no CCTV scoring	286.2	8	5.5	8	64	1.7	1.9	3.2	28.9	No	Moderate Priority
04701880470186	Condition - with no CCTV scoring	290.9	8	4.5	8	47	1.4	2.3	3.2	28.9	No	High Priority
04701890470187	Condition - with no CCTV scoring	278.8	8	4.5	8	47	1.4	2.3	3.2	28.9	No	High Priority
02601220260120	Condition - with no CCTV scoring	150.2	8	6.0	8	26	1.5	2.1	3.2	28.9	No	Low Priority
04300410430003	Condition - with no CCTV scoring	448.7	8	4.9	8	43	1.5	2.1	3.2	28.9	No	Low Priority
04700510470172	Condition - with no CCTV scoring	313.8	8	6.9	8	47	1.5	2.1	3.2	28.9	No	High Priority
04800540480052	Condition - with no CCTV scoring	102.3	8	6.2	8	48	1.5	2.1	3.2	28.9	No	High Priority
04800530480052	Condition - with no CCTV scoring	402.1	8	7.0	8	48	1.5	2.1	3.2	28.9	No	High Priority
04800520480047	Condition - with no CCTV scoring	298.9	8	6.7	8	48	1.5	2.1	3.2	28.9	No	High Priority
04801220480050	Condition - with no CCTV scoring	358.4	8	7.5	8	48	1.5	2.1	3.2	28.9	No	High Priority
05400710540070	Condition - with no CCTV scoring	329.5	8	6.0	8	54	1.8	1.8	3.2	28.8	No	Moderate Priority
06200390620040	Condition - with no CCTV scoring	249.9	8	10.1	8	62	1.8	1.8	3.2	28.8	No	Low Priority
07701710770091	Condition - with no CCTV scoring	40.7	8	11.6	8	77	1.8	1.8	3.2	28.8	No	Highest Priority
02200450220046	Condition - with no CCTV scoring	156.5	8	7.8	8	22	1.8	1.8	3.2	28.8	No	Low Priority
02200450220047	Condition - with no CCTV scoring	360.2	8	7.8	8	22	1.8	1.8	3.2	28.8	No	Low Priority
02200010220002	Condition - with no CCTV scoring	785	8	6.8	8	22	1.8	1.8	3.2	28.8	No	Low Priority
05602420560243	Condition - with no CCTV scoring	29.6	12	6.3	12	56	2.0	1.6	3.2	28.8	No	Highest Priority
07202390720236	Condition - with no CCTV scoring	299.6	6	7.7	8	72	2.0	1.6	3.2	28.8	No	Moderate Priority
07800540780053	Condition - with no CCTV scoring	295	8	11.1	8	78	1.9	1.7	3.2	28.8	No	Low Priority
07800550780054	Condition - with no CCTV scoring	350	8	10.8	8	78	1.9	1.7	3.2	28.8	No	Low Priority
07800560780055	Condition - with no CCTV scoring	350	8	11.2	8	78	1.9	1.7	3.2	28.8	No	Low Priority
05400090550156	Condition - with no CCTV scoring	401.8	8	9.2	8	54	1.5	2.2	3.2	28.8	No	Moderate Priority
06400820640081	Condition - with no CCTV scoring	170	8	4.8	8	64	1.5	2.2	3.2	28.8	No	Moderate Priority
07501740750072	Condition - with no CCTV scoring	153.5	8	4.7	8	75	1.5	2.2	3.2	28.8	No	Highest Priority
03800210380018	Condition - with no CCTV scoring	344.5	8	5.1	8	38	1.7	1.9	3.2	28.7	No	Low Priority
03800200380021	Condition - with no CCTV scoring	142.3	8	5.0	8	38	1.7	1.9	3.2	28.7	No	Low Priority
05502530550168	Condition - with no CCTV scoring	234.5	8	5.2	8	55	1.7	1.9	3.2	28.7	No	High Priority
06200940620093	Condition - with no CCTV scoring	78.4	8	7.0	8	62	1.7	1.9	3.2	28.7	No	Low Priority
06201150620094	Condition - with no CCTV scoring	143.7	8	7.3	8	62	1.7	1.9	3.2	28.7	No	Low Priority
03500090350011	Condition - with no CCTV scoring	288.1	8	11.1	8	35	1.9	1.7	3.2	28.7	No	Moderate Priority
03500880350082	Condition - with no CCTV scoring	227.7	8	10.1	8	35	1.9	1.7	3.2	28.7	No	Moderate Priority
09800070980006	Condition - with no CCTV scoring	381.1	8	15.4	8	98	1.9	1.7	3.2	28.7	No	Lowest Priority
05502320550216	Condition - with no CCTV scoring	160.6	8	5.0	8	55	1.4	2.3	3.2	28.7	No	High Priority
02601960260163	Condition - with no CCTV scoring	128	8	6.8	8	26	1.5	2.1	3.2	28.7	No	Low Priority
02601630260162	Condition - with no CCTV scoring	92.5	8	6.4	8	26	1.5	2.1	3.2	28.7	No	Low Priority
02601990260196	Condition - with no CCTV scoring	85.8	8	6.6	8	26	1.5	2.1	3.2	28.7	No	Low Priority
03300900330089	Condition - with no CCTV scoring	150.7	8	6.0	8	33	1.8	1.8	3.2	28.7	No	Low Priority
03700320370037	Condition - with no CCTV scoring	383.1	10	5.6	10	37	1.4	2.3	3.2	28.7	No	Low Priority
04300100430009	Condition - with no CCTV scoring	478.9	8	5.1	8	43	1.5	2.1	3.2	28.7	No	Low Priority
04601570460154	Condition - with no CCTV scoring	624.2	8	6.0	8	46	1.4	2.3	3.2	28.7	No	Highest Priority
04700290470167	Condition - with no CCTV scoring	310.2	8	5.3	8	47	1.4	2.3	3.2	28.7	No	High Priority
04701670470165	Condition - with no CCTV scoring	345.9	8	5.9	8	47	1.4	2.3	3.2	28.7	No	High Priority
05501760550163	Condition - with no CCTV scoring	205.2	8	5.0	8	55	1.5	2.1	3.2	28.7	No	High Priority
05501140550112	Condition - with no CCTV scoring	282.6	8	6.4	8	55	1.8	1.8	3.2	28.7	No	High Priority
05701050570191	Condition - with no CCTV scoring	353.4	8	4.9	8	57	1.5	2.1	3.2	28.7	No	Highest Priority
05800370580038	Condition - with no CCTV scoring	432.4	8	5.3	8	58	1.5	2.1	3.2	28.7	No	High Priority
06800500680010	Condition - with no CCTV scoring	381.2	8	3.7	8	68	1.5	2.1	3.2	28.7	No	Lowest Priority
07201720720171	Condition - with no CCTV scoring	162.2	8	3.5	8	72	1.8	1.8	3.2	28.7	No	Moderate Priority
07301650730166	Condition - with no CCTV scoring	375	8	8.3	8	73	1.5	2.1	3.2	28.7	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07301640730165	Condition - with no CCTV scoring	80.6	8	9.2	8	73	1.5	2.1	3.2	28.7	No	High Priority
04701080470103	Condition - with no CCTV scoring	15.6	8	5.9	8	47	1.4	2.2	3.1	28.6	No	High Priority
04800770480125	Condition - with no CCTV scoring	299	8	5.4	8	48	1.4	2.2	3.1	28.6	No	High Priority
05701590570160	Condition - with no CCTV scoring	336.1	8	5.5	8	57	1.4	2.2	3.1	28.6	No	Highest Priority
05701600570161	Condition - with no CCTV scoring	331	8	5.6	8	57	1.4	2.2	3.1	28.6	No	Highest Priority
05701760570175	Condition - with no CCTV scoring	212.6	8	4.8	8	57	1.4	2.2	3.1	28.6	No	Highest Priority
03801360380029	Condition - with no CCTV scoring	264.7	8	10.1	8	38	1.9	1.7	3.1	28.6	No	Low Priority
06603400660339	Condition - with no CCTV scoring	277.4	8	10.3	8	66	1.9	1.7	3.1	28.6	No	Highest Priority
06600800660078	Condition - with no CCTV scoring	406	8	13.5	8	66	1.9	1.7	3.1	28.6	No	Highest Priority
04700740470075	Condition - with no CCTV scoring	191.5	8	3.6	8	47	1.6	2.0	3.1	28.6	No	High Priority
04700730470074	Condition - with no CCTV scoring	315	8	6.0	8	47	1.6	2.0	3.1	28.6	No	High Priority
04700860470083	Condition - with no CCTV scoring	394.2	8	5.5	8	47	1.6	2.0	3.1	28.6	No	High Priority
07701030770104	Condition - with no CCTV scoring	150	8	8.1	8	77	1.6	2.0	3.1	28.6	No	Highest Priority
04600170460018	Condition - with no CCTV scoring	382.3	8	7.8	8	46	1.5	2.2	3.1	28.6	No	Highest Priority
05502430550196	Condition - with no CCTV scoring	384.8	8	5.5	8	55	1.5	2.2	3.1	28.6	No	High Priority
06400420640041	Condition - with no CCTV scoring	84.2	8	5.3	8	64	1.5	2.2	3.1	28.6	No	Moderate Priority
07201350720130	Condition - with no CCTV scoring	258.5	8	5.5	8	72	1.5	2.2	3.1	28.6	No	Moderate Priority
05500780550070	Condition - with no CCTV scoring	50.9	10	8.1	10	55	1.5	2.1	3.1	28.5	No	High Priority
04702090470211	Condition - with no CCTV scoring	395.4	8	5.7	8	47	1.3	2.5	3.1	28.5	No	High Priority
04701210470120	Condition - with no CCTV scoring	463.9	8	5.3	8	47	1.3	2.5	3.1	28.5	No	High Priority
03700080370007	Condition - with no CCTV scoring	547.6	8	3.7	8	37	1.7	1.9	3.1	28.5	No	Low Priority
03800550380071	Condition - with no CCTV scoring	284.4	8	5.7	8	38	1.7	1.9	3.1	28.5	No	Low Priority
03800530380055	Condition - with no CCTV scoring	327.9	8	5.3	8	38	1.7	1.9	3.1	28.5	No	Low Priority
03800470380049	Condition - with no CCTV scoring	184.3	8	5.1	8	38	1.7	1.9	3.1	28.5	No	Low Priority
04800820480081	Condition - with no CCTV scoring	510.3	8	7.5	8	48	1.7	1.9	3.1	28.5	No	High Priority
05600610560060	Condition - with no CCTV scoring	576.1	6	5.0	8	56	1.7	1.9	3.1	28.5	No	Highest Priority
08700490870048	Condition - with no CCTV scoring	383	8	8.0	8	87	1.9	1.7	3.1	28.5	No	Moderate Priority
08700910870055	Condition - with no CCTV scoring	279.3	8	6.1	8	87	1.9	1.7	3.1	28.5	No	Moderate Priority
03500320350033	Condition - with no CCTV scoring	511	8	9.3	8	35	1.8	1.8	3.1	28.5	No	Moderate Priority
05603080560215	Condition - with no CCTV scoring	180.1	8	9.3	8	56	1.7	1.8	3.1	28.5	No	Highest Priority
05700840570059	Condition - with no CCTV scoring	329	8	3.8	8	57	1.7	1.8	3.1	28.5	No	Highest Priority
07202310720238	Condition - with no CCTV scoring	310	6	8.3	8	72	2.2	1.5	3.1	28.5	No	Moderate Priority
07300170720170	Condition - with no CCTV scoring	86	8	7.1	8	73	1.7	1.8	3.1	28.5	No	High Priority
07502170750216	Condition - with no CCTV scoring	36.5	22	8.3	24	75	1.7	1.8	3.1	28.5	No	Highest Priority
06700100670009	Condition - with no CCTV scoring	304.3	8	5.1	8	67	2.0	1.6	3.1	28.5	No	Highest Priority
02601080260104	Condition - with no CCTV scoring	401.8	8	5.7	8	26	1.5	2.1	3.1	28.5	No	Low Priority
02601100260108	Condition - with no CCTV scoring	398.2	8	5.4	8	26	1.5	2.1	3.1	28.5	No	Low Priority
02800120280002	Condition - with no CCTV scoring	129.9	8	5.7	8	28	1.5	2.1	3.1	28.5	No	Lowest Priority
02800030280004	Condition - with no CCTV scoring	179.4	8	5.3	8	28	1.5	2.1	3.1	28.5	No	Lowest Priority
03600690360070	Condition - with no CCTV scoring	407.4	8	5.5	8	36	1.5	2.1	3.1	28.5	No	High Priority
04300420430032	Condition - with no CCTV scoring	223.1	8	5.1	8	43	1.5	2.1	3.1	28.5	No	Low Priority
04300380430033	Condition - with no CCTV scoring	480.2	8	4.8	8	43	1.5	2.1	3.1	28.5	No	Low Priority
04300320430033	Condition - with no CCTV scoring	339.4	8	5.0	8	43	1.5	2.1	3.1	28.5	No	Low Priority
04800080480009	Condition - with no CCTV scoring	351.2	8	4.9	8	48	1.5	2.1	3.1	28.5	No	High Priority
04800460480042	Condition - with no CCTV scoring	309	8	5.7	8	48	1.5	2.1	3.1	28.5	No	High Priority
05300290530023	Condition - with no CCTV scoring	167.9	8	5.5	8	53	1.5	2.1	3.1	28.5	No	Moderate Priority
05300980530036	Condition - with no CCTV scoring	12.7	8	4.8	8	53	1.5	2.1	3.1	28.5	No	Moderate Priority
05701220570121	Condition - with no CCTV scoring	289.5	8	5.6	8	57	1.5	2.1	3.1	28.5	No	Highest Priority
02700210270019	Condition - with no CCTV scoring	375	8	14.2	8	27	1.8	1.7	3.1	28.5	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06600830660082	Condition - with no CCTV scoring	185	8	20.0	8	66	1.8	1.7	3.1	28.5	No	Highest Priority
06600820660081	Condition - with no CCTV scoring	267	8	20.8	8	66	1.8	1.7	3.1	28.5	No	Highest Priority
06600840660082	Condition - with no CCTV scoring	195	8	20.0	8	66	1.8	1.7	3.1	28.5	No	Highest Priority
03801100380108	Condition - with no CCTV scoring	149.9	8	8.0	8	38	1.7	1.9	3.1	28.4	No	Low Priority
05402160540143	Condition - with no CCTV scoring	86	8	6.0	8	54	1.7	1.9	3.1	28.4	No	Moderate Priority
05401430540141	Condition - with no CCTV scoring	415.3	8	2.6	8	54	1.7	1.9	3.1	28.4	No	Moderate Priority
04401650440161	Condition - with no CCTV scoring	113.9	8	6.2	8	44	1.4	2.2	3.1	28.4	No	Low Priority
06603420660341	Condition - with no CCTV scoring	348	8	5.4	8	66	1.6	2.0	3.1	28.4	No	Highest Priority
02100030210004	Condition - with no CCTV scoring	992.2	18	11.3	18	11	2.3	1.4	3.1	28.4	No	Lowest Priority
01200570120167	Condition - with no CCTV scoring	163.7	8	10.7	8	12	1.5	2.2	3.1	28.4	No	Lowest Priority
03700560370054	Condition - with no CCTV scoring	223.3	8	6.0	8	37	1.5	2.2	3.1	28.4	No	Low Priority
06400800740067	Condition - with no CCTV scoring	166.2	8	3.8	8	64	1.5	2.2	3.1	28.4	No	Moderate Priority
06501640650147	Condition - with no CCTV scoring	349.5	8	6.0	8	65	1.5	2.2	3.1	28.4	No	Moderate Priority
06501470650140	Condition - with no CCTV scoring	347.7	8	5.9	8	65	1.5	2.2	3.1	28.4	No	Moderate Priority
07700560770058	Condition - with no CCTV scoring	25.3	8	7.0	8	77	1.5	2.2	3.1	28.4	No	Highest Priority
07700590770057	Condition - with no CCTV scoring	309.5	8	6.7	8	77	1.5	2.2	3.1	28.4	No	Highest Priority
07700650770058	Condition - with no CCTV scoring	579.6	8	7.3	8	77	1.5	2.2	3.1	28.4	No	Highest Priority
02600260260006	Condition - with no CCTV scoring	295.9	8	5.3	8	26	1.5	2.1	3.1	28.4	No	Low Priority
03701080370100	Condition - with no CCTV scoring	141.9	8	5.2	8	37	1.6	1.9	3.1	28.4	No	Low Priority
04801320480134	Condition - with no CCTV scoring	316.3	8	6.0	8	48	1.6	1.9	3.1	28.4	No	High Priority
05500170550016	Condition - with no CCTV scoring	719.3	10	7.8	10	55	1.6	1.9	3.1	28.4	No	High Priority
05500130550014	Condition - with no CCTV scoring	112.9	8	5.7	8	55	1.6	1.9	3.1	28.4	No	High Priority
05600810560077	Condition - with no CCTV scoring	551	6	5.4	8	56	1.6	1.9	3.1	28.4	No	Highest Priority
05600990560080	Condition - with no CCTV scoring	525.5	8	4.8	8	56	1.6	1.9	3.1	28.4	No	Highest Priority
05800170580018	Condition - with no CCTV scoring	442	8	5.4	8	57	1.6	1.9	3.1	28.4	No	Highest Priority
06800040680003	Condition - with no CCTV scoring	207.1	8	1.8	8	68	1.6	1.9	3.1	28.4	No	Lowest Priority
07502140750215	Condition - with no CCTV scoring	689	8	4.3	8	75	1.6	1.9	3.1	28.4	No	Highest Priority
04401700440149	Condition - with no CCTV scoring	269.1	8	7.0	8	44	2.0	1.6	3.1	28.3	No	Low Priority
02501570250125	Condition - with no CCTV scoring	406	8	7.1	8	25	1.8	1.8	3.1	28.3	No	Lowest Priority
05401310540098	Condition - with no CCTV scoring	298.9	8	6.7	8	54	1.8	1.8	3.1	28.3	No	Moderate Priority
08900300890085	Condition - with no CCTV scoring	446.1	10	8.9	10	89	1.8	1.8	3.1	28.3	No	Low Priority
02700480270007	Condition - with no CCTV scoring	280.2	8	4.9	8	26	1.7	1.8	3.1	28.3	No	Low Priority
02601750260246	Condition - with no CCTV scoring	160	8	6.0	8	26	1.7	1.8	3.1	28.3	No	Low Priority
02601320260133	Condition - with no CCTV scoring	225.2	8	6.0	8	26	1.7	1.8	3.1	28.3	No	Low Priority
04801040480102	Condition - with no CCTV scoring	92.8	8	4.0	8	48	1.7	1.8	3.1	28.3	No	High Priority
05700630570060	Condition - with no CCTV scoring	411.5	8	7.0	8	57	1.7	1.8	3.1	28.3	No	Highest Priority
07202170720218	Condition - with no CCTV scoring	146	8	9.9	8	72	1.7	1.8	3.1	28.3	No	Moderate Priority
03300080330035	Condition - with no CCTV scoring	91.8	15	9.3	15	33	1.8	1.7	3.1	28.3	No	Low Priority
03300050330007	Condition - with no CCTV scoring	237	15	9.0	15	33	1.8	1.7	3.1	28.3	No	Low Priority
06300480630049	Condition - with no CCTV scoring	299.4	10	11.0	10	63	1.8	1.7	3.1	28.3	No	Moderate Priority
06502560650255	Condition - with no CCTV scoring	219.7	24	10.8	24	65	1.8	1.7	3.1	28.3	No	Moderate Priority
03501210350122	Condition - with no CCTV scoring	278.6	8	8.0	8	35	1.5	2.1	3.1	28.3	No	Moderate Priority
05300930530094	Condition - with no CCTV scoring	296.7	8	5.8	8	53	1.5	2.1	3.1	28.3	No	Moderate Priority
05402220540223	Condition - with no CCTV scoring	308.3	8	5.4	8	54	1.5	2.1	3.1	28.3	No	Moderate Priority
05402760540275	Condition - with no CCTV scoring	518	8	4.6	8	54	1.5	2.1	3.1	28.3	No	Moderate Priority
06400240640028	Condition - with no CCTV scoring	31.3	8	3.4	8	64	1.5	2.1	3.1	28.3	No	Moderate Priority
03701840370183	Condition - with no CCTV scoring	329.2	8	5.0	8	37	1.4	2.2	3.1	28.2	No	Low Priority
03701810370183	Condition - with no CCTV scoring	293.7	8	5.0	8	37	1.4	2.2	3.1	28.2	No	Low Priority
07200850720082	Condition - with no CCTV scoring	23.6	8	6.3	8	72	1.9	1.7	3.1	28.2	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07301510730150	Condition - with no CCTV scoring	132.8	8	8.5	8	73	1.6	2.0	3.1	28.2	No	High Priority
03601590360158	Condition - with no CCTV scoring	321	8	5.0	8	36	1.6	1.9	3.1	28.2	No	High Priority
04700280470167	Condition - with no CCTV scoring	636.6	8	6.3	8	47	1.6	1.9	3.1	28.2	No	High Priority
04600270460021	Condition - with no CCTV scoring	435.6	8	4.5	8	46	1.4	2.2	3.1	28.2	No	Highest Priority
04600280460029	Condition - with no CCTV scoring	434.6	8	5.0	8	46	1.4	2.2	3.1	28.2	No	Highest Priority
04600310460030	Condition - with no CCTV scoring	308.6	8	4.7	8	46	1.4	2.2	3.1	28.2	No	Highest Priority
05401620540163	Condition - with no CCTV scoring	434.1	8	5.5	8	54	1.7	1.8	3.1	28.2	No	Moderate Priority
05400970540095	Condition - with no CCTV scoring	276.3	8	5.3	8	54	1.7	1.8	3.1	28.2	No	Moderate Priority
05500270550028	Condition - with no CCTV scoring	577.1	8	6.0	8	55	1.7	1.8	3.1	28.2	No	High Priority
05701790570178	Condition - with no CCTV scoring	350.6	8	3.0	8	57	1.7	1.8	3.1	28.2	No	Highest Priority
05800990580067	Condition - with no CCTV scoring	58.1	8	11.2	8	58	1.3	2.4	3.1	28.2	No	High Priority
06501840650177	Condition - with no CCTV scoring	53	8	6.2	8	65	1.7	1.8	3.1	28.2	No	Moderate Priority
04401920440187	Condition - with no CCTV scoring	609	15	19.8	15	44	3.1	1.0	3.1	28.1	No	Low Priority
08901280890101	Condition - with no CCTV scoring	58.4	8	7.9	8	89	1.7	1.9	3.1	28.1	No	Low Priority
05400190540017	Condition - with no CCTV scoring	231.9	8	8.9	8	54	1.5	2.1	3.1	28.1	No	Moderate Priority
05701350570122	Condition - with no CCTV scoring	228.6	8	5.3	8	57	1.5	2.1	3.1	28.1	No	Highest Priority
01100390110038	Condition - with no CCTV scoring	356.2	8	11.9	8	11	1.9	1.7	3.1	28.1	No	Lowest Priority
05402340540219	Condition - with no CCTV scoring	348.8	8	10.6	8	54	1.9	1.7	3.1	28.1	No	Moderate Priority
08801160880115	Condition - with no CCTV scoring	430	8	11.1	8	88	1.9	1.7	3.1	28.1	No	Low Priority
06602080660206	Condition - with no CCTV scoring	68.5	8	8.8	8	66	2.0	1.6	3.1	28.1	No	Highest Priority
03601160360115	Condition - with no CCTV scoring	461	8	4.8	8	36	1.4	2.3	3.1	28.0	No	High Priority
05502030550200	Condition - with no CCTV scoring	285.8	8	5.7	8	55	1.4	2.3	3.1	28.0	No	High Priority
05502060550203	Condition - with no CCTV scoring	62	8	5.5	8	55	1.4	2.3	3.1	28.0	No	High Priority
05502040550205	Condition - with no CCTV scoring	608.9	8	6.0	8	55	1.4	2.3	3.1	28.0	No	High Priority
05502020550203	Condition - with no CCTV scoring	298.4	8	5.0	8	55	1.4	2.3	3.1	28.0	No	High Priority
05502000550211	Condition - with no CCTV scoring	212	8	5.5	8	55	1.4	2.3	3.1	28.0	No	High Priority
06501610650162	Condition - with no CCTV scoring	263.5	8	5.3	8	65	1.4	2.3	3.1	28.0	No	Moderate Priority
06501120650114	Condition - with no CCTV scoring	335.4	8	5.2	8	65	1.4	2.3	3.1	28.0	No	Moderate Priority
06501190650114	Condition - with no CCTV scoring	201.3	8	6.0	8	65	1.4	2.3	3.1	28.0	No	Moderate Priority
06501140650117	Condition - with no CCTV scoring	299.8	8	5.0	8	65	1.4	2.3	3.1	28.0	No	Moderate Priority
03300770330076	Condition - with no CCTV scoring	212.9	8	10.1	8	33	1.8	1.8	3.1	28.0	No	Low Priority
03600940360081	Condition - with no CCTV scoring	501.3	8	5.0	8	36	1.4	2.2	3.1	28.0	No	High Priority
03702080370207	Condition - with no CCTV scoring	287.2	8	4.6	8	37	1.5	2.0	3.1	28.0	No	Low Priority
03702070370206	Condition - with no CCTV scoring	273.7	8	5.2	8	37	1.5	2.0	3.1	28.0	No	Low Priority
04502010450202	Condition - with no CCTV scoring	339.1	8	5.4	8	45	1.8	1.8	3.1	28.0	No	High Priority
04702200470221	Condition - with no CCTV scoring	446	8	5.3	8	47	1.5	2.0	3.1	28.0	No	High Priority
05702090570226	Condition - with no CCTV scoring	363.4	8	5.6	8	57	1.4	2.2	3.1	28.0	No	Highest Priority
07400560740055	Condition - with no CCTV scoring	250.4	12	4.2	12	74	1.4	2.2	3.1	28.0	No	Highest Priority
02400260240117	Condition - with no CCTV scoring	278.9	10	6.5	10	24	1.6	1.9	3.1	28.0	No	Lowest Priority
03701770370172	Condition - with no CCTV scoring	142.8	8	3.4	8	37	1.6	1.9	3.1	28.0	No	Low Priority
03701720370163	Condition - with no CCTV scoring	255.3	8	5.4	8	37	1.6	1.9	3.1	28.0	No	Low Priority
03800750380072	Condition - with no CCTV scoring	121.2	8	6.5	8	38	1.6	1.9	3.1	28.0	No	Low Priority
04401370440144	Condition - with no CCTV scoring	445.1	8	8.1	8	44	1.7	1.8	3.1	28.0	No	Low Priority
05500660550067	Condition - with no CCTV scoring	370.6	8	7.2	8	55	1.7	1.8	3.1	28.0	No	High Priority
05500340550035	Condition - with no CCTV scoring	171.8	8	5.6	8	55	1.6	1.9	3.1	28.0	No	High Priority
05500350550075	Condition - with no CCTV scoring	317.4	8	5.8	8	55	1.6	1.9	3.1	28.0	No	High Priority
05500680550065	Condition - with no CCTV scoring	83	8	5.9	8	55	1.6	1.9	3.1	28.0	No	High Priority
05402710540270	Condition - with no CCTV scoring	387.8	8	5.6	8	55	1.6	1.9	3.1	28.0	No	High Priority
05501570550084	Condition - with no CCTV scoring	38.2	8	5.9	8	55	1.6	1.9	3.1	28.0	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05501600550159	Condition - with no CCTV scoring	347	8	5.0	8	55	1.6	1.9	3.1	28.0	No	High Priority
05700200570028	Condition - with no CCTV scoring	385.2	8	4.4	8	57	1.7	1.8	3.1	28.0	No	Highest Priority
05700280570029	Condition - with no CCTV scoring	372.7	8	5.2	8	57	1.7	1.8	3.1	28.0	No	Highest Priority
06401900640158	Condition - with no CCTV scoring	700.6	8	5.5	8	64	1.6	1.9	3.1	28.0	No	Moderate Priority
06502080650134	Condition - with no CCTV scoring	367.2	8	5.3	8	65	1.6	1.9	3.1	28.0	No	Moderate Priority
06500720650071	Condition - with no CCTV scoring	178.7	8	5.4	8	65	1.6	1.9	3.1	28.0	No	Moderate Priority
06600280660030	Condition - with no CCTV scoring	224.6	8	5.9	8	66	1.6	1.9	3.1	28.0	No	Highest Priority
06602780660277	Condition - with no CCTV scoring	299.6	8	4.6	8	66	1.6	1.9	3.1	28.0	No	Highest Priority
07501540750155	Condition - with no CCTV scoring	30.7	8	5.5	8	75	1.6	1.9	3.1	28.0	No	Highest Priority
07501200750121	Condition - with no CCTV scoring	104	8	4.0	8	75	1.6	1.9	3.1	28.0	No	Highest Priority
07600370760033	Condition - with no CCTV scoring	259.6	15	4.9	15	76	1.7	1.8	3.1	28.0	No	Highest Priority
06500040650003	Condition - with no CCTV scoring	383	12	7.6	12	65	1.5	2.1	3.1	28.0	No	Moderate Priority
03601440360055	Condition - with no CCTV scoring	753.4	8	4.5	8	36	1.4	2.2	3.1	28.0	No	High Priority
03700540370055	Condition - with no CCTV scoring	177.5	8	6.6	8	37	1.4	2.2	3.1	28.0	No	Low Priority
04400120440011	Condition - with no CCTV scoring	382.9	8	6.6	8	44	1.4	2.2	3.1	28.0	No	Low Priority
04400090440008	Condition - with no CCTV scoring	353.6	8	6.5	8	44	1.4	2.2	3.1	28.0	No	Low Priority
04400100440009	Condition - with no CCTV scoring	359.3	8	7.1	8	44	1.4	2.2	3.1	28.0	No	Low Priority
04601020460103	Condition - with no CCTV scoring	386.6	8	5.3	8	46	1.4	2.2	3.1	28.0	No	Highest Priority
04700210470019	Condition - with no CCTV scoring	440	8	5.3	8	47	1.4	2.2	3.1	28.0	No	High Priority
06401350640134	Condition - with no CCTV scoring	679.1	8	5.4	8	64	1.4	2.2	3.1	28.0	No	Moderate Priority
07201270720137	Condition - with no CCTV scoring	128	8	6.3	8	72	1.4	2.2	3.1	28.0	No	Moderate Priority
07202260720160	Condition - with no CCTV scoring	57.4	8	6.1	8	72	1.4	2.2	3.1	28.0	No	Moderate Priority
02301240230130	Condition - with no CCTV scoring	109	8	7.4	8	23	2.1	1.5	3.1	28.0	No	Lowest Priority
05402030540204	Condition - with no CCTV scoring	359.7	8	6.9	8	54	1.7	1.9	3.1	27.9	No	Moderate Priority
07300260730019	Condition - with no CCTV scoring	310	8	4.9	8	73	1.7	1.9	3.1	27.9	No	High Priority
02601680260167	Condition - with no CCTV scoring	125.9	8	5.1	8	26	1.5	2.1	3.1	27.9	No	Low Priority
04300330430034	Condition - with no CCTV scoring	266.5	8	5.5	8	43	1.5	2.1	3.1	27.9	No	Low Priority
04700400470041	Condition - with no CCTV scoring	215.1	8	5.5	8	47	1.5	2.1	3.1	27.9	No	High Priority
04800510480047	Condition - with no CCTV scoring	457.6	8	5.3	8	48	1.5	2.1	3.1	27.9	No	High Priority
04801200480119	Condition - with no CCTV scoring	310.5	8	5.6	8	48	1.5	2.1	3.1	27.9	No	High Priority
05300400530021	Condition - with no CCTV scoring	121.2	8	5.0	8	53	1.5	2.1	3.1	27.9	No	Moderate Priority
05300390530040	Condition - with no CCTV scoring	299.3	8	5.0	8	53	1.5	2.1	3.1	27.9	No	Moderate Priority
05300550530038	Condition - with no CCTV scoring	320.2	8	5.0	8	53	1.5	2.1	3.1	27.9	No	Moderate Priority
05300570530099	Condition - with no CCTV scoring	177.7	8	5.0	8	53	1.5	2.1	3.1	27.9	No	Moderate Priority
05300990530038	Condition - with no CCTV scoring	88	8	5.0	8	53	1.5	2.1	3.1	27.9	No	Moderate Priority
05401890540184	Condition - with no CCTV scoring	579.2	8	5.0	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401150540111	Condition - with no CCTV scoring	499	8	4.5	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401510540152	Condition - with no CCTV scoring	365.9	8	5.0	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401390540140	Condition - with no CCTV scoring	310.5	8	5.1	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401370540139	Condition - with no CCTV scoring	337.2	8	5.1	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401120540113	Condition - with no CCTV scoring	163.7	8	4.8	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05400780540079	Condition - with no CCTV scoring	344.8	8	5.0	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401530540140	Condition - with no CCTV scoring	332.1	8	5.0	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401400540177	Condition - with no CCTV scoring	232.6	8	5.0	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05400760540081	Condition - with no CCTV scoring	485.2	8	5.7	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05401170540114	Condition - with no CCTV scoring	493.8	8	4.5	8	54	1.5	2.1	3.1	27.9	No	Moderate Priority
05701980570197	Condition - with no CCTV scoring	320.3	8	4.8	8	57	1.5	2.1	3.1	27.9	No	Highest Priority
05701030570104	Condition - with no CCTV scoring	376.9	8	4.4	8	57	1.5	2.1	3.1	27.9	No	Highest Priority
05701360570134	Condition - with no CCTV scoring	372.5	8	5.4	8	57	1.8	1.8	3.1	27.9	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02500510250053	Condition - with no CCTV scoring	288	8	6.5	8	25	1.6	2.0	3.1	27.9	No	Lowest Priority
02500290250027	Condition - with no CCTV scoring	372.7	8	6.0	8	25	1.4	2.3	3.1	27.8	No	Lowest Priority
03700030370007	Condition - with no CCTV scoring	310	8	6.9	8	37	1.7	1.8	3.1	27.8	No	Low Priority
03800930380094	Condition - with no CCTV scoring	162.2	8	7.9	8	38	1.7	1.8	3.1	27.8	No	Low Priority
03801160380117	Condition - with no CCTV scoring	265.1	8	12.5	8	38	1.8	1.7	3.1	27.8	No	Low Priority
04400530440056	Condition - with no CCTV scoring	371	8	6.0	8	44	1.7	1.8	3.1	27.8	No	Low Priority
04602810460071	Condition - with no CCTV scoring	299.8	8	4.7	8	46	1.7	1.8	3.1	27.8	No	Highest Priority
04701520470154	Condition - with no CCTV scoring	259.3	8	6.2	8	47	1.7	1.8	3.1	27.8	No	High Priority
04801080480107	Condition - with no CCTV scoring	269.9	8	8.8	8	48	1.7	1.8	3.1	27.8	No	High Priority
05401700540171	Condition - with no CCTV scoring	353	8	5.5	8	54	1.7	1.8	3.1	27.8	No	Moderate Priority
06502130650212	Condition - with no CCTV scoring	338.7	8	8.1	8	65	1.7	1.8	3.1	27.8	No	Moderate Priority
06603410660036	Condition - with no CCTV scoring	235.1	8	6.5	8	66	1.5	2.0	3.1	27.8	No	Highest Priority
07601670760166	Condition - with no CCTV scoring	318.2	8	3.0	8	76	1.7	1.8	3.1	27.8	No	Highest Priority
02500610250036	Condition - with no CCTV scoring	254.8	8	6.2	8	25	1.6	1.9	3.1	27.8	No	Lowest Priority
02602160260215	Condition - with no CCTV scoring	522.1	8	4.9	8	26	1.6	1.9	3.1	27.8	No	Low Priority
02600550260042	Condition - with no CCTV scoring	307.7	8	6.7	8	26	1.6	1.9	3.1	27.8	No	Low Priority
02600600260057	Condition - with no CCTV scoring	489.4	8	7.2	8	26	1.6	1.9	3.1	27.8	No	Low Priority
03601250360185	Condition - with no CCTV scoring	413.1	8	5.5	8	36	1.6	1.9	3.1	27.8	No	High Priority
03700160370015	Condition - with no CCTV scoring	397.7	8	5.1	8	37	1.6	1.9	3.1	27.8	No	Low Priority
04401440440143	Condition - with no CCTV scoring	307.6	8	5.7	8	44	1.6	1.9	3.1	27.8	No	Low Priority
04600320460070	Condition - with no CCTV scoring	235.1	8	4.9	8	46	1.6	1.9	3.1	27.8	No	Highest Priority
04801350480134	Condition - with no CCTV scoring	340.9	8	7.0	8	48	1.6	1.9	3.1	27.8	No	High Priority
06501800650178	Condition - with no CCTV scoring	680.9	8	5.5	8	65	1.6	1.9	3.1	27.8	No	Moderate Priority
06600430660044	Condition - with no CCTV scoring	328	8	3.1	8	66	1.6	1.9	3.1	27.8	No	Highest Priority
02601540260152	Condition - with no CCTV scoring	459.2	8	8.6	8	26	1.9	1.7	3.1	27.8	No	Low Priority
02601510260150	Condition - with no CCTV scoring	307.5	8	8.2	8	26	1.9	1.7	3.1	27.8	No	Low Priority
C02602490260239	Condition - with no CCTV scoring	99.2	8	99.4	8	26	1.9	1.7	3.1	27.8	No	Low Priority
07200300720029	Condition - with no CCTV scoring	75	8	4.7	8	72	1.9	1.7	3.1	27.8	No	Moderate Priority
08900330890027	Condition - with no CCTV scoring	325.4	15	12.4	15	89	1.9	1.7	3.1	27.8	No	Low Priority
02200340220035	Condition - with no CCTV scoring	400	8	7.0	8	22	1.7	1.8	3.0	27.7	No	Low Priority
02501520350121	Condition - with no CCTV scoring	301.7	8	9.1	8	25	1.5	2.1	3.0	27.7	No	Lowest Priority
05402480540249	Condition - with no CCTV scoring	420.1	8	4.3	8	54	1.5	2.1	3.0	27.7	No	Moderate Priority
05402490540250	Condition - with no CCTV scoring	520.1	8	4.1	8	54	1.5	2.1	3.0	27.7	No	Moderate Priority
05402570540259	Condition - with no CCTV scoring	337.8	8	4.1	8	54	1.5	2.1	3.0	27.7	No	Moderate Priority
05701510570149	Condition - with no CCTV scoring	396.3	8	5.7	8	57	1.5	2.1	3.0	27.7	No	Highest Priority
05800420580040	Condition - with no CCTV scoring	385.5	8	5.2	8	58	1.5	2.1	3.0	27.7	No	High Priority
05800400580038	Condition - with no CCTV scoring	287.5	8	5.8	8	58	1.5	2.1	3.0	27.7	No	High Priority
09800260980025	Condition - with no CCTV scoring	325	8	9.1	8	98	1.7	1.8	3.0	27.7	No	Lowest Priority
02700130270015	Condition - with no CCTV scoring	376.9	8	9.5	8	27	1.8	1.7	3.0	27.7	No	Moderate Priority
02700120270011	Condition - with no CCTV scoring	373	8	9.0	8	27	1.8	1.7	3.0	27.7	No	Moderate Priority
07800570780056	Condition - with no CCTV scoring	350	8	11.6	8	78	1.8	1.7	3.0	27.7	No	Low Priority
07800580780057	Condition - with no CCTV scoring	350	8	12.7	8	78	1.8	1.7	3.0	27.7	No	Low Priority
07800590780058	Condition - with no CCTV scoring	349	8	12.8	8	78	1.8	1.7	3.0	27.7	No	Low Priority
03600250360019	Condition - with no CCTV scoring	153.7	8	5.7	8	36	1.7	1.8	3.0	27.7	No	High Priority
03601580360152	Condition - with no CCTV scoring	414	8	5.0	8	36	1.7	1.8	3.0	27.7	No	High Priority
04400540440055	Condition - with no CCTV scoring	405.7	8	5.0	8	44	1.7	1.8	3.0	27.7	No	Low Priority
07701700770145	Condition - with no CCTV scoring	324.8	12	8.1	12	77	1.7	1.8	3.0	27.7	No	Highest Priority
02500040250003	Condition - with no CCTV scoring	295.7	8	6.6	8	25	1.6	1.9	3.0	27.7	No	Lowest Priority
03800590380046	Condition - with no CCTV scoring	286.7	8	5.1	8	38	1.6	1.9	3.0	27.7	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03800610380063	Condition - with no CCTV scoring	338.8	8	5.2	8	38	1.6	1.9	3.0	27.7	No	Low Priority
03800570380059	Condition - with no CCTV scoring	344.1	8	6.6	8	38	1.6	1.9	3.0	27.7	No	Low Priority
03800500380052	Condition - with no CCTV scoring	448.7	8	5.2	8	38	1.6	1.9	3.0	27.7	No	Low Priority
03800450380046	Condition - with no CCTV scoring	210.9	8	3.3	8	38	1.6	1.9	3.0	27.7	No	Low Priority
03800650380067	Condition - with no CCTV scoring	343.8	8	5.4	8	38	1.6	1.9	3.0	27.7	No	Low Priority
03800980380091	Condition - with no CCTV scoring	391.1	8	5.3	8	38	1.6	1.9	3.0	27.7	No	Low Priority
04800820480084	Condition - with no CCTV scoring	228.9	8	7.5	8	48	1.6	1.9	3.0	27.7	No	High Priority
04800670480063	Condition - with no CCTV scoring	321	8	3.3	8	48	1.6	1.9	3.0	27.7	No	High Priority
05502200550221	Condition - with no CCTV scoring	268.9	12	6.5	12	55	1.6	1.9	3.0	27.7	No	High Priority
05501190550076	Condition - with no CCTV scoring	47.3	8	5.5	8	55	1.6	1.9	3.0	27.7	No	High Priority
05500760550077	Condition - with no CCTV scoring	638.4	8	5.5	8	55	1.6	1.9	3.0	27.7	No	High Priority
06301310630098	Condition - with no CCTV scoring	152.4	8	5.2	8	63	1.6	1.9	3.0	27.7	No	Moderate Priority
07400540740053	Condition - with no CCTV scoring	262	12	3.9	12	74	1.5	2.0	3.0	27.7	No	Highest Priority
01200560120053	Condition - with no CCTV scoring	309.8	8	7.1	8	12	1.4	2.3	3.0	27.6	No	Lowest Priority
01200530120057	Condition - with no CCTV scoring	136.7	8	6.8	8	12	1.4	2.3	3.0	27.6	No	Lowest Priority
04502090450175	Condition - with no CCTV scoring	19.1	8	5.3	8	45	1.4	2.3	3.0	27.6	No	High Priority
08900270890131	Condition - with no CCTV scoring	241.7	18	14.1	18	89	2.3	1.4	3.0	27.6	No	Low Priority
01100370110036	Condition - with no CCTV scoring	470.4	8	15.4	8	11	1.8	1.7	3.0	27.6	No	Lowest Priority
02202120220031	Condition - with no CCTV scoring	371.1	12	8.5	12	22	1.8	1.7	3.0	27.6	No	Low Priority
03500110350090	Condition - with no CCTV scoring	83.4	8	10.7	8	35	1.8	1.7	3.0	27.6	No	Moderate Priority
03500900350089	Condition - with no CCTV scoring	79	8	10.8	8	35	1.8	1.7	3.0	27.6	No	Moderate Priority
03500890350088	Condition - with no CCTV scoring	182.5	8	10.4	8	35	1.8	1.7	3.0	27.6	No	Moderate Priority
03700500370051	Condition - with no CCTV scoring	134.9	8	9.2	8	37	1.5	2.1	3.0	27.6	No	Low Priority
07201370720136	Condition - with no CCTV scoring	25	8	9.3	8	72	1.5	2.1	3.0	27.6	No	Moderate Priority
03600550360053	Condition - with no CCTV scoring	611.5	8	4.6	8	36	1.4	2.2	3.0	27.6	No	High Priority
03600170360018	Condition - with no CCTV scoring	23.8	8	6.3	8	36	1.4	2.2	3.0	27.6	No	High Priority
03600160360017	Condition - with no CCTV scoring	295.5	8	6.1	8	36	1.4	2.2	3.0	27.6	No	High Priority
04600530460069	Condition - with no CCTV scoring	183.6	8	5.0	8	46	1.4	2.2	3.0	27.6	No	Highest Priority
02200020220003	Condition - with no CCTV scoring	275.8	8	7.2	8	22	1.7	1.8	3.0	27.5	No	Low Priority
06300490630050	Condition - with no CCTV scoring	225.5	10	9.5	10	63	1.8	1.7	3.0	27.5	No	Moderate Priority
02600950260090	Condition - with no CCTV scoring	218.5	8	6.3	8	26	1.7	1.8	3.0	27.5	No	Low Priority
02600240260023	Condition - with no CCTV scoring	227.3	8	6.8	8	26	1.7	1.8	3.0	27.5	No	Low Priority
02602010260169	Condition - with no CCTV scoring	145	8	4.9	8	26	1.4	2.1	3.0	27.5	No	Low Priority
02601150260116	Condition - with no CCTV scoring	259.9	8	5.9	8	26	1.4	2.1	3.0	27.5	No	Low Priority
03600700360071	Condition - with no CCTV scoring	10.4	8	4.6	8	36	1.4	2.1	3.0	27.5	No	High Priority
03701300370128	Condition - with no CCTV scoring	321.6	8	5.3	8	36	1.7	1.8	3.0	27.5	No	High Priority
03701370370135	Condition - with no CCTV scoring	288	8	5.1	8	37	1.7	1.8	3.0	27.5	No	Low Priority
03701390370137	Condition - with no CCTV scoring	502.6	8	5.1	8	37	1.7	1.8	3.0	27.5	No	Low Priority
03800560380054	Condition - with no CCTV scoring	77.1	8	5.4	8	38	1.7	1.8	3.0	27.5	No	Low Priority
03800540380053	Condition - with no CCTV scoring	267.8	8	5.3	8	38	1.7	1.8	3.0	27.5	No	Low Priority
03800500380051	Condition - with no CCTV scoring	268	8	5.2	8	38	1.7	1.8	3.0	27.5	No	Low Priority
03800640380062	Condition - with no CCTV scoring	73.8	8	5.3	8	38	1.7	1.8	3.0	27.5	No	Low Priority
03800620380061	Condition - with no CCTV scoring	339.9	8	5.2	8	38	1.7	1.8	3.0	27.5	No	Low Priority
04300070430005	Condition - with no CCTV scoring	305.7	8	5.8	8	43	1.4	2.1	3.0	27.5	No	Low Priority
04300390430007	Condition - with no CCTV scoring	302.5	8	4.8	8	43	1.4	2.1	3.0	27.5	No	Low Priority
04700520470051	Condition - with no CCTV scoring	328.1	8	5.6	8	47	1.4	2.1	3.0	27.5	No	High Priority
05400580540068	Condition - with no CCTV scoring	565.2	8	4.9	8	54	1.4	2.1	3.0	27.5	No	Moderate Priority
05400620540063	Condition - with no CCTV scoring	339.7	8	5.1	8	54	1.4	2.1	3.0	27.5	No	Moderate Priority
05600830560072	Condition - with no CCTV scoring	504.4	8	4.6	8	56	1.7	1.8	3.0	27.5	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05700610570062	Condition - with no CCTV scoring	159	8	5.3	8	57	1.7	1.8	3.0	27.5	No	Highest Priority
07202450720243	Condition - with no CCTV scoring	259.7	8	8.1	8	72	1.9	1.6	3.0	27.5	No	Moderate Priority
07600380760031	Condition - with no CCTV scoring	495.2	8	4.5	8	76	1.7	1.8	3.0	27.5	No	Highest Priority
04400450440046	Condition - with no CCTV scoring	234.6	8	4.8	8	44	2.0	1.6	3.0	27.5	No	Low Priority
08701210870095	Condition - with no CCTV scoring	139.9	8	8.4	8	87	2.0	1.6	3.0	27.5	No	Moderate Priority
02602320260230	Condition - with no CCTV scoring	84.3	6	6.0	8	26	1.6	1.9	3.0	27.5	No	Low Priority
02602340260231	Condition - with no CCTV scoring	147.9	6	6.0	8	26	1.6	1.9	3.0	27.5	No	Low Priority
02600070260209	Condition - with no CCTV scoring	17.7	8	5.7	8	26	1.6	1.9	3.0	27.5	No	Low Priority
02600080260007	Condition - with no CCTV scoring	196.1	8	5.6	8	26	1.6	1.9	3.0	27.5	No	Low Priority
03800180380139	Condition - with no CCTV scoring	344.7	8	5.0	8	38	1.6	1.9	3.0	27.5	No	Low Priority
04502700550005	Condition - with no CCTV scoring	454.3	8	5.3	8	45	1.6	1.9	3.0	27.5	No	High Priority
05500050550017	Condition - with no CCTV scoring	384.2	8	5.2	8	55	1.6	1.9	3.0	27.5	No	High Priority
05501660550162	Condition - with no CCTV scoring	320.9	8	6.2	8	55	1.6	1.9	3.0	27.5	No	High Priority
07500970750094	Condition - with no CCTV scoring	536.4	8	6.3	8	75	1.6	1.9	3.0	27.5	No	Highest Priority
02200460220018	Condition - with no CCTV scoring	163.4	8	10.9	8	22	1.8	1.7	3.0	27.5	No	Low Priority
02200280220027	Condition - with no CCTV scoring	625.7	12	10.8	12	22	1.8	1.7	3.0	27.5	No	Low Priority
09800030980007	Condition - with no CCTV scoring	74.7	8	16.3	8	98	1.8	1.7	3.0	27.5	No	Lowest Priority
05702120570211	Condition - with no CCTV scoring	532	8	5.1	8	57	1.4	2.2	3.0	27.4	No	Highest Priority
06200650620068	Condition - with no CCTV scoring	280.3	8	5.5	8	62	1.4	2.2	3.0	27.4	No	Low Priority
03200010320002	Condition - with no CCTV scoring	316.9	8	9.3	8	32	1.5	2.1	3.0	27.4	No	Lowest Priority
02200730120167	Condition - with no CCTV scoring	21.7	8	8.4	8	12	1.4	2.2	3.0	27.4	No	Lowest Priority
01300460130063	Condition - with no CCTV scoring	248.2	8	11.2	8	13	1.7	1.8	3.0	27.4	No	Lowest Priority
01300630130069	Condition - with no CCTV scoring	77.6	8	13.1	8	13	1.7	1.8	3.0	27.4	No	Lowest Priority
02602660260156	Condition - with no CCTV scoring	299	8	7.9	8	26	1.7	1.8	3.0	27.4	No	Low Priority
03300790330078	Condition - with no CCTV scoring	110.6	8	9.7	8	33	1.7	1.8	3.0	27.4	No	Low Priority
05502410550238	Condition - with no CCTV scoring	413.4	8	5.2	8	55	1.4	2.2	3.0	27.4	No	High Priority
06500210650131	Condition - with no CCTV scoring	340.3	8	4.5	8	65	1.4	2.2	3.0	27.4	No	Moderate Priority
07400220740008	Condition - with no CCTV scoring	279.9	8	8.0	8	74	1.4	2.2	3.0	27.4	No	Highest Priority
07700570770056	Condition - with no CCTV scoring	223.8	8	5.2	8	77	1.4	2.2	3.0	27.4	No	Highest Priority
07700600770059	Condition - with no CCTV scoring	125.2	8	5.0	8	77	1.4	2.2	3.0	27.4	No	Highest Priority
02500340250007	Condition - with no CCTV scoring	350.4	10	9.5	10	25	1.8	1.7	3.0	27.4	No	Lowest Priority
02700140270013	Condition - with no CCTV scoring	292.1	8	11.5	8	27	1.8	1.7	3.0	27.4	No	Moderate Priority
02501610250153	Condition - with no CCTV scoring	249.3	15	7.1	15	25	1.9	1.6	3.0	27.4	No	Lowest Priority
02401120240113	Condition - with no CCTV scoring	349.3	8	6.3	8	24	1.7	1.8	3.0	27.3	No	Lowest Priority
02602290260226	Condition - with no CCTV scoring	227.9	6	6.6	8	26	1.7	1.8	3.0	27.3	No	Low Priority
03600270360026	Condition - with no CCTV scoring	296.3	8	5.5	8	36	1.7	1.8	3.0	27.3	No	High Priority
03600280360027	Condition - with no CCTV scoring	149	8	6.0	8	36	1.7	1.8	3.0	27.3	No	High Priority
04601770460174	Condition - with no CCTV scoring	137.6	21	8.7	21	46	1.7	1.8	3.0	27.3	No	Highest Priority
02501610250008	Condition - with no CCTV scoring	9.2	8	7.1	8	25	1.5	2.0	3.0	27.3	No	Lowest Priority
04700570470058	Condition - with no CCTV scoring	386.6	8	5.2	8	47	1.4	2.1	3.0	27.3	No	High Priority
04700430470044	Condition - with no CCTV scoring	349	8	3.8	8	47	1.4	2.1	3.0	27.3	No	High Priority
04701720470170	Condition - with no CCTV scoring	314.1	8	7.0	8	47	1.4	2.1	3.0	27.3	No	High Priority
04801230480122	Condition - with no CCTV scoring	418.7	8	6.5	8	48	1.4	2.1	3.0	27.3	No	High Priority
07701600770144	Condition - with no CCTV scoring	145	8	5.4	8	77	1.8	1.7	3.0	27.3	No	Highest Priority
08700550870053	Condition - with no CCTV scoring	185	8	6.7	8	87	1.8	1.7	3.0	27.3	No	Moderate Priority
09700950970094	Condition - with no CCTV scoring	50.2	8	6.0	8	97	1.5	2.0	3.0	27.3	No	Lowest Priority
02602150260211	Condition - with no CCTV scoring	300	8	6.1	8	26	1.6	1.9	3.0	27.3	No	Low Priority
03700230370021	Condition - with no CCTV scoring	34.1	8	5.3	8	37	1.6	1.9	3.0	27.3	No	Low Priority
03800120380020	Condition - with no CCTV scoring	247.7	8	5.0	8	38	1.6	1.9	3.0	27.3	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03800280380020	Condition - with no CCTV scoring	404.4	8	5.2	8	38	1.6	1.9	3.0	27.3	No	Low Priority
03800790380077	Condition - with no CCTV scoring	311.5	8	7.3	8	38	1.6	1.9	3.0	27.3	No	Low Priority
04801510480145	Condition - with no CCTV scoring	386.1	8	5.0	8	48	1.6	1.9	3.0	27.3	No	High Priority
05501710550190	Condition - with no CCTV scoring	250.5	8	5.2	8	55	1.6	1.9	3.0	27.3	No	High Priority
07301460730145	Condition - with no CCTV scoring	150.6	8	8.8	8	73	1.5	2.0	3.0	27.3	No	High Priority
02301430230144	Condition - with no CCTV scoring	298.8	8	6.1	8	22	1.6	1.9	3.0	27.3	No	Low Priority
02301330230124	Condition - with no CCTV scoring	196.6	8	10.3	8	23	2.2	1.4	3.0	27.3	No	Lowest Priority
03401310340032	Condition - with no CCTV scoring	177	27	15.0	27	34	2.2	1.4	3.0	27.3	No	Lowest Priority
03501380350102	Condition - with no CCTV scoring	44	8	6.0	8	35	1.6	1.9	3.0	27.3	No	Moderate Priority
08901220890128	Condition - with no CCTV scoring	598.9	8	5.7	8	89	1.6	1.9	3.0	27.3	No	Low Priority
08701260860147	Condition - with no CCTV scoring	65.1	10	7.4	10	86	1.7	1.8	3.0	27.2	No	Highest Priority
03300060330005	Condition - with no CCTV scoring	326.7	15	10.0	15	33	1.8	1.7	3.0	27.2	No	Low Priority
05400420640180	Condition - with no CCTV scoring	350	8	6.6	8	64	1.8	1.7	3.0	27.2	No	Moderate Priority
06500840650256	Condition - with no CCTV scoring	375.8	24	10.5	24	65	1.8	1.7	3.0	27.2	No	Moderate Priority
03600320360033	Condition - with no CCTV scoring	689.6	8	7.1	8	36	1.9	1.6	3.0	27.2	No	High Priority
02300190240114	Condition - with no CCTV scoring	126.7	8	6.2	8	23	1.7	1.8	3.0	27.2	No	Lowest Priority
02300200230019	Condition - with no CCTV scoring	202.5	8	6.8	8	23	1.7	1.8	3.0	27.2	No	Lowest Priority
02601440260137	Condition - with no CCTV scoring	261.6	8	5.6	8	26	1.7	1.8	3.0	27.2	No	Low Priority
02602470260130	Condition - with no CCTV scoring	185.2	8	5.9	8	26	1.7	1.8	3.0	27.2	No	Low Priority
02601730260136	Condition - with no CCTV scoring	90.3	8	5.5	8	26	1.7	1.8	3.0	27.2	No	Low Priority
02601360260130	Condition - with no CCTV scoring	171.6	8	5.7	8	26	1.7	1.8	3.0	27.2	No	Low Priority
03601610360158	Condition - with no CCTV scoring	388.9	8	5.0	8	36	1.7	1.8	3.0	27.2	No	High Priority
03601710360168	Condition - with no CCTV scoring	449.6	8	7.8	8	36	1.7	1.8	3.0	27.2	No	High Priority
03801040380105	Condition - with no CCTV scoring	491.4	8	4.5	8	38	1.7	1.8	3.0	27.2	No	Low Priority
04900020480133	Condition - with no CCTV scoring	424.1	8	6.7	8	48	1.7	1.8	3.0	27.2	No	High Priority
04800880480090	Condition - with no CCTV scoring	243.9	8	5.7	8	48	1.7	1.8	3.0	27.2	No	High Priority
05400890540086	Condition - with no CCTV scoring	243.7	8	7.6	8	54	1.7	1.8	3.0	27.2	No	Moderate Priority
05400860540087	Condition - with no CCTV scoring	144.7	8	7.4	8	54	1.7	1.8	3.0	27.2	No	Moderate Priority
05700910570090	Condition - with no CCTV scoring	349.9	8	5.1	8	57	1.7	1.8	3.0	27.2	No	Highest Priority
05700830570084	Condition - with no CCTV scoring	492.7	8	5.0	8	57	1.7	1.8	3.0	27.2	No	Highest Priority
05700820570083	Condition - with no CCTV scoring	250.1	8	5.8	8	57	1.7	1.8	3.0	27.2	No	Highest Priority
05700380570039	Condition - with no CCTV scoring	501.3	8	4.0	8	57	1.7	1.8	3.0	27.2	No	Highest Priority
02200090220008	Condition - with no CCTV scoring	645.3	10	13.6	10	22	1.8	1.7	3.0	27.2	No	Low Priority
02400130240026	Condition - with no CCTV scoring	42.8	8	7.0	8	24	1.6	1.9	3.0	27.1	No	Lowest Priority
02400250240026	Condition - with no CCTV scoring	171	8	6.9	8	24	1.6	1.9	3.0	27.1	No	Lowest Priority
02600020260003	Condition - with no CCTV scoring	296.1	8	6.8	8	26	1.6	1.9	3.0	27.1	No	Low Priority
03700460370047	Condition - with no CCTV scoring	191.8	8	4.9	8	37	1.6	1.9	3.0	27.1	No	Low Priority
05500140550249	Condition - with no CCTV scoring	336.3	8	5.0	8	55	1.6	1.9	3.0	27.1	No	High Priority
06500740650073	Condition - with no CCTV scoring	576.3	8	3.7	8	65	1.6	1.9	3.0	27.1	No	Moderate Priority
04300090430008	Condition - with no CCTV scoring	409.8	8	5.4	8	43	1.4	2.1	3.0	27.1	No	Low Priority
05300140530019	Condition - with no CCTV scoring	489.7	8	5.2	8	53	1.4	2.1	3.0	27.1	No	Moderate Priority
02400730240072	Condition - with no CCTV scoring	354.3	8	7.8	8	24	1.9	1.6	3.0	27.1	No	Lowest Priority
02400720250161	Condition - with no CCTV scoring	221.6	8	7.4	8	24	1.9	1.6	3.0	27.1	No	Lowest Priority
07202320720239	Condition - with no CCTV scoring	300.6	6	4.7	8	72	1.9	1.6	3.0	27.1	No	Moderate Priority
02301280230129	Condition - with no CCTV scoring	123.4	8	8.5	8	23	1.7	1.8	3.0	27.1	No	Lowest Priority
05300810530084	Condition - with no CCTV scoring	325.8	8	9.7	8	53	1.7	1.8	3.0	27.1	No	Moderate Priority
04500090450010	Condition - with no CCTV scoring	291.4	8	14.7	8	45	1.5	2.1	3.0	27.0	No	High Priority
02200180320023	Condition - with no CCTV scoring	400.3	8	10.4	8	22	1.8	1.7	3.0	27.0	No	Low Priority
02200180220048	Condition - with no CCTV scoring	254.8	8	10.4	8	22	1.8	1.7	3.0	27.0	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02700460270008	Condition - with no CCTV scoring	122.1	8	5.9	8	27	1.7	1.8	3.0	27.0	No	Moderate Priority
03601350360136	Condition - with no CCTV scoring	542	8	6.2	8	36	1.3	2.3	3.0	27.0	No	High Priority
03700290370028	Condition - with no CCTV scoring	396.5	8	5.3	8	37	1.7	1.8	3.0	27.0	No	Low Priority
03801460380093	Condition - with no CCTV scoring	324.7	8	6.0	8	38	1.7	1.8	3.0	27.0	No	Low Priority
03801170380120	Condition - with no CCTV scoring	266.5	8	5.1	8	38	1.7	1.8	3.0	27.0	No	Low Priority
03800970380089	Condition - with no CCTV scoring	258.4	8	6.9	8	38	1.7	1.8	3.0	27.0	No	Low Priority
03801130380117	Condition - with no CCTV scoring	261.2	8	5.1	8	38	1.7	1.8	3.0	27.0	No	Low Priority
03801150380116	Condition - with no CCTV scoring	143.2	8	6.0	8	38	1.7	1.8	3.0	27.0	No	Low Priority
03801120380113	Condition - with no CCTV scoring	198.1	8	5.0	8	38	1.7	1.8	3.0	27.0	No	Low Priority
04502800450279	Condition - with no CCTV scoring	672.3	8	6.2	8	45	1.3	2.3	3.0	27.0	No	High Priority
04701530470152	Condition - with no CCTV scoring	434.7	8	3.8	8	47	1.7	1.8	3.0	27.0	No	High Priority
04701040470102	Condition - with no CCTV scoring	321.7	8	5.5	8	47	1.4	2.2	3.0	27.0	No	High Priority
05501150550120	Condition - with no CCTV scoring	71.8	8	5.5	8	55	1.3	2.3	3.0	27.0	No	High Priority
05702260570225	Condition - with no CCTV scoring	235	8	5.0	8	57	1.4	2.2	3.0	27.0	No	Highest Priority
05700600570061	Condition - with no CCTV scoring	276.6	8	6.9	8	57	1.7	1.8	3.0	27.0	No	Highest Priority
03700510370054	Condition - with no CCTV scoring	193.9	8	5.8	8	37	1.4	2.2	3.0	27.0	No	Low Priority
04601010460102	Condition - with no CCTV scoring	395	8	5.3	8	46	1.4	2.2	3.0	27.0	No	Highest Priority
04601310460121	Condition - with no CCTV scoring	212.4	8	6.1	8	46	1.4	2.2	3.0	27.0	No	Highest Priority
05300660530065	Condition - with no CCTV scoring	439.5	8	5.0	8	53	1.4	2.2	3.0	27.0	No	Moderate Priority
05300850530066	Condition - with no CCTV scoring	452.3	8	5.1	8	53	1.4	2.2	3.0	27.0	No	Moderate Priority
06400210640018	Condition - with no CCTV scoring	379.8	8	4.7	8	64	1.4	2.2	3.0	27.0	No	Moderate Priority
06400310640032	Condition - with no CCTV scoring	306.7	8	3.4	8	64	1.4	2.2	3.0	27.0	No	Moderate Priority
07201220720127	Condition - with no CCTV scoring	260.7	8	5.4	8	72	1.4	2.2	3.0	27.0	No	Moderate Priority
07201600720161	Condition - with no CCTV scoring	154.3	8	6.4	8	72	1.4	2.2	3.0	27.0	No	Moderate Priority
02600610260055	Condition - with no CCTV scoring	661.1	8	4.2	8	26	1.6	1.9	3.0	27.0	No	Low Priority
03600680360069	Condition - with no CCTV scoring	428.3	8	5.3	8	36	1.4	2.1	3.0	26.9	No	High Priority
04800050480003	Condition - with no CCTV scoring	380.8	8	4.5	8	48	1.4	2.1	3.0	26.9	No	High Priority
04800090480014	Condition - with no CCTV scoring	391.2	8	4.8	8	48	1.4	2.1	3.0	26.9	No	High Priority
04800060480005	Condition - with no CCTV scoring	288.4	8	4.4	8	48	1.4	2.1	3.0	26.9	No	High Priority
04800620480019	Condition - with no CCTV scoring	345.5	8	3.3	8	48	1.4	2.1	3.0	26.9	No	High Priority
04800610480062	Condition - with no CCTV scoring	198.7	8	4.5	8	48	1.4	2.1	3.0	26.9	No	High Priority
04800600480059	Condition - with no CCTV scoring	280.9	8	4.9	8	48	1.4	2.1	3.0	26.9	No	High Priority
05300230530024	Condition - with no CCTV scoring	473.5	8	5.1	8	53	1.4	2.1	3.0	26.9	No	Moderate Priority
05300240530014	Condition - with no CCTV scoring	379.3	8	5.1	8	53	1.4	2.1	3.0	26.9	No	Moderate Priority
03601850360070	Condition - with no CCTV scoring	219.5	8	6.0	8	36	1.9	1.6	3.0	26.9	No	High Priority
05401030540104	Condition - with no CCTV scoring	458	8	6.2	8	54	1.9	1.6	3.0	26.9	No	Moderate Priority
07700780770076	Condition - with no CCTV scoring	350	8	4.6	8	77	1.9	1.6	3.0	26.9	No	Highest Priority
09600520960053	Condition - with no CCTV scoring	406.1	8	6.9	8	96	1.9	1.6	3.0	26.9	No	Low Priority
02500800250076	Condition - with no CCTV scoring	263.9	8	4.3	8	25	1.6	1.9	3.0	26.9	No	Lowest Priority
05300840530067	Condition - with no CCTV scoring	189.1	8	6.2	8	53	1.6	1.9	3.0	26.9	No	Moderate Priority
05300800530081	Condition - with no CCTV scoring	419.9	8	5.9	8	53	1.6	1.9	3.0	26.9	No	Moderate Priority
05300940530096	Condition - with no CCTV scoring	303.2	8	5.0	8	53	1.5	2.0	3.0	26.9	No	Moderate Priority
03801080380109	Condition - with no CCTV scoring	243.9	8	9.1	8	38	1.7	1.7	3.0	26.9	No	Low Priority
04900110490009	Condition - with no CCTV scoring	127.7	12	10.4	12	49	1.7	1.7	3.0	26.9	No	Lowest Priority
06601340660133	Condition - with no CCTV scoring	198.2	8	8.9	8	66	1.7	1.7	3.0	26.9	No	Highest Priority
07202440720243	Condition - with no CCTV scoring	227.8	8	8.0	8	72	1.7	1.7	3.0	26.9	No	Moderate Priority
01101550110154	Condition - with no CCTV scoring	287.1	8	7.4	8	11	1.7	1.8	3.0	26.9	No	Lowest Priority
01101540110039	Condition - with no CCTV scoring	89.1	8	6.8	8	11	1.7	1.8	3.0	26.9	No	Lowest Priority
01300690130062	Condition - with no CCTV scoring	140	8	14.2	8	13	1.8	1.7	3.0	26.9	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02200270220025	Condition - with no CCTV scoring	724.7	12	6.8	12	22	1.8	1.7	3.0	26.9	No	Low Priority
02601550260154	Condition - with no CCTV scoring	390.5	8	10.6	8	26	1.8	1.7	3.0	26.9	No	Low Priority
03500910350090	Condition - with no CCTV scoring	223.4	8	8.4	8	35	1.8	1.7	3.0	26.9	No	Moderate Priority
09800250880116	Condition - with no CCTV scoring	440	8	12.3	8	88	1.8	1.7	3.0	26.9	No	Low Priority
02500070250006	Condition - with no CCTV scoring	350	10	7.7	10	25	1.6	1.8	3.0	26.9	No	Lowest Priority
02602050260204	Condition - with no CCTV scoring	318	8	6.2	8	26	1.6	1.8	3.0	26.9	No	Low Priority
02602490260193	Condition - with no CCTV scoring	97	8	7.0	8	26	1.6	1.8	3.0	26.9	No	Low Priority
04400280440027	Condition - with no CCTV scoring	273.9	8	6.5	8	44	1.6	1.8	3.0	26.9	No	Low Priority
05400480540049	Condition - with no CCTV scoring	145.6	8	6.0	8	54	1.6	1.8	3.0	26.9	No	Moderate Priority
05400950540093	Condition - with no CCTV scoring	286.3	8	5.6	8	54	1.6	1.8	3.0	26.9	No	Moderate Priority
05500310550030	Condition - with no CCTV scoring	422.4	8	5.0	8	55	1.6	1.8	3.0	26.9	No	High Priority
07600280760026	Condition - with no CCTV scoring	535.8	8	4.9	8	76	1.6	1.8	3.0	26.9	No	Highest Priority
06501040650105	Condition - with no CCTV scoring	251.7	8	5.0	8	65	1.4	2.2	2.9	26.8	No	Moderate Priority
06501030650104	Condition - with no CCTV scoring	328.6	8	3.8	8	65	1.4	2.2	2.9	26.8	No	Moderate Priority
02500030260014	Condition - with no CCTV scoring	251.7	8	6.3	8	25	1.6	1.9	2.9	26.8	No	Lowest Priority
03800250380027	Condition - with no CCTV scoring	247	8	5.4	8	38	1.6	1.9	2.9	26.8	No	Low Priority
03800270380028	Condition - with no CCTV scoring	295.8	8	5.3	8	38	1.6	1.9	2.9	26.8	No	Low Priority
03800260380012	Condition - with no CCTV scoring	505.1	8	5.0	8	38	1.6	1.9	2.9	26.8	No	Low Priority
03800760380074	Condition - with no CCTV scoring	353.8	8	5.8	8	38	1.6	1.9	2.9	26.8	No	Low Priority
03800110380012	Condition - with no CCTV scoring	44.5	8	7.9	8	38	1.6	1.9	2.9	26.8	No	Low Priority
03800110380013	Condition - with no CCTV scoring	453	8	7.9	8	38	1.6	1.9	2.9	26.8	No	Low Priority
04701340470131	Condition - with no CCTV scoring	410.4	8	6.2	8	47	1.6	1.9	2.9	26.8	No	High Priority
07201770720178	Condition - with no CCTV scoring	265.1	8	5.8	8	72	1.9	1.6	2.9	26.8	No	Moderate Priority
08500310850030	Condition - with no CCTV scoring	854.8	8	4.0	8	85	1.6	1.9	2.9	26.8	No	Lowest Priority
03300090330006	Condition - with no CCTV scoring	557.2	15	13.3	15	33	1.7	1.7	2.9	26.8	No	Low Priority
05300090530008	Condition - with no CCTV scoring	104.3	8	9.7	8	53	1.4	2.1	2.9	26.7	No	Moderate Priority
05402500540275	Condition - with no CCTV scoring	50	8	4.2	8	54	1.4	2.1	2.9	26.7	No	Moderate Priority
05402250540223	Condition - with no CCTV scoring	134.8	8	5.7	8	54	1.4	2.1	2.9	26.7	No	Moderate Priority
05402230540224	Condition - with no CCTV scoring	273	8	5.4	8	54	1.4	2.1	2.9	26.7	No	Moderate Priority
05402280540225	Condition - with no CCTV scoring	560.3	8	5.4	8	54	1.4	2.1	2.9	26.7	No	Moderate Priority
05501780550177	Condition - with no CCTV scoring	179.5	8	5.1	8	55	1.4	2.1	2.9	26.7	No	High Priority
05501770550163	Condition - with no CCTV scoring	266.1	8	3.5	8	55	1.4	2.1	2.9	26.7	No	High Priority
08700330870032	Condition - with no CCTV scoring	46.2	8	87.5	8	87	1.7	1.8	2.9	26.7	No	Moderate Priority
08901120890113	Condition - with no CCTV scoring	346.3	8	8.0	8	89	1.5	2.0	2.9	26.7	No	Low Priority
09701810970179	Condition - with no CCTV scoring	480.1	8	10.8	8	97	1.8	1.7	2.9	26.7	No	Lowest Priority
02601450260137	Condition - with no CCTV scoring	150.7	8	7.5	8	26	1.6	1.8	2.9	26.7	No	Low Priority
02601760260145	Condition - with no CCTV scoring	131.9	8	7.9	8	26	1.6	1.8	2.9	26.7	No	Low Priority
02601330260134	Condition - with no CCTV scoring	129.5	8	6.4	8	26	1.6	1.8	2.9	26.7	No	Low Priority
03300040330005	Condition - with no CCTV scoring	469.7	8	5.2	8	33	1.6	1.8	2.9	26.7	No	Low Priority
03701910370161	Condition - with no CCTV scoring	383.2	8	4.8	8	37	1.6	1.8	2.9	26.7	No	Low Priority
03800580380057	Condition - with no CCTV scoring	331.3	8	4.8	8	38	1.6	1.8	2.9	26.7	No	Low Priority
03800600380058	Condition - with no CCTV scoring	69.5	8	4.1	8	38	1.6	1.8	2.9	26.7	No	Low Priority
03800940380095	Condition - with no CCTV scoring	151	8	6.2	8	38	1.6	1.8	2.9	26.7	No	Low Priority
03801260380127	Condition - with no CCTV scoring	287.1	8	6.7	8	38	1.6	1.8	2.9	26.7	No	Low Priority
03801030380104	Condition - with no CCTV scoring	249.9	8	6.0	8	38	1.6	1.8	2.9	26.7	No	Low Priority
04701540470139	Condition - with no CCTV scoring	243.6	8	6.8	8	47	1.6	1.8	2.9	26.7	No	High Priority
05500670550069	Condition - with no CCTV scoring	351.2	8	7.6	8	55	1.6	1.8	2.9	26.7	No	High Priority
05501830550181	Condition - with no CCTV scoring	196	8	4.7	8	55	1.6	1.8	2.9	26.7	No	High Priority
05700620570068	Condition - with no CCTV scoring	271.9	8	5.4	8	57	1.6	1.8	2.9	26.7	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05700370570053	Condition - with no CCTV scoring	580	8	5.0	8	57	1.6	1.8	2.9	26.7	No	Highest Priority
02401450340083	Condition - with no CCTV scoring	297.2	8	5.1	8	24	1.8	1.6	2.9	26.6	No	Lowest Priority
02400240240025	Condition - with no CCTV scoring	449.9	10	7.0	10	24	1.5	1.9	2.9	26.6	No	Lowest Priority
03701660370165	Condition - with no CCTV scoring	350.2	8	5.0	8	37	1.3	2.2	2.9	26.6	No	Low Priority
03701640370165	Condition - with no CCTV scoring	293.7	8	5.0	8	37	1.3	2.2	2.9	26.6	No	Low Priority
03900590390068	Condition - with no CCTV scoring	257.7	8	7.0	8	39	1.3	2.2	2.9	26.6	No	Low Priority
04401710440135	Condition - with no CCTV scoring	70	8	6.2	8	44	1.5	1.9	2.9	26.6	No	Low Priority
04701440470142	Condition - with no CCTV scoring	237.7	8	6.1	8	47	1.3	2.2	2.9	26.6	No	High Priority
06401590640148	Condition - with no CCTV scoring	209.9	8	5.0	8	64	1.5	1.9	2.9	26.6	No	Moderate Priority
06401580640191	Condition - with no CCTV scoring	167.6	8	4.8	8	64	1.5	1.9	2.9	26.6	No	Moderate Priority
06401460640148	Condition - with no CCTV scoring	362.5	8	5.2	8	64	1.5	1.9	2.9	26.6	No	Moderate Priority
06401480640157	Condition - with no CCTV scoring	63.2	8	5.2	8	64	1.5	1.9	2.9	26.6	No	Moderate Priority
06401570640158	Condition - with no CCTV scoring	354	8	5.2	8	64	1.5	1.9	2.9	26.6	No	Moderate Priority
06501730660010	Condition - with no CCTV scoring	619.7	8	4.9	8	65	1.5	1.9	2.9	26.6	No	Moderate Priority
06800020680005	Condition - with no CCTV scoring	368.2	8	1.8	8	68	1.5	1.9	2.9	26.6	No	Lowest Priority
06800030680002	Condition - with no CCTV scoring	175.4	8	2.1	8	68	1.5	1.9	2.9	26.6	No	Lowest Priority
06800060680001	Condition - with no CCTV scoring	296	8	5.2	8	68	1.5	1.9	2.9	26.6	No	Lowest Priority
07502200750215	Condition - with no CCTV scoring	38.9	8	4.5	8	75	1.5	1.9	2.9	26.6	No	Highest Priority
07500960750094	Condition - with no CCTV scoring	404.9	8	5.2	8	75	1.5	1.9	2.9	26.6	No	Highest Priority
07501150750112	Condition - with no CCTV scoring	144.2	8	3.7	8	75	1.5	1.9	2.9	26.6	No	Highest Priority
07501110750110	Condition - with no CCTV scoring	96.2	8	5.1	8	75	1.5	1.9	2.9	26.6	No	Highest Priority
02700510270052	Condition - with no CCTV scoring	192.1	8	10.5	8	27	1.7	1.7	2.9	26.6	No	Moderate Priority
03600140360015	Condition - with no CCTV scoring	142.6	8	5.5	8	36	1.4	2.2	2.9	26.6	No	High Priority
04601270460128	Condition - with no CCTV scoring	225.9	8	5.1	8	46	1.4	2.2	2.9	26.6	No	Highest Priority
04601260460127	Condition - with no CCTV scoring	73.6	8	4.5	8	46	1.4	2.2	2.9	26.6	No	Highest Priority
02601560260153	Condition - with no CCTV scoring	336.8	8	5.6	8	26	1.7	1.8	2.9	26.6	No	Low Priority
09700650970061	Condition - with no CCTV scoring	312	6	15.0	8	97	1.7	1.8	2.9	26.6	No	Lowest Priority
04702320470035	Condition - with no CCTV scoring	580.9	8	3.2	8	47	1.5	2.0	2.9	26.6	No	High Priority
04702220470220	Condition - with no CCTV scoring	164.2	8	5.3	8	47	1.5	2.0	2.9	26.6	No	High Priority
04702240470222	Condition - with no CCTV scoring	258	8	5.3	8	47	1.5	2.0	2.9	26.6	No	High Priority
04702290470222	Condition - with no CCTV scoring	179.7	8	4.3	8	47	1.5	2.0	2.9	26.6	No	High Priority
06200340620035	Condition - with no CCTV scoring	329	8	7.4	8	62	1.5	2.0	2.9	26.6	No	Low Priority
02400230240113	Condition - with no CCTV scoring	327.7	8	5.5	8	24	1.6	1.8	2.9	26.5	No	Lowest Priority
02600900260091	Condition - with no CCTV scoring	474.1	8	5.3	8	26	1.6	1.8	2.9	26.5	No	Low Priority
02700230270022	Condition - with no CCTV scoring	77	8	7.2	8	27	1.6	1.8	2.9	26.5	No	Moderate Priority
02700240270022	Condition - with no CCTV scoring	202.4	8	6.9	8	27	1.6	1.8	2.9	26.5	No	Moderate Priority
03601530360152	Condition - with no CCTV scoring	165.3	8	6.0	8	36	1.6	1.8	2.9	26.5	No	High Priority
03701000370102	Condition - with no CCTV scoring	289.8	8	5.2	8	37	1.6	1.8	2.9	26.5	No	Low Priority
03801440380115	Condition - with no CCTV scoring	205.1	8	7.3	8	38	1.6	1.8	2.9	26.5	No	Low Priority
03801180380119	Condition - with no CCTV scoring	197.5	8	6.9	8	38	1.6	1.8	2.9	26.5	No	Low Priority
05401710540163	Condition - with no CCTV scoring	354.1	8	5.2	8	54	1.6	1.8	2.9	26.5	No	Moderate Priority
05700570570058	Condition - with no CCTV scoring	294.9	8	5.1	8	57	1.6	1.8	2.9	26.5	No	Highest Priority
07202350720036	Condition - with no CCTV scoring	203	8	13.2	8	72	2.2	1.4	2.9	26.5	No	Moderate Priority
04400580440189	Condition - with no CCTV scoring	456.5	8	6.5	8	44	2.0	1.5	2.9	26.5	No	Low Priority
06402010650186	Condition - with no CCTV scoring	612	8	4.1	8	64	1.9	1.6	2.9	26.5	No	Moderate Priority
02500650260061	Condition - with no CCTV scoring	579.4	8	7.2	8	25	1.5	1.9	2.9	26.4	No	Lowest Priority
02500360250023	Condition - with no CCTV scoring	66.2	8	6.1	8	25	1.5	1.9	2.9	26.4	No	Lowest Priority
02500350250023	Condition - with no CCTV scoring	429.8	8	7.4	8	25	1.5	1.9	2.9	26.4	No	Lowest Priority
02500230250022	Condition - with no CCTV scoring	262.3	8	6.1	8	25	1.5	1.9	2.9	26.4	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02600040260211	Condition - with no CCTV scoring	289.6	8	6.2	8	26	1.5	1.9	2.9	26.4	No	Low Priority
03800440480135	Condition - with no CCTV scoring	379.5	8	7.5	8	38	1.5	1.9	2.9	26.4	No	Low Priority
03800820380084	Condition - with no CCTV scoring	340	8	4.9	8	38	1.5	1.9	2.9	26.4	No	Low Priority
03800860380080	Condition - with no CCTV scoring	333.8	8	5.1	8	38	1.5	1.9	2.9	26.4	No	Low Priority
04600360460032	Condition - with no CCTV scoring	292.4	8	5.7	8	46	1.5	1.9	2.9	26.4	No	Highest Priority
04701300470131	Condition - with no CCTV scoring	327.6	10	7.0	10	47	1.5	1.9	2.9	26.4	No	High Priority
06501780650181	Condition - with no CCTV scoring	535.4	8	5.5	8	65	1.5	1.9	2.9	26.4	No	Moderate Priority
06501760650178	Condition - with no CCTV scoring	339.3	8	5.3	8	65	1.5	1.9	2.9	26.4	No	Moderate Priority
02200030220009	Condition - with no CCTV scoring	97.3	8	7.3	8	22	1.7	1.8	2.9	26.4	No	Low Priority
02301370230135	Condition - with no CCTV scoring	234.1	8	8.5	8	23	1.7	1.8	2.9	26.4	No	Lowest Priority
02501190250121	Condition - with no CCTV scoring	105.5	8	9.5	8	25	1.7	1.8	2.9	26.4	No	Lowest Priority
08901350890097	Condition - with no CCTV scoring	300.6	8	7.4	8	89	1.7	1.8	2.9	26.4	No	Low Priority
02301180230119	Condition - with no CCTV scoring	446.7	8	7.8	8	23	1.6	1.9	2.9	26.4	No	Lowest Priority
08901270890128	Condition - with no CCTV scoring	351.1	8	8.0	8	89	1.6	1.9	2.9	26.4	No	Low Priority
08900790890078	Condition - with no CCTV scoring	419.4	6	6.0	8	89	1.6	1.9	2.9	26.4	No	Low Priority
03500370350036	Condition - with no CCTV scoring	97	8	15.2	8	35	1.8	1.7	2.9	26.4	No	Moderate Priority
05700560570106	Condition - with no CCTV scoring	89.1	8	5.0	8	57	1.8	1.7	2.9	26.4	No	Highest Priority
03300280330029	Condition - with no CCTV scoring	346.2	8	13.1	8	33	2.2	1.4	2.9	26.4	No	Low Priority
06501650650164	Condition - with no CCTV scoring	489.3	8	5.2	8	65	1.4	2.2	2.9	26.4	No	Moderate Priority
06501620650164	Condition - with no CCTV scoring	349.8	8	5.9	8	65	1.4	2.2	2.9	26.4	No	Moderate Priority
06501520650111	Condition - with no CCTV scoring	268.7	8	5.7	8	65	1.4	2.2	2.9	26.4	No	Moderate Priority
06501510650152	Condition - with no CCTV scoring	259.9	8	4.8	8	65	1.4	2.2	2.9	26.4	No	Moderate Priority
05402540540253	Condition - with no CCTV scoring	300	8	3.7	8	54	1.5	2.0	2.9	26.4	No	Moderate Priority
06701170670013	Condition - with no CCTV scoring	172.7	8	10.9	8	67	2.0	1.5	2.9	26.4	No	Highest Priority
02401700240171	Condition - with no CCTV scoring	347	10	7.9	10	24	1.9	1.6	2.9	26.4	No	Lowest Priority
06501100650109	Condition - with no CCTV scoring	343.8	12	6.3	12	65	1.9	1.6	2.9	26.4	No	Moderate Priority
06601240660126	Condition - with no CCTV scoring	287.9	10	7.9	10	66	1.9	1.6	2.9	26.4	No	Highest Priority
02600170260022	Condition - with no CCTV scoring	259.5	8	4.9	8	26	1.6	1.8	2.9	26.4	No	Low Priority
02600160260017	Condition - with no CCTV scoring	341.1	8	5.1	8	26	1.6	1.8	2.9	26.4	No	Low Priority
02700620270060	Condition - with no CCTV scoring	46.7	8	7.7	8	27	1.6	1.8	2.9	26.4	No	Moderate Priority
03800680380066	Condition - with no CCTV scoring	74	8	3.8	8	38	1.6	1.8	2.9	26.4	No	Low Priority
03800660380065	Condition - with no CCTV scoring	334.9	8	5.1	8	38	1.6	1.8	2.9	26.4	No	Low Priority
03800880380087	Condition - with no CCTV scoring	96.9	8	4.5	8	38	1.6	1.8	2.9	26.4	No	Low Priority
03800870380086	Condition - with no CCTV scoring	339.3	8	5.2	8	38	1.6	1.8	2.9	26.4	No	Low Priority
03801110380107	Condition - with no CCTV scoring	298.8	8	6.4	8	38	1.6	1.8	2.9	26.4	No	Low Priority
04701820470183	Condition - with no CCTV scoring	417.9	8	5.1	8	47	1.4	2.1	2.9	26.4	No	High Priority
04800230480016	Condition - with no CCTV scoring	166.3	8	6.3	8	48	1.4	2.1	2.9	26.4	No	High Priority
04801240480123	Condition - with no CCTV scoring	262.8	8	5.3	8	48	1.4	2.1	2.9	26.4	No	High Priority
04800200480022	Condition - with no CCTV scoring	287	8	7.7	8	48	1.4	2.1	2.9	26.4	No	High Priority
04800180480020	Condition - with no CCTV scoring	159.1	8	7.6	8	48	1.4	2.1	2.9	26.4	No	High Priority
04800190480017	Condition - with no CCTV scoring	349.4	8	6.5	8	48	1.4	2.1	2.9	26.4	No	High Priority
04801210480120	Condition - with no CCTV scoring	353.9	8	4.9	8	48	1.4	2.1	2.9	26.4	No	High Priority
05300380530039	Condition - with no CCTV scoring	299.9	8	5.0	8	53	1.4	2.1	2.9	26.4	No	Moderate Priority
05300530530093	Condition - with no CCTV scoring	489.3	8	5.5	8	53	1.4	2.1	2.9	26.4	No	Moderate Priority
06401870540086	Condition - with no CCTV scoring	126.8	8	6.0	8	54	1.6	1.8	2.9	26.4	No	Moderate Priority
05400070540006	Condition - with no CCTV scoring	434.8	8	5.5	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05401550540156	Condition - with no CCTV scoring	365.2	8	5.3	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05401570540185	Condition - with no CCTV scoring	136	8	5.0	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05401140540111	Condition - with no CCTV scoring	260	8	5.2	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05401520540153	Condition - with no CCTV scoring	372.9	8	5.0	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05401110540112	Condition - with no CCTV scoring	128.9	8	5.2	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05401850540186	Condition - with no CCTV scoring	170.9	8	5.0	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05401800540153	Condition - with no CCTV scoring	106.8	8	5.0	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05401190540116	Condition - with no CCTV scoring	487.9	8	4.7	8	54	1.4	2.1	2.9	26.4	No	Moderate Priority
05500590550062	Condition - with no CCTV scoring	197.2	8	9.9	8	55	2.1	1.4	2.9	26.4	No	High Priority
05702320570233	Condition - with no CCTV scoring	436	8	5.1	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05702330570234	Condition - with no CCTV scoring	444	8	5.2	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05701920570193	Condition - with no CCTV scoring	266.3	8	5.3	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05702050570206	Condition - with no CCTV scoring	306	8	5.7	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05701970570194	Condition - with no CCTV scoring	258.6	8	4.8	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05701960570192	Condition - with no CCTV scoring	266.1	8	4.9	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05702190570220	Condition - with no CCTV scoring	324.4	8	5.2	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05702180570219	Condition - with no CCTV scoring	388.7	8	5.8	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05701530570152	Condition - with no CCTV scoring	385.9	8	5.4	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05701520570151	Condition - with no CCTV scoring	370.9	8	5.4	8	57	1.4	2.1	2.9	26.4	No	Highest Priority
05700810570082	Condition - with no CCTV scoring	277.7	8	5.9	8	57	1.6	1.8	2.9	26.4	No	Highest Priority
05700360570037	Condition - with no CCTV scoring	498.4	8	4.0	8	57	1.6	1.8	2.9	26.4	No	Highest Priority
05800390580036	Condition - with no CCTV scoring	432.8	8	5.3	8	58	1.4	2.1	2.9	26.4	No	High Priority
06400850640135	Condition - with no CCTV scoring	440.2	8	5.1	8	64	1.6	1.8	2.9	26.4	No	Moderate Priority
07202180720219	Condition - with no CCTV scoring	385.1	8	10.1	8	72	1.7	1.7	2.9	26.3	No	Moderate Priority
07701250770126	Condition - with no CCTV scoring	203.9	10	11.1	10	77	2.1	1.4	2.9	26.3	No	Highest Priority
02600050260002	Condition - with no CCTV scoring	301.2	8	5.5	8	26	1.5	1.9	2.9	26.3	No	Low Priority
02600060260002	Condition - with no CCTV scoring	302.2	8	4.1	8	26	1.5	1.9	2.9	26.3	No	Low Priority
03601100360106	Condition - with no CCTV scoring	327.9	6	5.5	8	36	1.5	1.9	2.9	26.3	No	High Priority
03800340380030	Condition - with no CCTV scoring	98	8	6.5	8	38	1.5	1.9	2.9	26.3	No	Low Priority
03900540390057	Condition - with no CCTV scoring	361.9	8	6.9	8	39	1.5	1.9	2.9	26.3	No	Low Priority
04602500460178	Condition - with no CCTV scoring	96.2	18	7.0	18	46	1.5	1.9	2.9	26.3	No	Highest Priority
05502220550223	Condition - with no CCTV scoring	336.6	12	7.1	12	55	1.5	1.9	2.9	26.3	No	High Priority
06300310630117	Condition - with no CCTV scoring	420.3	8	5.9	8	63	1.5	1.9	2.9	26.3	No	Moderate Priority
06301230630131	Condition - with no CCTV scoring	101.7	8	5.2	8	63	1.5	1.9	2.9	26.3	No	Moderate Priority
06401920650141	Condition - with no CCTV scoring	339.5	8	4.9	8	64	1.5	1.9	2.9	26.3	No	Moderate Priority
06502120650208	Condition - with no CCTV scoring	350.1	8	5.7	8	65	1.5	1.9	2.9	26.3	No	Moderate Priority
06501920650212	Condition - with no CCTV scoring	351.1	8	5.9	8	65	1.5	1.9	2.9	26.3	No	Moderate Priority
06500810650076	Condition - with no CCTV scoring	49.6	8	6.7	8	65	1.5	1.9	2.9	26.3	No	Moderate Priority
06500760650080	Condition - with no CCTV scoring	319.8	8	6.9	8	65	1.5	1.9	2.9	26.3	No	Moderate Priority
06500800650078	Condition - with no CCTV scoring	112.9	8	6.8	8	65	1.5	1.9	2.9	26.3	No	Moderate Priority
06500780650070	Condition - with no CCTV scoring	243.7	8	7.3	8	65	1.5	1.9	2.9	26.3	No	Moderate Priority
06500790650068	Condition - with no CCTV scoring	241.7	8	5.7	8	65	1.5	1.9	2.9	26.3	No	Moderate Priority
07201550720156	Condition - with no CCTV scoring	279.3	8	5.8	8	72	1.5	1.9	2.9	26.3	No	Moderate Priority
07500880750071	Condition - with no CCTV scoring	902.4	8	5.2	8	75	1.5	1.9	2.9	26.3	No	Highest Priority
02200050220006	Condition - with no CCTV scoring	463.2	10	6.3	10	22	1.7	1.8	2.9	26.3	No	Low Priority
02501350250134	Condition - with no CCTV scoring	59.1	8	8.2	8	25	1.7	1.8	2.9	26.3	No	Lowest Priority
02601980260197	Condition - with no CCTV scoring	262.5	8	6.5	8	26	1.7	1.8	2.9	26.3	No	Low Priority
02601600260159	Condition - with no CCTV scoring	124.7	8	7.2	8	26	1.7	1.8	2.9	26.3	No	Low Priority
02601530260112	Condition - with no CCTV scoring	346.3	8	6.2	8	26	1.7	1.8	2.9	26.3	No	Low Priority
02601500260149	Condition - with no CCTV scoring	428.3	8	7.8	8	26	1.7	1.8	2.9	26.3	No	Low Priority
08900860890087	Condition - with no CCTV scoring	422.9	8	8.1	8	89	1.7	1.8	2.9	26.3	No	Low Priority
08700480870033	Condition - with no CCTV scoring	415.9	8	6.0	8	87	1.6	1.9	2.9	26.3	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02401690240170	Condition - with no CCTV scoring	393.5	10	9.5	10	24	2.0	1.5	2.9	26.3	No	Lowest Priority
C5	Condition - with no CCTV scoring	134.6	6	5.8	8	57	1.9	1.6	2.9	26.2	No	Highest Priority
02600230260008	Condition - with no CCTV scoring	306.7	8	6.5	8	26	1.6	1.8	2.9	26.2	No	Low Priority
03701350370134	Condition - with no CCTV scoring	289.2	8	5.0	8	37	1.6	1.8	2.9	26.2	No	Low Priority
03900440380010	Condition - with no CCTV scoring	330.6	8	9.5	8	38	1.6	1.8	2.9	26.2	No	Low Priority
03800100380011	Condition - with no CCTV scoring	216.7	8	8.9	8	38	1.6	1.8	2.9	26.2	No	Low Priority
04800840480110	Condition - with no CCTV scoring	220.9	8	8.5	8	48	1.6	1.8	2.9	26.2	No	High Priority
06401000640098	Condition - with no CCTV scoring	138.2	8	5.0	8	64	1.6	1.8	2.9	26.2	No	Moderate Priority
04300040430005	Condition - with no CCTV scoring	387.3	8	5.0	8	43	1.4	2.1	2.9	26.2	No	Low Priority
04300080430004	Condition - with no CCTV scoring	474.3	8	5.0	8	43	1.4	2.1	2.9	26.2	No	Low Priority
05702410570135	Condition - with no CCTV scoring	101.7	8	5.1	8	57	1.4	2.1	2.9	26.2	No	Highest Priority
02400310240032	Condition - with no CCTV scoring	256.9	8	15.1	8	24	2.1	1.4	2.9	26.2	No	Lowest Priority
07202280720233	Condition - with no CCTV scoring	176.9	6	20.3	8	72	2.1	1.4	2.9	26.2	No	Moderate Priority
07301200730114	Condition - with no CCTV scoring	254.2	8	10.4	8	73	1.7	1.7	2.9	26.1	No	High Priority
02202090220210	Condition - with no CCTV scoring	87	8	11.5	8	22	1.7	1.7	2.9	26.1	No	Low Priority
02200080220007	Condition - with no CCTV scoring	369.6	10	11.8	10	22	1.7	1.7	2.9	26.1	No	Low Priority
07200060720057	Condition - with no CCTV scoring	217.2	8	8.5	8	72	2.0	1.5	2.9	26.1	No	Moderate Priority
06300780630077	Condition - with no CCTV scoring	78.9	8	6.0	8	63	1.4	2.1	2.9	26.1	No	Moderate Priority
09800270980026	Condition - with no CCTV scoring	30	8	9.1	8	98	1.6	1.8	2.9	26.1	No	Lowest Priority
03702040370205	Condition - with no CCTV scoring	343.4	8	4.5	8	37	1.5	1.9	2.9	26.1	No	Low Priority
03700970370093	Condition - with no CCTV scoring	183.3	8	5.7	8	37	1.5	1.9	2.9	26.1	No	Low Priority
03700920370085	Condition - with no CCTV scoring	286.8	8	5.1	8	37	1.5	1.9	2.9	26.1	No	Low Priority
08801100880111	Condition - with no CCTV scoring	145.5	8	8.0	8	88	1.9	1.6	2.9	26.1	No	Low Priority
02600380260225	Condition - with no CCTV scoring	427.4	8	6.1	8	26	1.6	1.8	2.9	26.0	No	Low Priority
02602250260226	Condition - with no CCTV scoring	72.5	8	6.2	8	26	1.6	1.8	2.9	26.0	No	Low Priority
02602140260215	Condition - with no CCTV scoring	310	8	6.1	8	26	1.6	1.8	2.9	26.0	No	Low Priority
02602280260214	Condition - with no CCTV scoring	302.9	8	6.0	8	26	1.6	1.8	2.9	26.0	No	Low Priority
02602040260187	Condition - with no CCTV scoring	65.9	8	5.6	8	26	1.6	1.8	2.9	26.0	No	Low Priority
02601870260184	Condition - with no CCTV scoring	449.4	8	5.9	8	26	1.6	1.8	2.9	26.0	No	Low Priority
02601840260180	Condition - with no CCTV scoring	224.5	8	3.2	8	26	1.6	1.8	2.9	26.0	No	Low Priority
03600190360017	Condition - with no CCTV scoring	325.3	8	5.5	8	36	1.6	1.8	2.9	26.0	No	High Priority
03600520360051	Condition - with no CCTV scoring	465.4	8	5.5	8	36	1.6	1.8	2.9	26.0	No	High Priority
04401350440133	Condition - with no CCTV scoring	132.9	8	9.2	8	44	1.6	1.8	2.9	26.0	No	Low Priority
04700140470164	Condition - with no CCTV scoring	325.3	8	5.3	8	47	1.3	2.2	2.9	26.0	No	High Priority
04700340470014	Condition - with no CCTV scoring	313	8	4.8	8	47	1.3	2.2	2.9	26.0	No	High Priority
04800170480018	Condition - with no CCTV scoring	257.3	8	8.8	8	48	1.4	2.0	2.9	26.0	No	High Priority
06201110620110	Condition - with no CCTV scoring	145.6	8	5.4	8	62	1.3	2.2	2.9	26.0	No	Low Priority
04502450450239	Condition - with no CCTV scoring	354.1	8	5.3	8	45	1.3	2.2	2.9	26.0	No	High Priority
04601420460143	Condition - with no CCTV scoring	328	8	5.5	8	46	1.3	2.2	2.9	26.0	No	Highest Priority
04601390460131	Condition - with no CCTV scoring	200	8	5.6	8	46	1.3	2.2	2.9	26.0	No	Highest Priority
03601360360050	Condition - with no CCTV scoring	580.2	8	5.4	8	36	1.3	2.3	2.9	26.0	No	High Priority
03601150460227	Condition - with no CCTV scoring	459	8	4.5	8	36	1.3	2.3	2.9	26.0	No	High Priority
03600860360087	Condition - with no CCTV scoring	453.1	8	5.0	8	36	1.3	2.3	2.9	26.0	No	High Priority
03600870360116	Condition - with no CCTV scoring	367.5	8	5.2	8	36	1.3	2.3	2.9	26.0	No	High Priority
04500440450045	Condition - with no CCTV scoring	363.9	8	5.0	8	45	1.3	2.3	2.9	26.0	No	High Priority
05502080550209	Condition - with no CCTV scoring	81	8	5.2	8	55	1.3	2.3	2.9	26.0	No	High Priority
05502110550198	Condition - with no CCTV scoring	80.9	8	5.2	8	55	1.3	2.3	2.9	26.0	No	High Priority
05501980550208	Condition - with no CCTV scoring	25.9	8	5.4	8	55	1.3	2.3	2.9	26.0	No	High Priority
07202360720238	Condition - with no CCTV scoring	240.4	6	8.3	8	72	2.0	1.5	2.9	26.0	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02302620230263	Condition - with no CCTV scoring	76.9	8	16.4	8	23	2.0	1.4	2.9	26.0	No	Lowest Priority
03300500330051	Condition - with no CCTV scoring	593.6	15	8.6	15	33	1.7	1.7	2.9	26.0	No	Low Priority
03300510330009	Condition - with no CCTV scoring	556.8	15	8.2	15	33	1.7	1.7	2.9	26.0	No	Low Priority
04600920460093	Condition - with no CCTV scoring	258.9	10	10.0	10	46	1.7	1.7	2.9	26.0	No	Highest Priority
04701060470107	Condition - with no CCTV scoring	365.1	8	4.5	8	47	1.4	2.1	2.9	26.0	No	High Priority
04701200470007	Condition - with no CCTV scoring	354.8	8	5.2	8	47	1.4	2.1	2.9	26.0	No	High Priority
05701650570166	Condition - with no CCTV scoring	300.2	8	5.0	8	57	1.4	2.1	2.9	26.0	No	Highest Priority
05701780570176	Condition - with no CCTV scoring	27.1	8	5.0	8	57	1.4	2.1	2.9	26.0	No	Highest Priority
06300630630050	Condition - with no CCTV scoring	169.2	10	12.6	10	63	1.7	1.7	2.9	26.0	No	Moderate Priority
02501250250126	Condition - with no CCTV scoring	369.6	8	8.0	8	25	1.7	1.7	2.9	26.0	No	Lowest Priority
02600030260004	Condition - with no CCTV scoring	300.8	8	6.4	8	26	1.5	1.9	2.9	25.9	No	Low Priority
03601340360125	Condition - with no CCTV scoring	406.3	8	5.4	8	36	1.5	1.9	2.9	25.9	No	High Priority
03601060360107	Condition - with no CCTV scoring	335.4	8	6.0	8	36	1.5	1.9	2.9	25.9	No	High Priority
03700280370030	Condition - with no CCTV scoring	406.3	8	5.2	8	37	1.5	1.9	2.9	25.9	No	Low Priority
03700440370043	Condition - with no CCTV scoring	359.5	8	5.4	8	37	1.5	1.9	2.9	25.9	No	Low Priority
03700470370010	Condition - with no CCTV scoring	333.6	8	4.6	8	37	1.5	1.9	2.9	25.9	No	Low Priority
03700490370010	Condition - with no CCTV scoring	311	8	5.3	8	37	1.5	1.9	2.9	25.9	No	Low Priority
03700050370170	Condition - with no CCTV scoring	366.1	8	5.3	8	37	1.5	1.9	2.9	25.9	No	Low Priority
03801420380141	Condition - with no CCTV scoring	316.1	8	6.9	8	38	1.5	1.9	2.9	25.9	No	Low Priority
03800740380077	Condition - with no CCTV scoring	261.7	8	6.4	8	38	1.5	1.9	2.9	25.9	No	Low Priority
04602640460263	Condition - with no CCTV scoring	25.9	8	5.0	8	46	1.5	1.9	2.9	25.9	No	Highest Priority
04701380470137	Condition - with no CCTV scoring	467.3	8	5.3	8	47	1.5	1.9	2.9	25.9	No	High Priority
04701470470134	Condition - with no CCTV scoring	173.4	8	5.0	8	47	1.5	1.9	2.9	25.9	No	High Priority
05501940550273	Condition - with no CCTV scoring	409.2	8	5.4	8	55	1.5	1.9	2.9	25.9	No	High Priority
06200750620073	Condition - with no CCTV scoring	279.7	8	6.3	8	62	1.5	1.9	2.9	25.9	No	Low Priority
02600430260040	Condition - with no CCTV scoring	323.4	8	5.1	8	26	1.5	2.0	2.8	25.9	No	Low Priority
05702200570222	Condition - with no CCTV scoring	277.3	8	5.2	8	57	1.5	2.0	2.8	25.9	No	Highest Priority
02601370260138	Condition - with no CCTV scoring	286.2	8	5.3	8	26	1.6	1.8	2.8	25.9	No	Low Priority
02601310260247	Condition - with no CCTV scoring	255.8	8	6.0	8	26	1.6	1.8	2.8	25.9	No	Low Priority
02601350260133	Condition - with no CCTV scoring	425.9	8	6.0	8	26	1.6	1.8	2.8	25.9	No	Low Priority
02601860260185	Condition - with no CCTV scoring	137.7	8	5.3	8	26	1.6	1.8	2.8	25.9	No	Low Priority
03400800340110	Condition - with no CCTV scoring	449.7	8	7.2	8	34	1.6	1.8	2.8	25.9	No	Lowest Priority
03401100340109	Condition - with no CCTV scoring	392.5	8	7.1	8	34	1.6	1.8	2.8	25.9	No	Lowest Priority
03601720360171	Condition - with no CCTV scoring	337.3	8	6.5	8	36	1.6	1.8	2.8	25.9	No	High Priority
03700550370126	Condition - with no CCTV scoring	71.5	8	5.0	8	37	1.6	1.8	2.8	25.9	No	Low Priority
03701590370130	Condition - with no CCTV scoring	141.3	8	5.0	8	37	1.6	1.8	2.8	25.9	No	Low Priority
03700020370044	Condition - with no CCTV scoring	363.7	8	4.9	8	37	1.6	1.8	2.8	25.9	No	Low Priority
03700090370049	Condition - with no CCTV scoring	331.6	8	5.7	8	37	1.6	1.8	2.8	25.9	No	Low Priority
03700070370009	Condition - with no CCTV scoring	347	8	5.5	8	37	1.6	1.8	2.8	25.9	No	Low Priority
03801330380127	Condition - with no CCTV scoring	460.3	8	6.0	8	38	1.6	1.8	2.8	25.9	No	Low Priority
04701600470157	Condition - with no CCTV scoring	257.9	8	5.3	8	47	1.6	1.8	2.8	25.9	No	High Priority
04701390470138	Condition - with no CCTV scoring	466.8	8	5.1	8	47	1.6	1.8	2.8	25.9	No	High Priority
04701550470154	Condition - with no CCTV scoring	533.3	8	4.0	8	47	1.6	1.8	2.8	25.9	No	High Priority
04800750480071	Condition - with no CCTV scoring	31.1	6	6.0	8	48	1.6	1.8	2.8	25.9	No	High Priority
04800710480068	Condition - with no CCTV scoring	520.4	8	5.5	8	48	1.6	1.8	2.8	25.9	No	High Priority
04900030490002	Condition - with no CCTV scoring	299.2	8	7.1	8	49	1.6	1.8	2.8	25.9	No	Lowest Priority
05700740570075	Condition - with no CCTV scoring	386.8	8	5.2	8	57	1.6	1.8	2.8	25.9	No	Highest Priority
05700650570064	Condition - with no CCTV scoring	142.5	8	3.6	8	57	1.6	1.8	2.8	25.9	No	Highest Priority
05700720570065	Condition - with no CCTV scoring	460.8	8	4.9	8	57	1.6	1.8	2.8	25.9	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05700410570042	Condition - with no CCTV scoring	313.2	8	4.3	8	57	1.6	1.8	2.8	25.9	No	Highest Priority
05700430570042	Condition - with no CCTV scoring	513.3	8	4.5	8	57	1.6	1.8	2.8	25.9	No	Highest Priority
05700420570017	Condition - with no CCTV scoring	582.3	8	4.9	8	57	1.6	1.8	2.8	25.9	No	Highest Priority
06301100630080	Condition - with no CCTV scoring	279.8	8	6.0	8	63	1.6	1.8	2.8	25.9	No	Moderate Priority
06300600630059	Condition - with no CCTV scoring	330.1	12	7.2	12	63	1.6	1.8	2.8	25.9	No	Moderate Priority
07202380720235	Condition - with no CCTV scoring	203.3	6	10.0	8	72	2.0	1.5	2.8	25.9	No	Moderate Priority
01101620110163	Condition - with no CCTV scoring	265.2	8	9.3	8	11	1.7	1.7	2.8	25.8	No	Lowest Priority
02200930220092	Condition - with no CCTV scoring	427.9	8	8.5	8	22	1.7	1.7	2.8	25.8	No	Low Priority
03500750350077	Condition - with no CCTV scoring	121.1	8	10.9	8	35	1.7	1.7	2.8	25.8	No	Moderate Priority
03500770350078	Condition - with no CCTV scoring	240.9	8	10.9	8	35	1.7	1.7	2.8	25.8	No	Moderate Priority
03500760350075	Condition - with no CCTV scoring	93.3	8	10.8	8	35	1.7	1.7	2.8	25.8	No	Moderate Priority
05800880580069	Condition - with no CCTV scoring	332.4	8	7.5	8	58	1.8	1.6	2.8	25.8	No	High Priority
07202410720229	Condition - with no CCTV scoring	489.6	6	6.5	8	72	1.8	1.6	2.8	25.8	No	Moderate Priority
07202340720237	Condition - with no CCTV scoring	191	6	6.1	8	72	1.8	1.6	2.8	25.8	No	Moderate Priority
08801050880098	Condition - with no CCTV scoring	368.5	21	7.3	21	88	1.8	1.6	2.8	25.8	No	Low Priority
01101560110155	Condition - with no CCTV scoring	344.4	8	6.2	8	11	1.6	1.8	2.8	25.8	No	Lowest Priority
01300660130013	Condition - with no CCTV scoring	189.5	8	8.0	8	13	1.6	1.8	2.8	25.8	No	Lowest Priority
03500930350092	Condition - with no CCTV scoring	358.4	8	7.4	8	35	1.6	1.8	2.8	25.8	No	Moderate Priority
04700620470063	Condition - with no CCTV scoring	373.5	8	5.3	8	47	1.4	2.1	2.8	25.8	No	High Priority
05400750540076	Condition - with no CCTV scoring	102	8	6.7	8	54	1.4	2.1	2.8	25.8	No	Moderate Priority
05402690540267	Condition - with no CCTV scoring	351	8	6.3	8	55	1.4	2.1	2.8	25.8	No	High Priority
04701940470079	Condition - with no CCTV scoring	106	8	8.3	8	47	1.4	2.1	2.8	25.7	No	High Priority
02600250260026	Condition - with no CCTV scoring	303.4	8	5.7	8	26	1.5	2.0	2.8	25.7	No	Low Priority
08601420860143	Condition - with no CCTV scoring	313.7	8	8.0	8	86	2.0	1.5	2.8	25.7	No	Highest Priority
02400120240013	Condition - with no CCTV scoring	96	8	8.5	8	24	1.6	1.8	2.8	25.7	No	Lowest Priority
02401110240112	Condition - with no CCTV scoring	353.3	8	6.0	8	24	1.6	1.8	2.8	25.7	No	Lowest Priority
02601930260204	Condition - with no CCTV scoring	159	8	6.5	8	26	1.6	1.8	2.8	25.7	No	Low Priority
02700280270029	Condition - with no CCTV scoring	118.4	8	6.9	8	27	1.6	1.8	2.8	25.7	No	Moderate Priority
02700290270030	Condition - with no CCTV scoring	177.4	8	6.3	8	27	1.6	1.8	2.8	25.7	No	Moderate Priority
02700170270005	Condition - with no CCTV scoring	65.2	8	7.0	8	27	1.6	1.8	2.8	25.7	No	Moderate Priority
03401090340108	Condition - with no CCTV scoring	389.8	8	7.0	8	34	1.6	1.8	2.8	25.7	No	Lowest Priority
03401080340106	Condition - with no CCTV scoring	427.7	8	7.0	8	34	1.6	1.8	2.8	25.7	No	Lowest Priority
03700990370100	Condition - with no CCTV scoring	466.8	8	5.3	8	37	1.6	1.8	2.8	25.7	No	Low Priority
03801140380144	Condition - with no CCTV scoring	222.1	8	5.1	8	38	1.6	1.8	2.8	25.7	No	Low Priority
03801090380118	Condition - with no CCTV scoring	244.6	8	5.5	8	38	1.6	1.8	2.8	25.7	No	Low Priority
05700510570049	Condition - with no CCTV scoring	376	8	5.4	8	57	1.6	1.8	2.8	25.7	No	Highest Priority
06400900640091	Condition - with no CCTV scoring	112.5	8	4.8	8	64	1.6	1.8	2.8	25.7	No	Moderate Priority
06400900640107	Condition - with no CCTV scoring	204.7	8	4.8	8	64	1.6	1.8	2.8	25.7	No	Moderate Priority
06501850650184	Condition - with no CCTV scoring	86.7	8	6.0	8	65	1.6	1.8	2.8	25.7	No	Moderate Priority
02600960260089	Condition - with no CCTV scoring	403	8	8.9	8	26	1.7	1.7	2.8	25.7	No	Low Priority
02200790220060	Condition - with no CCTV scoring	212.5	21	8.0	21	22	2.1	1.4	2.8	25.7	No	Low Priority
02601460260147	Condition - with no CCTV scoring	134.2	8	8.2	8	26	1.7	1.7	2.8	25.7	No	Low Priority
03500380350037	Condition - with no CCTV scoring	201.7	8	10.7	8	35	1.7	1.7	2.8	25.7	No	Moderate Priority
03500360350039	Condition - with no CCTV scoring	251.3	8	13.4	8	35	1.7	1.7	2.8	25.7	No	Moderate Priority
03500120350010	Condition - with no CCTV scoring	291.1	8	10.4	8	35	1.7	1.7	2.8	25.7	No	Moderate Priority
03500100350009	Condition - with no CCTV scoring	110.3	8	10.8	8	35	1.7	1.7	2.8	25.7	No	Moderate Priority
03500080350009	Condition - with no CCTV scoring	134.5	8	10.4	8	35	1.7	1.7	2.8	25.7	No	Moderate Priority
05602250560185	Condition - with no CCTV scoring	248.6	8	3.4	8	56	1.8	1.6	2.8	25.7	No	Highest Priority
06501310650110	Condition - with no CCTV scoring	341.4	12	6.0	12	65	1.8	1.6	2.8	25.7	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06601230660124	Condition - with no CCTV scoring	29.3	10	6.0	10	66	1.8	1.6	2.8	25.7	No	Highest Priority
07200730720072	Condition - with no CCTV scoring	330.3	8	5.8	8	72	1.8	1.6	2.8	25.7	No	Moderate Priority
07200020720001	Condition - with no CCTV scoring	210.4	8	4.9	8	72	1.8	1.6	2.8	25.7	No	Moderate Priority
03700710470223	Condition - with no CCTV scoring	413.8	8	4.5	8	37	1.4	2.0	2.8	25.7	No	Low Priority
03701090370209	Condition - with no CCTV scoring	399.6	8	4.5	8	37	1.4	2.0	2.8	25.7	No	Low Priority
03702090370071	Condition - with no CCTV scoring	369	8	4.5	8	37	1.4	2.0	2.8	25.7	No	Low Priority
04702230470224	Condition - with no CCTV scoring	45	8	4.7	8	47	1.4	2.0	2.8	25.7	No	High Priority
03400080340010	Condition - with no CCTV scoring	310.5	8	8.2	8	34	1.6	1.8	2.8	25.6	No	Lowest Priority
03500390350040	Condition - with no CCTV scoring	419.6	8	7.9	8	35	1.6	1.8	2.8	25.6	No	Moderate Priority
04701240470112	Condition - with no CCTV scoring	377.1	8	9.1	8	47	1.6	1.8	2.8	25.6	No	High Priority
04701460470193	Condition - with no CCTV scoring	396.4	8	5.5	8	47	1.3	2.2	2.8	25.6	No	High Priority
04701450470144	Condition - with no CCTV scoring	126.4	8	4.9	8	47	1.3	2.2	2.8	25.6	No	High Priority
04701410470193	Condition - with no CCTV scoring	286.8	8	4.7	8	47	1.3	2.2	2.8	25.6	No	High Priority
07301670630069	Condition - with no CCTV scoring	163.8	8	5.1	8	63	1.3	2.2	2.8	25.6	No	Moderate Priority
01200300120288	Condition - with no CCTV scoring	214.1	8	7.9	8	12	1.3	2.3	2.8	25.6	No	Lowest Priority
02600850260084	Condition - with no CCTV scoring	124.2	8	6.1	8	26	1.5	1.9	2.8	25.6	No	Low Priority
02602120360126	Condition - with no CCTV scoring	599.7	8	5.4	8	26	1.5	1.9	2.8	25.6	No	Low Priority
02602100260211	Condition - with no CCTV scoring	528.9	8	3.2	8	26	1.5	1.9	2.8	25.6	No	Low Priority
03700210370020	Condition - with no CCTV scoring	400.8	8	5.2	8	37	1.5	1.9	2.8	25.6	No	Low Priority
03801390380137	Condition - with no CCTV scoring	388	8	5.0	8	38	1.5	1.9	2.8	25.6	No	Low Priority
03801370380138	Condition - with no CCTV scoring	373.7	8	5.0	8	38	1.5	1.9	2.8	25.6	No	Low Priority
03800190380139	Condition - with no CCTV scoring	270.9	8	6.3	8	38	1.5	1.9	2.8	25.6	No	Low Priority
04301020430104	Condition - with no CCTV scoring	380.1	15	6.6	15	43	1.5	1.9	2.8	25.6	No	Low Priority
04701000470103	Condition - with no CCTV scoring	88.4	8	6.1	8	47	1.5	1.9	2.8	25.6	No	High Priority
04700310470028	Condition - with no CCTV scoring	306.1	8	5.3	8	47	1.5	1.9	2.8	25.6	No	High Priority
06501790650176	Condition - with no CCTV scoring	182.4	8	5.5	8	65	1.5	1.9	2.8	25.6	No	Moderate Priority
01100860110043	Condition - with no CCTV scoring	176.6	8	10.2	8	11	2.2	1.3	2.8	25.5	No	Lowest Priority
02700600260092	Condition - with no CCTV scoring	341.1	8	5.0	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02600870260088	Condition - with no CCTV scoring	279.8	8	6.1	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02601380260139	Condition - with no CCTV scoring	382	8	6.2	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02600310260022	Condition - with no CCTV scoring	444.1	8	5.6	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02600290260030	Condition - with no CCTV scoring	274.9	8	5.2	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02600280260029	Condition - with no CCTV scoring	396.5	8	5.1	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02602030260249	Condition - with no CCTV scoring	200.7	8	6.0	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02601850260183	Condition - with no CCTV scoring	294.6	8	6.7	8	26	1.6	1.8	2.8	25.5	No	Low Priority
02700040270061	Condition - with no CCTV scoring	300.6	8	5.6	8	27	1.6	1.8	2.8	25.5	No	Moderate Priority
03800850380083	Condition - with no CCTV scoring	70	8	4.9	8	38	1.6	1.8	2.8	25.5	No	Low Priority
03800830380082	Condition - with no CCTV scoring	339.2	8	5.5	8	38	1.6	1.8	2.8	25.5	No	Low Priority
05501270550126	Condition - with no CCTV scoring	422	8	6.0	8	55	1.6	1.8	2.8	25.5	No	High Priority
05700850570086	Condition - with no CCTV scoring	516.5	8	4.7	8	57	1.6	1.8	2.8	25.5	No	Highest Priority
05700840570085	Condition - with no CCTV scoring	17.3	8	3.8	8	57	1.6	1.8	2.8	25.5	No	Highest Priority
07200570720012	Condition - with no CCTV scoring	127.5	8	10.8	8	72	2.1	1.4	2.8	25.5	No	Moderate Priority
09600670960062	Condition - with no CCTV scoring	312.5	12	13.0	12	96	2.1	1.4	2.8	25.5	No	Low Priority
02401180240115	Condition - with no CCTV scoring	457.9	10	6.9	10	24	1.8	1.6	2.8	25.5	No	Lowest Priority
06603090660310	Condition - with no CCTV scoring	489.3	8	7.9	8	66	1.8	1.6	2.8	25.5	No	Highest Priority
01100250110026	Condition - with no CCTV scoring	135.5	10	17.0	10	11	1.7	1.7	2.8	25.5	No	Lowest Priority
01100270110026	Condition - with no CCTV scoring	223.2	15	11.7	15	11	1.7	1.7	2.8	25.5	No	Lowest Priority
01100350110027	Condition - with no CCTV scoring	234.8	15	14.1	15	11	1.7	1.7	2.8	25.5	No	Lowest Priority
03800240380010	Condition - with no CCTV scoring	548.4	8	11.3	8	38	1.7	1.7	2.8	25.5	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
09701790970178	Condition - with no CCTV scoring	617.6	8	10.5	8	97	1.7	1.7	2.8	25.5	No	Lowest Priority
01100410110042	Condition - with no CCTV scoring	105.6	8	8.1	8	11	1.6	1.8	2.8	25.5	No	Lowest Priority
01100280110160	Condition - with no CCTV scoring	33.8	10	8.7	10	11	1.6	1.8	2.8	25.5	No	Lowest Priority
01201820120037	Condition - with no CCTV scoring	292.1	8	8.5	8	12	1.9	1.5	2.8	25.5	No	Lowest Priority
06700130670012	Condition - with no CCTV scoring	10	8	11.8	8	67	1.9	1.5	2.8	25.5	No	Highest Priority
04700230470072	Condition - with no CCTV scoring	347.2	8	5.4	8	47	1.3	2.2	2.8	25.4	No	High Priority
04700720470029	Condition - with no CCTV scoring	57	8	5.3	8	47	1.3	2.2	2.8	25.4	No	High Priority
04700220470023	Condition - with no CCTV scoring	364.5	8	5.5	8	47	1.3	2.2	2.8	25.4	No	High Priority
05502010550202	Condition - with no CCTV scoring	297.7	8	5.4	8	55	1.3	2.2	2.8	25.4	No	High Priority
05800200680010	Condition - with no CCTV scoring	349.4	8	5.6	8	58	1.3	2.2	2.8	25.4	No	High Priority
06501630650162	Condition - with no CCTV scoring	528.7	8	4.5	8	65	1.3	2.2	2.8	25.4	No	Moderate Priority
06501130650112	Condition - with no CCTV scoring	387.8	8	4.5	8	65	1.3	2.2	2.8	25.4	No	Moderate Priority
06501150650113	Condition - with no CCTV scoring	366.8	8	4.8	8	65	1.3	2.2	2.8	25.4	No	Moderate Priority
08801030880104	Condition - with no CCTV scoring	320	21	13.4	21	88	2.1	1.4	2.8	25.4	No	Low Priority
08801040880105	Condition - with no CCTV scoring	375	21	14.0	21	88	2.1	1.4	2.8	25.4	No	Low Priority
03400240340051	Condition - with no CCTV scoring	252.4	8	7.9	8	34	1.5	1.9	2.8	25.4	No	Lowest Priority
02600740360068	Condition - with no CCTV scoring	401.9	8	5.4	8	26	1.3	2.1	2.8	25.4	No	Low Priority
02600010360048	Condition - with no CCTV scoring	293.3	8	6.0	8	26	1.5	1.9	2.8	25.4	No	Low Priority
03601090360107	Condition - with no CCTV scoring	551.6	8	5.0	8	36	1.5	1.9	2.8	25.4	No	High Priority
03601330360127	Condition - with no CCTV scoring	199.5	8	5.2	8	36	1.3	2.1	2.8	25.4	No	High Priority
03601260360127	Condition - with no CCTV scoring	202.1	8	4.2	8	36	1.3	2.1	2.8	25.4	No	High Priority
03800330380034	Condition - with no CCTV scoring	381	8	7.0	8	38	1.5	1.9	2.8	25.4	No	Low Priority
03900570390067	Condition - with no CCTV scoring	172.1	8	5.1	8	39	1.5	1.9	2.8	25.4	No	Low Priority
03900410390042	Condition - with no CCTV scoring	223.6	8	6.1	8	39	1.5	1.9	2.8	25.4	No	Low Priority
04701100470111	Condition - with no CCTV scoring	359.5	8	4.1	8	47	1.3	2.1	2.8	25.4	No	High Priority
04702070470206	Condition - with no CCTV scoring	335.6	8	4.9	8	47	1.3	2.1	2.8	25.4	No	High Priority
04702060470208	Condition - with no CCTV scoring	333.2	8	5.4	8	47	1.3	2.1	2.8	25.4	No	High Priority
04700160470048	Condition - with no CCTV scoring	388.9	8	5.3	8	47	1.3	2.1	2.8	25.4	No	High Priority
04800240480016	Condition - with no CCTV scoring	165.2	8	5.5	8	48	1.3	2.1	2.8	25.4	No	High Priority
04800220480023	Condition - with no CCTV scoring	313.7	8	5.7	8	48	1.3	2.1	2.8	25.4	No	High Priority
04800260480024	Condition - with no CCTV scoring	479.3	8	5.5	8	48	1.3	2.1	2.8	25.4	No	High Priority
04800270480021	Condition - with no CCTV scoring	302.3	8	2.9	8	48	1.3	2.1	2.8	25.4	No	High Priority
04800210480018	Condition - with no CCTV scoring	300	8	5.0	8	48	1.3	2.1	2.8	25.4	No	High Priority
05400850540083	Condition - with no CCTV scoring	367.8	8	4.6	8	54	1.3	2.1	2.8	25.4	No	Moderate Priority
05401910550093	Condition - with no CCTV scoring	83.5	8	4.1	8	54	1.3	2.1	2.8	25.4	No	Moderate Priority
05401200540118	Condition - with no CCTV scoring	232	8	4.9	8	54	1.3	2.1	2.8	25.4	No	Moderate Priority
05502270550228	Condition - with no CCTV scoring	164.6	8	5.5	8	55	1.5	1.9	2.8	25.4	No	High Priority
05502240550227	Condition - with no CCTV scoring	331.7	8	5.5	8	55	1.5	1.9	2.8	25.4	No	High Priority
05502210550222	Condition - with no CCTV scoring	279.7	12	7.2	12	55	1.5	1.9	2.8	25.4	No	High Priority
05702020570203	Condition - with no CCTV scoring	363.1	8	3.6	8	57	1.3	2.1	2.8	25.4	No	Highest Priority
05702030570225	Condition - with no CCTV scoring	372.4	8	4.2	8	57	1.3	2.1	2.8	25.4	No	Highest Priority
05800430580041	Condition - with no CCTV scoring	333	8	5.6	8	58	1.3	2.1	2.8	25.4	No	High Priority
06301290630119	Condition - with no CCTV scoring	87.3	8	4.9	8	63	1.5	1.9	2.8	25.4	No	Moderate Priority
06500510650052	Condition - with no CCTV scoring	353.1	8	5.5	8	65	1.5	1.9	2.8	25.4	No	Moderate Priority
06500500650051	Condition - with no CCTV scoring	323.3	8	5.4	8	65	1.5	1.9	2.8	25.4	No	Moderate Priority
07201430720141	Condition - with no CCTV scoring	282.8	8	5.4	8	72	1.5	1.9	2.8	25.4	No	Moderate Priority
07500990750096	Condition - with no CCTV scoring	359.9	8	5.2	8	75	1.5	1.9	2.8	25.4	No	Highest Priority
07500990750097	Condition - with no CCTV scoring	226.9	8	5.2	8	75	1.5	1.9	2.8	25.4	No	Highest Priority
02601810260177	Condition - with no CCTV scoring	222.2	8	6.7	8	26	1.6	1.8	2.8	25.4	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03701730370171	Condition - with no CCTV scoring	435.1	8	5.0	8	37	1.6	1.8	2.8	25.4	No	Low Priority
03801410380044	Condition - with no CCTV scoring	371	8	8.8	8	38	1.6	1.8	2.8	25.4	No	Low Priority
03801500380097	Condition - with no CCTV scoring	258	8	6.6	8	38	1.6	1.8	2.8	25.4	No	Low Priority
03801280380126	Condition - with no CCTV scoring	211	8	6.5	8	38	1.6	1.8	2.8	25.4	No	Low Priority
03800950380096	Condition - with no CCTV scoring	207.6	8	6.2	8	38	1.6	1.8	2.8	25.4	No	Low Priority
04400520440053	Condition - with no CCTV scoring	64.5	8	6.0	8	44	1.6	1.8	2.8	25.4	No	Low Priority
06501660650147	Condition - with no CCTV scoring	456.1	8	5.1	8	65	1.6	1.8	2.8	25.4	No	Moderate Priority
07201380720120	Condition - with no CCTV scoring	155.9	8	8.1	8	72	1.6	1.8	2.8	25.4	No	Moderate Priority
07202400720046	Condition - with no CCTV scoring	151.4	8	5.9	8	72	1.8	1.6	2.8	25.4	No	Moderate Priority
01100670110037	Condition - with no CCTV scoring	73	8	11.7	8	11	1.7	1.7	2.8	25.4	No	Lowest Priority
08900930890094	Condition - with no CCTV scoring	382.6	8	10.4	8	89	1.7	1.7	2.8	25.4	No	Low Priority
02401130240007	Condition - with no CCTV scoring	446.3	8	8.5	8	24	1.6	1.7	2.8	25.4	No	Lowest Priority
02602260260228	Condition - with no CCTV scoring	76.9	8	9.6	8	26	1.6	1.7	2.8	25.4	No	Low Priority
02700420270021	Condition - with no CCTV scoring	79.5	8	9.1	8	27	1.6	1.7	2.8	25.4	No	Moderate Priority
02200530220077	Condition - with no CCTV scoring	183.8	21	6.7	21	22	1.9	1.5	2.8	25.3	No	Low Priority
02301200230133	Condition - with no CCTV scoring	108.1	8	7.1	8	23	1.9	1.5	2.8	25.3	No	Lowest Priority
05402370540207	Condition - with no CCTV scoring	347.7	8	6.4	8	54	1.6	1.8	2.8	25.3	No	Moderate Priority
01100640110042	Condition - with no CCTV scoring	128.3	8	5.0	8	11	1.5	1.9	2.8	25.2	No	Lowest Priority
01100420110065	Condition - with no CCTV scoring	286.8	8	5.9	8	11	1.5	1.9	2.8	25.2	No	Lowest Priority
02501510350119	Condition - with no CCTV scoring	207.3	8	7.1	8	25	1.5	1.9	2.8	25.2	No	Lowest Priority
03400380340031	Condition - with no CCTV scoring	267.2	8	6.9	8	34	1.5	1.9	2.8	25.2	No	Lowest Priority
04800300480034	Condition - with no CCTV scoring	337	8	7.1	8	48	1.5	1.9	2.8	25.2	No	High Priority
05300760530077	Condition - with no CCTV scoring	393.1	8	6.6	8	53	1.5	1.9	2.8	25.2	No	Moderate Priority
05402940540202	Condition - with no CCTV scoring	161.3	8	6.3	8	54	1.5	1.9	2.8	25.2	No	Moderate Priority
06500170650133	Condition - with no CCTV scoring	413.8	12	6.7	12	65	1.8	1.6	2.8	25.2	No	Moderate Priority
06600400660015	Condition - with no CCTV scoring	456.3	8	6.0	8	66	1.8	1.6	2.8	25.2	No	Highest Priority
09701100970109	Condition - with no CCTV scoring	313	8	8.5	8	97	1.8	1.6	2.8	25.2	No	Lowest Priority
02500590250061	Condition - with no CCTV scoring	35	8	5.6	8	25	1.5	1.9	2.8	25.2	No	Lowest Priority
02200440320029	Condition - with no CCTV scoring	593.6	15	9.1	15	22	1.7	1.7	2.8	25.2	No	Low Priority
02501250250124	Condition - with no CCTV scoring	266.8	8	8.0	8	25	1.7	1.7	2.8	25.2	No	Lowest Priority
02501240250120	Condition - with no CCTV scoring	90.4	8	8.4	8	25	1.7	1.7	2.8	25.2	No	Lowest Priority
02601520260148	Condition - with no CCTV scoring	178.3	8	10.7	8	26	1.7	1.7	2.8	25.2	No	Low Priority
03600020350097	Condition - with no CCTV scoring	257.6	8	9.3	8	35	1.7	1.7	2.8	25.2	No	Moderate Priority
03500790350080	Condition - with no CCTV scoring	272	8	8.0	8	35	1.7	1.7	2.8	25.2	No	Moderate Priority
03601130360046	Condition - with no CCTV scoring	429.3	8	5.4	8	36	1.5	1.8	2.8	25.2	No	High Priority
03701010370102	Condition - with no CCTV scoring	467.1	8	5.1	8	37	1.5	1.8	2.8	25.2	No	Low Priority
05502470550232	Condition - with no CCTV scoring	461.4	8	5.5	8	55	2.0	1.4	2.8	25.2	No	High Priority
05501060550107	Condition - with no CCTV scoring	554.9	8	5.5	8	55	1.5	1.8	2.8	25.2	No	High Priority
06502570660332	Condition - with no CCTV scoring	262.1	8	4.8	8	65	1.5	1.8	2.8	25.2	No	Moderate Priority
06601090660044	Condition - with no CCTV scoring	494.1	8	6.0	8	66	1.5	1.8	2.8	25.2	No	Highest Priority
07400720750189	Condition - with no CCTV scoring	278.7	6	5.8	8	74	1.5	1.8	2.8	25.2	No	Highest Priority
06300500630062	Condition - with no CCTV scoring	152.8	10	9.2	10	63	1.6	1.7	2.8	25.2	No	Moderate Priority
02400200240022	Condition - with no CCTV scoring	395.2	8	7.1	8	24	1.9	1.5	2.8	25.2	No	Lowest Priority
01100620110061	Condition - with no CCTV scoring	347	8	10.9	8	11	1.4	2.1	2.8	25.2	No	Lowest Priority
05702230570133	Condition - with no CCTV scoring	272.8	8	5.0	8	57	1.4	2.1	2.8	25.2	No	Highest Priority
02601120260109	Condition - with no CCTV scoring	356.9	8	7.1	8	26	1.6	1.8	2.8	25.2	No	Low Priority
02602000260182	Condition - with no CCTV scoring	345.4	8	7.5	8	26	1.6	1.8	2.8	25.2	No	Low Priority
02601490260147	Condition - with no CCTV scoring	59.9	8	8.0	8	26	1.6	1.8	2.8	25.2	No	Low Priority
03200460320045	Condition - with no CCTV scoring	192.9	8	7.6	8	32	1.6	1.8	2.8	25.2	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
00100010110068	Condition - with no CCTV scoring	345	8	8.2	8	01	1.4	2.0	2.8	25.1	No	Lowest Priority
00200060010001	Condition - with no CCTV scoring	346.4	8	8.2	8	01	1.4	2.0	2.8	25.1	No	Lowest Priority
04401210440120	Condition - with no CCTV scoring	466.1	8	7.4	8	44	1.8	1.6	2.8	25.1	No	Low Priority
07201990720200	Condition - with no CCTV scoring	143.8	8	6.0	8	72	1.8	1.6	2.8	25.1	No	Moderate Priority
07200250720240	Condition - with no CCTV scoring	285	8	6.6	8	72	1.8	1.6	2.8	25.1	No	Moderate Priority
08901230890124	Condition - with no CCTV scoring	433.2	8	7.4	8	89	1.5	1.9	2.8	25.1	No	Low Priority
02500050250004	Condition - with no CCTV scoring	331.7	8	6.7	8	25	1.5	1.9	2.8	25.1	No	Lowest Priority
03601860360134	Condition - with no CCTV scoring	164.8	8	5.7	8	36	1.5	1.9	2.8	25.1	No	High Priority
03601070360186	Condition - with no CCTV scoring	326.2	8	6.0	8	36	1.5	1.9	2.8	25.1	No	High Priority
03601410360186	Condition - with no CCTV scoring	446.8	8	5.4	8	36	1.5	1.9	2.8	25.1	No	High Priority
03700310370030	Condition - with no CCTV scoring	334.5	10	6.2	10	37	1.5	1.9	2.8	25.1	No	Low Priority
03700430370199	Condition - with no CCTV scoring	273.5	10	6.1	10	37	1.5	1.9	2.8	25.1	No	Low Priority
03800670380063	Condition - with no CCTV scoring	289	8	5.2	8	38	1.5	1.9	2.8	25.1	No	Low Priority
03800800380084	Condition - with no CCTV scoring	288.3	8	5.2	8	38	1.5	1.9	2.8	25.1	No	Low Priority
03800840380067	Condition - with no CCTV scoring	288.1	8	5.1	8	38	1.5	1.9	2.8	25.1	No	Low Priority
03801400380141	Condition - with no CCTV scoring	372.9	8	5.0	8	38	1.5	1.9	2.8	25.1	No	Low Priority
03800910380080	Condition - with no CCTV scoring	287.1	8	5.5	8	38	1.5	1.9	2.8	25.1	No	Low Priority
04602680460269	Condition - with no CCTV scoring	287	8	3.4	8	46	1.5	1.9	2.8	25.1	No	Highest Priority
04701010470102	Condition - with no CCTV scoring	155.3	10	8.0	10	47	1.5	1.9	2.8	25.1	No	High Priority
04900160490007	Condition - with no CCTV scoring	440	8	5.5	8	49	1.5	1.9	2.8	25.1	No	Lowest Priority
05500970550096	Condition - with no CCTV scoring	491	8	5.5	8	55	1.5	1.9	2.8	25.1	No	High Priority
05501960550193	Condition - with no CCTV scoring	469.1	8	5.6	8	55	1.5	1.9	2.8	25.1	No	High Priority
06200910620090	Condition - with no CCTV scoring	265.4	8	5.4	8	62	1.5	1.9	2.8	25.1	No	Low Priority
07201210720120	Condition - with no CCTV scoring	163.1	8	4.0	8	72	1.5	1.9	2.8	25.1	No	Moderate Priority
08700080870006	Condition - with no CCTV scoring	161.7	8	7.0	8	87	1.9	1.5	2.8	25.1	No	Moderate Priority
08801110880112	Condition - with no CCTV scoring	315.1	8	8.6	8	88	1.9	1.5	2.8	25.1	No	Low Priority
08800560880112	Condition - with no CCTV scoring	434.7	12	8.2	12	88	1.9	1.5	2.8	25.1	No	Low Priority
09601120960086	Condition - with no CCTV scoring	458.1	18	9.0	18	96	1.9	1.5	2.8	25.1	No	Low Priority
02602310260230	Condition - with no CCTV scoring	67.7	6	9.3	8	26	1.6	1.7	2.8	25.1	No	Low Priority
02600300260008	Condition - with no CCTV scoring	191.8	8	7.1	8	26	1.5	1.8	2.8	25.1	No	Low Priority
02600320260030	Condition - with no CCTV scoring	216.7	8	6.8	8	26	1.5	1.8	2.8	25.1	No	Low Priority
03701400370141	Condition - with no CCTV scoring	134.9	8	6.6	8	37	1.5	1.8	2.8	25.1	No	Low Priority
03800720380073	Condition - with no CCTV scoring	381.6	8	6.1	8	38	1.5	1.8	2.8	25.1	No	Low Priority
03800890380098	Condition - with no CCTV scoring	294.2	8	5.8	8	38	1.5	1.8	2.8	25.1	No	Low Priority
06401880540089	Condition - with no CCTV scoring	325	8	4.2	8	54	1.5	1.8	2.8	25.1	No	Moderate Priority
05500600550057	Condition - with no CCTV scoring	354.7	8	7.9	8	55	1.5	1.8	2.8	25.1	No	High Priority
05700670570069	Condition - with no CCTV scoring	367.6	8	4.8	8	57	1.5	1.8	2.8	25.1	No	Highest Priority
05700390570054	Condition - with no CCTV scoring	577.2	8	4.6	8	57	1.5	1.8	2.8	25.1	No	Highest Priority
08900720890069	Condition - with no CCTV scoring	327	8	7.4	8	89	1.5	1.8	2.8	25.1	No	Low Priority
09701490970151	Condition - with no CCTV scoring	488.7	8	6.3	8	97	1.5	1.8	2.8	25.1	No	Lowest Priority
04701950470194	Condition - with no CCTV scoring	384.6	8	3.0	8	47	1.3	2.2	2.8	25.0	No	High Priority
04701640470163	Condition - with no CCTV scoring	318.7	8	4.9	8	47	1.3	2.2	2.8	25.0	No	High Priority
02600440260043	Condition - with no CCTV scoring	265.4	8	5.5	8	25	1.4	2.0	2.7	25.0	No	Lowest Priority
02600630260027	Condition - with no CCTV scoring	424.3	8	5.9	8	26	1.4	2.0	2.7	25.0	No	Low Priority
02202140230143	Condition - with no CCTV scoring	446.3	8	6.0	8	22	1.6	1.8	2.7	25.0	No	Low Priority
02200510220052	Condition - with no CCTV scoring	382.7	8	5.3	8	22	1.6	1.8	2.7	25.0	No	Low Priority
02200070220004	Condition - with no CCTV scoring	441.9	10	6.9	10	22	1.6	1.8	2.7	25.0	No	Low Priority
04701500470125	Condition - with no CCTV scoring	271.3	8	7.7	8	47	1.6	1.8	2.7	25.0	No	High Priority
08900710890082	Condition - with no CCTV scoring	211.6	8	8.5	8	89	1.6	1.8	2.7	25.0	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
09800170980005	Condition - with no CCTV scoring	341.9	8	8.5	8	98	1.6	1.8	2.7	25.0	No	Lowest Priority
09800050980001	Condition - with no CCTV scoring	78.5	8	8.9	8	98	1.6	1.8	2.7	25.0	No	Lowest Priority
05500230550021	Condition - with no CCTV scoring	212.2	8	6.0	8	55	1.8	1.6	2.7	25.0	No	High Priority
07202370720239	Condition - with no CCTV scoring	217.2	6	7.2	8	72	1.8	1.6	2.7	25.0	No	Moderate Priority
08601430860135	Condition - with no CCTV scoring	275.1	8	5.8	8	86	1.8	1.6	2.7	25.0	No	Highest Priority
08800420880043	Condition - with no CCTV scoring	389.7	12	6.5	12	88	1.8	1.6	2.7	25.0	No	Low Priority
02400690240073	Condition - with no CCTV scoring	116.6	8	8.1	8	24	1.9	1.5	2.7	24.9	No	Lowest Priority
02501260260146	Condition - with no CCTV scoring	156.8	8	8.5	8	25	1.7	1.7	2.7	24.9	No	Lowest Priority
03500440350012	Condition - with no CCTV scoring	233.6	8	9.2	8	35	1.7	1.7	2.7	24.9	No	Moderate Priority
08700920870088	Condition - with no CCTV scoring	340	8	6.7	8	87	1.7	1.7	2.7	24.9	No	Moderate Priority
01100520110051	Condition - with no CCTV scoring	329.6	8	8.0	8	11	1.5	1.9	2.7	24.9	No	Lowest Priority
02601780260180	Condition - with no CCTV scoring	413.7	8	8.6	8	26	1.6	1.7	2.7	24.9	No	Low Priority
02601830260180	Condition - with no CCTV scoring	44.5	8	8.1	8	26	1.6	1.7	2.7	24.9	No	Low Priority
02601800260173	Condition - with no CCTV scoring	152.8	8	9.8	8	26	1.6	1.7	2.7	24.9	No	Low Priority
04602860460285	Condition - with no CCTV scoring	64.9	21	7.7	21	46	1.6	1.7	2.7	24.9	No	Highest Priority
02400110240012	Condition - with no CCTV scoring	200.2	8	6.9	8	24	1.4	1.9	2.7	24.9	No	Lowest Priority
02700310270029	Condition - with no CCTV scoring	49.2	8	6.0	8	27	1.5	1.8	2.7	24.9	No	Moderate Priority
03600890360088	Condition - with no CCTV scoring	447.5	8	5.1	8	36	1.4	1.9	2.7	24.9	No	High Priority
04401330440132	Condition - with no CCTV scoring	510.8	8	5.4	8	44	1.4	1.9	2.7	24.9	No	Low Priority
04900330490034	Condition - with no CCTV scoring	125	8	6.0	8	49	1.4	1.9	2.7	24.9	No	Lowest Priority
06301160630109	Condition - with no CCTV scoring	223.5	8	7.0	8	63	1.5	1.8	2.7	24.9	No	Moderate Priority
06401910640192	Condition - with no CCTV scoring	695.2	8	4.9	8	64	1.4	1.9	2.7	24.9	No	Moderate Priority
06500200650248	Condition - with no CCTV scoring	450.8	8	5.9	8	65	1.4	1.9	2.7	24.9	No	Moderate Priority
03500460350028	Condition - with no CCTV scoring	181.4	8	8.0	8	35	1.6	1.8	2.7	24.8	No	Moderate Priority
03500430350024	Condition - with no CCTV scoring	183.8	8	8.0	8	35	1.6	1.8	2.7	24.8	No	Moderate Priority
03500240350047	Condition - with no CCTV scoring	361.1	8	7.8	8	35	1.6	1.8	2.7	24.8	No	Moderate Priority
04401850440117	Condition - with no CCTV scoring	263.5	15	15.1	15	44	2.7	1.0	2.7	24.8	No	Low Priority
04701840470182	Condition - with no CCTV scoring	444.6	8	5.0	8	47	1.3	2.1	2.7	24.8	No	High Priority
05402670540296	Condition - with no CCTV scoring	208.4	8	7.8	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05400050540004	Condition - with no CCTV scoring	424.4	8	5.2	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05400040550087	Condition - with no CCTV scoring	422.3	8	5.2	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05402270550176	Condition - with no CCTV scoring	411.7	8	5.0	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05401560540157	Condition - with no CCTV scoring	356.4	8	5.2	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05402530540255	Condition - with no CCTV scoring	335.5	8	3.2	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05401160540114	Condition - with no CCTV scoring	280.4	8	5.2	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05400830540076	Condition - with no CCTV scoring	355	8	5.6	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05401180540116	Condition - with no CCTV scoring	136.5	8	5.3	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05403030540295	Condition - with no CCTV scoring	36.6	8	4.8	8	54	1.3	2.1	2.7	24.8	No	Moderate Priority
05702100570211	Condition - with no CCTV scoring	290.1	8	5.5	8	57	1.3	2.1	2.7	24.8	No	Highest Priority
05702060570224	Condition - with no CCTV scoring	379.2	8	6.0	8	57	1.3	2.1	2.7	24.8	No	Highest Priority
05702210570132	Condition - with no CCTV scoring	241.8	8	4.9	8	57	1.3	2.1	2.7	24.8	No	Highest Priority
05701930570195	Condition - with no CCTV scoring	203.6	8	5.2	8	57	1.3	2.1	2.7	24.8	No	Highest Priority
05701940570193	Condition - with no CCTV scoring	208.6	8	4.8	8	57	1.3	2.1	2.7	24.8	No	Highest Priority
05702140570210	Condition - with no CCTV scoring	277.8	8	5.5	8	57	1.3	2.1	2.7	24.8	No	Highest Priority
05701870570191	Condition - with no CCTV scoring	286.6	8	4.8	8	57	1.3	2.1	2.7	24.8	No	Highest Priority
05800360580037	Condition - with no CCTV scoring	445.2	8	5.6	8	58	1.3	2.1	2.7	24.8	No	High Priority
08901330890131	Condition - with no CCTV scoring	356.7	18	8.3	18	89	1.9	1.5	2.7	24.8	No	Low Priority
02602650260197	Condition - with no CCTV scoring	190.6	8	16.3	8	26	1.7	1.7	2.7	24.8	No	Low Priority
02500210250005	Condition - with no CCTV scoring	342.9	8	15.3	8	25	1.6	1.7	2.7	24.7	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03200670330049	Condition - with no CCTV scoring	623.5	15	9.0	15	32	1.6	1.7	2.7	24.7	No	Lowest Priority
03300490330050	Condition - with no CCTV scoring	598	15	8.7	15	33	1.6	1.7	2.7	24.7	No	Low Priority
03800770380080	Condition - with no CCTV scoring	303.1	8	10.1	8	38	1.6	1.7	2.7	24.7	No	Low Priority
01100400110041	Condition - with no CCTV scoring	130.8	8	8.0	8	11	1.5	1.9	2.7	24.7	No	Lowest Priority
02600840260080	Condition - with no CCTV scoring	103.6	8	4.8	8	26	1.5	1.9	2.7	24.7	No	Low Priority
09700660970065	Condition - with no CCTV scoring	58	6	6.6	8	97	1.5	1.9	2.7	24.7	No	Lowest Priority
02400060340080	Condition - with no CCTV scoring	457.4	8	7.2	8	24	1.5	1.8	2.7	24.7	No	Lowest Priority
02600880260078	Condition - with no CCTV scoring	342.6	8	5.2	8	26	1.5	1.8	2.7	24.7	No	Low Priority
02600190260217	Condition - with no CCTV scoring	301.1	8	6.1	8	26	1.5	1.8	2.7	24.7	No	Low Priority
02602170260215	Condition - with no CCTV scoring	294.4	8	6.4	8	26	1.5	1.8	2.7	24.7	No	Low Priority
02600510260052	Condition - with no CCTV scoring	332	8	6.1	8	26	1.5	1.8	2.7	24.7	No	Low Priority
02600140260017	Condition - with no CCTV scoring	258.3	8	5.8	8	26	1.5	1.8	2.7	24.7	No	Low Priority
03701620370161	Condition - with no CCTV scoring	464.7	8	5.7	8	37	1.5	1.8	2.7	24.7	No	Low Priority
03701190370117	Condition - with no CCTV scoring	291.8	8	4.8	8	37	1.5	1.8	2.7	24.7	No	Low Priority
03701610370119	Condition - with no CCTV scoring	282.9	8	4.8	8	37	1.5	1.8	2.7	24.7	No	Low Priority
03701120370119	Condition - with no CCTV scoring	335.2	8	5.2	8	37	1.5	1.8	2.7	24.7	No	Low Priority
03800310380032	Condition - with no CCTV scoring	300.5	8	5.0	8	38	1.5	1.8	2.7	24.7	No	Low Priority
03800290380031	Condition - with no CCTV scoring	165.6	8	4.6	8	38	1.5	1.8	2.7	24.7	No	Low Priority
04400020440001	Condition - with no CCTV scoring	165.5	8	6.4	8	44	1.5	1.8	2.7	24.7	No	Low Priority
04701620470147	Condition - with no CCTV scoring	219.8	8	4.7	8	47	1.5	1.8	2.7	24.7	No	High Priority
05502530550171	Condition - with no CCTV scoring	599.7	8	5.2	8	55	1.5	1.8	2.7	24.7	No	High Priority
05502290550182	Condition - with no CCTV scoring	140.1	8	4.7	8	55	1.5	1.8	2.7	24.7	No	High Priority
05800820580083	Condition - with no CCTV scoring	427.1	8	6.1	8	58	1.5	1.8	2.7	24.7	No	High Priority
06502140650213	Condition - with no CCTV scoring	24	8	6.4	8	65	1.5	1.8	2.7	24.7	No	Moderate Priority
C6	Condition - with no CCTV scoring	195.6	8	7.2	8	72	1.5	1.8	2.7	24.7	No	Moderate Priority
03200440320042	Condition - with no CCTV scoring	177.6	8	7.2	8	32	1.6	1.8	2.7	24.7	No	Lowest Priority
03500690350070	Condition - with no CCTV scoring	455.8	8	7.2	8	35	1.6	1.8	2.7	24.7	No	Moderate Priority
05402000540202	Condition - with no CCTV scoring	305.6	8	9.3	8	54	1.6	1.8	2.7	24.7	No	Moderate Priority
06601300660131	Condition - with no CCTV scoring	33.7	12	5.0	12	66	1.8	1.6	2.7	24.7	No	Highest Priority
08800200880019	Condition - with no CCTV scoring	124.5	8	7.0	8	88	1.8	1.6	2.7	24.7	No	Low Priority
09600650960066	Condition - with no CCTV scoring	285.3	8	6.2	8	96	1.8	1.6	2.7	24.7	No	Low Priority
03500410350038	Condition - with no CCTV scoring	321.7	8	12.0	8	35	1.6	1.7	2.7	24.6	No	Moderate Priority
03500140350016	Condition - with no CCTV scoring	203.1	8	9.4	8	35	1.6	1.7	2.7	24.6	No	Moderate Priority
03500160350007	Condition - with no CCTV scoring	188.7	8	9.4	8	35	1.6	1.7	2.7	24.6	No	Moderate Priority
05800780580086	Condition - with no CCTV scoring	182.5	8	7.2	8	58	1.7	1.6	2.7	24.6	No	High Priority
03400210340055	Condition - with no CCTV scoring	164.2	8	7.8	8	34	1.5	1.9	2.7	24.6	No	Lowest Priority
06402060640130	Condition - with no CCTV scoring	243.8	8	5.7	8	64	1.5	1.9	2.7	24.6	No	Moderate Priority
02601770260178	Condition - with no CCTV scoring	319.8	8	5.4	8	26	1.5	1.8	2.7	24.6	No	Low Priority
02700320270001	Condition - with no CCTV scoring	94.9	8	6.2	8	27	1.5	1.8	2.7	24.6	No	Moderate Priority
03600500360049	Condition - with no CCTV scoring	620.6	8	5.8	8	36	1.2	2.3	2.7	24.6	No	High Priority
03701480370145	Condition - with no CCTV scoring	490.1	8	6.7	8	37	1.5	1.8	2.7	24.6	No	Low Priority
03800960380150	Condition - with no CCTV scoring	371.9	8	5.9	8	38	1.5	1.8	2.7	24.6	No	Low Priority
03801190380114	Condition - with no CCTV scoring	213.8	8	5.5	8	38	1.5	1.8	2.7	24.6	No	Low Priority
03801300380129	Condition - with no CCTV scoring	161.7	8	5.0	8	38	1.5	1.8	2.7	24.6	No	Low Priority
03801310380129	Condition - with no CCTV scoring	394.4	8	5.0	8	38	1.5	1.8	2.7	24.6	No	Low Priority
03801290380126	Condition - with no CCTV scoring	350.5	8	5.4	8	38	1.5	1.8	2.7	24.6	No	Low Priority
04900050490003	Condition - with no CCTV scoring	334.2	8	7.4	8	39	1.5	1.8	2.7	24.6	No	Low Priority
04800680480070	Condition - with no CCTV scoring	331.1	8	8.7	8	48	1.5	1.8	2.7	24.6	No	High Priority
05301020530103	Condition - with no CCTV scoring	122.9	8	7.1	8	53	1.8	1.5	2.7	24.6	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05700750570076	Condition - with no CCTV scoring	387	8	5.2	8	57	1.5	1.8	2.7	24.6	No	Highest Priority
05700760570051	Condition - with no CCTV scoring	352	8	5.2	8	57	1.5	1.8	2.7	24.6	No	Highest Priority
07301550730151	Condition - with no CCTV scoring	313.2	8	7.2	8	73	1.5	1.8	2.7	24.6	No	High Priority
05502460550245	Condition - with no CCTV scoring	335.8	8	5.0	8	55	1.4	1.9	2.7	24.5	No	High Priority
05502440550246	Condition - with no CCTV scoring	336.6	8	5.0	8	55	1.4	1.9	2.7	24.5	No	High Priority
06200700620069	Condition - with no CCTV scoring	75.3	8	7.6	8	62	1.4	1.9	2.7	24.5	No	Low Priority
06200610620088	Condition - with no CCTV scoring	479.8	8	7.8	8	62	1.4	1.9	2.7	24.5	No	Low Priority
06200880620075	Condition - with no CCTV scoring	276.1	8	7.1	8	62	1.4	1.9	2.7	24.5	No	Low Priority
02601700260143	Condition - with no CCTV scoring	115	8	5.8	8	26	1.5	1.8	2.7	24.5	No	Low Priority
03501410350045	Condition - with no CCTV scoring	411.6	8	7.8	8	35	1.5	1.8	2.7	24.5	No	Moderate Priority
03500400350068	Condition - with no CCTV scoring	340.9	8	7.5	8	35	1.5	1.8	2.7	24.5	No	Moderate Priority
03500920350091	Condition - with no CCTV scoring	225.1	8	7.8	8	35	1.5	1.8	2.7	24.5	No	Moderate Priority
05401480540145	Condition - with no CCTV scoring	277.8	8	5.7	8	54	1.5	1.8	2.7	24.5	No	Moderate Priority
02600270260025	Condition - with no CCTV scoring	293.8	8	5.3	8	26	1.4	2.0	2.7	24.5	No	Low Priority
05702130570220	Condition - with no CCTV scoring	248.3	8	5.4	8	57	1.4	2.0	2.7	24.5	No	Highest Priority
02200480320046	Condition - with no CCTV scoring	230.5	8	8.3	8	22	1.6	1.7	2.7	24.5	No	Low Priority
02601470260111	Condition - with no CCTV scoring	338.2	8	8.8	8	26	1.6	1.7	2.7	24.5	No	Low Priority
05402090540208	Condition - with no CCTV scoring	150	8	10.7	8	54	1.6	1.7	2.7	24.5	No	Moderate Priority
02401500240151	Condition - with no CCTV scoring	147.2	8	12.1	8	24	1.9	1.4	2.7	24.5	No	Lowest Priority
04702300470219	Condition - with no CCTV scoring	207.9	8	6.0	8	47	1.3	2.1	2.7	24.5	No	High Priority
04701090470104	Condition - with no CCTV scoring	327.6	8	5.2	8	47	1.3	2.1	2.7	24.5	No	High Priority
04800570480058	Condition - with no CCTV scoring	428.4	8	5.0	8	48	1.3	2.1	2.7	24.5	No	High Priority
04800250480026	Condition - with no CCTV scoring	313.5	8	5.4	8	48	1.3	2.1	2.7	24.5	No	High Priority
04800590480057	Condition - with no CCTV scoring	145.8	8	5.0	8	48	1.3	2.1	2.7	24.5	No	High Priority
05402590540255	Condition - with no CCTV scoring	304.8	8	4.1	8	54	1.3	2.1	2.7	24.5	No	Moderate Priority
05400600540058	Condition - with no CCTV scoring	105.1	8	4.1	8	54	1.3	2.1	2.7	24.5	No	Moderate Priority
04500190450017	Condition - with no CCTV scoring	457	8	4.9	8	45	1.3	2.2	2.7	24.5	No	High Priority
04502400450239	Condition - with no CCTV scoring	345.1	8	5.3	8	45	1.3	2.2	2.7	24.5	No	High Priority
06400650650010	Condition - with no CCTV scoring	338.3	8	4.5	8	64	1.3	2.2	2.7	24.5	No	Moderate Priority
06400810640080	Condition - with no CCTV scoring	149	8	4.6	8	64	1.3	2.2	2.7	24.5	No	Moderate Priority
05501090550060	Condition - with no CCTV scoring	164.6	8	8.2	8	55	1.6	1.7	2.7	24.4	No	High Priority
06300620630061	Condition - with no CCTV scoring	305.7	10	6.3	10	63	1.6	1.7	2.7	24.4	No	Moderate Priority
07202190730162	Condition - with no CCTV scoring	399.7	8	9.6	8	72	1.6	1.7	2.7	24.4	No	Moderate Priority
02301580230132	Condition - with no CCTV scoring	304.1	8	7.8	8	23	1.9	1.5	2.7	24.4	No	Lowest Priority
02501120250098	Condition - with no CCTV scoring	111.2	8	6.6	8	25	1.9	1.5	2.7	24.4	No	Lowest Priority
04800290480030	Condition - with no CCTV scoring	157.4	8	6.0	8	48	1.5	1.9	2.7	24.4	No	High Priority
06601280660129	Condition - with no CCTV scoring	201.5	10	8.1	10	66	1.9	1.5	2.7	24.4	No	Highest Priority
06601260660127	Condition - with no CCTV scoring	52.8	10	8.1	10	66	1.9	1.5	2.7	24.4	No	Highest Priority
07202300720227	Condition - with no CCTV scoring	271.5	6	4.8	8	72	1.9	1.5	2.7	24.4	No	Moderate Priority
08800520880044	Condition - with no CCTV scoring	512.2	8	8.0	8	88	1.9	1.5	2.7	24.4	No	Low Priority
02600910260092	Condition - with no CCTV scoring	121.3	8	5.1	8	26	1.5	1.8	2.7	24.4	No	Low Priority
02600920260083	Condition - with no CCTV scoring	359.2	8	4.8	8	26	1.5	1.8	2.7	24.4	No	Low Priority
02700550270056	Condition - with no CCTV scoring	86.7	8	5.0	8	27	1.5	1.8	2.7	24.4	No	Moderate Priority
02700540270055	Condition - with no CCTV scoring	113.6	8	5.0	8	27	1.5	1.8	2.7	24.4	No	Moderate Priority
02700530270054	Condition - with no CCTV scoring	151.1	8	5.0	8	27	1.5	1.8	2.7	24.4	No	Moderate Priority
02700610270003	Condition - with no CCTV scoring	300.1	8	4.2	8	27	1.5	1.8	2.7	24.4	No	Moderate Priority
03701900370122	Condition - with no CCTV scoring	317.7	8	5.0	8	37	1.5	1.8	2.7	24.4	No	Low Priority
03800400380099	Condition - with no CCTV scoring	319.9	8	5.9	8	38	1.5	1.8	2.7	24.4	No	Low Priority
03800390380040	Condition - with no CCTV scoring	467	8	5.2	8	38	1.5	1.8	2.7	24.4	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03800320380099	Condition - with no CCTV scoring	311	8	5.3	8	38	1.5	1.8	2.7	24.4	No	Low Priority
03800990380100	Condition - with no CCTV scoring	261	8	5.0	8	38	1.5	1.8	2.7	24.4	No	Low Priority
03800410380039	Condition - with no CCTV scoring	148.1	8	5.0	8	38	1.5	1.8	2.7	24.4	No	Low Priority
03801070380109	Condition - with no CCTV scoring	178.3	8	5.1	8	38	1.5	1.8	2.7	24.4	No	Low Priority
04401600440162	Condition - with no CCTV scoring	199.5	8	6.3	8	44	1.5	1.8	2.7	24.4	No	Low Priority
04401590440160	Condition - with no CCTV scoring	290.4	8	6.4	8	44	1.5	1.8	2.7	24.4	No	Low Priority
04401610440159	Condition - with no CCTV scoring	133.9	8	6.2	8	44	1.5	1.8	2.7	24.4	No	Low Priority
04400390440038	Condition - with no CCTV scoring	420.3	8	6.2	8	44	1.5	1.8	2.7	24.4	No	Low Priority
04801310480132	Condition - with no CCTV scoring	318.1	8	7.0	8	48	1.5	1.8	2.7	24.4	No	High Priority
06500530650090	Condition - with no CCTV scoring	352.3	8	6.5	8	65	1.5	1.8	2.7	24.4	No	Moderate Priority
01100600110052	Condition - with no CCTV scoring	349.9	8	8.5	8	11	1.5	1.8	2.7	24.4	No	Lowest Priority
02601480260111	Condition - with no CCTV scoring	79	8	5.1	8	26	1.5	1.8	2.7	24.4	No	Low Priority
04701490470150	Condition - with no CCTV scoring	254.9	8	8.5	8	47	1.6	1.7	2.7	24.3	No	High Priority
05800790580078	Condition - with no CCTV scoring	148	8	6.0	8	58	1.7	1.6	2.7	24.3	No	High Priority
01201780120145	Condition - with no CCTV scoring	305.5	8	7.9	8	12	1.4	2.0	2.7	24.3	No	Lowest Priority
02401550240154	Condition - with no CCTV scoring	152	10	6.8	10	24	1.8	1.5	2.7	24.3	No	Lowest Priority
02500170250021	Condition - with no CCTV scoring	310.1	8	18.9	8	25	1.6	1.7	2.7	24.3	No	Lowest Priority
03900760390077	Condition - with no CCTV scoring	378.8	8	13.7	8	39	1.6	1.7	2.7	24.3	No	Low Priority
09701330970110	Condition - with no CCTV scoring	202.1	8	11.5	8	97	1.8	1.5	2.7	24.3	No	Lowest Priority
02500850250081	Condition - with no CCTV scoring	106.4	8	7.7	8	25	1.7	1.6	2.7	24.3	No	Lowest Priority
04400760440093	Condition - with no CCTV scoring	392.8	8	6.7	8	44	1.7	1.6	2.7	24.3	No	Low Priority
06602140660213	Condition - with no CCTV scoring	160.8	8	4.9	8	66	1.7	1.6	2.7	24.3	No	Highest Priority
09600660960080	Condition - with no CCTV scoring	4	12	6.6	12	96	1.7	1.6	2.7	24.3	No	Low Priority
04500100450008	Condition - with no CCTV scoring	680	8	9.8	8	45	1.3	2.1	2.7	24.2	No	High Priority
02600970260096	Condition - with no CCTV scoring	234.5	8	7.8	8	26	1.5	1.8	2.7	24.2	No	Low Priority
02601400260141	Condition - with no CCTV scoring	109.7	8	6.4	8	26	1.5	1.8	2.7	24.2	No	Low Priority
02601410260139	Condition - with no CCTV scoring	194.1	8	7.5	8	26	1.5	1.8	2.7	24.2	No	Low Priority
02600220260029	Condition - with no CCTV scoring	259.3	8	5.0	8	26	1.5	1.8	2.7	24.2	No	Low Priority
02600130260014	Condition - with no CCTV scoring	342.2	8	5.0	8	26	1.5	1.8	2.7	24.2	No	Low Priority
03700650370064	Condition - with no CCTV scoring	351.5	8	5.2	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03700660370064	Condition - with no CCTV scoring	71.1	8	4.9	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03700630370064	Condition - with no CCTV scoring	281.3	8	5.0	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03701380370137	Condition - with no CCTV scoring	158.3	8	4.3	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03701340370065	Condition - with no CCTV scoring	343.2	8	5.6	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03701410370139	Condition - with no CCTV scoring	110	8	5.3	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03701710370163	Condition - with no CCTV scoring	503.2	8	5.0	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03701630370164	Condition - with no CCTV scoring	406.9	8	5.0	8	37	1.5	1.8	2.7	24.2	No	Low Priority
03701360370065	Condition - with no CCTV scoring	279.6	8	5.2	8	37	1.5	1.8	2.7	24.2	No	Low Priority
04701570470159	Condition - with no CCTV scoring	90	8	6.4	8	47	1.5	1.8	2.7	24.2	No	High Priority
05501810550180	Condition - with no CCTV scoring	52.1	8	5.1	8	55	1.5	1.8	2.7	24.2	No	High Priority
05700400570018	Condition - with no CCTV scoring	508.3	8	3.8	8	57	1.5	1.8	2.7	24.2	No	Highest Priority
06400290640024	Condition - with no CCTV scoring	341.5	8	4.5	8	64	1.5	1.8	2.7	24.2	No	Moderate Priority
06501050650120	Condition - with no CCTV scoring	348.3	8	6.0	8	65	1.4	1.9	2.7	24.2	No	Moderate Priority
07500350750034	Condition - with no CCTV scoring	386.5	8	5.0	8	75	1.5	1.8	2.7	24.2	No	Highest Priority
02200530230214	Condition - with no CCTV scoring	110.1	8	6.7	8	22	1.5	1.8	2.7	24.2	No	Low Priority
02602180360139	Condition - with no CCTV scoring	414.9	8	5.7	8	26	1.4	1.9	2.7	24.2	No	Low Priority
02602130360133	Condition - with no CCTV scoring	581.2	8	6.0	8	26	1.4	1.9	2.7	24.2	No	Low Priority
03601420360134	Condition - with no CCTV scoring	578.7	8	4.0	8	36	1.4	1.9	2.7	24.2	No	High Priority
03701990370031	Condition - with no CCTV scoring	412	10	5.7	10	37	1.4	1.9	2.7	24.2	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03700270370026	Condition - with no CCTV scoring	356.4	8	5.1	8	37	1.4	1.9	2.7	24.2	No	Low Priority
03700450370043	Condition - with no CCTV scoring	146	8	6.9	8	37	1.4	1.9	2.7	24.2	No	Low Priority
03801380380140	Condition - with no CCTV scoring	374.7	8	5.0	8	38	1.4	1.9	2.7	24.2	No	Low Priority
03800630380059	Condition - with no CCTV scoring	289	8	5.1	8	38	1.4	1.9	2.7	24.2	No	Low Priority
03900670390066	Condition - with no CCTV scoring	482.1	8	5.1	8	39	1.4	1.9	2.7	24.2	No	Low Priority
04502030450204	Condition - with no CCTV scoring	110.2	6	6.0	8	45	1.4	1.9	2.7	24.2	No	High Priority
07201410720140	Condition - with no CCTV scoring	286.9	8	5.9	8	72	1.4	1.9	2.7	24.2	No	Moderate Priority
03500250350024	Condition - with no CCTV scoring	320.1	8	9.9	8	35	1.6	1.7	2.7	24.2	No	Moderate Priority
03500800350140	Condition - with no CCTV scoring	82	8	9.1	8	35	1.6	1.7	2.7	24.2	No	Moderate Priority
07700440770046	Condition - with no CCTV scoring	237.5	8	5.4	8	77	1.6	1.7	2.7	24.2	No	Highest Priority
08900910890088	Condition - with no CCTV scoring	134.8	8	6.1	8	89	1.8	1.5	2.7	24.2	No	Low Priority
02500790250080	Condition - with no CCTV scoring	369	8	5.7	8	25	1.8	1.5	2.7	24.1	No	Lowest Priority
01000030100004	Condition - with no CCTV scoring	315.4	15	8.0	15	10	2.0	1.3	2.7	24.1	No	Lowest Priority
03700150370014	Condition - with no CCTV scoring	380.6	8	8.3	8	37	1.6	1.7	2.7	24.1	No	Low Priority
05702220570223	Condition - with no CCTV scoring	225.6	8	5.0	8	57	1.4	2.0	2.7	24.1	No	Highest Priority
07202000720201	Condition - with no CCTV scoring	390.2	8	5.9	8	72	1.7	1.6	2.7	24.1	No	Moderate Priority
07701690770168	Condition - with no CCTV scoring	152.5	18	4.4	18	77	1.7	1.6	2.7	24.1	No	Highest Priority
07700460770043	Condition - with no CCTV scoring	18.8	8	9.8	8	77	1.7	1.6	2.7	24.1	No	Highest Priority
01201650120161	Condition - with no CCTV scoring	192.6	8	8.6	8	12	1.5	1.8	2.6	24.1	No	Lowest Priority
02600800260081	Condition - with no CCTV scoring	434.2	8	5.0	8	26	1.5	1.8	2.6	24.1	No	Low Priority
02600830260081	Condition - with no CCTV scoring	302.4	8	5.6	8	26	1.5	1.8	2.6	24.1	No	Low Priority
05300540530053	Condition - with no CCTV scoring	240.1	8	6.1	8	53	1.3	2.1	2.6	24.1	No	Moderate Priority
01100530110052	Condition - with no CCTV scoring	189.1	8	5.9	8	11	1.4	1.9	2.6	24.1	No	Lowest Priority
05800330580034	Condition - with no CCTV scoring	218.5	10	9.0	10	58	1.2	2.2	2.6	24.1	No	High Priority
05800340580035	Condition - with no CCTV scoring	250.6	10	8.9	10	58	1.2	2.2	2.6	24.1	No	High Priority
05800350580032	Condition - with no CCTV scoring	266.6	10	8.2	10	58	1.2	2.2	2.6	24.1	No	High Priority
02601820260171	Condition - with no CCTV scoring	280.6	8	6.9	8	26	1.5	1.8	2.6	24.0	No	Low Priority
02601710260170	Condition - with no CCTV scoring	190.5	8	6.6	8	26	1.5	1.8	2.6	24.0	No	Low Priority
05401930540294	Condition - with no CCTV scoring	309.7	8	6.2	8	54	1.5	1.8	2.6	24.0	No	Moderate Priority
05402080540205	Condition - with no CCTV scoring	185.8	8	6.7	8	54	1.5	1.8	2.6	24.0	No	Moderate Priority
05402050540294	Condition - with no CCTV scoring	389.9	8	6.3	8	54	1.5	1.8	2.6	24.0	No	Moderate Priority
05402070540208	Condition - with no CCTV scoring	185.9	8	6.5	8	54	1.5	1.8	2.6	24.0	No	Moderate Priority
05401420540148	Condition - with no CCTV scoring	316.1	8	6.9	8	54	1.5	1.8	2.6	24.0	No	Moderate Priority
03900040390075	Condition - with no CCTV scoring	260	8	5.5	8	39	1.4	1.9	2.6	24.0	No	Low Priority
03900620390063	Condition - with no CCTV scoring	382.2	8	6.4	8	39	1.4	1.9	2.6	24.0	No	Low Priority
04602840460249	Condition - with no CCTV scoring	687.5	8	5.0	8	46	1.4	1.9	2.6	24.0	No	Highest Priority
03200230320024	Condition - with no CCTV scoring	400	8	9.1	8	32	1.6	1.7	2.6	24.0	No	Lowest Priority
03500970350093	Condition - with no CCTV scoring	260.8	8	8.6	8	35	1.6	1.7	2.6	24.0	No	Moderate Priority
03500780350079	Condition - with no CCTV scoring	299.7	8	9.1	8	35	1.6	1.7	2.6	24.0	No	Moderate Priority
03900510390053	Condition - with no CCTV scoring	224	8	5.9	8	39	1.2	2.2	2.6	24.0	No	Low Priority
01202710120178	Condition - with no CCTV scoring	221.8	8	8.7	8	12	1.8	1.5	2.6	24.0	No	Lowest Priority
02400960240097	Condition - with no CCTV scoring	328.5	15	9.4	15	24	1.8	1.5	2.6	24.0	No	Lowest Priority
03300260330023	Condition - with no CCTV scoring	91	8	7.5	8	33	1.8	1.5	2.6	24.0	No	Low Priority
02700020260067	Condition - with no CCTV scoring	376.1	8	8.4	8	26	1.6	1.7	2.6	24.0	No	Low Priority
06603130660154	Condition - with no CCTV scoring	274	8	3.2	8	66	1.7	1.6	2.6	24.0	No	Highest Priority
06603120660322	Condition - with no CCTV scoring	521	8	4.6	8	66	1.7	1.6	2.6	24.0	No	Highest Priority
07201400720139	Condition - with no CCTV scoring	141.2	8	12.0	8	72	1.6	1.7	2.6	24.0	No	Moderate Priority
07200440720025	Condition - with no CCTV scoring	427.7	8	6.5	8	72	1.7	1.6	2.6	24.0	No	Moderate Priority
07200230720025	Condition - with no CCTV scoring	265	8	7.0	8	72	1.7	1.6	2.6	24.0	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02100060210007	Condition - with no CCTV scoring	563.6	18	13.4	18	21	2.0	1.4	2.6	24.0	No	Lowest Priority
02500880250090	Condition - with no CCTV scoring	320.3	8	10.7	8	25	2.0	1.4	2.6	24.0	No	Lowest Priority
03300240330023	Condition - with no CCTV scoring	191.1	8	8.1	8	33	2.0	1.4	2.6	24.0	No	Low Priority
02200680220040	Condition - with no CCTV scoring	225.1	8	8.1	8	22	1.9	1.4	2.6	23.9	No	Low Priority
02501500250148	Condition - with no CCTV scoring	474.8	8	7.6	8	25	1.5	1.8	2.6	23.9	No	Lowest Priority
02500480250047	Condition - with no CCTV scoring	247.5	8	7.5	8	25	1.5	1.8	2.6	23.9	No	Lowest Priority
02500470250035	Condition - with no CCTV scoring	284.8	8	7.6	8	25	1.5	1.8	2.6	23.9	No	Lowest Priority
02500180250019	Condition - with no CCTV scoring	151.7	8	6.8	8	25	1.5	1.8	2.6	23.9	No	Lowest Priority
02500150250016	Condition - with no CCTV scoring	140.3	8	6.2	8	25	1.5	1.8	2.6	23.9	No	Lowest Priority
02602210260219	Condition - with no CCTV scoring	131	8	5.9	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02602200260217	Condition - with no CCTV scoring	295.4	8	5.6	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02602190260220	Condition - with no CCTV scoring	295	8	5.7	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600370260038	Condition - with no CCTV scoring	448.5	8	6.1	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600360260037	Condition - with no CCTV scoring	439.2	8	6.1	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600340260032	Condition - with no CCTV scoring	290.8	8	6.8	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600520260054	Condition - with no CCTV scoring	98.7	8	6.8	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600420260052	Condition - with no CCTV scoring	232.4	8	6.8	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600410260042	Condition - with no CCTV scoring	350.2	8	5.7	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600400260041	Condition - with no CCTV scoring	284	8	5.1	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600480260015	Condition - with no CCTV scoring	307.4	8	5.1	8	26	1.5	1.8	2.6	23.9	No	Low Priority
02600150260016	Condition - with no CCTV scoring	295.9	8	5.1	8	26	1.5	1.8	2.6	23.9	No	Low Priority
03701020370106	Condition - with no CCTV scoring	300.3	8	5.2	8	37	1.5	1.8	2.6	23.9	No	Low Priority
03700720370200	Condition - with no CCTV scoring	296.5	8	7.8	8	37	1.5	1.8	2.6	23.9	No	Low Priority
03800170480131	Condition - with no CCTV scoring	396.6	8	8.0	8	38	1.5	1.8	2.6	23.9	No	Low Priority
04801500480106	Condition - with no CCTV scoring	242.6	8	2.9	8	48	1.5	1.8	2.6	23.9	No	High Priority
04801490480150	Condition - with no CCTV scoring	180.6	8	2.9	8	48	1.5	1.8	2.6	23.9	No	High Priority
04801060480066	Condition - with no CCTV scoring	244.6	8	4.0	8	48	1.5	1.8	2.6	23.9	No	High Priority
04801050480066	Condition - with no CCTV scoring	181.7	8	3.3	8	48	1.5	1.8	2.6	23.9	No	High Priority
04801630480106	Condition - with no CCTV scoring	181.6	8	4.0	8	48	1.5	1.8	2.6	23.9	No	High Priority
05501410550140	Condition - with no CCTV scoring	322.6	8	5.4	8	55	1.5	1.8	2.6	23.9	No	High Priority
05500710550072	Condition - with no CCTV scoring	519.6	8	5.3	8	55	1.5	1.8	2.6	23.9	No	High Priority
05501800550182	Condition - with no CCTV scoring	217.7	8	5.1	8	55	1.5	1.8	2.6	23.9	No	High Priority
05501820550230	Condition - with no CCTV scoring	141.9	8	5.4	8	55	1.5	1.8	2.6	23.9	No	High Priority
06500900650091	Condition - with no CCTV scoring	395.9	8	7.0	8	65	1.5	1.8	2.6	23.9	No	Moderate Priority
06502160650213	Condition - with no CCTV scoring	298	8	3.8	8	65	1.5	1.8	2.6	23.9	No	Moderate Priority
06502150650214	Condition - with no CCTV scoring	295.5	8	5.3	8	65	1.5	1.8	2.6	23.9	No	Moderate Priority
07200660720071	Condition - with no CCTV scoring	260.8	8	4.4	8	72	1.5	1.8	2.6	23.9	No	Moderate Priority
07200710720124	Condition - with no CCTV scoring	102.8	8	2.8	8	72	1.5	1.8	2.6	23.9	No	Moderate Priority
07201290720130	Condition - with no CCTV scoring	266.3	8	5.0	8	72	1.5	1.8	2.6	23.9	No	Moderate Priority
02302730230274	Condition - with no CCTV scoring	91.1	8	9.2	8	23	2.0	1.3	2.6	23.9	No	Lowest Priority
07800730780007	Condition - with no CCTV scoring	128	15	8.0	15	78	2.0	1.3	2.6	23.9	No	Low Priority
01101570110156	Condition - with no CCTV scoring	109.5	8	6.0	8	11	1.5	1.8	2.6	23.9	No	Lowest Priority
01100500110165	Condition - with no CCTV scoring	156.9	8	9.0	8	11	1.5	1.8	2.6	23.9	No	Lowest Priority
02200040220005	Condition - with no CCTV scoring	398.5	10	6.7	10	22	1.5	1.8	2.6	23.9	No	Low Priority
02601970260195	Condition - with no CCTV scoring	173.6	8	6.6	8	26	1.5	1.8	2.6	23.9	No	Low Priority
03300710320067	Condition - with no CCTV scoring	370.5	8	8.5	8	32	1.5	1.8	2.6	23.9	No	Lowest Priority
03300700330071	Condition - with no CCTV scoring	450	8	8.3	8	33	1.5	1.8	2.6	23.9	No	Low Priority
05402950540302	Condition - with no CCTV scoring	74.3	6	5.2	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05403020540296	Condition - with no CCTV scoring	150.2	8	5.9	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05402740540273	Condition - with no CCTV scoring	350.9	8	5.0	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05402730540272	Condition - with no CCTV scoring	165.3	8	5.0	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05402720540217	Condition - with no CCTV scoring	425.1	8	5.7	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05402930540157	Condition - with no CCTV scoring	108.6	8	5.5	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05400560540058	Condition - with no CCTV scoring	152.4	8	7.9	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05400570540056	Condition - with no CCTV scoring	57.7	8	6.8	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05402950540302	Condition - with no CCTV scoring	68.5	8	5.8	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
STN_0090540272	Condition - with no CCTV scoring	124	8	6.0	8	54	1.3	2.1	2.6	23.9	No	Moderate Priority
05702240570214	Condition - with no CCTV scoring	288.8	8	6.5	8	57	1.3	2.1	2.6	23.9	No	Highest Priority
05800410580042	Condition - with no CCTV scoring	448.2	8	5.2	8	58	1.3	2.1	2.6	23.9	No	High Priority
08900780890080	Condition - with no CCTV scoring	119.6	8	6.8	8	88	1.5	1.8	2.6	23.9	No	Low Priority
02400420240068	Condition - with no CCTV scoring	169.8	8	8.7	8	24	1.8	1.5	2.6	23.9	No	Lowest Priority
02400500240069	Condition - with no CCTV scoring	479	8	8.8	8	24	1.8	1.5	2.6	23.9	No	Lowest Priority
08901020880100	Condition - with no CCTV scoring	550	18	10.0	18	88	1.8	1.5	2.6	23.9	No	Low Priority
03500680350069	Condition - with no CCTV scoring	339.6	8	8.6	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
03500350350028	Condition - with no CCTV scoring	339.6	8	11.2	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
03500450350044	Condition - with no CCTV scoring	196.8	8	9.4	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
03500260350027	Condition - with no CCTV scoring	239	8	10.2	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
03500180350013	Condition - with no CCTV scoring	100.4	8	9.1	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
03500170350007	Condition - with no CCTV scoring	382.2	8	8.2	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
03500130350014	Condition - with no CCTV scoring	78.7	8	9.4	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
03500070350008	Condition - with no CCTV scoring	140.9	8	9.8	8	35	1.6	1.7	2.6	23.9	No	Moderate Priority
04801650480140	Condition - with no CCTV scoring	471.9	8	7.1	8	48	1.4	1.9	2.6	23.9	No	High Priority
07200420720043	Condition - with no CCTV scoring	404.2	8	6.5	8	72	1.7	1.6	2.6	23.8	No	Moderate Priority
03700940370201	Condition - with no CCTV scoring	334.8	8	8.2	8	37	1.5	1.7	2.6	23.8	No	Low Priority
03900640390004	Condition - with no CCTV scoring	254.5	8	12.7	8	39	1.5	1.7	2.6	23.8	No	Low Priority
02302440230243	Condition - with no CCTV scoring	86.3	12	7.4	12	23	1.7	1.5	2.6	23.7	No	Lowest Priority
02600670260070	Condition - with no CCTV scoring	203.4	8	5.1	8	26	1.5	1.8	2.6	23.7	No	Low Priority
02602480260067	Condition - with no CCTV scoring	327.7	8	5.7	8	26	1.5	1.8	2.6	23.7	No	Low Priority
02700010270002	Condition - with no CCTV scoring	368.3	8	5.7	8	27	1.5	1.8	2.6	23.7	No	Moderate Priority
03701500370147	Condition - with no CCTV scoring	489.7	8	5.1	8	37	1.5	1.8	2.6	23.7	No	Low Priority
03900730490005	Condition - with no CCTV scoring	52.3	8	7.0	8	39	1.5	1.8	2.6	23.7	No	Low Priority
04800700480065	Condition - with no CCTV scoring	98.9	8	9.2	8	48	1.5	1.8	2.6	23.7	No	High Priority
05700350570034	Condition - with no CCTV scoring	547	8	4.1	8	57	1.5	1.8	2.6	23.7	No	Highest Priority
05700730570074	Condition - with no CCTV scoring	388.5	8	5.3	8	57	1.5	1.8	2.6	23.7	No	Highest Priority
05700440570017	Condition - with no CCTV scoring	393.9	8	3.6	8	57	1.5	1.8	2.6	23.7	No	Highest Priority
05700540570053	Condition - with no CCTV scoring	382.1	8	3.9	8	57	1.5	1.8	2.6	23.7	No	Highest Priority
06200060620005	Condition - with no CCTV scoring	173.9	8	3.8	8	62	1.5	1.8	2.6	23.7	No	Low Priority
03400220340046	Condition - with no CCTV scoring	190.3	8	3.4	8	34	1.4	1.9	2.6	23.7	No	Lowest Priority
03500280350026	Condition - with no CCTV scoring	212.5	8	8.0	8	35	1.5	1.8	2.6	23.7	No	Moderate Priority
04701250470124	Condition - with no CCTV scoring	255	8	6.3	8	47	1.5	1.8	2.6	23.7	No	High Priority
05401450540146	Condition - with no CCTV scoring	30.2	8	5.4	8	54	1.5	1.8	2.6	23.7	No	Moderate Priority
05401920540193	Condition - with no CCTV scoring	435.5	8	6.2	8	54	1.5	1.8	2.6	23.7	No	Moderate Priority
05401950540192	Condition - with no CCTV scoring	330.3	8	6.4	8	54	1.5	1.8	2.6	23.7	No	Moderate Priority
08900890890090	Condition - with no CCTV scoring	294.5	8	8.0	8	89	1.6	1.7	2.6	23.7	No	Low Priority
06600860660085	Condition - with no CCTV scoring	116.3	8	12.1	8	66	1.9	1.4	2.6	23.7	No	Highest Priority
07202290720234	Condition - with no CCTV scoring	200.1	6	11.9	8	72	1.9	1.4	2.6	23.7	No	Moderate Priority
08800350880036	Condition - with no CCTV scoring	267.8	24	10.9	24	88	1.9	1.4	2.6	23.7	No	Low Priority
02500220250021	Condition - with no CCTV scoring	301.4	8	6.4	8	25	1.4	1.9	2.6	23.7	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03600880360060	Condition - with no CCTV scoring	445.4	8	5.2	8	36	1.4	1.9	2.6	23.7	No	High Priority
04401320440131	Condition - with no CCTV scoring	322.1	8	5.2	8	44	1.4	1.9	2.6	23.7	No	Low Priority
04501100450130	Condition - with no CCTV scoring	349	8	5.0	8	45	1.4	1.9	2.6	23.7	No	High Priority
05502450550232	Condition - with no CCTV scoring	329.9	8	5.0	8	55	1.4	1.9	2.6	23.7	No	High Priority
05601110550245	Condition - with no CCTV scoring	486.9	8	5.0	8	55	1.4	1.9	2.6	23.7	No	High Priority
05502120550205	Condition - with no CCTV scoring	250	8	5.5	8	55	1.4	1.9	2.6	23.7	No	High Priority
05502050550206	Condition - with no CCTV scoring	245.3	8	5.4	8	55	1.4	1.9	2.6	23.7	No	High Priority
05600860550224	Condition - with no CCTV scoring	258.4	8	5.5	8	55	1.4	1.9	2.6	23.7	No	High Priority
05502490550244	Condition - with no CCTV scoring	334	8	6.0	8	55	1.4	1.9	2.6	23.7	No	High Priority
05501930550194	Condition - with no CCTV scoring	414.4	8	5.2	8	55	1.4	1.9	2.6	23.7	No	High Priority
06200680620067	Condition - with no CCTV scoring	383.6	8	5.0	8	62	1.4	1.9	2.6	23.7	No	Low Priority
06200720620070	Condition - with no CCTV scoring	310.8	8	5.5	8	62	1.4	1.9	2.6	23.7	No	Low Priority
02601390260097	Condition - with no CCTV scoring	32.5	8	9.9	8	26	1.5	1.7	2.6	23.7	No	Low Priority
03701420370140	Condition - with no CCTV scoring	335	8	6.1	8	37	1.5	1.7	2.6	23.7	No	Low Priority
03801340380133	Condition - with no CCTV scoring	148.8	8	9.3	8	38	1.5	1.7	2.6	23.7	No	Low Priority
06300640630063	Condition - with no CCTV scoring	197.1	8	8.2	8	63	1.5	1.7	2.6	23.7	No	Moderate Priority
06600360660037	Condition - with no CCTV scoring	244	8	7.8	8	66	1.5	1.7	2.6	23.7	No	Highest Priority
02302720230273	Condition - with no CCTV scoring	85.8	8	11.8	8	23	2.0	1.3	2.6	23.7	No	Lowest Priority
02401710240182	Condition - with no CCTV scoring	538.4	8	12.6	8	24	1.9	1.4	2.6	23.6	No	Lowest Priority
02500980250095	Condition - with no CCTV scoring	399.7	8	8.2	8	25	1.9	1.4	2.6	23.6	No	Lowest Priority
03601430360052	Condition - with no CCTV scoring	428.4	8	5.0	8	36	1.4	1.8	2.6	23.6	No	High Priority
03700760370092	Condition - with no CCTV scoring	309.1	8	5.2	8	37	1.4	1.8	2.6	23.6	No	Low Priority
03702010370092	Condition - with no CCTV scoring	393	8	5.0	8	37	1.4	1.8	2.6	23.6	No	Low Priority
03701140370115	Condition - with no CCTV scoring	90.5	8	5.2	8	37	1.4	1.8	2.6	23.6	No	Low Priority
03701150370116	Condition - with no CCTV scoring	295.3	8	5.2	8	37	1.4	1.8	2.6	23.6	No	Low Priority
03700950370201	Condition - with no CCTV scoring	176.7	8	4.7	8	37	1.4	1.8	2.6	23.6	No	Low Priority
03900770390001	Condition - with no CCTV scoring	333.5	8	8.3	8	39	1.4	1.8	2.6	23.6	No	Low Priority
04401520440151	Condition - with no CCTV scoring	345	8	5.2	8	44	1.4	1.8	2.6	23.6	No	Low Priority
04401550440156	Condition - with no CCTV scoring	310.1	8	5.8	8	44	1.4	1.8	2.6	23.6	No	Low Priority
04801330480132	Condition - with no CCTV scoring	423.9	8	6.0	8	48	1.4	1.8	2.6	23.6	No	High Priority
06502520650120	Condition - with no CCTV scoring	247.8	8	5.5	8	65	1.4	1.8	2.6	23.6	No	Moderate Priority
06501220650252	Condition - with no CCTV scoring	251.2	8	5.1	8	65	1.4	1.8	2.6	23.6	No	Moderate Priority
03200280220024	Condition - with no CCTV scoring	181.7	8	11.8	8	22	1.6	1.7	2.6	23.6	No	Low Priority
03200060320005	Condition - with no CCTV scoring	149.1	8	16.5	8	32	1.6	1.7	2.6	23.6	No	Lowest Priority
03200050320007	Condition - with no CCTV scoring	310.8	8	16.3	8	32	1.6	1.7	2.6	23.6	No	Lowest Priority
07401280740043	Condition - with no CCTV scoring	425	8	8.9	8	74	1.6	1.7	2.6	23.6	No	Highest Priority
03200430320045	Condition - with no CCTV scoring	95	8	7.6	8	32	1.5	1.8	2.6	23.6	No	Lowest Priority
04800280480029	Condition - with no CCTV scoring	399.1	8	5.4	8	48	1.4	1.9	2.6	23.6	No	High Priority
05401320540130	Condition - with no CCTV scoring	146.1	8	6.0	8	54	1.4	1.9	2.6	23.6	No	Moderate Priority
09700680970064	Condition - with no CCTV scoring	90	6	5.8	8	97	1.4	1.9	2.6	23.6	No	Lowest Priority
05500740550075	Condition - with no CCTV scoring	741.5	8	5.5	8	55	1.7	1.6	2.6	23.6	No	High Priority
05800220580021	Condition - with no CCTV scoring	346	8	7.7	8	58	1.7	1.6	2.6	23.6	No	High Priority
02602330260231	Condition - with no CCTV scoring	84.3	6	4.8	8	26	1.5	1.7	2.6	23.5	No	Low Priority
02602300260229	Condition - with no CCTV scoring	147.9	6	3.1	8	26	1.5	1.7	2.6	23.5	No	Low Priority
01201720120177	Condition - with no CCTV scoring	323.1	8	7.6	8	12	1.8	1.5	2.6	23.5	No	Lowest Priority
02301100240020	Condition - with no CCTV scoring	341.5	8	5.7	8	23	1.8	1.5	2.6	23.5	No	Lowest Priority
02400210240020	Condition - with no CCTV scoring	312.3	8	6.0	8	24	1.8	1.5	2.6	23.5	No	Lowest Priority
02501230250120	Condition - with no CCTV scoring	408.1	8	7.1	8	25	1.8	1.5	2.6	23.5	No	Lowest Priority
08700010960081	Condition - with no CCTV scoring	318.8	8	5.5	8	96	1.8	1.5	2.6	23.5	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04500170450158	Condition - with no CCTV scoring	321.9	8	5.3	8	45	1.2	2.2	2.6	23.5	No	High Priority
01201920120106	Condition - with no CCTV scoring	210.6	8	8.9	8	12	1.9	1.4	2.6	23.5	No	Lowest Priority
01201050120103	Condition - with no CCTV scoring	324.1	8	8.0	8	12	1.9	1.4	2.6	23.5	No	Lowest Priority
08800930880097	Condition - with no CCTV scoring	589	21	15.4	21	88	1.9	1.4	2.6	23.5	No	Low Priority
01201450120146	Condition - with no CCTV scoring	197.2	8	8.0	8	12	1.3	2.0	2.6	23.4	No	Lowest Priority
02400070240005	Condition - with no CCTV scoring	446.4	8	6.9	8	24	1.4	1.8	2.6	23.4	No	Lowest Priority
02400050240006	Condition - with no CCTV scoring	451.7	8	6.8	8	24	1.4	1.8	2.6	23.4	No	Lowest Priority
02500260250025	Condition - with no CCTV scoring	151.7	8	6.6	8	25	1.4	1.8	2.6	23.4	No	Lowest Priority
02601790260178	Condition - with no CCTV scoring	123.3	8	5.1	8	26	1.4	1.8	2.6	23.4	No	Low Priority
03500420350041	Condition - with no CCTV scoring	284.5	8	11.6	8	35	1.6	1.7	2.6	23.4	No	Moderate Priority
03600970360096	Condition - with no CCTV scoring	188	8	5.8	8	36	1.4	1.8	2.6	23.4	No	High Priority
03701440370145	Condition - with no CCTV scoring	330.7	8	6.6	8	37	1.4	1.8	2.6	23.4	No	Low Priority
03700060370188	Condition - with no CCTV scoring	243.8	8	5.0	8	37	1.4	1.8	2.6	23.4	No	Low Priority
03701690370168	Condition - with no CCTV scoring	263.2	8	5.0	8	37	1.4	1.8	2.6	23.4	No	Low Priority
03701700370169	Condition - with no CCTV scoring	132.5	8	5.1	8	37	1.4	1.8	2.6	23.4	No	Low Priority
03700480370049	Condition - with no CCTV scoring	107.7	8	5.3	8	37	1.4	1.8	2.6	23.4	No	Low Priority
03800480380047	Condition - with no CCTV scoring	95.2	8	3.3	8	38	1.4	1.8	2.6	23.4	No	Low Priority
03800230380132	Condition - with no CCTV scoring	263.1	8	5.0	8	38	1.4	1.8	2.6	23.4	No	Low Priority
03801320380133	Condition - with no CCTV scoring	237.9	8	5.0	8	38	1.4	1.8	2.6	23.4	No	Low Priority
03900320390026	Condition - with no CCTV scoring	252.8	8	5.1	8	39	1.4	1.8	2.6	23.4	No	Low Priority
04601060460092	Condition - with no CCTV scoring	32.4	8	4.8	8	46	1.4	1.8	2.6	23.4	No	Highest Priority
04701590470147	Condition - with no CCTV scoring	301.7	8	5.2	8	47	1.4	1.8	2.6	23.4	No	High Priority
04701580470157	Condition - with no CCTV scoring	229.2	8	5.5	8	47	1.4	1.8	2.6	23.4	No	High Priority
04701560470157	Condition - with no CCTV scoring	256.8	8	5.7	8	47	1.4	1.8	2.6	23.4	No	High Priority
04800730480069	Condition - with no CCTV scoring	525.2	8	6.2	8	48	1.4	1.8	2.6	23.4	No	High Priority
05501920550171	Condition - with no CCTV scoring	270.3	8	5.1	8	55	1.4	1.8	2.6	23.4	No	High Priority
05700640570067	Condition - with no CCTV scoring	346.3	8	4.7	8	57	1.4	1.8	2.6	23.4	No	Highest Priority
05700680570066	Condition - with no CCTV scoring	439	8	4.2	8	57	1.4	1.8	2.6	23.4	No	Highest Priority
05700660570064	Condition - with no CCTV scoring	39.3	8	4.3	8	57	1.4	1.8	2.6	23.4	No	Highest Priority
06401300650020	Condition - with no CCTV scoring	439	8	6.1	8	64	1.4	1.8	2.6	23.4	No	Moderate Priority
06401960640195	Condition - with no CCTV scoring	300.4	8	6.1	8	64	1.4	1.8	2.6	23.4	No	Moderate Priority
02401440240145	Condition - with no CCTV scoring	304.8	8	6.3	8	24	1.7	1.6	2.6	23.4	No	Lowest Priority
02500550250058	Condition - with no CCTV scoring	362.4	8	6.5	8	25	1.7	1.6	2.6	23.4	No	Lowest Priority
02602390260240	Condition - with no CCTV scoring	158.5	8	5.4	8	26	1.7	1.6	2.6	23.4	No	Low Priority
04401260440091	Condition - with no CCTV scoring	175.3	8	6.4	8	44	1.7	1.6	2.6	23.4	No	Low Priority
04400900440091	Condition - with no CCTV scoring	429.7	8	6.2	8	44	1.7	1.6	2.6	23.4	No	Low Priority
04400910440094	Condition - with no CCTV scoring	292.9	8	6.3	8	44	1.7	1.6	2.6	23.4	No	Low Priority
02202070220053	Condition - with no CCTV scoring	151	10	5.3	10	22	1.5	1.8	2.6	23.4	No	Low Priority
03200380320036	Condition - with no CCTV scoring	340.9	8	9.2	8	32	1.5	1.8	2.6	23.4	No	Lowest Priority
01300100130009	Condition - with no CCTV scoring	397.7	8	7.4	8	13	1.8	1.5	2.6	23.4	No	Lowest Priority
02301740230276	Condition - with no CCTV scoring	99.3	8	8.6	8	23	1.8	1.5	2.6	23.4	No	Lowest Priority
02301230230124	Condition - with no CCTV scoring	120.3	8	7.6	8	23	1.8	1.5	2.6	23.4	No	Lowest Priority
02301270230158	Condition - with no CCTV scoring	296.8	8	7.6	8	23	1.8	1.5	2.6	23.4	No	Lowest Priority
02301590230127	Condition - with no CCTV scoring	267.5	8	7.6	8	23	1.8	1.5	2.6	23.4	No	Lowest Priority
02301260230127	Condition - with no CCTV scoring	209.3	8	7.6	8	23	1.8	1.5	2.6	23.4	No	Lowest Priority
02400510240049	Condition - with no CCTV scoring	212.2	8	7.8	8	24	1.8	1.5	2.6	23.4	No	Lowest Priority
03300910330090	Condition - with no CCTV scoring	104.5	8	3.6	8	33	1.8	1.5	2.6	23.4	No	Low Priority
03300270330023	Condition - with no CCTV scoring	232.6	8	6.0	8	33	1.8	1.5	2.6	23.4	No	Low Priority
01202470120251	Condition - with no CCTV scoring	268.8	8	7.5	8	12	1.4	1.9	2.6	23.3	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03701950370193	Condition - with no CCTV scoring	289.2	8	5.0	8	37	1.4	1.9	2.6	23.3	No	Low Priority
03700110370195	Condition - with no CCTV scoring	243.2	8	5.0	8	37	1.4	1.9	2.6	23.3	No	Low Priority
03700100370045	Condition - with no CCTV scoring	152.5	8	4.8	8	37	1.4	1.9	2.6	23.3	No	Low Priority
03800730380074	Condition - with no CCTV scoring	315	8	5.7	8	38	1.4	1.9	2.6	23.3	No	Low Priority
09600540960060	Condition - with no CCTV scoring	41.7	12	11.5	12	96	1.9	1.4	2.6	23.3	No	Low Priority
09600790960078	Condition - with no CCTV scoring	345.2	12	11.0	12	96	1.9	1.4	2.6	23.3	No	Low Priority
02601950260163	Condition - with no CCTV scoring	243.9	8	9.2	8	26	1.6	1.7	2.6	23.3	No	Low Priority
06601540660150	Condition - with no CCTV scoring	375	8	3.9	8	66	1.7	1.6	2.6	23.3	No	Highest Priority
02700030260073	Condition - with no CCTV scoring	314.8	8	5.9	8	26	1.4	1.8	2.6	23.3	No	Low Priority
02700050270003	Condition - with no CCTV scoring	299.8	8	3.4	8	27	1.4	1.8	2.6	23.3	No	Moderate Priority
03900680390066	Condition - with no CCTV scoring	370.7	8	9.9	8	39	1.4	1.8	2.6	23.3	No	Low Priority
04401530440152	Condition - with no CCTV scoring	342.7	8	6.0	8	44	1.4	1.8	2.6	23.3	No	Low Priority
06501500650148	Condition - with no CCTV scoring	285.7	8	6.4	8	65	1.4	1.8	2.6	23.3	No	Moderate Priority
03500470350141	Condition - with no CCTV scoring	251.7	8	6.6	8	35	1.5	1.8	2.6	23.2	No	Moderate Priority
03501200350121	Condition - with no CCTV scoring	354.7	8	5.9	8	35	1.5	1.8	2.6	23.2	No	Moderate Priority
03501190350120	Condition - with no CCTV scoring	69	8	5.8	8	35	1.5	1.8	2.6	23.2	No	Moderate Priority
03501160350119	Condition - with no CCTV scoring	145.2	8	4.7	8	35	1.5	1.8	2.6	23.2	No	Moderate Priority
05300630530062	Condition - with no CCTV scoring	413.4	8	4.9	8	53	1.5	1.8	2.6	23.2	No	Moderate Priority
05401220540126	Condition - with no CCTV scoring	299	8	6.7	8	54	1.5	1.8	2.6	23.2	No	Moderate Priority
05401440540141	Condition - with no CCTV scoring	126.6	8	4.1	8	54	1.5	1.8	2.6	23.2	No	Moderate Priority
03600130360007	Condition - with no CCTV scoring	393	8	10.0	8	36	1.4	1.9	2.6	23.2	No	High Priority
04400240440017	Condition - with no CCTV scoring	392.8	8	7.1	8	44	1.8	1.5	2.6	23.2	No	Low Priority
05500210550024	Condition - with no CCTV scoring	326.9	8	7.2	8	55	1.8	1.5	2.6	23.2	No	High Priority
02500200250017	Condition - with no CCTV scoring	281.9	8	17.5	8	25	1.5	1.7	2.6	23.2	No	Lowest Priority
02500240250020	Condition - with no CCTV scoring	273	8	17.6	8	25	1.5	1.7	2.6	23.2	No	Lowest Priority
06800110680004	Condition - with no CCTV scoring	382.4	8	2.9	8	68	1.5	1.7	2.6	23.2	No	Lowest Priority
06800080680009	Condition - with no CCTV scoring	494.9	8	9.8	8	68	1.5	1.7	2.6	23.2	No	Lowest Priority
07301630730164	Condition - with no CCTV scoring	163.9	8	9.8	8	73	1.5	1.7	2.6	23.2	No	High Priority
07301620730163	Condition - with no CCTV scoring	399.4	8	9.8	8	73	1.5	1.7	2.6	23.2	No	High Priority
02302630240150	Condition - with no CCTV scoring	231	8	7.6	8	23	1.8	1.4	2.5	23.2	No	Lowest Priority
03900020390064	Condition - with no CCTV scoring	400.3	8	4.9	8	39	1.3	1.9	2.5	23.2	No	Low Priority
03900010390002	Condition - with no CCTV scoring	395.9	8	5.2	8	39	1.3	1.9	2.5	23.2	No	Low Priority
04401340440133	Condition - with no CCTV scoring	205.6	8	6.0	8	44	1.3	1.9	2.5	23.2	No	Low Priority
05800800580078	Condition - with no CCTV scoring	304.2	8	4.5	8	58	1.6	1.6	2.5	23.1	No	High Priority
05800320580102	Condition - with no CCTV scoring	350	8	7.1	8	58	1.1	2.3	2.5	23.1	No	High Priority
02301770230176	Condition - with no CCTV scoring	28.4	8	7.9	8	23	1.6	1.6	2.5	23.1	No	Lowest Priority
02301750230176	Condition - with no CCTV scoring	320.5	8	7.9	8	23	1.6	1.6	2.5	23.1	No	Lowest Priority
06501280650127	Condition - with no CCTV scoring	285.9	8	4.9	8	65	1.6	1.6	2.5	23.1	No	Moderate Priority
07200680720067	Condition - with no CCTV scoring	205.1	8	6.9	8	72	1.6	1.6	2.5	23.1	No	Moderate Priority
07701670770168	Condition - with no CCTV scoring	225.5	18	5.2	18	77	1.6	1.6	2.5	23.1	No	Highest Priority
07701680770017	Condition - with no CCTV scoring	38.6	18	4.9	18	77	1.6	1.6	2.5	23.1	No	Highest Priority
03200140320004	Condition - with no CCTV scoring	266.5	8	8.9	8	32	1.5	1.7	2.5	23.1	No	Lowest Priority
03200040320005	Condition - with no CCTV scoring	379.5	8	9.1	8	32	1.5	1.7	2.5	23.1	No	Lowest Priority
03500220350043	Condition - with no CCTV scoring	301.3	8	8.9	8	35	1.5	1.7	2.5	23.1	No	Moderate Priority
03500060350026	Condition - with no CCTV scoring	254.3	8	8.1	8	35	1.5	1.7	2.5	23.1	No	Moderate Priority
03500300350031	Condition - with no CCTV scoring	208.7	8	10.7	8	35	1.5	1.7	2.5	23.1	No	Moderate Priority
03500290350030	Condition - with no CCTV scoring	224.5	8	11.6	8	35	1.5	1.7	2.5	23.1	No	Moderate Priority
04701480470149	Condition - with no CCTV scoring	68.4	8	9.2	8	47	1.5	1.7	2.5	23.1	No	High Priority
05300730530054	Condition - with no CCTV scoring	376	8	5.6	8	53	1.2	2.1	2.5	23.1	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
05401960540195	Condition - with no CCTV scoring	283.5	8	8.2	8	54	1.5	1.7	2.5	23.1	No	Moderate Priority
01201760120177	Condition - with no CCTV scoring	485.4	8	12.9	8	12	1.9	1.4	2.5	23.1	No	Lowest Priority
02500900250092	Condition - with no CCTV scoring	281.4	8	8.3	8	25	1.9	1.4	2.5	23.1	No	Lowest Priority
02600390260036	Condition - with no CCTV scoring	150	8	6.0	8	26	1.4	1.8	2.5	23.1	No	Low Priority
02600330260028	Condition - with no CCTV scoring	435.7	8	5.1	8	26	1.4	1.8	2.5	23.1	No	Low Priority
02600350260031	Condition - with no CCTV scoring	468.9	8	5.6	8	26	1.4	1.8	2.5	23.1	No	Low Priority
02600120260013	Condition - with no CCTV scoring	329	8	6.0	8	26	1.4	1.8	2.5	23.1	No	Low Priority
03702000370074	Condition - with no CCTV scoring	327.1	8	4.9	8	37	1.4	1.8	2.5	23.1	No	Low Priority
03700740370076	Condition - with no CCTV scoring	120.5	8	4.7	8	37	1.4	1.8	2.5	23.1	No	Low Priority
03700750370074	Condition - with no CCTV scoring	292.4	8	5.2	8	37	1.4	1.8	2.5	23.1	No	Low Priority
03700990370101	Condition - with no CCTV scoring	291	8	5.3	8	37	1.4	1.8	2.5	23.1	No	Low Priority
03700200370019	Condition - with no CCTV scoring	380.7	8	5.3	8	37	1.4	1.8	2.5	23.1	No	Low Priority
03701820370181	Condition - with no CCTV scoring	358.7	8	5.0	8	37	1.4	1.8	2.5	23.1	No	Low Priority
03800380380134	Condition - with no CCTV scoring	98.1	8	6.0	8	38	1.4	1.8	2.5	23.1	No	Low Priority
04801290480131	Condition - with no CCTV scoring	325.5	8	7.2	8	48	1.4	1.8	2.5	23.1	No	High Priority
01100510110050	Condition - with no CCTV scoring	293.2	8	10.0	8	11	1.5	1.8	2.5	23.1	No	Lowest Priority
02400220240023	Condition - with no CCTV scoring	213.8	8	6.6	8	24	1.8	1.5	2.5	23.1	No	Lowest Priority
02501080250107	Condition - with no CCTV scoring	362.2	8	5.5	8	25	1.8	1.5	2.5	23.1	No	Lowest Priority
03200410320042	Condition - with no CCTV scoring	266.4	8	8.0	8	32	1.5	1.8	2.5	23.1	No	Lowest Priority
03200740320041	Condition - with no CCTV scoring	92.7	8	6.8	8	32	1.5	1.8	2.5	23.1	No	Lowest Priority
03300610330026	Condition - with no CCTV scoring	120.1	8	7.5	8	33	1.8	1.5	2.5	23.1	No	Low Priority
06501320650131	Condition - with no CCTV scoring	356.6	12	5.4	12	65	1.8	1.5	2.5	23.1	No	Moderate Priority
06501330650132	Condition - with no CCTV scoring	344	12	5.9	12	65	1.8	1.5	2.5	23.1	No	Moderate Priority
07800190780018	Condition - with no CCTV scoring	248	8	7.2	8	78	1.5	1.8	2.5	23.1	No	Low Priority
02302750240163	Condition - with no CCTV scoring	165.7	8	9.4	8	23	2.0	1.3	2.5	23.1	No	Lowest Priority
05702110570213	Condition - with no CCTV scoring	302.7	8	5.5	8	57	1.3	2.0	2.5	23.1	No	Highest Priority
05701910570195	Condition - with no CCTV scoring	334.6	8	5.3	8	57	1.3	2.0	2.5	23.1	No	Highest Priority
07800090780018	Condition - with no CCTV scoring	345.8	15	8.1	15	78	2.0	1.3	2.5	23.1	No	Low Priority
01201340120133	Condition - with no CCTV scoring	178	8	7.8	8	12	1.4	1.9	2.5	23.1	No	Lowest Priority
01201460120147	Condition - with no CCTV scoring	164.8	8	8.6	8	12	1.4	1.9	2.5	23.1	No	Lowest Priority
03900420390044	Condition - with no CCTV scoring	342.8	8	12.6	8	39	1.5	1.7	2.5	23.0	No	Low Priority
04400210440020	Condition - with no CCTV scoring	388	8	6.5	8	44	1.6	1.6	2.5	23.0	No	Low Priority
01100260110023	Condition - with no CCTV scoring	388	15	11.3	15	11	1.5	1.7	2.5	23.0	No	Lowest Priority
02100070220011	Condition - with no CCTV scoring	160.4	18	12.8	18	21	1.9	1.4	2.5	23.0	No	Lowest Priority
02200470320028	Condition - with no CCTV scoring	349.1	8	8.2	8	22	1.5	1.7	2.5	23.0	No	Low Priority
02300770230076	Condition - with no CCTV scoring	399.4	8	9.0	8	23	1.9	1.4	2.5	23.0	No	Lowest Priority
02501020250099	Condition - with no CCTV scoring	414.6	8	8.1	8	25	1.9	1.4	2.5	23.0	No	Lowest Priority
03200320320049	Condition - with no CCTV scoring	102.3	8	11.5	8	32	1.5	1.7	2.5	23.0	No	Lowest Priority
05402330540234	Condition - with no CCTV scoring	275	8	13.1	8	54	1.9	1.4	2.5	23.0	No	Moderate Priority
02301760230178	Condition - with no CCTV scoring	202.8	8	8.1	8	23	1.7	1.5	2.5	23.0	No	Lowest Priority
04400430440044	Condition - with no CCTV scoring	310.5	8	5.7	8	44	1.7	1.5	2.5	23.0	No	Low Priority
04400440440045	Condition - with no CCTV scoring	120.7	8	5.4	8	44	1.7	1.5	2.5	23.0	No	Low Priority
07300180730017	Condition - with no CCTV scoring	441.7	8	6.8	8	73	1.7	1.5	2.5	23.0	No	High Priority
01202510120028	Condition - with no CCTV scoring	151	8	9.0	8	12	1.4	1.8	2.5	22.9	No	Lowest Priority
03601460360147	Condition - with no CCTV scoring	154.6	8	6.0	8	36	1.4	1.8	2.5	22.9	No	High Priority
03600920360093	Condition - with no CCTV scoring	455.7	8	4.9	8	36	1.4	1.8	2.5	22.9	No	High Priority
03600480360109	Condition - with no CCTV scoring	405	8	5.9	8	36	1.4	1.8	2.5	22.9	No	High Priority
03701680370166	Condition - with no CCTV scoring	449.6	8	5.2	8	37	1.4	1.8	2.5	22.9	No	Low Priority
03900580390059	Condition - with no CCTV scoring	160.3	8	7.0	8	39	1.4	1.8	2.5	22.9	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03900260390028	Condition - with no CCTV scoring	238.6	8	7.9	8	39	1.4	1.8	2.5	22.9	No	Low Priority
03900250390026	Condition - with no CCTV scoring	214.7	8	6.6	8	39	1.4	1.8	2.5	22.9	No	Low Priority
05402770540250	Condition - with no CCTV scoring	18.4	8	4.3	8	54	1.2	2.1	2.5	22.9	No	Moderate Priority
05402550540277	Condition - with no CCTV scoring	121.4	8	3.9	8	54	1.2	2.1	2.5	22.9	No	Moderate Priority
05402300540229	Condition - with no CCTV scoring	530	8	5.4	8	54	1.2	2.1	2.5	22.9	No	Moderate Priority
05402260540227	Condition - with no CCTV scoring	410.5	8	5.0	8	54	1.2	2.1	2.5	22.9	No	Moderate Priority
05402240540226	Condition - with no CCTV scoring	57.3	8	4.8	8	54	1.2	2.1	2.5	22.9	No	Moderate Priority
05502390550240	Condition - with no CCTV scoring	232.4	8	5.2	8	55	1.4	1.8	2.5	22.9	No	High Priority
05502400550237	Condition - with no CCTV scoring	463.9	8	5.7	8	55	1.4	1.8	2.5	22.9	No	High Priority
05402680540267	Condition - with no CCTV scoring	337.6	8	5.6	8	55	1.2	2.1	2.5	22.9	No	High Priority
05402290540217	Condition - with no CCTV scoring	175.5	8	5.2	8	55	1.2	2.1	2.5	22.9	No	High Priority
05402680540217	Condition - with no CCTV scoring	235.9	8	5.6	8	55	1.2	2.1	2.5	22.9	No	High Priority
05402290550178	Condition - with no CCTV scoring	167.1	8	5.2	8	55	1.2	2.1	2.5	22.9	No	High Priority
05702250570224	Condition - with no CCTV scoring	264.9	8	5.0	8	57	1.2	2.1	2.5	22.9	No	Highest Priority
05700180570016	Condition - with no CCTV scoring	580	8	5.5	8	57	1.4	1.8	2.5	22.9	No	Highest Priority
07301350730136	Condition - with no CCTV scoring	162.6	8	5.3	8	73	1.4	1.8	2.5	22.9	No	High Priority
02500270250028	Condition - with no CCTV scoring	378.2	8	5.4	8	25	1.4	1.9	2.5	22.9	No	Lowest Priority
03900310390043	Condition - with no CCTV scoring	128.5	8	16.0	8	39	1.5	1.7	2.5	22.9	No	Low Priority
04800690480068	Condition - with no CCTV scoring	328.8	8	8.4	8	48	1.5	1.7	2.5	22.9	No	High Priority
06500820650081	Condition - with no CCTV scoring	301	8	8.0	8	65	1.2	2.2	2.5	22.9	No	Moderate Priority
02400680240069	Condition - with no CCTV scoring	127.4	8	10.5	8	24	1.9	1.4	2.5	22.8	No	Lowest Priority
02501180250119	Condition - with no CCTV scoring	244.5	8	10.3	8	25	1.9	1.4	2.5	22.8	No	Lowest Priority
07502310750232	Condition - with no CCTV scoring	357.1	8	5.0	8	75	1.6	1.6	2.5	22.8	No	Highest Priority
08800950880094	Condition - with no CCTV scoring	101.2	21	12.1	21	88	1.9	1.4	2.5	22.8	No	Low Priority
08800940880035	Condition - with no CCTV scoring	176.9	21	12.1	21	88	1.9	1.4	2.5	22.8	No	Low Priority
01000110100012	Condition - with no CCTV scoring	357.6	15	10.3	15	10	1.9	1.3	2.5	22.8	No	Lowest Priority
01000100100011	Condition - with no CCTV scoring	150.4	15	10.3	15	10	1.9	1.3	2.5	22.8	No	Lowest Priority
01000090100010	Condition - with no CCTV scoring	352.4	15	10.3	15	10	1.9	1.3	2.5	22.8	No	Lowest Priority
01000080100009	Condition - with no CCTV scoring	353.3	15	11.1	15	10	1.9	1.3	2.5	22.8	No	Lowest Priority
01000070100008	Condition - with no CCTV scoring	353.4	15	10.0	15	10	1.9	1.3	2.5	22.8	No	Lowest Priority
02700070270006	Condition - with no CCTV scoring	216.5	8	5.6	8	26	1.7	1.5	2.5	22.8	No	Low Priority
04400630440064	Condition - with no CCTV scoring	137.2	8	6.6	8	44	1.7	1.5	2.5	22.8	No	Low Priority
04400660440063	Condition - with no CCTV scoring	350.1	8	6.6	8	44	1.7	1.5	2.5	22.8	No	Low Priority
03500190350018	Condition - with no CCTV scoring	227.2	8	8.1	8	35	1.5	1.7	2.5	22.8	No	Moderate Priority
03600590460212	Condition - with no CCTV scoring	668.6	8	5.0	8	36	1.3	1.9	2.5	22.8	No	High Priority
03600600360059	Condition - with no CCTV scoring	449.1	8	5.3	8	36	1.3	1.9	2.5	22.8	No	High Priority
03600900360091	Condition - with no CCTV scoring	451.2	8	5.1	8	36	1.3	1.9	2.5	22.8	No	High Priority
03900660390065	Condition - with no CCTV scoring	466.4	8	6.4	8	39	1.3	1.9	2.5	22.8	No	Low Priority
03900650390062	Condition - with no CCTV scoring	450.6	8	6.1	8	39	1.3	1.9	2.5	22.8	No	Low Priority
04701680470165	Condition - with no CCTV scoring	293.9	8	5.1	8	47	1.3	1.9	2.5	22.8	No	High Priority
06700960670066	Condition - with no CCTV scoring	41.1	12	5.5	12	67	1.5	1.7	2.5	22.8	No	Highest Priority
02302310230232	Condition - with no CCTV scoring	231.3	8	12.8	8	23	1.8	1.4	2.5	22.8	No	Lowest Priority
02302300230231	Condition - with no CCTV scoring	184.2	8	14.1	8	23	1.8	1.4	2.5	22.8	No	Lowest Priority
03200490320048	Condition - with no CCTV scoring	206.4	8	7.9	8	32	1.4	1.8	2.5	22.8	No	Lowest Priority
06201220630034	Condition - with no CCTV scoring	419.3	8	6.4	8	62	1.4	1.8	2.5	22.8	No	Low Priority
04400370440038	Condition - with no CCTV scoring	204.3	8	6.2	8	44	1.4	1.8	2.5	22.8	No	Low Priority
02200750120165	Condition - with no CCTV scoring	243.5	8	9.0	8	12	1.5	1.7	2.5	22.7	No	Lowest Priority
04400400440041	Condition - with no CCTV scoring	292.3	8	9.2	8	44	1.5	1.7	2.5	22.7	No	Low Priority
01200500120051	Condition - with no CCTV scoring	466	8	7.7	8	12	1.4	1.9	2.5	22.7	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02300110230008	Condition - with no CCTV scoring	258.3	8	7.1	8	23	1.4	1.9	2.5	22.7	No	Lowest Priority
06600850660128	Condition - with no CCTV scoring	88.8	8	14.9	8	66	1.9	1.4	2.5	22.7	No	Highest Priority
07202290720230	Condition - with no CCTV scoring	393	6	11.9	8	72	1.9	1.4	2.5	22.7	No	Moderate Priority
08900270890015	Condition - with no CCTV scoring	336.8	18	10.4	18	89	1.9	1.4	2.5	22.7	No	Low Priority
09700630970064	Condition - with no CCTV scoring	218	6	5.8	8	97	1.4	1.9	2.5	22.7	No	Lowest Priority
02500560250057	Condition - with no CCTV scoring	180.9	8	6.9	8	25	1.6	1.6	2.5	22.7	No	Lowest Priority
02500580250056	Condition - with no CCTV scoring	184.3	8	6.6	8	25	1.6	1.6	2.5	22.7	No	Lowest Priority
05601920560235	Condition - with no CCTV scoring	423.1	8	5.4	8	56	1.6	1.6	2.5	22.7	No	Highest Priority
07600430760046	Condition - with no CCTV scoring	475.9	8	4.0	8	76	1.6	1.6	2.5	22.7	No	Highest Priority
01300150130014	Condition - with no CCTV scoring	107.3	8	6.5	8	13	1.7	1.5	2.5	22.7	No	Lowest Priority
01300040130012	Condition - with no CCTV scoring	93.4	8	7.0	8	13	1.7	1.5	2.5	22.7	No	Lowest Priority
01300650130045	Condition - with no CCTV scoring	224.6	8	7.9	8	13	1.7	1.5	2.5	22.7	No	Lowest Priority
01300160130015	Condition - with no CCTV scoring	248.2	8	6.7	8	13	1.7	1.5	2.5	22.7	No	Lowest Priority
02301290230159	Condition - with no CCTV scoring	111.3	8	7.6	8	23	1.7	1.5	2.5	22.7	No	Lowest Priority
04401300440148	Condition - with no CCTV scoring	134.1	8	6.1	8	44	1.7	1.5	2.5	22.7	No	Low Priority
05800210580023	Condition - with no CCTV scoring	78.3	8	8.9	8	58	1.7	1.5	2.5	22.7	No	High Priority
07200740720075	Condition - with no CCTV scoring	251.7	8	5.0	8	72	1.7	1.5	2.5	22.7	No	Moderate Priority
07201480720074	Condition - with no CCTV scoring	356.8	8	4.4	8	72	1.7	1.5	2.5	22.7	No	Moderate Priority
07700830770078	Condition - with no CCTV scoring	352	8	3.1	8	77	1.7	1.5	2.5	22.7	No	Highest Priority
08801090880110	Condition - with no CCTV scoring	296.7	8	9.0	8	88	1.7	1.5	2.5	22.7	No	Low Priority
08901500890014	Condition - with no CCTV scoring	337.5	18	8.7	18	89	1.7	1.5	2.5	22.7	No	Low Priority
02200760220077	Condition - with no CCTV scoring	161.3	8	4.8	8	22	1.4	1.8	2.5	22.6	No	Low Priority
02200500220051	Condition - with no CCTV scoring	57.4	8	5.3	8	22	1.4	1.8	2.5	22.6	No	Low Priority
03200750320020	Condition - with no CCTV scoring	143.5	8	7.5	8	32	1.4	1.8	2.5	22.6	No	Lowest Priority
03200190320020	Condition - with no CCTV scoring	206.1	8	7.7	8	32	1.4	1.8	2.5	22.6	No	Lowest Priority
03200150320008	Condition - with no CCTV scoring	223	8	7.8	8	32	1.4	1.8	2.5	22.6	No	Lowest Priority
03500040350006	Condition - with no CCTV scoring	312.8	8	7.7	8	35	1.4	1.8	2.5	22.6	No	Moderate Priority
03500050350004	Condition - with no CCTV scoring	194.9	8	8.0	8	35	1.4	1.8	2.5	22.6	No	Moderate Priority
02600490260012	Condition - with no CCTV scoring	100	8	6.3	8	25	1.4	1.8	2.5	22.6	No	Lowest Priority
02600700260071	Condition - with no CCTV scoring	244.6	8	4.9	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02602240260223	Condition - with no CCTV scoring	205	8	5.3	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02602230260222	Condition - with no CCTV scoring	294.4	8	5.7	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02602220260019	Condition - with no CCTV scoring	296.7	8	5.7	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02600210260018	Condition - with no CCTV scoring	266.9	8	4.7	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02600200260021	Condition - with no CCTV scoring	267.4	8	5.4	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02600050260019	Condition - with no CCTV scoring	297.8	8	5.5	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02600180260005	Condition - with no CCTV scoring	53.5	8	5.1	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02600560260020	Condition - with no CCTV scoring	319.8	8	5.3	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02600540260034	Condition - with no CCTV scoring	324.5	8	6.6	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02600500260051	Condition - with no CCTV scoring	399.4	8	5.3	8	26	1.4	1.8	2.5	22.6	No	Low Priority
02700190270015	Condition - with no CCTV scoring	333.8	8	11.6	8	27	1.8	1.4	2.5	22.6	No	Moderate Priority
03300780330077	Condition - with no CCTV scoring	223.6	8	10.2	8	33	1.8	1.4	2.5	22.6	No	Low Priority
03600060360004	Condition - with no CCTV scoring	250.7	8	6.1	8	36	1.4	1.8	2.5	22.6	No	High Priority
03601450360138	Condition - with no CCTV scoring	336.3	8	5.5	8	36	1.4	1.8	2.5	22.6	No	High Priority
03601400360141	Condition - with no CCTV scoring	199	8	3.5	8	36	1.4	1.8	2.5	22.6	No	High Priority
03701450370147	Condition - with no CCTV scoring	329.8	8	6.8	8	37	1.4	1.8	2.5	22.6	No	Low Priority
03701530370149	Condition - with no CCTV scoring	434.5	8	5.5	8	37	1.4	1.8	2.5	22.6	No	Low Priority
03900110480091	Condition - with no CCTV scoring	334.1	8	7.0	8	38	1.4	1.8	2.5	22.6	No	Low Priority
03800160380017	Condition - with no CCTV scoring	222.2	8	6.7	8	38	1.4	1.8	2.5	22.6	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04800910380017	Condition - with no CCTV scoring	324	8	7.0	8	38	1.4	1.8	2.5	22.6	No	Low Priority
03900280390024	Condition - with no CCTV scoring	247.8	8	5.6	8	39	1.4	1.8	2.5	22.6	No	Low Priority
03900240390020	Condition - with no CCTV scoring	329.4	8	5.9	8	39	1.4	1.8	2.5	22.6	No	Low Priority
04601940460169	Condition - with no CCTV scoring	129.8	6	6.0	8	46	1.4	1.8	2.5	22.6	No	Highest Priority
04700700470029	Condition - with no CCTV scoring	315.4	8	3.8	8	47	1.4	1.8	2.5	22.6	No	High Priority
04700690470070	Condition - with no CCTV scoring	392.6	8	4.9	8	47	1.4	1.8	2.5	22.6	No	High Priority
04900150490016	Condition - with no CCTV scoring	197.1	8	5.1	8	49	1.4	1.8	2.5	22.6	No	Lowest Priority
05500960550105	Condition - with no CCTV scoring	560.2	8	5.9	8	55	1.4	1.8	2.5	22.6	No	High Priority
05402700540269	Condition - with no CCTV scoring	349.1	8	5.5	8	55	1.4	1.8	2.5	22.6	No	High Priority
05501730550175	Condition - with no CCTV scoring	293.4	8	5.1	8	55	1.4	1.8	2.5	22.6	No	High Priority
05501750550192	Condition - with no CCTV scoring	422.6	8	5.2	8	55	1.4	1.8	2.5	22.6	No	High Priority
05502300550196	Condition - with no CCTV scoring	319.6	8	5.1	8	55	1.4	1.8	2.5	22.6	No	High Priority
05800810580082	Condition - with no CCTV scoring	393	8	5.9	8	58	1.4	1.8	2.5	22.6	No	High Priority
06201070620106	Condition - with no CCTV scoring	145.2	8	5.5	8	62	1.4	1.8	2.5	22.6	No	Low Priority
06300450630044	Condition - with no CCTV scoring	175.6	8	5.0	8	63	1.4	1.8	2.5	22.6	No	Moderate Priority
06300470630045	Condition - with no CCTV scoring	167.5	8	5.0	8	63	1.4	1.8	2.5	22.6	No	Moderate Priority
06301250630122	Condition - with no CCTV scoring	75.1	8	4.4	8	63	1.4	1.8	2.5	22.6	No	Moderate Priority
06300140630003	Condition - with no CCTV scoring	262.1	8	5.2	8	63	1.4	1.8	2.5	22.6	No	Moderate Priority
07201250720122	Condition - with no CCTV scoring	201.1	8	4.0	8	72	1.4	1.8	2.5	22.6	No	Moderate Priority
07201240720127	Condition - with no CCTV scoring	159.2	8	4.0	8	72	1.4	1.8	2.5	22.6	No	Moderate Priority
07201230720122	Condition - with no CCTV scoring	171.8	8	5.0	8	72	1.4	1.8	2.5	22.6	No	Moderate Priority
07201260720127	Condition - with no CCTV scoring	199.9	8	5.1	8	72	1.4	1.8	2.5	22.6	No	Moderate Priority
07201310720129	Condition - with no CCTV scoring	475.2	8	5.0	8	72	1.4	1.8	2.5	22.6	No	Moderate Priority
07501290750088	Condition - with no CCTV scoring	849.9	8	5.6	8	75	1.4	1.8	2.5	22.6	No	Highest Priority
04301040440099	Condition - with no CCTV scoring	386.9	15	6.5	15	43	1.6	1.6	2.5	22.6	No	Low Priority
05800730580074	Condition - with no CCTV scoring	444.9	8	6.2	8	58	1.7	1.5	2.5	22.6	No	High Priority
02302150230216	Condition - with no CCTV scoring	188.9	8	17.8	8	23	1.8	1.4	2.5	22.5	No	Lowest Priority
05801020580031	Condition - with no CCTV scoring	23.8	8	9.8	8	58	1.2	2.1	2.5	22.5	No	High Priority
03200500320051	Condition - with no CCTV scoring	145.6	8	16.0	8	32	1.5	1.7	2.5	22.5	No	Lowest Priority
03200510320052	Condition - with no CCTV scoring	216.3	8	15.6	8	32	1.5	1.7	2.5	22.5	No	Lowest Priority
03200520320061	Condition - with no CCTV scoring	186.5	8	15.1	8	32	1.5	1.7	2.5	22.5	No	Lowest Priority
03200070320009	Condition - with no CCTV scoring	304.5	8	15.2	8	32	1.5	1.7	2.5	22.5	No	Lowest Priority
03500310350032	Condition - with no CCTV scoring	428.2	8	9.9	8	35	1.5	1.7	2.5	22.5	No	Moderate Priority
02500940250091	Condition - with no CCTV scoring	330.4	8	9.5	8	25	1.8	1.4	2.5	22.5	No	Lowest Priority
02500940250136	Condition - with no CCTV scoring	268.5	8	9.5	8	25	1.8	1.4	2.5	22.5	No	Lowest Priority
02500820250079	Condition - with no CCTV scoring	243	8	8.5	8	25	1.8	1.4	2.5	22.5	No	Lowest Priority
02500830250081	Condition - with no CCTV scoring	351.6	8	8.6	8	25	1.8	1.4	2.5	22.5	No	Lowest Priority
02500910250090	Condition - with no CCTV scoring	431.8	8	8.8	8	25	1.8	1.4	2.5	22.5	No	Lowest Priority
04801640480165	Condition - with no CCTV scoring	292	8	6.8	8	48	1.3	1.9	2.5	22.5	No	High Priority
05300740530076	Condition - with no CCTV scoring	419.3	8	6.5	8	53	1.4	1.8	2.5	22.5	No	Moderate Priority
05400590540073	Condition - with no CCTV scoring	265.5	8	6.6	8	54	1.4	1.8	2.5	22.5	No	Moderate Priority
05500950550094	Condition - with no CCTV scoring	315.9	8	7.4	8	55	1.4	1.8	2.5	22.5	No	High Priority
05500940550093	Condition - with no CCTV scoring	314.7	8	5.6	8	55	1.4	1.8	2.5	22.5	No	High Priority
04401560440154	Condition - with no CCTV scoring	309.2	8	5.5	8	44	1.4	1.8	2.5	22.4	No	Low Priority
04500980450107	Condition - with no CCTV scoring	273	8	4.7	8	45	1.4	1.8	2.5	22.4	No	High Priority
06500520650053	Condition - with no CCTV scoring	339.2	8	6.0	8	65	1.4	1.8	2.5	22.4	No	Moderate Priority
06501490650150	Condition - with no CCTV scoring	255.4	8	5.6	8	65	1.4	1.8	2.5	22.4	No	Moderate Priority
02301210230118	Condition - with no CCTV scoring	396.6	8	6.8	8	13	1.7	1.5	2.5	22.4	No	Lowest Priority
02301220230123	Condition - with no CCTV scoring	104.1	8	7.5	8	23	1.7	1.5	2.5	22.4	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02400010340033	Condition - with no CCTV scoring	257.2	8	5.8	8	24	1.7	1.5	2.5	22.4	No	Lowest Priority
02500860250084	Condition - with no CCTV scoring	436.5	8	7.8	8	25	1.7	1.5	2.5	22.4	No	Lowest Priority
03300650330062	Condition - with no CCTV scoring	218.4	8	6.0	8	33	1.7	1.5	2.5	22.4	No	Low Priority
04400640440065	Condition - with no CCTV scoring	234.1	8	6.6	8	44	1.7	1.5	2.5	22.4	No	Low Priority
07200770720075	Condition - with no CCTV scoring	356.8	8	4.5	8	72	1.7	1.5	2.5	22.4	No	Moderate Priority
07201480720077	Condition - with no CCTV scoring	251.7	8	4.4	8	72	1.7	1.5	2.5	22.4	No	Moderate Priority
06500970650098	Condition - with no CCTV scoring	237.6	6	6.0	8	65	1.6	1.6	2.5	22.4	No	Moderate Priority
06500980650222	Condition - with no CCTV scoring	342.5	8	5.1	8	65	1.6	1.6	2.5	22.4	No	Moderate Priority
06500560650057	Condition - with no CCTV scoring	186.2	12	1.0	12	65	1.6	1.6	2.5	22.4	No	Moderate Priority
07600450760048	Condition - with no CCTV scoring	276.5	8	6.5	8	76	1.6	1.6	2.5	22.4	No	Highest Priority
09701010970104	Condition - with no CCTV scoring	25.8	8	6.1	8	97	1.6	1.6	2.5	22.4	No	Lowest Priority
07800710880117	Condition - with no CCTV scoring	342	8	6.6	8	78	1.8	1.4	2.5	22.4	No	Low Priority
09701930970129	Condition - with no CCTV scoring	303.4	8	10.5	8	97	1.8	1.4	2.5	22.4	No	Lowest Priority
03500270350029	Condition - with no CCTV scoring	216	8	8.6	8	35	1.5	1.7	2.5	22.4	No	Moderate Priority
00000070000008	Condition - with no CCTV scoring	277.9	15	9.7	15	00	1.9	1.3	2.5	22.4	No	Lowest Priority
01000040100005	Condition - with no CCTV scoring	346.7	15	9.0	15	10	1.9	1.3	2.5	22.4	No	Lowest Priority
02500890250088	Condition - with no CCTV scoring	136.2	8	8.1	8	25	1.8	1.4	2.5	22.4	No	Lowest Priority
07800600780061	Condition - with no CCTV scoring	148.8	8	10.5	8	78	1.9	1.3	2.5	22.4	No	Low Priority
08600830860040	Condition - with no CCTV scoring	33.8	12	11.4	12	86	1.8	1.4	2.5	22.4	No	Highest Priority
01300610130065	Condition - with no CCTV scoring	86.4	8	8.0	8	13	1.7	1.5	2.5	22.3	No	Lowest Priority
02302760230175	Condition - with no CCTV scoring	196.7	8	9.0	8	23	1.7	1.5	2.5	22.3	No	Lowest Priority
02400790240080	Condition - with no CCTV scoring	220.8	8	7.7	8	24	1.7	1.5	2.5	22.3	No	Lowest Priority
02400530240051	Condition - with no CCTV scoring	87.7	8	8.0	8	24	1.7	1.5	2.5	22.3	No	Lowest Priority
02400770240078	Condition - with no CCTV scoring	59.8	8	7.4	8	24	1.7	1.5	2.5	22.3	No	Lowest Priority
02400780240079	Condition - with no CCTV scoring	110	8	7.2	8	24	1.7	1.5	2.5	22.3	No	Lowest Priority
02400870240085	Condition - with no CCTV scoring	100	8	7.6	8	24	1.7	1.5	2.5	22.3	No	Lowest Priority
02400270240181	Condition - with no CCTV scoring	71.3	8	7.8	8	24	1.7	1.5	2.5	22.3	No	Lowest Priority
07201960720194	Condition - with no CCTV scoring	185.8	8	6.7	8	72	1.7	1.5	2.5	22.3	No	Moderate Priority
08601220860119	Condition - with no CCTV scoring	153.7	8	6.0	8	86	1.7	1.5	2.5	22.3	No	Highest Priority
09700390960052	Condition - with no CCTV scoring	398.9	8	6.7	8	96	1.7	1.5	2.5	22.3	No	Low Priority
02400280250037	Condition - with no CCTV scoring	458.4	8	7.3	8	24	1.6	1.6	2.4	22.3	No	Lowest Priority
02500540250055	Condition - with no CCTV scoring	312.5	8	7.2	8	25	1.6	1.6	2.4	22.3	No	Lowest Priority
04400950440094	Condition - with no CCTV scoring	313.6	8	6.7	8	44	1.6	1.6	2.4	22.3	No	Low Priority
04400940440086	Condition - with no CCTV scoring	299.6	8	6.6	8	44	1.6	1.6	2.4	22.3	No	Low Priority
05401210540122	Condition - with no CCTV scoring	431.2	8	6.8	8	54	1.6	1.6	2.4	22.3	No	Moderate Priority
03600040360005	Condition - with no CCTV scoring	340.5	8	5.2	8	36	1.4	1.8	2.4	22.3	No	High Priority
03600050360017	Condition - with no CCTV scoring	320.9	8	5.7	8	36	1.4	1.8	2.4	22.3	No	High Priority
03700960370097	Condition - with no CCTV scoring	369.1	8	5.5	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03702050370208	Condition - with no CCTV scoring	332.4	8	4.9	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03701110370117	Condition - with no CCTV scoring	341.7	8	5.0	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03701160370112	Condition - with no CCTV scoring	34	8	5.2	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03701970370094	Condition - with no CCTV scoring	440.5	8	5.2	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03701890370187	Condition - with no CCTV scoring	249.1	8	5.2	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03701870370094	Condition - with no CCTV scoring	264.8	8	5.2	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03701850370187	Condition - with no CCTV scoring	389.8	8	4.4	8	37	1.4	1.8	2.4	22.3	No	Low Priority
03800260380025	Condition - with no CCTV scoring	195.2	8	5.0	8	38	1.4	1.8	2.4	22.3	No	Low Priority
04601250460126	Condition - with no CCTV scoring	51.1	6	4.2	8	46	1.4	1.8	2.4	22.3	No	Highest Priority
02602420260241	Condition - with no CCTV scoring	164	8	10.4	8	26	1.8	1.4	2.4	22.2	No	Low Priority
02602410260239	Condition - with no CCTV scoring	150.1	8	10.7	8	26	1.8	1.4	2.4	22.2	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03200300320032	Condition - with no CCTV scoring	421.8	8	8.9	8	32	1.5	1.7	2.4	22.2	No	Lowest Priority
08901370890126	Condition - with no CCTV scoring	348.9	8	8.2	8	89	1.5	1.7	2.4	22.2	No	Low Priority
02501280250118	Condition - with no CCTV scoring	314.6	8	8.0	8	25	1.7	1.5	2.4	22.2	No	Lowest Priority
04401250440130	Condition - with no CCTV scoring	431.7	8	6.7	8	44	1.7	1.5	2.4	22.2	No	Low Priority
04400830440076	Condition - with no CCTV scoring	177.5	8	6.5	8	44	1.6	1.6	2.4	22.1	No	Low Priority
04400750440076	Condition - with no CCTV scoring	198	8	6.7	8	44	1.6	1.6	2.4	22.1	No	Low Priority
01100210110022	Condition - with no CCTV scoring	170.9	8	5.3	8	11	1.4	1.8	2.4	22.1	No	Lowest Priority
03500200350021	Condition - with no CCTV scoring	297.6	8	8.0	8	35	1.4	1.8	2.4	22.1	No	Moderate Priority
03500210350022	Condition - with no CCTV scoring	421.9	8	7.9	8	35	1.4	1.8	2.4	22.1	No	Moderate Priority
03500200350023	Condition - with no CCTV scoring	423.8	8	8.0	8	35	1.4	1.8	2.4	22.1	No	Moderate Priority
03800130380014	Condition - with no CCTV scoring	425	8	8.2	8	38	1.4	1.7	2.4	22.1	No	Low Priority
03800070380008	Condition - with no CCTV scoring	433.4	8	8.3	8	38	1.4	1.7	2.4	22.1	No	Low Priority
03800140380015	Condition - with no CCTV scoring	434.1	8	8.2	8	38	1.4	1.7	2.4	22.1	No	Low Priority
03900370390036	Condition - with no CCTV scoring	229.1	8	11.1	8	38	1.4	1.7	2.4	22.1	No	Low Priority
03900470390076	Condition - with no CCTV scoring	178	8	11.2	8	39	1.4	1.7	2.4	22.1	No	Low Priority
03900460390047	Condition - with no CCTV scoring	270	8	11.5	8	39	1.4	1.7	2.4	22.1	No	Low Priority
02500250250024	Condition - with no CCTV scoring	351.7	8	6.4	8	25	1.4	1.8	2.4	22.1	No	Lowest Priority
02600730260072	Condition - with no CCTV scoring	161.3	8	5.2	8	26	1.4	1.8	2.4	22.1	No	Low Priority
03300620330061	Condition - with no CCTV scoring	144.7	8	9.8	8	33	1.8	1.4	2.4	22.1	No	Low Priority
03701880370186	Condition - with no CCTV scoring	262.4	8	5.0	8	37	1.4	1.8	2.4	22.1	No	Low Priority
03900560390054	Condition - with no CCTV scoring	177	8	6.0	8	39	1.4	1.8	2.4	22.1	No	Low Priority
03900550390054	Condition - with no CCTV scoring	125	8	6.0	8	39	1.4	1.8	2.4	22.1	No	Low Priority
03900270390026	Condition - with no CCTV scoring	128.5	8	5.0	8	39	1.4	1.8	2.4	22.1	No	Low Priority
04601100460109	Condition - with no CCTV scoring	373.8	8	6.3	8	46	1.4	1.8	2.4	22.1	No	Highest Priority
07500370750036	Condition - with no CCTV scoring	142.9	8	6.0	8	75	1.4	1.8	2.4	22.1	No	Highest Priority
08601390860140	Condition - with no CCTV scoring	419.5	8	8.1	8	86	1.8	1.4	2.4	22.1	No	Highest Priority
08901210890122	Condition - with no CCTV scoring	404.5	12	6.5	12	89	1.6	1.5	2.4	22.1	No	Low Priority
03200250320001	Condition - with no CCTV scoring	165.2	8	9.0	8	32	1.5	1.7	2.4	22.1	No	Lowest Priority
03200010320003	Condition - with no CCTV scoring	312.7	8	9.3	8	32	1.5	1.7	2.4	22.1	No	Lowest Priority
03200020320017	Condition - with no CCTV scoring	372.2	8	9.8	8	32	1.5	1.7	2.4	22.1	No	Lowest Priority
03200170320014	Condition - with no CCTV scoring	351.8	8	8.8	8	32	1.5	1.7	2.4	22.1	No	Lowest Priority
03200200320022	Condition - with no CCTV scoring	318.6	8	9.0	8	32	1.5	1.7	2.4	22.1	No	Lowest Priority
03200080320007	Condition - with no CCTV scoring	394.8	8	8.8	8	32	1.5	1.7	2.4	22.1	No	Lowest Priority
08901320890045	Condition - with no CCTV scoring	307.5	15	13.2	15	89	1.5	1.7	2.4	22.1	No	Low Priority
01300490130050	Condition - with no CCTV scoring	242.1	8	7.1	8	13	1.7	1.5	2.4	22.0	No	Lowest Priority
01300570130058	Condition - with no CCTV scoring	117.7	8	7.0	8	13	1.7	1.5	2.4	22.0	No	Lowest Priority
07201790720176	Condition - with no CCTV scoring	129.6	8	5.7	8	72	1.7	1.5	2.4	22.0	No	Moderate Priority
07201760720177	Condition - with no CCTV scoring	261.2	8	5.7	8	72	1.7	1.5	2.4	22.0	No	Moderate Priority
07201750720176	Condition - with no CCTV scoring	285.2	8	5.9	8	72	1.7	1.5	2.4	22.0	No	Moderate Priority
08700220870023	Condition - with no CCTV scoring	261.7	8	8.4	8	87	1.7	1.5	2.4	22.0	No	Moderate Priority
08700220870019	Condition - with no CCTV scoring	5.9	8	8.4	8	87	1.7	1.5	2.4	22.0	No	Moderate Priority
04401860440184	Condition - with no CCTV scoring	208.7	15	13.6	15	44	2.4	1.0	2.4	22.0	No	Low Priority
04401870440186	Condition - with no CCTV scoring	185.6	15	10.5	15	44	2.4	1.0	2.4	22.0	No	Low Priority
04401840440183	Condition - with no CCTV scoring	262.8	15	14.8	15	44	2.4	1.0	2.4	22.0	No	Low Priority
01000050100006	Condition - with no CCTV scoring	346.7	15	11.0	15	10	1.9	1.3	2.4	22.0	No	Lowest Priority
02500620250058	Condition - with no CCTV scoring	281.9	8	7.0	8	25	1.6	1.6	2.4	22.0	No	Lowest Priority
01300620130059	Condition - with no CCTV scoring	235.3	8	11.7	8	13	1.8	1.4	2.4	22.0	No	Lowest Priority
02400410240042	Condition - with no CCTV scoring	121.6	6	8.3	8	24	1.8	1.4	2.4	22.0	No	Lowest Priority
02700200270019	Condition - with no CCTV scoring	151.1	8	9.5	8	27	1.8	1.4	2.4	22.0	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06603360660086	Condition - with no CCTV scoring	313.6	8	10.9	8	66	1.8	1.4	2.4	22.0	No	Highest Priority
08900010890002	Condition - with no CCTV scoring	331.2	18	16.0	18	89	1.8	1.4	2.4	22.0	No	Low Priority
09700500970052	Condition - with no CCTV scoring	18.6	18	10.4	18	97	1.8	1.4	2.4	22.0	No	Lowest Priority
03200420320043	Condition - with no CCTV scoring	268.8	8	7.5	8	32	1.4	1.8	2.4	22.0	No	Lowest Priority
03200450320069	Condition - with no CCTV scoring	101.7	8	7.9	8	32	1.4	1.8	2.4	22.0	No	Lowest Priority
05300680530057	Condition - with no CCTV scoring	83.4	8	4.3	8	53	1.4	1.8	2.4	22.0	No	Moderate Priority
05300640530068	Condition - with no CCTV scoring	373.4	8	5.9	8	53	1.4	1.8	2.4	22.0	No	Moderate Priority
05300620530064	Condition - with no CCTV scoring	385.8	8	4.9	8	53	1.4	1.8	2.4	22.0	No	Moderate Priority
05300860530085	Condition - with no CCTV scoring	334.7	8	5.5	8	53	1.4	1.8	2.4	22.0	No	Moderate Priority
05401260540131	Condition - with no CCTV scoring	351.2	8	6.7	8	54	1.4	1.8	2.4	22.0	No	Moderate Priority
05401250540126	Condition - with no CCTV scoring	318	8	5.3	8	54	1.4	1.8	2.4	22.0	No	Moderate Priority
05401300540131	Condition - with no CCTV scoring	188	8	6.0	8	54	1.4	1.8	2.4	22.0	No	Moderate Priority
06200120620034	Condition - with no CCTV scoring	341.1	8	5.3	8	62	1.5	1.7	2.4	21.9	No	Low Priority
02400400240041	Condition - with no CCTV scoring	98.5	6	7.7	8	24	1.7	1.5	2.4	21.9	No	Lowest Priority
02400430240035	Condition - with no CCTV scoring	200	6	7.8	8	24	1.7	1.5	2.4	21.9	No	Lowest Priority
02401340240133	Condition - with no CCTV scoring	190.8	8	6.7	8	24	1.7	1.5	2.4	21.9	No	Lowest Priority
02400350240040	Condition - with no CCTV scoring	197.4	6	7.6	8	24	1.7	1.5	2.4	21.9	No	Lowest Priority
02400340240035	Condition - with no CCTV scoring	98.8	6	7.8	8	24	1.7	1.5	2.4	21.9	No	Lowest Priority
02500570250061	Condition - with no CCTV scoring	349.2	8	8.2	8	25	1.7	1.5	2.4	21.9	No	Lowest Priority
03400360340037	Condition - with no CCTV scoring	148	8	7.1	8	34	1.7	1.5	2.4	21.9	No	Lowest Priority
03600310360032	Condition - with no CCTV scoring	138.5	8	5.8	8	36	1.7	1.5	2.4	21.9	No	High Priority
06402070640206	Condition - with no CCTV scoring	300.8	8	6.8	8	64	1.7	1.5	2.4	21.9	No	Moderate Priority
08700390870126	Condition - with no CCTV scoring	380.9	10	5.4	10	87	1.7	1.5	2.4	21.9	No	Moderate Priority
09701970970161	Condition - with no CCTV scoring	343.2	8	6.0	8	97	1.7	1.5	2.4	21.9	No	Lowest Priority
02401200240119	Condition - with no CCTV scoring	143.1	8	5.7	8	24	1.3	1.9	2.4	21.9	No	Lowest Priority
02602680260266	Condition - with no CCTV scoring	126.4	8	8.2	8	26	1.9	1.3	2.4	21.9	No	Low Priority
C10	Condition - with no CCTV scoring	337.1	8	13.4	8	98	1.8	1.4	2.4	21.9	No	Lowest Priority
04401830440185	Condition - with no CCTV scoring	262.5	15	17.5	15	44	2.4	1.0	2.4	21.8	No	Low Priority
01100220120029	Condition - with no CCTV scoring	341.3	8	7.9	8	11	1.4	1.8	2.4	21.8	No	Lowest Priority
02200810220082	Condition - with no CCTV scoring	236.3	8	8.1	8	22	1.7	1.4	2.4	21.8	No	Low Priority
02600710360096	Condition - with no CCTV scoring	437	8	4.0	8	26	1.3	1.8	2.4	21.8	No	Low Priority
02600460260048	Condition - with no CCTV scoring	263.1	8	4.9	8	26	1.3	1.8	2.4	21.8	No	Low Priority
03600090360006	Condition - with no CCTV scoring	361.9	8	5.2	8	36	1.3	1.8	2.4	21.8	No	High Priority
03600080360006	Condition - with no CCTV scoring	292.3	8	5.0	8	36	1.3	1.8	2.4	21.8	No	High Priority
03600120360011	Condition - with no CCTV scoring	192.1	8	5.0	8	36	1.3	1.8	2.4	21.8	No	High Priority
03600110360007	Condition - with no CCTV scoring	303.1	8	4.9	8	36	1.3	1.8	2.4	21.8	No	High Priority
03601490360145	Condition - with no CCTV scoring	278.9	8	5.2	8	36	1.3	1.8	2.4	21.8	No	High Priority
03601480360149	Condition - with no CCTV scoring	26.1	8	4.8	8	36	1.3	1.8	2.4	21.8	No	High Priority
03601470360148	Condition - with no CCTV scoring	271.9	8	4.2	8	36	1.3	1.8	2.4	21.8	No	High Priority
03600540360053	Condition - with no CCTV scoring	282	8	4.8	8	36	1.3	1.8	2.4	21.8	No	High Priority
03600940360084	Condition - with no CCTV scoring	331.4	8	5.0	8	36	1.3	1.8	2.4	21.8	No	High Priority
03601390360140	Condition - with no CCTV scoring	179.7	8	5.5	8	36	1.3	1.8	2.4	21.8	No	High Priority
03701060370104	Condition - with no CCTV scoring	333	8	4.7	8	37	1.3	1.8	2.4	21.8	No	Low Priority
03700190370017	Condition - with no CCTV scoring	427.6	8	5.1	8	37	1.3	1.8	2.4	21.8	No	Low Priority
03700140370012	Condition - with no CCTV scoring	431	8	5.0	8	37	1.3	1.8	2.4	21.8	No	Low Priority
03700260370025	Condition - with no CCTV scoring	430.9	8	5.3	8	37	1.3	1.8	2.4	21.8	No	Low Priority
03702060370106	Condition - with no CCTV scoring	291	8	5.3	8	37	1.3	1.8	2.4	21.8	No	Low Priority
03701200370072	Condition - with no CCTV scoring	275	8	7.7	8	37	1.3	1.8	2.4	21.8	No	Low Priority
03701430370144	Condition - with no CCTV scoring	159.2	8	5.9	8	37	1.3	1.8	2.4	21.8	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03701470370149	Condition - with no CCTV scoring	330.2	8	5.4	8	37	1.3	1.8	2.4	21.8	No	Low Priority
03900100380007	Condition - with no CCTV scoring	286.2	8	6.2	8	38	1.3	1.8	2.4	21.8	No	Low Priority
03900230390030	Condition - with no CCTV scoring	93.5	8	6.2	8	39	1.3	1.8	2.4	21.8	No	Low Priority
03900300390029	Condition - with no CCTV scoring	205.5	8	6.4	8	39	1.3	1.8	2.4	21.8	No	Low Priority
04702170470218	Condition - with no CCTV scoring	403.7	8	7.1	8	47	1.3	1.8	2.4	21.8	No	High Priority
04700150470016	Condition - with no CCTV scoring	390.1	8	5.3	8	47	1.3	1.8	2.4	21.8	No	High Priority
04700710470070	Condition - with no CCTV scoring	61.1	8	4.7	8	47	1.3	1.8	2.4	21.8	No	High Priority
04702310470001	Condition - with no CCTV scoring	528.7	8	5.0	8	47	1.3	1.8	2.4	21.8	No	High Priority
04702280470003	Condition - with no CCTV scoring	186.7	8	4.9	8	47	1.3	1.8	2.4	21.8	No	High Priority
04700040470003	Condition - with no CCTV scoring	328.9	8	5.1	8	47	1.3	1.8	2.4	21.8	No	High Priority
04700030470002	Condition - with no CCTV scoring	192.9	8	4.7	8	47	1.3	1.8	2.4	21.8	No	High Priority
04700020470031	Condition - with no CCTV scoring	62.9	8	5.4	8	47	1.3	1.8	2.4	21.8	No	High Priority
04700010470031	Condition - with no CCTV scoring	470.6	8	5.0	8	47	1.3	1.8	2.4	21.8	No	High Priority
04900010480129	Condition - with no CCTV scoring	313.4	8	7.0	8	48	1.3	1.8	2.4	21.8	No	High Priority
05400840540085	Condition - with no CCTV scoring	283.8	8	5.3	8	54	1.3	1.8	2.4	21.8	No	Moderate Priority
STN_0110880117	Condition - with no CCTV scoring	20	8	4.6	8	88	1.7	1.4	2.4	21.8	No	Low Priority
01203030120297	Condition - with no CCTV scoring	96.6	8	13.2	8	12	1.5	1.7	2.4	21.8	No	Lowest Priority
01300030130004	Condition - with no CCTV scoring	303.6	8	7.2	8	13	1.7	1.5	2.4	21.8	No	Lowest Priority
02301250230126	Condition - with no CCTV scoring	149.4	8	7.0	8	23	1.7	1.5	2.4	21.8	No	Lowest Priority
02500950250096	Condition - with no CCTV scoring	354.1	8	6.0	8	25	1.7	1.5	2.4	21.8	No	Lowest Priority
02700470270008	Condition - with no CCTV scoring	257.6	8	5.0	8	27	1.7	1.5	2.4	21.8	No	Moderate Priority
03200530320058	Condition - with no CCTV scoring	294.6	8	12.5	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
03200610320063	Condition - with no CCTV scoring	136.4	8	14.6	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
03200540320053	Condition - with no CCTV scoring	98.1	8	10.4	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
03200630320066	Condition - with no CCTV scoring	224.2	8	12.4	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
03200620320061	Condition - with no CCTV scoring	184	8	12.8	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
03200090320010	Condition - with no CCTV scoring	295.4	8	14.0	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
03200100320013	Condition - with no CCTV scoring	264.7	8	11.2	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
03200660320065	Condition - with no CCTV scoring	414.7	8	11.1	8	32	1.5	1.7	2.4	21.8	No	Lowest Priority
07202460720245	Condition - with no CCTV scoring	24.6	8	8.0	8	72	1.8	1.3	2.4	21.8	No	Moderate Priority
07202470720246	Condition - with no CCTV scoring	174.9	8	7.2	8	72	1.8	1.3	2.4	21.8	No	Moderate Priority
02400930240094	Condition - with no CCTV scoring	383.5	12	8.4	12	24	1.8	1.4	2.4	21.7	No	Lowest Priority
02401820240096	Condition - with no CCTV scoring	33.4	8	12.7	8	24	1.8	1.4	2.4	21.7	No	Lowest Priority
02501050250106	Condition - with no CCTV scoring	181.6	8	9.1	8	25	1.8	1.4	2.4	21.7	No	Lowest Priority
02501100250109	Condition - with no CCTV scoring	218.1	8	8.0	8	25	1.8	1.4	2.4	21.7	No	Lowest Priority
02501070250105	Condition - with no CCTV scoring	116.3	8	8.4	8	25	1.8	1.4	2.4	21.7	No	Lowest Priority
08500450850014	Condition - with no CCTV scoring	109.9	8	8.1	8	85	1.8	1.4	2.4	21.7	No	Lowest Priority
08500130850045	Condition - with no CCTV scoring	77.7	8	8.1	8	85	1.8	1.4	2.4	21.7	No	Lowest Priority
09600690960066	Condition - with no CCTV scoring	75.6	8	11.1	8	96	1.8	1.4	2.4	21.7	No	Low Priority
06500070650056	Condition - with no CCTV scoring	145.4	8	2.0	8	65	1.5	1.6	2.4	21.7	No	Moderate Priority
06502170750231	Condition - with no CCTV scoring	351.2	8	6.0	8	65	1.5	1.6	2.4	21.7	No	Moderate Priority
07600480760043	Condition - with no CCTV scoring	155	8	5.1	8	76	1.5	1.6	2.4	21.7	No	Highest Priority
07600420760043	Condition - with no CCTV scoring	106.8	8	4.0	8	76	1.5	1.6	2.4	21.7	No	Highest Priority
07600410760042	Condition - with no CCTV scoring	286	8	3.1	8	76	1.5	1.6	2.4	21.7	No	Highest Priority
07700450770044	Condition - with no CCTV scoring	217.5	8	4.0	8	77	1.5	1.6	2.4	21.7	No	Highest Priority
07800610780062	Condition - with no CCTV scoring	252.5	8	6.8	8	78	1.6	1.5	2.4	21.7	No	Low Priority
03501180350116	Condition - with no CCTV scoring	72.8	6	4.4	8	35	1.4	1.8	2.4	21.7	No	Moderate Priority
03501170350116	Condition - with no CCTV scoring	23.7	6	3.9	8	35	1.4	1.8	2.4	21.7	No	Moderate Priority
05400700540069	Condition - with no CCTV scoring	308.6	8	4.6	8	54	1.4	1.8	2.4	21.7	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06800090680006	Condition - with no CCTV scoring	222.3	8	5.5	8	68	1.4	1.7	2.4	21.7	No	Lowest Priority
01300530130032	Condition - with no CCTV scoring	272.8	8	6.9	8	13	1.6	1.5	2.4	21.6	No	Lowest Priority
01300600130075	Condition - with no CCTV scoring	132.7	8	4.5	8	13	1.6	1.5	2.4	21.6	No	Lowest Priority
02500060250155	Condition - with no CCTV scoring	325.1	10	6.8	10	25	1.6	1.5	2.4	21.6	No	Lowest Priority
02601900260193	Condition - with no CCTV scoring	337	8	7.9	8	26	1.6	1.5	2.4	21.6	No	Low Priority
03801250380110	Condition - with no CCTV scoring	143.6	8	4.6	8	38	1.6	1.5	2.4	21.6	No	Low Priority
04401240440114	Condition - with no CCTV scoring	454.1	8	6.5	8	44	1.6	1.5	2.4	21.6	No	Low Priority
08500380850037	Condition - with no CCTV scoring	177.3	8	4.0	8	85	1.6	1.5	2.4	21.6	No	Lowest Priority
08700370870038	Condition - with no CCTV scoring	206.8	10	6.4	10	87	1.6	1.5	2.4	21.6	No	Moderate Priority
09800270980018	Condition - with no CCTV scoring	625.1	8	9.1	8	98	1.6	1.5	2.4	21.6	No	Lowest Priority
02400920240093	Condition - with no CCTV scoring	399.4	12	8.6	12	24	1.8	1.4	2.4	21.6	No	Lowest Priority
02501360250127	Condition - with no CCTV scoring	185.4	8	9.5	8	25	1.8	1.4	2.4	21.6	No	Lowest Priority
02700150270011	Condition - with no CCTV scoring	326.1	8	10.1	8	27	1.8	1.4	2.4	21.6	No	Moderate Priority
02700110270018	Condition - with no CCTV scoring	331.7	8	10.1	8	27	1.8	1.4	2.4	21.6	No	Moderate Priority
04401730440134	Condition - with no CCTV scoring	479.2	8	7.1	8	44	1.3	1.8	2.4	21.6	No	Low Priority
05401290540128	Condition - with no CCTV scoring	442.8	8	4.0	8	54	1.5	1.6	2.4	21.6	No	Moderate Priority
00000060000007	Condition - with no CCTV scoring	266.8	15	9.5	15	00	1.8	1.3	2.4	21.5	No	Lowest Priority
01000010100013	Condition - with no CCTV scoring	353.2	15	15.3	15	10	1.8	1.3	2.4	21.5	No	Lowest Priority
02200640220066	Condition - with no CCTV scoring	123.4	8	7.9	8	22	1.7	1.4	2.4	21.5	No	Low Priority
03200260320022	Condition - with no CCTV scoring	264.9	8	7.7	8	32	1.4	1.8	2.4	21.5	No	Lowest Priority
05300790530078	Condition - with no CCTV scoring	279.8	8	6.4	8	53	1.4	1.8	2.4	21.5	No	Moderate Priority
08901360890125	Condition - with no CCTV scoring	356.1	8	7.3	8	89	1.4	1.8	2.4	21.5	No	Low Priority
08901250890137	Condition - with no CCTV scoring	343.1	8	7.8	8	89	1.4	1.8	2.4	21.5	No	Low Priority
08901240890136	Condition - with no CCTV scoring	342.2	8	7.4	8	89	1.4	1.8	2.4	21.5	No	Low Priority
C9	Condition - with no CCTV scoring	456.8	8	15.6	8	98	1.8	1.4	2.4	21.5	No	Lowest Priority
03200690320028	Condition - with no CCTV scoring	241.4	8	8.6	8	32	1.4	1.7	2.4	21.5	No	Lowest Priority
03900690390057	Condition - with no CCTV scoring	242.2	8	6.8	8	39	1.5	1.6	2.4	21.4	No	Low Priority
06500190650130	Condition - with no CCTV scoring	335.2	8	5.4	8	65	1.5	1.6	2.4	21.4	No	Moderate Priority
06502290650221	Condition - with no CCTV scoring	196.6	8	6.2	8	65	1.5	1.6	2.4	21.4	No	Moderate Priority
07202240720225	Condition - with no CCTV scoring	294.7	8	8.0	8	72	1.5	1.6	2.4	21.4	No	Moderate Priority
08700250870026	Condition - with no CCTV scoring	260.6	8	7.2	8	87	1.5	1.6	2.4	21.4	No	Moderate Priority
08700250870019	Condition - with no CCTV scoring	6.6	8	7.2	8	87	1.5	1.6	2.4	21.4	No	Moderate Priority
01000060100007	Condition - with no CCTV scoring	351.6	15	9.9	15	10	1.8	1.3	2.4	21.4	No	Lowest Priority
02201010230206	Condition - with no CCTV scoring	47.5	8	10.9	8	22	1.8	1.3	2.4	21.4	No	Low Priority
02200920220101	Condition - with no CCTV scoring	132.3	8	10.5	8	22	1.8	1.3	2.4	21.4	No	Low Priority
01300120130011	Condition - with no CCTV scoring	140	8	6.6	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300140130012	Condition - with no CCTV scoring	319.9	8	6.2	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300450130066	Condition - with no CCTV scoring	171.9	8	7.9	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300110130010	Condition - with no CCTV scoring	113.5	8	6.4	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300130130014	Condition - with no CCTV scoring	382.8	8	7.6	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300670130013	Condition - with no CCTV scoring	350.8	8	6.0	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300470130046	Condition - with no CCTV scoring	164.6	8	7.0	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300480130049	Condition - with no CCTV scoring	385.9	8	8.0	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300510130048	Condition - with no CCTV scoring	404.7	8	8.0	8	13	1.6	1.5	2.3	21.4	No	Lowest Priority
01300310130037	Condition - with no CCTV scoring	293.3	8	12.0	8	13	1.7	1.4	2.3	21.4	No	Lowest Priority
01300230130039	Condition - with no CCTV scoring	403.9	10	9.9	10	13	1.7	1.4	2.3	21.4	No	Lowest Priority
01300590130060	Condition - with no CCTV scoring	249.2	8	8.6	8	13	1.7	1.4	2.3	21.4	No	Lowest Priority
02301460230120	Condition - with no CCTV scoring	38.4	8	7.6	8	23	1.6	1.5	2.3	21.4	No	Lowest Priority
02301450230146	Condition - with no CCTV scoring	50	8	6.4	8	23	1.6	1.5	2.3	21.4	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02301610230160	Condition - with no CCTV scoring	104.3	8	7.6	8	23	1.6	1.5	2.3	21.4	No	Lowest Priority
02301600230159	Condition - with no CCTV scoring	229.4	8	7.6	8	23	1.6	1.5	2.3	21.4	No	Lowest Priority
02400710240042	Condition - with no CCTV scoring	336.2	8	8.2	8	24	1.7	1.4	2.3	21.4	No	Lowest Priority
02400490240050	Condition - with no CCTV scoring	310.3	8	8.6	8	24	1.7	1.4	2.3	21.4	No	Lowest Priority
02400520240049	Condition - with no CCTV scoring	256.2	8	10.0	8	24	1.7	1.4	2.3	21.4	No	Lowest Priority
02400840240085	Condition - with no CCTV scoring	307.1	8	8.1	8	24	1.7	1.4	2.3	21.4	No	Lowest Priority
02400020240001	Condition - with no CCTV scoring	88.2	8	5.8	8	24	1.6	1.5	2.3	21.4	No	Lowest Priority
03400330340034	Condition - with no CCTV scoring	181.7	8	5.9	8	24	1.6	1.5	2.3	21.4	No	Lowest Priority
02500530250054	Condition - with no CCTV scoring	339.9	8	8.5	8	25	1.6	1.5	2.3	21.4	No	Lowest Priority
02501110250110	Condition - with no CCTV scoring	99.7	8	8.1	8	25	1.7	1.4	2.3	21.4	No	Lowest Priority
02601910260188	Condition - with no CCTV scoring	99.7	8	6.5	8	26	1.6	1.5	2.3	21.4	No	Low Priority
02700090270018	Condition - with no CCTV scoring	344.3	8	6.0	8	27	1.6	1.5	2.3	21.4	No	Moderate Priority
04400230440024	Condition - with no CCTV scoring	409.2	8	7.4	8	44	1.6	1.5	2.3	21.4	No	Low Priority
07701240770125	Condition - with no CCTV scoring	426.8	10	11.4	10	77	1.7	1.4	2.3	21.4	No	Highest Priority
03600100360011	Condition - with no CCTV scoring	265.9	8	8.7	8	36	1.4	1.7	2.3	21.3	No	High Priority
04601330360010	Condition - with no CCTV scoring	240.7	8	9.0	8	36	1.4	1.7	2.3	21.3	No	High Priority
03900360380024	Condition - with no CCTV scoring	255.6	8	8.7	8	38	1.4	1.7	2.3	21.3	No	Low Priority
03800220380033	Condition - with no CCTV scoring	161.5	8	8.5	8	38	1.4	1.7	2.3	21.3	No	Low Priority
03900130390012	Condition - with no CCTV scoring	62.8	8	8.2	8	39	1.4	1.7	2.3	21.3	No	Low Priority
03900340390035	Condition - with no CCTV scoring	326.7	8	8.8	8	39	1.4	1.7	2.3	21.3	No	Low Priority
03900390390038	Condition - with no CCTV scoring	110.8	8	9.0	8	39	1.4	1.7	2.3	21.3	No	Low Priority
03200240320025	Condition - with no CCTV scoring	97.2	8	9.1	8	32	1.4	1.7	2.3	21.3	No	Lowest Priority
02302710230272	Condition - with no CCTV scoring	209	8	13.4	8	23	1.8	1.3	2.3	21.3	No	Lowest Priority
02500190250020	Condition - with no CCTV scoring	346.6	8	6.2	8	25	1.3	1.8	2.3	21.3	No	Lowest Priority
02500160250017	Condition - with no CCTV scoring	337.2	8	6.0	8	25	1.3	1.8	2.3	21.3	No	Lowest Priority
03601380360054	Condition - with no CCTV scoring	51	8	4.7	8	36	1.3	1.8	2.3	21.3	No	High Priority
03601180460255	Condition - with no CCTV scoring	673.7	8	5.0	8	36	1.3	1.8	2.3	21.3	No	High Priority
03700130470014	Condition - with no CCTV scoring	417.1	8	5.1	8	37	1.3	1.8	2.3	21.3	No	Low Priority
03700120370013	Condition - with no CCTV scoring	418.3	8	5.1	8	37	1.3	1.8	2.3	21.3	No	Low Priority
03800080380009	Condition - with no CCTV scoring	357.5	8	7.6	8	38	1.3	1.8	2.3	21.3	No	Low Priority
03800030380143	Condition - with no CCTV scoring	409.7	8	7.8	8	38	1.3	1.8	2.3	21.3	No	Low Priority
03800020380143	Condition - with no CCTV scoring	313.8	8	7.0	8	38	1.3	1.8	2.3	21.3	No	Low Priority
03900090380002	Condition - with no CCTV scoring	385	8	7.9	8	38	1.3	1.8	2.3	21.3	No	Low Priority
03900720390073	Condition - with no CCTV scoring	428.4	8	7.0	8	39	1.3	1.8	2.3	21.3	No	Low Priority
04401540440153	Condition - with no CCTV scoring	148	8	5.6	8	44	1.3	1.8	2.3	21.3	No	Low Priority
04700680470069	Condition - with no CCTV scoring	323.9	8	4.7	8	47	1.3	1.8	2.3	21.3	No	High Priority
05400060540005	Condition - with no CCTV scoring	414	8	5.0	8	54	1.3	1.8	2.3	21.3	No	Moderate Priority
05400610540058	Condition - with no CCTV scoring	89.1	8	5.0	8	54	1.3	1.8	2.3	21.3	No	Moderate Priority
05800180680007	Condition - with no CCTV scoring	457	8	5.4	8	57	1.3	1.8	2.3	21.3	No	Highest Priority
05700170570016	Condition - with no CCTV scoring	302.8	8	4.0	8	57	1.3	1.8	2.3	21.3	No	Highest Priority
06200760620077	Condition - with no CCTV scoring	112.5	8	5.3	8	62	1.3	1.8	2.3	21.3	No	Low Priority
02302340230217	Condition - with no CCTV scoring	261.9	8	8.5	8	23	1.7	1.4	2.3	21.3	No	Lowest Priority
02501270250118	Condition - with no CCTV scoring	221.9	8	8.1	8	25	1.7	1.4	2.3	21.2	No	Lowest Priority
02500920250093	Condition - with no CCTV scoring	230.1	8	9.9	8	25	1.7	1.4	2.3	21.2	No	Lowest Priority
02501200250119	Condition - with no CCTV scoring	282.3	8	9.0	8	25	1.7	1.4	2.3	21.2	No	Lowest Priority
03300810330080	Condition - with no CCTV scoring	223.8	8	8.5	8	33	1.7	1.4	2.3	21.2	No	Low Priority
01300370130039	Condition - with no CCTV scoring	272.2	8	7.8	8	13	1.6	1.5	2.3	21.2	No	Lowest Priority
01300560130055	Condition - with no CCTV scoring	243.6	8	6.9	8	13	1.6	1.5	2.3	21.2	No	Lowest Priority
01300750130061	Condition - with no CCTV scoring	23.7	8	7.5	8	13	1.6	1.5	2.3	21.2	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02400700240071	Condition - with no CCTV scoring	223.7	8	7.9	8	24	1.6	1.5	2.3	21.2	No	Lowest Priority
02400800240070	Condition - with no CCTV scoring	222.1	8	7.7	8	24	1.6	1.5	2.3	21.2	No	Lowest Priority
02400760240080	Condition - with no CCTV scoring	132.5	8	7.7	8	24	1.6	1.5	2.3	21.2	No	Lowest Priority
02400740240075	Condition - with no CCTV scoring	195	8	7.8	8	24	1.6	1.5	2.3	21.2	No	Lowest Priority
02501010250131	Condition - with no CCTV scoring	260	8	6.3	8	25	1.6	1.5	2.3	21.2	No	Lowest Priority
03300830330082	Condition - with no CCTV scoring	232.5	8	6.3	8	33	1.6	1.5	2.3	21.2	No	Low Priority
03300820330081	Condition - with no CCTV scoring	219.3	8	7.1	8	33	1.6	1.5	2.3	21.2	No	Low Priority
03300120330011	Condition - with no CCTV scoring	304.3	8	7.3	8	33	1.6	1.5	2.3	21.2	No	Low Priority
03300130330012	Condition - with no CCTV scoring	402	8	7.9	8	33	1.6	1.5	2.3	21.2	No	Low Priority
03300920330013	Condition - with no CCTV scoring	201.5	8	7.2	8	33	1.6	1.5	2.3	21.2	No	Low Priority
04400250440017	Condition - with no CCTV scoring	231.9	8	6.9	8	44	1.6	1.5	2.3	21.2	No	Low Priority
04400260440025	Condition - with no CCTV scoring	100.4	8	7.1	8	44	1.6	1.5	2.3	21.2	No	Low Priority
04400740440125	Condition - with no CCTV scoring	454.8	8	6.3	8	44	1.6	1.5	2.3	21.2	No	Low Priority
05401330540130	Condition - with no CCTV scoring	114.9	8	5.8	8	54	1.3	1.8	2.3	21.2	No	Moderate Priority
05400840540098	Condition - with no CCTV scoring	429.4	8	5.3	8	54	1.3	1.8	2.3	21.2	No	Moderate Priority
02200620220064	Condition - with no CCTV scoring	185	8	10.1	8	22	1.8	1.3	2.3	21.2	No	Low Priority
03700380370037	Condition - with no CCTV scoring	420.5	8	5.9	8	37	1.5	1.6	2.3	21.2	No	Low Priority
04400860440083	Condition - with no CCTV scoring	326.9	8	6.4	8	44	1.5	1.6	2.3	21.2	No	Low Priority
04400850440086	Condition - with no CCTV scoring	285.1	8	6.3	8	44	1.5	1.6	2.3	21.2	No	Low Priority
05402020540203	Condition - with no CCTV scoring	340.9	8	6.2	8	54	1.5	1.6	2.3	21.2	No	Moderate Priority
06501290650130	Condition - with no CCTV scoring	370.6	8	2.9	8	65	1.5	1.6	2.3	21.2	No	Moderate Priority
05301030530104	Condition - with no CCTV scoring	289.1	8	7.3	8	53	1.7	1.4	2.3	21.1	No	Moderate Priority
05301060530103	Condition - with no CCTV scoring	134.6	8	8.0	8	53	1.7	1.4	2.3	21.1	No	Moderate Priority
01300520130051	Condition - with no CCTV scoring	447.4	8	10.5	8	13	1.7	1.4	2.3	21.1	No	Lowest Priority
01300500130046	Condition - with no CCTV scoring	284.1	8	11.3	8	13	1.7	1.4	2.3	21.1	No	Lowest Priority
01300580130064	Condition - with no CCTV scoring	358.3	8	8.0	8	13	1.7	1.4	2.3	21.1	No	Lowest Priority
02401000250040	Condition - with no CCTV scoring	400	15	10.2	15	24	1.7	1.4	2.3	21.1	No	Lowest Priority
02601880260181	Condition - with no CCTV scoring	213.5	8	11.5	8	26	1.7	1.4	2.3	21.1	No	Low Priority
02700220270020	Condition - with no CCTV scoring	49.3	8	10.7	8	27	1.7	1.4	2.3	21.1	No	Moderate Priority
01300640130074	Condition - with no CCTV scoring	223.3	8	7.9	8	13	1.6	1.5	2.3	21.1	No	Lowest Priority
02500990250100	Condition - with no CCTV scoring	368.7	8	6.0	8	25	1.6	1.5	2.3	21.1	No	Lowest Priority
02600860260085	Condition - with no CCTV scoring	249	8	7.1	8	26	1.6	1.5	2.3	21.1	No	Low Priority
03300030330004	Condition - with no CCTV scoring	507.5	8	7.1	8	33	1.6	1.5	2.3	21.1	No	Low Priority
04401290440106	Condition - with no CCTV scoring	186.3	8	6.1	8	44	1.6	1.5	2.3	21.1	No	Low Priority
01202810120030	Condition - with no CCTV scoring	106.5	8	7.7	8	12	1.3	1.9	2.3	21.0	No	Lowest Priority
02602670260160	Condition - with no CCTV scoring	205.5	8	7.8	8	26	1.7	1.4	2.3	21.0	No	Low Priority
03200600320050	Condition - with no CCTV scoring	267.3	8	8.7	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200030320047	Condition - with no CCTV scoring	377.2	8	8.8	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200180320011	Condition - with no CCTV scoring	255.5	8	8.4	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200220320016	Condition - with no CCTV scoring	54.6	8	9.0	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200560320053	Condition - with no CCTV scoring	262.7	8	8.7	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200160320012	Condition - with no CCTV scoring	260.2	8	8.8	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200650320038	Condition - with no CCTV scoring	344	8	9.6	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200110320009	Condition - with no CCTV scoring	233.5	8	8.3	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200120320010	Condition - with no CCTV scoring	424.2	8	8.8	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200640320065	Condition - with no CCTV scoring	300.2	8	9.8	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
03200130320064	Condition - with no CCTV scoring	329.5	8	9.7	8	32	1.4	1.7	2.3	21.0	No	Lowest Priority
06500070650008	Condition - with no CCTV scoring	99.9	8	2.0	8	65	1.5	1.5	2.3	21.0	No	Moderate Priority
04401770440175	Condition - with no CCTV scoring	196.6	8	7.3	8	44	1.5	1.6	2.3	21.0	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04401380440136	Condition - with no CCTV scoring	262.9	8	8.0	8	44	1.5	1.6	2.3	21.0	No	Low Priority
02501210250122	Condition - with no CCTV scoring	173.7	8	10.6	8	25	1.7	1.4	2.3	21.0	No	Lowest Priority
03300110330010	Condition - with no CCTV scoring	451	8	10.3	8	33	1.7	1.4	2.3	21.0	No	Low Priority
06603370660336	Condition - with no CCTV scoring	182.8	8	10.1	8	66	1.7	1.4	2.3	21.0	No	Highest Priority
01300280130029	Condition - with no CCTV scoring	391	8	5.7	8	13	1.6	1.5	2.3	21.0	No	Lowest Priority
02401810240028	Condition - with no CCTV scoring	379.5	8	7.9	8	24	1.6	1.5	2.3	21.0	No	Lowest Priority
02401310240017	Condition - with no CCTV scoring	277.2	8	7.3	8	24	1.6	1.5	2.3	21.0	No	Lowest Priority
02700180270050	Condition - with no CCTV scoring	177.3	8	6.8	8	27	1.6	1.5	2.3	21.0	No	Moderate Priority
03400350340036	Condition - with no CCTV scoring	133.5	8	7.1	8	34	1.6	1.5	2.3	21.0	No	Lowest Priority
04401720440171	Condition - with no CCTV scoring	451.3	8	9.6	8	44	1.6	1.5	2.3	21.0	No	Low Priority
04400330440043	Condition - with no CCTV scoring	272.2	8	5.2	8	44	1.6	1.5	2.3	21.0	No	Low Priority
07300200720179	Condition - with no CCTV scoring	260.9	8	5.4	8	73	1.6	1.5	2.3	21.0	No	High Priority
07302130730018	Condition - with no CCTV scoring	259.7	8	4.3	8	73	1.6	1.5	2.3	21.0	No	High Priority
07300270730020	Condition - with no CCTV scoring	262.5	8	5.2	8	73	1.6	1.5	2.3	21.0	No	High Priority
07300280730020	Condition - with no CCTV scoring	322.4	8	5.4	8	73	1.6	1.5	2.3	21.0	No	High Priority
08700380870039	Condition - with no CCTV scoring	482.3	10	5.9	10	87	1.6	1.5	2.3	21.0	No	Moderate Priority
09600350960038	Condition - with no CCTV scoring	136	6	7.6	8	96	1.6	1.5	2.3	21.0	No	Low Priority
02600530260050	Condition - with no CCTV scoring	107	8	5.5	8	26	1.3	1.8	2.3	21.0	No	Low Priority
02600500260048	Condition - with no CCTV scoring	180.7	8	5.3	8	26	1.3	1.8	2.3	21.0	No	Low Priority
03600070360004	Condition - with no CCTV scoring	244.6	8	5.1	8	36	1.3	1.8	2.3	21.0	No	High Priority
03600030360004	Condition - with no CCTV scoring	365.3	8	5.4	8	36	1.3	1.8	2.3	21.0	No	High Priority
03700700370067	Condition - with no CCTV scoring	532.8	8	4.8	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03700780370075	Condition - with no CCTV scoring	174.5	8	6.0	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03700770370075	Condition - with no CCTV scoring	206.2	8	5.0	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03700010370120	Condition - with no CCTV scoring	234.3	8	3.9	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03701180370063	Condition - with no CCTV scoring	111.7	8	4.0	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03701980370189	Condition - with no CCTV scoring	153.7	8	5.0	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03701940370193	Condition - with no CCTV scoring	202.7	8	5.0	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03701930370189	Condition - with no CCTV scoring	434.8	8	5.2	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03701860370185	Condition - with no CCTV scoring	328.9	8	5.0	8	37	1.3	1.8	2.3	21.0	No	Low Priority
03900170380022	Condition - with no CCTV scoring	385.9	8	5.3	8	38	1.3	1.8	2.3	21.0	No	Low Priority
03900120390068	Condition - with no CCTV scoring	235.5	8	5.7	8	39	1.3	1.8	2.3	21.0	No	Low Priority
03900140390012	Condition - with no CCTV scoring	186.8	8	5.8	8	39	1.3	1.8	2.3	21.0	No	Low Priority
03900350390041	Condition - with no CCTV scoring	313.1	8	5.0	8	39	1.3	1.8	2.3	21.0	No	Low Priority
03900430390035	Condition - with no CCTV scoring	298.7	8	5.0	8	39	1.3	1.8	2.3	21.0	No	Low Priority
03900290390031	Condition - with no CCTV scoring	251.4	8	5.3	8	39	1.3	1.8	2.3	21.0	No	Low Priority
03900210390023	Condition - with no CCTV scoring	24.1	8	5.6	8	39	1.3	1.8	2.3	21.0	No	Low Priority
03900220390021	Condition - with no CCTV scoring	433.2	8	5.0	8	39	1.3	1.8	2.3	21.0	No	Low Priority
03900190390020	Condition - with no CCTV scoring	197.5	8	5.0	8	39	1.3	1.8	2.3	21.0	No	Low Priority
04702330470218	Condition - with no CCTV scoring	201	8	2.3	8	47	1.3	1.8	2.3	21.0	No	High Priority
04701430470144	Condition - with no CCTV scoring	377.1	8	6.0	8	47	1.3	1.8	2.3	21.0	No	High Priority
04701400470141	Condition - with no CCTV scoring	401.9	8	5.0	8	47	1.3	1.8	2.3	21.0	No	High Priority
04700750470082	Condition - with no CCTV scoring	466	8	4.7	8	47	1.3	1.8	2.3	21.0	No	High Priority
04701420470140	Condition - with no CCTV scoring	251.6	8	5.8	8	47	1.3	1.8	2.3	21.0	No	High Priority
04800780480079	Condition - with no CCTV scoring	74	8	6.0	8	48	1.3	1.8	2.3	21.0	No	High Priority
05400630540064	Condition - with no CCTV scoring	356.1	8	5.2	8	54	1.3	1.8	2.3	21.0	No	Moderate Priority
06300120630003	Condition - with no CCTV scoring	183.9	8	4.6	8	63	1.3	1.8	2.3	21.0	No	Moderate Priority
00000090100001	Condition - with no CCTV scoring	305.2	15	14.3	15	00	1.8	1.3	2.3	20.9	No	Lowest Priority
07800070780071	Condition - with no CCTV scoring	338.2	8	6.4	8	78	1.6	1.4	2.3	20.9	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
08901160890118	Condition - with no CCTV scoring	412.1	12	8.0	12	89	1.6	1.4	2.3	20.9	No	Low Priority
01201630120168	Condition - with no CCTV scoring	134.3	10	8.3	10	12	1.7	1.4	2.3	20.9	No	Lowest Priority
01300090130007	Condition - with no CCTV scoring	155	8	18.4	8	13	1.7	1.4	2.3	20.9	No	Lowest Priority
02501040250097	Condition - with no CCTV scoring	229	8	8.5	8	25	1.7	1.4	2.3	20.9	No	Lowest Priority
02501090250104	Condition - with no CCTV scoring	167.2	8	8.5	8	25	1.7	1.4	2.3	20.9	No	Lowest Priority
02501340250093	Condition - with no CCTV scoring	238.2	8	12.6	8	25	1.7	1.4	2.3	20.9	No	Lowest Priority
02501060250109	Condition - with no CCTV scoring	51.4	8	8.3	8	25	1.7	1.4	2.3	20.9	No	Lowest Priority
02500810250080	Condition - with no CCTV scoring	274.4	8	9.9	8	25	1.7	1.4	2.3	20.9	No	Lowest Priority
02500840250081	Condition - with no CCTV scoring	258.4	8	8.2	8	25	1.7	1.4	2.3	20.9	No	Lowest Priority
03801430380142	Condition - with no CCTV scoring	158.4	8	9.9	8	38	1.4	1.7	2.3	20.9	No	Low Priority
03800150380003	Condition - with no CCTV scoring	415.1	8	8.1	8	38	1.4	1.7	2.3	20.9	No	Low Priority
03800050380006	Condition - with no CCTV scoring	384.2	8	8.4	8	38	1.4	1.7	2.3	20.9	No	Low Priority
03900080380006	Condition - with no CCTV scoring	391.9	8	8.5	8	38	1.4	1.7	2.3	20.9	No	Low Priority
03800060380143	Condition - with no CCTV scoring	291.7	8	8.6	8	38	1.4	1.7	2.3	20.9	No	Low Priority
03900610390060	Condition - with no CCTV scoring	207.4	8	11.5	8	39	1.4	1.7	2.3	20.9	No	Low Priority
07200540720055	Condition - with no CCTV scoring	294.5	8	8.2	8	72	1.7	1.4	2.3	20.9	No	Moderate Priority
STN_0050890045	Condition - with no CCTV scoring	260.1	15	14.8	15	89	1.4	1.7	2.3	20.9	No	Low Priority
01201420120140	Condition - with no CCTV scoring	315.7	8	7.8	8	12	1.6	1.5	2.3	20.8	No	Lowest Priority
02401330240139	Condition - with no CCTV scoring	254.1	8	6.5	8	24	1.6	1.5	2.3	20.8	No	Lowest Priority
02401380240133	Condition - with no CCTV scoring	196	8	7.1	8	24	1.6	1.5	2.3	20.8	No	Lowest Priority
02401360240137	Condition - with no CCTV scoring	371.1	8	6.9	8	24	1.6	1.5	2.3	20.8	No	Lowest Priority
02401350240136	Condition - with no CCTV scoring	90.9	8	6.8	8	24	1.6	1.5	2.3	20.8	No	Lowest Priority
02400370240036	Condition - with no CCTV scoring	60.4	6	8.0	8	24	1.6	1.5	2.3	20.8	No	Lowest Priority
02400330240034	Condition - with no CCTV scoring	245.8	6	7.6	8	24	1.6	1.5	2.3	20.8	No	Lowest Priority
02500700250072	Condition - with no CCTV scoring	274	8	7.1	8	25	1.6	1.5	2.3	20.8	No	Lowest Priority
02500690250070	Condition - with no CCTV scoring	148.7	8	7.3	8	25	1.6	1.5	2.3	20.8	No	Lowest Priority
02500970250130	Condition - with no CCTV scoring	128	8	7.7	8	25	1.6	1.5	2.3	20.8	No	Lowest Priority
02700060260095	Condition - with no CCTV scoring	152.3	8	5.3	8	26	1.6	1.5	2.3	20.8	No	Low Priority
02700080270006	Condition - with no CCTV scoring	276.1	8	4.8	8	26	1.6	1.5	2.3	20.8	No	Low Priority
03400990340098	Condition - with no CCTV scoring	147	8	8.0	8	34	1.6	1.5	2.3	20.8	No	Lowest Priority
03400200340019	Condition - with no CCTV scoring	129.6	8	6.6	8	34	1.6	1.5	2.3	20.8	No	Lowest Priority
03600220360023	Condition - with no CCTV scoring	268.2	8	7.0	8	36	1.6	1.5	2.3	20.8	No	High Priority
03700390370038	Condition - with no CCTV scoring	415.3	8	5.2	8	37	1.6	1.5	2.3	20.8	No	Low Priority
05500200550021	Condition - with no CCTV scoring	265.5	8	4.2	8	55	1.6	1.5	2.3	20.8	No	High Priority
05800740580075	Condition - with no CCTV scoring	252.6	8	6.0	8	58	1.6	1.5	2.3	20.8	No	High Priority
01100850110086	Condition - with no CCTV scoring	262.5	8	11.2	8	11	1.8	1.3	2.3	20.8	No	Lowest Priority
06500330650007	Condition - with no CCTV scoring	46.5	8	12.5	8	65	1.7	1.4	2.3	20.8	No	Moderate Priority
09700520970051	Condition - with no CCTV scoring	18.8	8	13.7	8	97	1.7	1.4	2.3	20.8	No	Lowest Priority
03700350370034	Condition - with no CCTV scoring	427.7	10	6.0	10	37	1.5	1.6	2.3	20.7	No	Low Priority
05603110560055	Condition - with no CCTV scoring	334.6	8	4.8	8	56	1.5	1.6	2.3	20.7	No	Highest Priority
05602330560232	Condition - with no CCTV scoring	248.2	6	5.9	8	56	1.5	1.6	2.3	20.7	No	Highest Priority
06502200650218	Condition - with no CCTV scoring	22	8	5.8	8	65	1.5	1.6	2.3	20.7	No	Moderate Priority
06502220650220	Condition - with no CCTV scoring	331.3	8	5.2	8	65	1.5	1.6	2.3	20.7	No	Moderate Priority
06501250650118	Condition - with no CCTV scoring	386.7	8	5.7	8	65	1.5	1.6	2.3	20.7	No	Moderate Priority
06600420660041	Condition - with no CCTV scoring	119.5	6	3.0	8	66	1.5	1.6	2.3	20.7	No	Highest Priority
08801130880054	Condition - with no CCTV scoring	300	8	6.0	8	88	1.5	1.6	2.3	20.7	No	Low Priority
01101580110060	Condition - with no CCTV scoring	241.6	8	9.9	8	11	1.4	1.7	2.3	20.7	No	Lowest Priority
01201310130021	Condition - with no CCTV scoring	453.4	8	7.4	8	12	1.6	1.5	2.3	20.7	No	Lowest Priority
01201350130023	Condition - with no CCTV scoring	336.6	8	6.4	8	12	1.6	1.5	2.3	20.7	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01300050130001	Condition - with no CCTV scoring	256.4	8	6.1	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300170130005	Condition - with no CCTV scoring	256.9	8	6.1	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300250130026	Condition - with no CCTV scoring	147.8	8	6.9	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300270130024	Condition - with no CCTV scoring	335.5	8	6.9	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300260130030	Condition - with no CCTV scoring	302.7	8	6.8	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300320130026	Condition - with no CCTV scoring	325.5	8	6.7	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300360130031	Condition - with no CCTV scoring	393.8	8	7.8	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300290130032	Condition - with no CCTV scoring	130	8	6.4	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300210130018	Condition - with no CCTV scoring	272.6	8	7.2	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
01300240130025	Condition - with no CCTV scoring	342.2	8	7.0	8	13	1.6	1.5	2.3	20.7	No	Lowest Priority
02500740250050	Condition - with no CCTV scoring	182.3	8	7.6	8	25	1.6	1.5	2.3	20.7	No	Lowest Priority
03300430330042	Condition - with no CCTV scoring	412.9	8	7.5	8	33	1.6	1.5	2.3	20.7	No	Low Priority
04401050440106	Condition - with no CCTV scoring	278.6	8	6.9	8	44	1.6	1.5	2.3	20.7	No	Low Priority
04401360440139	Condition - with no CCTV scoring	149.5	8	8.8	8	44	1.6	1.5	2.3	20.7	No	Low Priority
06400580640052	Condition - with no CCTV scoring	421.7	8	5.4	8	64	1.6	1.5	2.3	20.7	No	Moderate Priority
03200590320050	Condition - with no CCTV scoring	378.4	8	5.2	8	32	1.3	1.8	2.3	20.7	No	Lowest Priority
03200550320054	Condition - with no CCTV scoring	202.4	8	6.0	8	32	1.3	1.8	2.3	20.7	No	Lowest Priority
03200710320070	Condition - with no CCTV scoring	192.4	8	5.0	8	32	1.3	1.8	2.3	20.7	No	Lowest Priority
05300820530067	Condition - with no CCTV scoring	425.3	8	5.0	8	53	1.3	1.8	2.3	20.7	No	Moderate Priority
05300830530082	Condition - with no CCTV scoring	352.8	8	5.3	8	53	1.3	1.8	2.3	20.7	No	Moderate Priority
05300670530065	Condition - with no CCTV scoring	323.4	8	5.6	8	53	1.3	1.8	2.3	20.7	No	Moderate Priority
05300650530064	Condition - with no CCTV scoring	329.4	8	3.2	8	53	1.3	1.8	2.3	20.7	No	Moderate Priority
05300780530080	Condition - with no CCTV scoring	400	8	5.5	8	53	1.3	1.8	2.3	20.7	No	Moderate Priority
02200890220090	Condition - with no CCTV scoring	316.4	8	7.3	8	22	1.6	1.4	2.3	20.6	No	Low Priority
02200980220086	Condition - with no CCTV scoring	407.4	8	7.7	8	22	1.6	1.4	2.3	20.6	No	Low Priority
02401020240101	Condition - with no CCTV scoring	222	8	12.0	8	24	1.7	1.4	2.3	20.6	No	Lowest Priority
01300330130034	Condition - with no CCTV scoring	414	8	6.4	8	13	1.6	1.5	2.3	20.6	No	Lowest Priority
02200670220068	Condition - with no CCTV scoring	148.1	8	8.0	8	22	1.7	1.3	2.3	20.6	No	Low Priority
02200660220068	Condition - with no CCTV scoring	180.1	8	8.1	8	22	1.7	1.3	2.3	20.6	No	Low Priority
02400900240074	Condition - with no CCTV scoring	360.3	8	7.7	8	24	1.6	1.5	2.3	20.6	No	Lowest Priority
02400750240076	Condition - with no CCTV scoring	52	8	7.6	8	24	1.6	1.5	2.3	20.6	No	Lowest Priority
02501580250063	Condition - with no CCTV scoring	374.4	8	7.0	8	25	1.6	1.5	2.3	20.6	No	Lowest Priority
03400110340013	Condition - with no CCTV scoring	337.9	8	7.8	8	34	1.6	1.5	2.3	20.6	No	Lowest Priority
03400180340017	Condition - with no CCTV scoring	110.8	8	6.6	8	34	1.6	1.5	2.3	20.6	No	Lowest Priority
03600010360002	Condition - with no CCTV scoring	332	8	7.5	8	35	1.6	1.5	2.3	20.6	No	Moderate Priority
05800760580073	Condition - with no CCTV scoring	186.9	8	6.1	8	58	1.6	1.5	2.3	20.6	No	High Priority
05800750580077	Condition - with no CCTV scoring	352.5	8	6.0	8	58	1.6	1.5	2.3	20.6	No	High Priority
03500230350022	Condition - with no CCTV scoring	257.9	8	8.9	8	35	1.4	1.7	2.3	20.6	No	Moderate Priority
01300440130045	Condition - with no CCTV scoring	290	8	8.7	8	13	1.7	1.4	2.3	20.5	No	Lowest Priority
02400990240100	Condition - with no CCTV scoring	400	15	10.7	15	24	1.7	1.4	2.3	20.5	No	Lowest Priority
02500430250041	Condition - with no CCTV scoring	102.1	12	11.2	12	25	1.7	1.4	2.3	20.5	No	Lowest Priority
03400130340029	Condition - with no CCTV scoring	324.4	8	10.0	8	34	1.7	1.4	2.3	20.5	No	Lowest Priority
02600470260046	Condition - with no CCTV scoring	128	8	4.8	8	25	1.3	1.8	2.3	20.5	No	Lowest Priority
02600450260046	Condition - with no CCTV scoring	260	8	5.3	8	26	1.3	1.8	2.3	20.5	No	Low Priority
03600930360058	Condition - with no CCTV scoring	436.3	8	5.7	8	36	1.3	1.8	2.3	20.5	No	High Priority
03600580360057	Condition - with no CCTV scoring	421.8	8	5.3	8	36	1.3	1.8	2.3	20.5	No	High Priority
03601170360118	Condition - with no CCTV scoring	442.9	8	5.2	8	36	1.3	1.8	2.3	20.5	No	High Priority
03600910360117	Condition - with no CCTV scoring	441.6	8	5.0	8	36	1.3	1.8	2.3	20.5	No	High Priority
03700900370087	Condition - with no CCTV scoring	478.2	8	5.0	8	37	1.3	1.8	2.3	20.5	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03700620470163	Condition - with no CCTV scoring	420.2	8	5.3	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03700180470164	Condition - with no CCTV scoring	425.8	8	5.0	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03700870470035	Condition - with no CCTV scoring	310.1	8	5.4	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03701050370103	Condition - with no CCTV scoring	341.6	8	5.2	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03701070370104	Condition - with no CCTV scoring	386.4	8	5.1	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03700170370018	Condition - with no CCTV scoring	412.2	8	5.0	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03700880370089	Condition - with no CCTV scoring	315.8	8	5.2	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03700890370090	Condition - with no CCTV scoring	329	8	5.2	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03700240370062	Condition - with no CCTV scoring	419.9	8	5.4	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03700250370024	Condition - with no CCTV scoring	419.6	8	5.3	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03701030370087	Condition - with no CCTV scoring	328.9	8	5.3	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03701040370103	Condition - with no CCTV scoring	316.5	8	5.3	8	37	1.3	1.8	2.3	20.5	No	Low Priority
03900060390005	Condition - with no CCTV scoring	429.8	8	8.0	8	39	1.3	1.8	2.3	20.5	No	Low Priority
03900710390072	Condition - with no CCTV scoring	260.8	8	7.0	8	39	1.3	1.8	2.3	20.5	No	Low Priority
03900740390071	Condition - with no CCTV scoring	148.2	8	7.0	8	39	1.3	1.8	2.3	20.5	No	Low Priority
03900050390003	Condition - with no CCTV scoring	361.9	8	7.1	8	39	1.3	1.8	2.3	20.5	No	Low Priority
03900030390075	Condition - with no CCTV scoring	147.3	8	7.0	8	39	1.3	1.8	2.3	20.5	No	Low Priority
03900750390074	Condition - with no CCTV scoring	228.1	8	7.0	8	39	1.3	1.8	2.3	20.5	No	Low Priority
03900070390006	Condition - with no CCTV scoring	420.7	8	7.0	8	39	1.3	1.8	2.3	20.5	No	Low Priority
04401740440173	Condition - with no CCTV scoring	150.2	8	6.3	8	44	1.3	1.8	2.3	20.5	No	Low Priority
04601110460110	Condition - with no CCTV scoring	30.9	8	6.0	8	46	1.3	1.8	2.3	20.5	No	Highest Priority
04700350470034	Condition - with no CCTV scoring	27.3	8	4.1	8	47	1.3	1.8	2.3	20.5	No	High Priority
04700270470026	Condition - with no CCTV scoring	355.6	8	4.1	8	47	1.3	1.8	2.3	20.5	No	High Priority
04700260470168	Condition - with no CCTV scoring	434.2	8	5.2	8	47	1.3	1.8	2.3	20.5	No	High Priority
04702250470228	Condition - with no CCTV scoring	234.2	8	4.9	8	47	1.3	1.8	2.3	20.5	No	High Priority
04702270470225	Condition - with no CCTV scoring	139.3	8	5.3	8	47	1.3	1.8	2.3	20.5	No	High Priority
04702260470225	Condition - with no CCTV scoring	199.3	8	5.1	8	47	1.3	1.8	2.3	20.5	No	High Priority
05300520530037	Condition - with no CCTV scoring	391.7	8	8.0	8	53	1.5	1.5	2.3	20.5	No	Moderate Priority
06200070620005	Condition - with no CCTV scoring	361.9	8	5.1	8	62	1.3	1.8	2.3	20.5	No	Low Priority
06200350620036	Condition - with no CCTV scoring	210.7	8	6.1	8	62	1.3	1.8	2.3	20.5	No	Low Priority
01101610110162	Condition - with no CCTV scoring	228.7	8	13.7	8	11	1.7	1.3	2.2	20.5	No	Lowest Priority
01201020220207	Condition - with no CCTV scoring	186.9	10	1.0	10	12	1.6	1.5	2.2	20.4	No	Lowest Priority
01201680120102	Condition - with no CCTV scoring	107.8	10	4.6	10	12	1.6	1.5	2.2	20.4	No	Lowest Priority
01300060130007	Condition - with no CCTV scoring	296.2	8	7.3	8	13	1.6	1.5	2.2	20.4	No	Lowest Priority
02301170230143	Condition - with no CCTV scoring	282.4	8	7.5	8	23	1.6	1.5	2.2	20.4	No	Lowest Priority
02700100270009	Condition - with no CCTV scoring	95.7	8	5.3	8	27	1.6	1.5	2.2	20.4	No	Moderate Priority
03300170330093	Condition - with no CCTV scoring	110.2	8	7.4	8	33	1.6	1.5	2.2	20.4	No	Low Priority
03801490380150	Condition - with no CCTV scoring	362.8	8	6.6	8	38	1.6	1.5	2.2	20.4	No	Low Priority
03900330390032	Condition - with no CCTV scoring	370.9	8	6.1	8	39	1.6	1.5	2.2	20.4	No	Low Priority
04400220440023	Condition - with no CCTV scoring	412.1	8	6.5	8	44	1.6	1.5	2.2	20.4	No	Low Priority
04701260470127	Condition - with no CCTV scoring	409	10	6.0	10	47	1.5	1.6	2.2	20.4	No	High Priority
04701280470129	Condition - with no CCTV scoring	392.9	10	6.5	10	47	1.5	1.6	2.2	20.4	No	High Priority
05401980540200	Condition - with no CCTV scoring	299.7	8	5.9	8	54	1.5	1.6	2.2	20.4	No	Moderate Priority
05401980540197	Condition - with no CCTV scoring	513	8	5.9	8	54	1.5	1.6	2.2	20.4	No	Moderate Priority
05501390550099	Condition - with no CCTV scoring	489.8	8	5.5	8	55	1.5	1.6	2.2	20.4	No	High Priority
07202120720177	Condition - with no CCTV scoring	360.9	8	5.8	8	72	1.6	1.5	2.2	20.4	No	Moderate Priority
08800670880068	Condition - with no CCTV scoring	171.4	6	7.1	8	88	1.6	1.5	2.2	20.4	No	Low Priority
08800690880068	Condition - with no CCTV scoring	261.8	8	7.7	8	88	1.6	1.5	2.2	20.4	No	Low Priority
08800710880069	Condition - with no CCTV scoring	270.3	8	6.8	8	88	1.6	1.5	2.2	20.4	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02400540240050	Condition - with no CCTV scoring	304	8	9.1	8	24	1.7	1.4	2.2	20.4	No	Lowest Priority
02400860240084	Condition - with no CCTV scoring	143.5	8	8.6	8	24	1.7	1.4	2.2	20.4	No	Lowest Priority
02400830240084	Condition - with no CCTV scoring	274.6	8	8.8	8	24	1.7	1.4	2.2	20.4	No	Lowest Priority
02500930250128	Condition - with no CCTV scoring	361.6	8	8.8	8	25	1.7	1.4	2.2	20.4	No	Lowest Priority
03300690330044	Condition - with no CCTV scoring	430.9	8	8.4	8	33	1.7	1.4	2.2	20.4	No	Low Priority
04400670440066	Condition - with no CCTV scoring	389.8	6	10.0	8	44	1.7	1.4	2.2	20.4	No	Low Priority
05800770580087	Condition - with no CCTV scoring	281.7	8	8.2	8	58	1.7	1.4	2.2	20.4	No	High Priority
02302320230271	Condition - with no CCTV scoring	73.8	8	13.3	8	23	1.7	1.3	2.2	20.3	No	Lowest Priority
03500820350083	Condition - with no CCTV scoring	361.8	8	10.9	8	35	1.7	1.3	2.2	20.3	No	Moderate Priority
01300430130044	Condition - with no CCTV scoring	114.7	8	7.0	8	13	1.5	1.5	2.2	20.3	No	Lowest Priority
01300540130038	Condition - with no CCTV scoring	351.9	8	6.8	8	13	1.5	1.5	2.2	20.3	No	Lowest Priority
01300380130037	Condition - with no CCTV scoring	197	8	7.6	8	13	1.5	1.5	2.2	20.3	No	Lowest Priority
01300550130054	Condition - with no CCTV scoring	348.9	8	6.1	8	13	1.5	1.5	2.2	20.3	No	Lowest Priority
03400640340063	Condition - with no CCTV scoring	210	8	5.9	8	24	1.5	1.5	2.2	20.3	No	Lowest Priority
02501320250133	Condition - with no CCTV scoring	205.8	8	7.9	8	25	1.5	1.5	2.2	20.3	No	Lowest Priority
03401020340103	Condition - with no CCTV scoring	384.3	8	5.6	8	34	1.5	1.5	2.2	20.3	No	Lowest Priority
03401290340035	Condition - with no CCTV scoring	115.9	8	5.0	8	34	1.5	1.5	2.2	20.3	No	Lowest Priority
03400340340035	Condition - with no CCTV scoring	104.5	8	5.9	8	34	1.5	1.5	2.2	20.3	No	Lowest Priority
03600240360019	Condition - with no CCTV scoring	354.8	8	5.6	8	36	1.5	1.5	2.2	20.3	No	High Priority
04401360440137	Condition - with no CCTV scoring	330.3	8	8.8	8	44	1.5	1.5	2.2	20.3	No	Low Priority
04700930470094	Condition - with no CCTV scoring	423.5	8	5.2	8	47	1.5	1.5	2.2	20.3	No	High Priority
06501480650124	Condition - with no CCTV scoring	348.6	12	7.0	12	65	1.5	1.5	2.2	20.3	No	Moderate Priority
07201900720188	Condition - with no CCTV scoring	184.5	8	7.0	8	72	1.5	1.5	2.2	20.3	No	Moderate Priority
07301010730026	Condition - with no CCTV scoring	144.1	8	4.4	8	73	1.5	1.5	2.2	20.3	No	High Priority
01201540120155	Condition - with no CCTV scoring	186.3	8	10.1	8	12	2.2	1.0	2.2	20.3	No	Lowest Priority
01201610120163	Condition - with no CCTV scoring	255.5	10	11.7	10	12	1.7	1.4	2.2	20.3	No	Lowest Priority
01300070230117	Condition - with no CCTV scoring	283.3	8	14.3	8	13	1.7	1.4	2.2	20.3	No	Lowest Priority
01300740130050	Condition - with no CCTV scoring	278.2	8	8.6	8	13	1.7	1.4	2.2	20.3	No	Lowest Priority
02300760230075	Condition - with no CCTV scoring	452.6	8	9.3	8	23	1.7	1.4	2.2	20.3	No	Lowest Priority
02501630250162	Condition - with no CCTV scoring	321.4	8	22.6	8	25	1.7	1.4	2.2	20.3	No	Lowest Priority
02602020260192	Condition - with no CCTV scoring	102.9	8	11.0	8	26	1.7	1.4	2.2	20.3	No	Low Priority
03200580320062	Condition - with no CCTV scoring	123.1	8	13.3	8	32	1.4	1.7	2.2	20.3	No	Lowest Priority
03200480320047	Condition - with no CCTV scoring	191.6	8	9.6	8	32	1.4	1.7	2.2	20.3	No	Lowest Priority
02200630220065	Condition - with no CCTV scoring	298.2	8	7.6	8	22	1.6	1.4	2.2	20.3	No	Low Priority
06701210670082	Condition - with no CCTV scoring	273.9	8	7.0	8	67	1.9	1.2	2.2	20.2	No	Highest Priority
01300420120142	Condition - with no CCTV scoring	172.7	8	6.0	8	12	1.5	1.5	2.2	20.2	No	Lowest Priority
01201040120037	Condition - with no CCTV scoring	293.1	8	8.6	8	12	1.5	1.5	2.2	20.2	No	Lowest Priority
02300430230044	Condition - with no CCTV scoring	223	8	8.0	8	23	1.5	1.5	2.2	20.2	No	Lowest Priority
02301120230113	Condition - with no CCTV scoring	153.9	8	7.7	8	23	1.5	1.5	2.2	20.2	No	Lowest Priority
02300420330083	Condition - with no CCTV scoring	93.8	8	6.0	8	23	1.5	1.5	2.2	20.2	No	Lowest Priority
02300440230042	Condition - with no CCTV scoring	217.8	8	7.7	8	23	1.5	1.5	2.2	20.2	No	Lowest Priority
02400450240044	Condition - with no CCTV scoring	184.1	6	7.1	8	24	1.5	1.5	2.2	20.2	No	Lowest Priority
02400440240043	Condition - with no CCTV scoring	223.1	6	7.7	8	24	1.5	1.5	2.2	20.2	No	Lowest Priority
02400380240037	Condition - with no CCTV scoring	231.3	6	6.0	8	24	1.5	1.5	2.2	20.2	No	Lowest Priority
02501000250101	Condition - with no CCTV scoring	207.1	8	6.0	8	25	1.5	1.5	2.2	20.2	No	Lowest Priority
02501220250132	Condition - with no CCTV scoring	27.3	8	7.6	8	25	1.5	1.5	2.2	20.2	No	Lowest Priority
02500960250097	Condition - with no CCTV scoring	94.4	8	6.0	8	25	1.5	1.5	2.2	20.2	No	Lowest Priority
02602550260254	Condition - with no CCTV scoring	166.7	8	6.8	8	26	1.5	1.5	2.2	20.2	No	Low Priority
02602530260252	Condition - with no CCTV scoring	266	8	7.8	8	26	1.5	1.5	2.2	20.2	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02602520260251	Condition - with no CCTV scoring	305.8	8	7.9	8	26	1.5	1.5	2.2	20.2	No	Low Priority
03300100330003	Condition - with no CCTV scoring	379.1	8	7.0	8	33	1.5	1.5	2.2	20.2	No	Low Priority
03300140330013	Condition - with no CCTV scoring	394.6	8	7.2	8	33	1.5	1.5	2.2	20.2	No	Low Priority
03400190340021	Condition - with no CCTV scoring	275.5	8	7.1	8	34	1.5	1.5	2.2	20.2	No	Lowest Priority
04400800440128	Condition - with no CCTV scoring	400.4	8	6.7	8	44	1.5	1.5	2.2	20.2	No	Low Priority
05800240580022	Condition - with no CCTV scoring	356.2	8	6.5	8	58	1.5	1.5	2.2	20.2	No	High Priority
07202110720212	Condition - with no CCTV scoring	411.8	8	5.8	8	72	1.5	1.5	2.2	20.2	No	Moderate Priority
07200720720070	Condition - with no CCTV scoring	139.5	8	4.6	8	72	1.5	1.5	2.2	20.2	No	Moderate Priority
07200700720069	Condition - with no CCTV scoring	156.4	8	5.1	8	72	1.5	1.5	2.2	20.2	No	Moderate Priority
08701160770101	Condition - with no CCTV scoring	361.9	8	6.6	8	77	1.5	1.5	2.2	20.2	No	Highest Priority
01201060120103	Condition - with no CCTV scoring	278.9	8	10.0	8	12	1.6	1.4	2.2	20.1	No	Lowest Priority
05800870580088	Condition - with no CCTV scoring	281.7	8	8.2	8	58	1.6	1.4	2.2	20.1	No	High Priority
C12	Condition - with no CCTV scoring	18.8	8	9.0	8	87	1.6	1.4	2.2	20.1	No	Moderate Priority
03700680370069	Condition - with no CCTV scoring	303.8	8	8.0	8	37	1.3	1.7	2.2	20.1	No	Low Priority
03800090380005	Condition - with no CCTV scoring	359.7	8	8.9	8	38	1.3	1.7	2.2	20.1	No	Low Priority
03900380390037	Condition - with no CCTV scoring	214.6	8	9.3	8	38	1.3	1.7	2.2	20.1	No	Low Priority
02302020230201	Condition - with no CCTV scoring	246.3	8	7.2	8	23	1.5	1.5	2.2	20.1	No	Lowest Priority
02400970240098	Condition - with no CCTV scoring	399.9	15	9.7	15	24	1.5	1.5	2.2	20.1	No	Lowest Priority
03400950340089	Condition - with no CCTV scoring	255.1	8	6.1	8	34	1.5	1.5	2.2	20.1	No	Lowest Priority
03400890340090	Condition - with no CCTV scoring	172.2	8	6.3	8	34	1.5	1.5	2.2	20.1	No	Lowest Priority
03900700390069	Condition - with no CCTV scoring	286.9	8	8.1	8	39	1.5	1.5	2.2	20.1	No	Low Priority
04400420440033	Condition - with no CCTV scoring	156.6	8	5.9	8	44	1.5	1.5	2.2	20.1	No	Low Priority
04400320440033	Condition - with no CCTV scoring	176.6	8	5.7	8	44	1.5	1.5	2.2	20.1	No	Low Priority
06501110650148	Condition - with no CCTV scoring	347.3	12	6.4	12	65	1.5	1.5	2.2	20.1	No	Moderate Priority
07300770730028	Condition - with no CCTV scoring	99.6	8	5.7	8	73	1.5	1.5	2.2	20.1	No	High Priority
09700620970061	Condition - with no CCTV scoring	174	6	6.5	8	97	1.5	1.5	2.2	20.1	No	Lowest Priority
04400810440082	Condition - with no CCTV scoring	150.2	8	6.4	8	44	1.4	1.6	2.2	20.0	No	Low Priority
05502090550210	Condition - with no CCTV scoring	325.3	8	6.2	8	55	1.4	1.6	2.2	20.0	No	High Priority
05502140550213	Condition - with no CCTV scoring	516.8	8	5.5	8	55	1.4	1.6	2.2	20.0	No	High Priority
06501180650108	Condition - with no CCTV scoring	285.1	8	6.1	8	65	1.4	1.6	2.2	20.0	No	Moderate Priority
06501170650118	Condition - with no CCTV scoring	74.5	8	6.4	8	65	1.4	1.6	2.2	20.0	No	Moderate Priority
02400360240033	Condition - with no CCTV scoring	248.1	6	8.3	8	24	1.6	1.4	2.2	20.0	No	Lowest Priority
02500730250064	Condition - with no CCTV scoring	314.7	8	8.5	8	25	1.6	1.4	2.2	20.0	No	Lowest Priority
02500870250084	Condition - with no CCTV scoring	270.9	8	8.3	8	25	1.6	1.4	2.2	20.0	No	Lowest Priority
03700580370053	Condition - with no CCTV scoring	242.2	8	10.1	8	37	1.6	1.4	2.2	20.0	No	Low Priority
07200220720023	Condition - with no CCTV scoring	383.7	8	9.0	8	72	1.6	1.4	2.2	20.0	No	Moderate Priority
02302690230268	Condition - with no CCTV scoring	149.9	8	29.9	8	23	2.2	1.0	2.2	20.0	No	Lowest Priority
07800700780072	Condition - with no CCTV scoring	433.3	10	9.9	10	78	1.6	1.4	2.2	20.0	No	Low Priority
07800680780070	Condition - with no CCTV scoring	461.6	10	8.3	10	78	1.6	1.4	2.2	20.0	No	Low Priority
01201440120146	Condition - with no CCTV scoring	304.3	8	6.3	8	12	1.4	1.6	2.2	19.9	No	Lowest Priority
01202200120217	Condition - with no CCTV scoring	345.2	8	7.3	8	12	1.5	1.5	2.2	19.9	No	Lowest Priority
01202200120219	Condition - with no CCTV scoring	280.3	8	7.3	8	12	1.5	1.5	2.2	19.9	No	Lowest Priority
02400040340063	Condition - with no CCTV scoring	212.4	8	6.3	8	24	1.5	1.5	2.2	19.9	No	Lowest Priority
03400980340094	Condition - with no CCTV scoring	249.3	8	7.4	8	34	1.5	1.5	2.2	19.9	No	Lowest Priority
03400020340004	Condition - with no CCTV scoring	122.5	8	7.7	8	34	1.5	1.5	2.2	19.9	No	Lowest Priority
03400170340024	Condition - with no CCTV scoring	234.9	8	6.9	8	34	1.5	1.5	2.2	19.9	No	Lowest Priority
04400890440090	Condition - with no CCTV scoring	429.4	8	6.4	8	44	1.5	1.5	2.2	19.9	No	Low Priority
05401280540122	Condition - with no CCTV scoring	288.5	8	6.7	8	54	1.5	1.5	2.2	19.9	No	Moderate Priority
07201470720146	Condition - with no CCTV scoring	157.8	8	8.0	8	72	1.5	1.5	2.2	19.9	No	Moderate Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02401680240169	Condition - with no CCTV scoring	231.5	10	9.9	10	24	2.0	1.1	2.2	19.9	No	Lowest Priority
01300300130031	Condition - with no CCTV scoring	170.9	8	10.0	8	13	1.6	1.4	2.2	19.9	No	Lowest Priority
01300350130036	Condition - with no CCTV scoring	396.4	8	8.1	8	13	1.6	1.4	2.2	19.9	No	Lowest Priority
01300340130035	Condition - with no CCTV scoring	252.2	8	8.1	8	13	1.6	1.4	2.2	19.9	No	Lowest Priority
02500500250049	Condition - with no CCTV scoring	307.9	8	8.0	8	25	1.6	1.4	2.2	19.9	No	Lowest Priority
02401020240167	Condition - with no CCTV scoring	288.7	10	12.0	10	24	2.2	1.0	2.2	19.8	No	Lowest Priority
03700980370096	Condition - with no CCTV scoring	367.7	8	5.5	8	37	1.3	1.7	2.2	19.8	No	Low Priority
01201200230117	Condition - with no CCTV scoring	368.6	8	5.8	8	12	1.5	1.5	2.2	19.8	No	Lowest Priority
01201250130018	Condition - with no CCTV scoring	357.2	8	6.7	8	12	1.5	1.5	2.2	19.8	No	Lowest Priority
01200930120131	Condition - with no CCTV scoring	472.7	8	7.4	8	12	1.5	1.5	2.2	19.8	No	Lowest Priority
01300220120135	Condition - with no CCTV scoring	187.7	8	7.1	8	12	1.5	1.5	2.2	19.8	No	Lowest Priority
01201240120125	Condition - with no CCTV scoring	379.7	8	7.0	8	12	1.5	1.5	2.2	19.8	No	Lowest Priority
01300190130020	Condition - with no CCTV scoring	169.3	8	7.6	8	13	1.5	1.5	2.2	19.8	No	Lowest Priority
01300180130019	Condition - with no CCTV scoring	265.1	8	7.8	8	13	1.5	1.5	2.2	19.8	No	Lowest Priority
02401300240127	Condition - with no CCTV scoring	220	8	7.4	8	24	1.5	1.5	2.2	19.8	No	Lowest Priority
02401370240130	Condition - with no CCTV scoring	85.6	8	7.3	8	24	1.5	1.5	2.2	19.8	No	Lowest Priority
02500750250073	Condition - with no CCTV scoring	211.4	8	7.6	8	25	1.5	1.5	2.2	19.8	No	Lowest Priority
03400560340057	Condition - with no CCTV scoring	235.9	8	6.2	8	34	1.5	1.5	2.2	19.8	No	Lowest Priority
03400580340059	Condition - with no CCTV scoring	410.5	8	7.2	8	34	1.5	1.5	2.2	19.8	No	Lowest Priority
03400610340058	Condition - with no CCTV scoring	183.8	8	7.1	8	34	1.5	1.5	2.2	19.8	No	Lowest Priority
03400670340068	Condition - with no CCTV scoring	253.2	8	7.9	8	34	1.5	1.5	2.2	19.8	No	Lowest Priority
03400370340038	Condition - with no CCTV scoring	147.1	8	7.3	8	34	1.5	1.5	2.2	19.8	No	Lowest Priority
04401100440111	Condition - with no CCTV scoring	154.7	8	6.6	8	44	1.5	1.5	2.2	19.8	No	Low Priority
04401110440105	Condition - with no CCTV scoring	108.3	8	6.6	8	44	1.5	1.5	2.2	19.8	No	Low Priority
04401040440105	Condition - with no CCTV scoring	404.1	8	6.5	8	44	1.5	1.5	2.2	19.8	No	Low Priority
05700860570087	Condition - with no CCTV scoring	690.8	8	4.7	8	57	1.5	1.5	2.2	19.8	No	Highest Priority
05700870570238	Condition - with no CCTV scoring	697.7	8	5.4	8	57	1.5	1.5	2.2	19.8	No	Highest Priority
07200670720062	Condition - with no CCTV scoring	197.9	8	7.7	8	72	1.5	1.5	2.2	19.8	No	Moderate Priority
08800660880067	Condition - with no CCTV scoring	95	8	6.0	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08800720880071	Condition - with no CCTV scoring	259.6	6	6.0	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08800750880074	Condition - with no CCTV scoring	279.3	6	5.0	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08800770880076	Condition - with no CCTV scoring	267.2	6	6.9	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08800760880078	Condition - with no CCTV scoring	120.5	8	7.4	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08800740880078	Condition - with no CCTV scoring	117.3	8	7.8	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08800780880080	Condition - with no CCTV scoring	113.4	8	7.9	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08800810880074	Condition - with no CCTV scoring	170.3	8	7.5	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08900800880081	Condition - with no CCTV scoring	358	8	6.9	8	88	1.5	1.5	2.2	19.8	No	Low Priority
08900810880064	Condition - with no CCTV scoring	351.5	10	6.9	10	88	1.5	1.5	2.2	19.8	No	Low Priority
09700010970057	Condition - with no CCTV scoring	169.5	8	7.4	8	97	1.5	1.5	2.2	19.8	No	Lowest Priority
01201400120232	Condition - with no CCTV scoring	97.3	8	15.0	8	12	1.6	1.4	2.2	19.8	No	Lowest Priority
01202320120141	Condition - with no CCTV scoring	130.5	8	12.2	8	12	1.6	1.4	2.2	19.8	No	Lowest Priority
02400320240144	Condition - with no CCTV scoring	297.1	8	10.0	8	24	1.6	1.4	2.2	19.8	No	Lowest Priority
03500700360001	Condition - with no CCTV scoring	349.5	8	8.7	8	35	1.6	1.4	2.2	19.8	No	Moderate Priority
09600640960065	Condition - with no CCTV scoring	356.6	8	7.7	8	96	1.6	1.4	2.2	19.8	No	Low Priority
02200650220067	Condition - with no CCTV scoring	200.3	8	8.1	8	22	1.7	1.3	2.2	19.8	No	Low Priority
02200950220087	Condition - with no CCTV scoring	341.1	8	7.3	8	22	1.6	1.4	2.2	19.7	No	Low Priority
02200970220089	Condition - with no CCTV scoring	279.1	8	7.4	8	22	1.6	1.4	2.2	19.7	No	Low Priority
02501650250164	Condition - with no CCTV scoring	340	8	6.0	8	25	1.4	1.6	2.2	19.7	No	Lowest Priority
03700340470126	Condition - with no CCTV scoring	421.4	10	5.9	10	37	1.4	1.6	2.2	19.7	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
04701270470128	Condition - with no CCTV scoring	399.5	10	5.8	10	47	1.4	1.6	2.2	19.7	No	High Priority
01200450120043	Condition - with no CCTV scoring	244.9	8	7.6	8	12	1.5	1.5	2.2	19.7	No	Lowest Priority
01200430120040	Condition - with no CCTV scoring	279.7	8	6.0	8	12	1.5	1.5	2.2	19.7	No	Lowest Priority
01200460120045	Condition - with no CCTV scoring	399.7	8	6.7	8	12	1.5	1.5	2.2	19.7	No	Lowest Priority
02401430240140	Condition - with no CCTV scoring	98.2	8	4.8	8	24	1.5	1.5	2.2	19.7	No	Lowest Priority
02401420240140	Condition - with no CCTV scoring	376.4	8	5.4	8	24	1.5	1.5	2.2	19.7	No	Lowest Priority
02500630250062	Condition - with no CCTV scoring	240.6	8	6.7	8	25	1.5	1.5	2.2	19.7	No	Lowest Priority
03401030340101	Condition - with no CCTV scoring	11.4	8	5.7	8	34	1.5	1.5	2.2	19.7	No	Lowest Priority
03400680340069	Condition - with no CCTV scoring	405.2	8	6.5	8	34	1.5	1.5	2.2	19.7	No	Lowest Priority
04401810440182	Condition - with no CCTV scoring	115.5	8	6.7	8	44	1.5	1.5	2.2	19.7	No	Low Priority
04401820440177	Condition - with no CCTV scoring	153.5	8	7.4	8	44	1.5	1.5	2.2	19.7	No	Low Priority
03400150440181	Condition - with no CCTV scoring	284.9	8	7.1	8	44	1.5	1.5	2.2	19.7	No	Low Priority
09600360960035	Condition - with no CCTV scoring	118	6	5.6	8	96	1.5	1.5	2.2	19.7	No	Low Priority
02601920260190	Condition - with no CCTV scoring	297.6	8	9.6	8	26	1.6	1.4	2.2	19.7	No	Low Priority
03700690470219	Condition - with no CCTV scoring	378.7	8	5.2	8	37	1.2	1.8	2.2	19.7	No	Low Priority
03701170370063	Condition - with no CCTV scoring	284.3	8	5.0	8	37	1.2	1.8	2.2	19.7	No	Low Priority
04502270450226	Condition - with no CCTV scoring	45	8	6.0	8	45	1.2	1.8	2.2	19.7	No	High Priority
04502260450228	Condition - with no CCTV scoring	121.9	8	4.9	8	45	1.2	1.8	2.2	19.7	No	High Priority
04702190470216	Condition - with no CCTV scoring	449	8	5.2	8	47	1.2	1.8	2.2	19.7	No	High Priority
06200360620029	Condition - with no CCTV scoring	417.1	8	5.9	8	62	1.2	1.8	2.2	19.7	No	Low Priority
06500390650036	Condition - with no CCTV scoring	388.7	10	11.1	10	65	1.6	1.4	2.2	19.7	No	Moderate Priority
06500590650039	Condition - with no CCTV scoring	161	12	10.4	12	65	1.6	1.4	2.2	19.7	No	Moderate Priority
08800680880070	Condition - with no CCTV scoring	115.6	8	8.4	8	88	1.6	1.4	2.2	19.7	No	Low Priority
06502370650240	Condition - with no CCTV scoring	159.2	15	8.0	15	65	2.0	1.1	2.2	19.6	No	Moderate Priority
02302700230269	Condition - with no CCTV scoring	42.8	8	10.3	8	23	2.2	1.0	2.2	19.6	No	Lowest Priority
03300440330043	Condition - with no CCTV scoring	319.5	8	11.7	8	33	1.6	1.4	2.1	19.5	No	Low Priority
03400120340011	Condition - with no CCTV scoring	235.6	8	8.0	8	34	1.6	1.4	2.1	19.5	No	Lowest Priority
04401390440172	Condition - with no CCTV scoring	334.6	8	11.5	8	44	1.6	1.4	2.1	19.5	No	Low Priority
02301110230112	Condition - with no CCTV scoring	173.3	8	5.2	8	23	1.5	1.5	2.1	19.5	No	Lowest Priority
02400390240038	Condition - with no CCTV scoring	162.1	6	2.9	8	24	1.5	1.5	2.1	19.5	No	Lowest Priority
02501310250122	Condition - with no CCTV scoring	159	8	5.9	8	25	1.5	1.5	2.1	19.5	No	Lowest Priority
02501030250130	Condition - with no CCTV scoring	152.3	8	7.3	8	25	1.5	1.5	2.1	19.5	No	Lowest Priority
02501300250158	Condition - with no CCTV scoring	73	8	7.3	8	25	1.5	1.5	2.1	19.5	No	Lowest Priority
02600940260086	Condition - with no CCTV scoring	160	8	5.8	8	26	1.5	1.5	2.1	19.5	No	Low Priority
02601890260190	Condition - with no CCTV scoring	99.8	8	6.3	8	26	1.5	1.5	2.1	19.5	No	Low Priority
02602510260250	Condition - with no CCTV scoring	235.5	8	7.7	8	26	1.5	1.5	2.1	19.5	No	Low Priority
02602500260205	Condition - with no CCTV scoring	37.2	8	7.5	8	26	1.5	1.5	2.1	19.5	No	Low Priority
03300390330017	Condition - with no CCTV scoring	308.7	8	7.7	8	33	1.5	1.5	2.1	19.5	No	Low Priority
03700530370050	Condition - with no CCTV scoring	177.5	8	5.1	8	37	1.5	1.5	2.1	19.5	No	Low Priority
04401010440100	Condition - with no CCTV scoring	142.8	8	6.6	8	44	1.5	1.5	2.1	19.5	No	Low Priority
04400200440022	Condition - with no CCTV scoring	407.9	8	6.6	8	44	1.5	1.5	2.1	19.5	No	Low Priority
06600410660089	Condition - with no CCTV scoring	460.2	6	2.9	8	66	1.5	1.5	2.1	19.5	No	Highest Priority
07202130720212	Condition - with no CCTV scoring	80.4	8	5.5	8	72	1.5	1.5	2.1	19.5	No	Moderate Priority
07300240730023	Condition - with no CCTV scoring	204.6	8	5.2	8	73	1.5	1.5	2.1	19.5	No	High Priority
08700320870017	Condition - with no CCTV scoring	17.5	8	5.2	8	87	1.5	1.5	2.1	19.5	No	Moderate Priority
08701170870116	Condition - with no CCTV scoring	350	8	5.4	8	87	1.5	1.5	2.1	19.5	No	Moderate Priority
09701770970176	Condition - with no CCTV scoring	221.9	8	5.6	8	97	1.5	1.5	2.1	19.5	No	Lowest Priority
01100730110061	Condition - with no CCTV scoring	354.8	8	9.0	8	11	1.3	1.7	2.1	19.5	No	Lowest Priority
01100970110098	Condition - with no CCTV scoring	422.5	8	8.1	8	11	1.7	1.3	2.1	19.5	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01100610110158	Condition - with no CCTV scoring	111.6	8	8.8	8	11	1.3	1.7	2.1	19.5	No	Lowest Priority
03200300320031	Condition - with no CCTV scoring	323.5	8	8.9	8	32	1.3	1.7	2.1	19.5	No	Lowest Priority
03200470320057	Condition - with no CCTV scoring	197.9	8	9.4	8	32	1.3	1.7	2.1	19.5	No	Lowest Priority
03200310320035	Condition - with no CCTV scoring	163	8	8.8	8	32	1.3	1.7	2.1	19.5	No	Lowest Priority
03200570320058	Condition - with no CCTV scoring	344.3	8	8.8	8	32	1.3	1.7	2.1	19.5	No	Lowest Priority
03200700320058	Condition - with no CCTV scoring	129.2	8	10.0	8	32	1.3	1.7	2.1	19.5	No	Lowest Priority
06300430630126	Condition - with no CCTV scoring	200.3	8	7.6	8	63	1.4	1.5	2.1	19.5	No	Moderate Priority
07202410720240	Condition - with no CCTV scoring	158.1	8	6.5	8	72	1.8	1.2	2.1	19.4	No	Moderate Priority
02301140230043	Condition - with no CCTV scoring	146.8	8	8.4	8	23	1.6	1.4	2.1	19.4	No	Lowest Priority
02301130230114	Condition - with no CCTV scoring	254.7	8	8.5	8	23	1.6	1.4	2.1	19.4	No	Lowest Priority
02300280330069	Condition - with no CCTV scoring	460.8	8	9.0	8	23	1.6	1.4	2.1	19.4	No	Lowest Priority
02400810240082	Condition - with no CCTV scoring	289.9	8	10.0	8	24	1.6	1.4	2.1	19.4	No	Lowest Priority
02400880240083	Condition - with no CCTV scoring	288.6	8	8.2	8	24	1.6	1.4	2.1	19.4	No	Lowest Priority
02400890240088	Condition - with no CCTV scoring	238.3	8	8.5	8	24	1.6	1.4	2.1	19.4	No	Lowest Priority
02400820240083	Condition - with no CCTV scoring	136.4	8	9.1	8	24	1.6	1.4	2.1	19.4	No	Lowest Priority
02400460240045	Condition - with no CCTV scoring	273.4	6	8.7	8	24	1.6	1.4	2.1	19.4	No	Lowest Priority
02602540260260	Condition - with no CCTV scoring	115.7	8	10.0	8	26	1.6	1.4	2.1	19.4	No	Low Priority
02602600260261	Condition - with no CCTV scoring	139.4	8	8.8	8	26	1.6	1.4	2.1	19.4	No	Low Priority
03300160330017	Condition - with no CCTV scoring	285.1	8	13.8	8	33	1.6	1.4	2.1	19.4	No	Low Priority
04400790440080	Condition - with no CCTV scoring	405	8	9.6	8	44	1.6	1.4	2.1	19.4	No	Low Priority
07701010770099	Condition - with no CCTV scoring	312	8	8.8	8	77	1.6	1.4	2.1	19.4	No	Highest Priority
00000080000009	Condition - with no CCTV scoring	346	15	9.0	15	00	1.6	1.3	2.1	19.4	No	Lowest Priority
01100480110049	Condition - with no CCTV scoring	340.4	8	9.5	8	11	1.6	1.3	2.1	19.4	No	Lowest Priority
01100780110079	Condition - with no CCTV scoring	273.5	8	11.4	8	11	1.6	1.3	2.1	19.4	No	Lowest Priority
01100790110080	Condition - with no CCTV scoring	245.2	8	11.3	8	11	1.6	1.3	2.1	19.4	No	Lowest Priority
02602570260258	Condition - with no CCTV scoring	151.3	8	7.5	8	26	1.5	1.5	2.1	19.4	No	Low Priority
03400900340091	Condition - with no CCTV scoring	157.4	8	5.9	8	34	1.5	1.5	2.1	19.4	No	Lowest Priority
05401990540200	Condition - with no CCTV scoring	514.1	8	9.2	8	54	1.5	1.5	2.1	19.4	No	Moderate Priority
07301020730027	Condition - with no CCTV scoring	484.6	8	5.6	8	73	1.5	1.5	2.1	19.4	No	High Priority
09700670970066	Condition - with no CCTV scoring	160	6	6.7	8	97	1.5	1.5	2.1	19.4	No	Lowest Priority
01100980110095	Condition - with no CCTV scoring	278.7	8	7.9	8	11	1.5	1.4	2.1	19.4	No	Lowest Priority
01100910110101	Condition - with no CCTV scoring	451.4	8	7.0	8	11	1.5	1.4	2.1	19.4	No	Lowest Priority
02200900220091	Condition - with no CCTV scoring	192.5	8	3.7	8	22	1.5	1.4	2.1	19.4	No	Low Priority
02200910220092	Condition - with no CCTV scoring	430	8	5.9	8	22	1.5	1.4	2.1	19.4	No	Low Priority
02200830220082	Condition - with no CCTV scoring	181.9	8	7.9	8	22	1.5	1.4	2.1	19.4	No	Low Priority
02200800220063	Condition - with no CCTV scoring	257	8	7.1	8	22	1.5	1.4	2.1	19.4	No	Low Priority
04702160470217	Condition - with no CCTV scoring	430	8	7.6	8	47	1.3	1.7	2.1	19.3	No	High Priority
01201960120197	Condition - with no CCTV scoring	264	8	8.0	8	12	1.4	1.6	2.1	19.3	No	Lowest Priority
01300010130003	Condition - with no CCTV scoring	235.9	8	9.1	8	13	1.6	1.4	2.1	19.3	No	Lowest Priority
02400980240099	Condition - with no CCTV scoring	330.1	15	10.5	15	24	1.6	1.4	2.1	19.3	No	Lowest Priority
09600410960043	Condition - with no CCTV scoring	266.2	6	9.0	8	96	1.6	1.4	2.1	19.3	No	Low Priority
09600380960043	Condition - with no CCTV scoring	380.1	8	9.2	8	97	1.6	1.4	2.1	19.3	No	Lowest Priority
01201180120215	Condition - with no CCTV scoring	486.5	8	8.0	8	12	1.5	1.5	2.1	19.3	No	Lowest Priority
01201940120192	Condition - with no CCTV scoring	177.5	8	8.0	8	12	1.5	1.5	2.1	19.3	No	Lowest Priority
01201770120106	Condition - with no CCTV scoring	489.9	8	7.9	8	12	1.5	1.5	2.1	19.3	No	Lowest Priority
01202190120062	Condition - with no CCTV scoring	283.5	8	7.2	8	12	1.5	1.5	2.1	19.3	No	Lowest Priority
01202190120063	Condition - with no CCTV scoring	286.2	8	7.2	8	12	1.5	1.5	2.1	19.3	No	Lowest Priority
02400030240004	Condition - with no CCTV scoring	88.1	8	5.8	8	24	1.5	1.5	2.1	19.3	No	Lowest Priority
03400630340048	Condition - with no CCTV scoring	277	8	6.0	8	24	1.5	1.5	2.1	19.3	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03400620340056	Condition - with no CCTV scoring	368.9	8	5.7	8	34	1.5	1.5	2.1	19.3	No	Lowest Priority
03400740340072	Condition - with no CCTV scoring	82.5	8	6.4	8	34	1.5	1.5	2.1	19.3	No	Lowest Priority
03400660340062	Condition - with no CCTV scoring	95.6	8	5.2	8	34	1.5	1.5	2.1	19.3	No	Lowest Priority
03400910340102	Condition - with no CCTV scoring	351.4	8	5.5	8	34	1.5	1.5	2.1	19.3	No	Lowest Priority
03400090340008	Condition - with no CCTV scoring	145.6	8	8.0	8	34	1.5	1.5	2.1	19.3	No	Lowest Priority
03600230360024	Condition - with no CCTV scoring	320	8	5.4	8	36	1.5	1.5	2.1	19.3	No	High Priority
04401120440113	Condition - with no CCTV scoring	346.9	8	6.8	8	44	1.5	1.5	2.1	19.3	No	Low Priority
04400720440074	Condition - with no CCTV scoring	136.2	8	6.4	8	44	1.5	1.5	2.1	19.3	No	Low Priority
05401410540142	Condition - with no CCTV scoring	85	8	5.8	8	54	1.5	1.5	2.1	19.3	No	Moderate Priority
05500990550098	Condition - with no CCTV scoring	561.2	8	5.1	8	55	1.5	1.5	2.1	19.3	No	High Priority
07201460720145	Condition - with no CCTV scoring	254.1	8	5.5	8	72	1.5	1.5	2.1	19.3	No	Moderate Priority
07200690720071	Condition - with no CCTV scoring	334	8	3.8	8	72	1.5	1.5	2.1	19.3	No	Moderate Priority
07300130730023	Condition - with no CCTV scoring	28.2	8	6.5	8	73	1.5	1.5	2.1	19.3	No	High Priority
07300230720187	Condition - with no CCTV scoring	278.2	8	6.4	8	73	1.5	1.5	2.1	19.3	No	High Priority
05301040530105	Condition - with no CCTV scoring	323.4	8	7.6	8	53	1.5	1.4	2.1	19.2	No	Moderate Priority
06502400650241	Condition - with no CCTV scoring	190.3	15	7.1	15	65	1.8	1.2	2.1	19.2	No	Moderate Priority
06502410650194	Condition - with no CCTV scoring	45.6	15	4.9	15	65	1.8	1.2	2.1	19.2	No	Moderate Priority
02401670240168	Condition - with no CCTV scoring	287.4	10	10.3	10	24	2.1	1.0	2.1	19.2	No	Lowest Priority
02200820220084	Condition - with no CCTV scoring	154.9	8	11.1	8	22	1.6	1.3	2.1	19.2	No	Low Priority
02400940240095	Condition - with no CCTV scoring	580.5	12	7.9	12	24	1.6	1.4	2.1	19.2	No	Lowest Priority
03400030340002	Condition - with no CCTV scoring	252.5	8	8.0	8	34	1.6	1.4	2.1	19.2	No	Lowest Priority
03400270340025	Condition - with no CCTV scoring	190	8	8.5	8	34	1.6	1.4	2.1	19.2	No	Lowest Priority
03400250340028	Condition - with no CCTV scoring	416.1	8	9.3	8	34	1.6	1.4	2.1	19.2	No	Lowest Priority
03400280340098	Condition - with no CCTV scoring	101.4	8	8.2	8	34	1.6	1.4	2.1	19.2	No	Lowest Priority
03400260340025	Condition - with no CCTV scoring	148.7	8	8.5	8	34	1.6	1.4	2.1	19.2	No	Lowest Priority
07201440720145	Condition - with no CCTV scoring	186.9	8	9.3	8	72	1.6	1.4	2.1	19.2	No	Moderate Priority
0780072STN_001	Condition - with no CCTV scoring	37.6	10	10.7	10	78	1.6	1.3	2.1	19.2	No	Low Priority
01201280130019	Condition - with no CCTV scoring	386	8	5.9	8	12	1.5	1.5	2.1	19.1	No	Lowest Priority
01201330130022	Condition - with no CCTV scoring	296.6	8	7.5	8	12	1.5	1.5	2.1	19.1	No	Lowest Priority
01201120120223	Condition - with no CCTV scoring	363.9	8	6.9	8	12	1.5	1.5	2.1	19.1	No	Lowest Priority
02300150230010	Condition - with no CCTV scoring	392	8	7.3	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02300330330072	Condition - with no CCTV scoring	188.2	8	5.0	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301810230179	Condition - with no CCTV scoring	264.4	8	7.4	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301810230183	Condition - with no CCTV scoring	325.1	8	7.4	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301670230170	Condition - with no CCTV scoring	168.8	6	8.0	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301700230197	Condition - with no CCTV scoring	204.8	8	7.4	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301830230198	Condition - with no CCTV scoring	60	8	7.3	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02300970230096	Condition - with no CCTV scoring	134.9	8	7.4	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301690230170	Condition - with no CCTV scoring	95.7	8	7.6	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02302010230097	Condition - with no CCTV scoring	243.9	8	7.4	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301970230098	Condition - with no CCTV scoring	127.7	8	7.4	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301980230168	Condition - with no CCTV scoring	310.9	8	7.6	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02301680230169	Condition - with no CCTV scoring	110.3	8	7.6	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02302080230201	Condition - with no CCTV scoring	141.4	6	7.4	8	23	1.5	1.5	2.1	19.1	No	Lowest Priority
02602610260262	Condition - with no CCTV scoring	116.9	8	7.5	8	26	1.5	1.5	2.1	19.1	No	Low Priority
02602630260262	Condition - with no CCTV scoring	139.9	8	7.5	8	26	1.5	1.5	2.1	19.1	No	Low Priority
02602620260265	Condition - with no CCTV scoring	169.5	8	7.9	8	26	1.5	1.5	2.1	19.1	No	Low Priority
03300660330014	Condition - with no CCTV scoring	376.6	8	6.9	8	33	1.5	1.5	2.1	19.1	No	Low Priority
03400810340095	Condition - with no CCTV scoring	245.2	8	6.2	8	34	1.5	1.5	2.1	19.1	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
06500360650037	Condition - with no CCTV scoring	122.7	10	1.0	10	65	1.5	1.5	2.1	19.1	No	Moderate Priority
06600970660099	Condition - with no CCTV scoring	31	6	6.4	8	66	1.5	1.5	2.1	19.1	No	Highest Priority
07301030730102	Condition - with no CCTV scoring	97	8	6.3	8	73	1.5	1.5	2.1	19.1	No	High Priority
07300970730098	Condition - with no CCTV scoring	179.2	8	5.2	8	73	1.5	1.5	2.1	19.1	No	High Priority
08700580870020	Condition - with no CCTV scoring	5	8	6.1	8	87	1.5	1.5	2.1	19.1	No	Moderate Priority
08700590870020	Condition - with no CCTV scoring	11.1	8	6.1	8	87	1.5	1.5	2.1	19.1	No	Moderate Priority
08700270870015	Condition - with no CCTV scoring	6.5	8	7.2	8	87	1.5	1.5	2.1	19.1	No	Moderate Priority
08700240870015	Condition - with no CCTV scoring	5.9	8	7.2	8	87	1.5	1.5	2.1	19.1	No	Moderate Priority
08800790880077	Condition - with no CCTV scoring	188.5	6	6.0	8	88	1.5	1.5	2.1	19.1	No	Low Priority
09600920970047	Condition - with no CCTV scoring	354.8	8	7.0	8	96	1.5	1.5	2.1	19.1	No	Low Priority
09700210970122	Condition - with no CCTV scoring	120.2	8	6.7	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09700230970022	Condition - with no CCTV scoring	78	8	6.3	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09701160970024	Condition - with no CCTV scoring	204.2	8	6.1	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09701220970121	Condition - with no CCTV scoring	139.7	8	6.2	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09701230970092	Condition - with no CCTV scoring	218.3	8	6.0	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09700790970078	Condition - with no CCTV scoring	148.1	8	5.0	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09701170970116	Condition - with no CCTV scoring	175	8	6.6	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09600430960050	Condition - with no CCTV scoring	258	6	7.4	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
09702000970076	Condition - with no CCTV scoring	80	8	5.0	8	97	1.5	1.5	2.1	19.1	No	Lowest Priority
01100560110051	Condition - with no CCTV scoring	174.6	8	8.0	8	11	1.4	1.5	2.1	19.1	No	Lowest Priority
02302650230264	Condition - with no CCTV scoring	127.1	8	9.4	8	23	2.1	1.0	2.1	19.1	No	Lowest Priority
02302660230265	Condition - with no CCTV scoring	57.7	8	9.2	8	23	2.1	1.0	2.1	19.1	No	Lowest Priority
02302670230266	Condition - with no CCTV scoring	157.5	8	8.6	8	23	2.1	1.0	2.1	19.1	No	Lowest Priority
02302770230270	Condition - with no CCTV scoring	48.3	8	9.3	8	23	2.1	1.0	2.1	19.1	No	Lowest Priority
05400690540059	Condition - with no CCTV scoring	184.7	8	4.4	8	54	1.2	1.8	2.1	19.1	No	Moderate Priority
05600040560006	Condition - with no CCTV scoring	161.8	8	5.2	8	56	1.8	1.2	2.1	19.1	No	Highest Priority
00000010000002	Condition - with no CCTV scoring	349.9	15	12.0	15	00	1.6	1.3	2.1	19.0	No	Lowest Priority
00000030000004	Condition - with no CCTV scoring	348.2	15	11.0	15	00	1.6	1.3	2.1	19.0	No	Lowest Priority
00000120000013	Condition - with no CCTV scoring	350	15	10.2	15	0	1.6	1.3	2.1	19.0	No	Lowest Priority
01100800110081	Condition - with no CCTV scoring	249.4	8	10.2	8	11	1.6	1.3	2.1	19.0	No	Lowest Priority
01100810110082	Condition - with no CCTV scoring	311.4	8	11.0	8	11	1.6	1.3	2.1	19.0	No	Lowest Priority
01202170120216	Condition - with no CCTV scoring	223.6	8	8.1	8	12	1.6	1.4	2.1	19.0	No	Lowest Priority
01201470120182	Condition - with no CCTV scoring	400	8	5.0	8	12	1.4	1.6	2.1	19.0	No	Lowest Priority
02300270230028	Condition - with no CCTV scoring	244.9	8	10.1	8	23	1.6	1.4	2.1	19.0	No	Lowest Priority
02401010240092	Condition - with no CCTV scoring	540	10	9.6	10	24	1.6	1.4	2.1	19.0	No	Lowest Priority
02500500250073	Condition - with no CCTV scoring	317.7	8	8.0	8	25	1.6	1.4	2.1	19.0	No	Lowest Priority
02501620250152	Condition - with no CCTV scoring	57.9	8	30.6	8	25	1.6	1.4	2.1	19.0	No	Lowest Priority
06500580650059	Condition - with no CCTV scoring	316	12	9.5	12	65	1.6	1.4	2.1	19.0	No	Moderate Priority
06500570650058	Condition - with no CCTV scoring	302	12	8.6	12	65	1.6	1.4	2.1	19.0	No	Moderate Priority
07200620720065	Condition - with no CCTV scoring	123.8	8	8.0	8	72	1.6	1.4	2.1	19.0	No	Moderate Priority
07301310730100	Condition - with no CCTV scoring	310.2	8	9.4	8	73	1.6	1.4	2.1	19.0	No	High Priority
08800800880062	Condition - with no CCTV scoring	282	10	8.2	10	88	1.6	1.4	2.1	19.0	No	Low Priority
08801120880034	Condition - with no CCTV scoring	56.6	12	10.6	12	88	1.6	1.4	2.1	19.0	No	Low Priority
01201410120139	Condition - with no CCTV scoring	353.1	8	6.7	8	12	1.4	1.5	2.1	19.0	No	Lowest Priority
01201360120133	Condition - with no CCTV scoring	277.6	8	7.1	8	12	1.4	1.5	2.1	19.0	No	Lowest Priority
02501330250063	Condition - with no CCTV scoring	32.6	8	2.3	8	25	1.4	1.5	2.1	19.0	No	Lowest Priority
03400770340088	Condition - with no CCTV scoring	139.3	8	7.4	8	34	1.4	1.5	2.1	19.0	No	Lowest Priority
03400960340093	Condition - with no CCTV scoring	160.1	8	6.5	8	34	1.4	1.5	2.1	19.0	No	Lowest Priority
03701130370112	Condition - with no CCTV scoring	218.7	8	4.5	8	37	1.4	1.5	2.1	19.0	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02200880220089	Condition - with no CCTV scoring	312.7	8	8.3	8	22	1.6	1.3	2.1	18.9	No	Low Priority
02200960220088	Condition - with no CCTV scoring	215.1	8	8.0	8	22	1.6	1.3	2.1	18.9	No	Low Priority
02200940220093	Condition - with no CCTV scoring	402.7	8	9.0	8	22	1.6	1.3	2.1	18.9	No	Low Priority
02200860220087	Condition - with no CCTV scoring	258.3	8	8.3	8	22	1.6	1.3	2.1	18.9	No	Low Priority
02500640250062	Condition - with no CCTV scoring	274.5	8	8.1	8	25	1.5	1.4	2.1	18.9	No	Lowest Priority
06400690640068	Condition - with no CCTV scoring	711	8	4.3	8	64	1.2	1.7	2.1	18.9	No	Moderate Priority
01201290120130	Condition - with no CCTV scoring	372.3	8	6.3	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01201320120123	Condition - with no CCTV scoring	157.6	8	6.0	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01200840120132	Condition - with no CCTV scoring	369.4	8	6.3	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01200950120085	Condition - with no CCTV scoring	276.2	8	6.1	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01200850120083	Condition - with no CCTV scoring	274.7	8	6.0	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01200940120095	Condition - with no CCTV scoring	423.4	8	6.6	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01201260120124	Condition - with no CCTV scoring	194.2	8	7.2	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01201270120126	Condition - with no CCTV scoring	224.2	8	6.9	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
01200160120017	Condition - with no CCTV scoring	275.3	8	7.8	8	12	1.4	1.5	2.1	18.9	No	Lowest Priority
02300160230014	Condition - with no CCTV scoring	243.7	8	6.0	8	23	1.4	1.5	2.1	18.9	No	Lowest Priority
02401100240092	Condition - with no CCTV scoring	422	12	8.0	12	24	1.4	1.5	2.1	18.9	No	Lowest Priority
02401390240128	Condition - with no CCTV scoring	84.4	8	6.4	8	24	1.4	1.5	2.1	18.9	No	Lowest Priority
02401280240125	Condition - with no CCTV scoring	119.9	8	6.7	8	24	1.4	1.5	2.1	18.9	No	Lowest Priority
02401250240127	Condition - with no CCTV scoring	296.8	8	6.9	8	24	1.4	1.5	2.1	18.9	No	Lowest Priority
02400480240047	Condition - with no CCTV scoring	308.3	8	6.6	8	24	1.4	1.5	2.1	18.9	No	Lowest Priority
02400470240032	Condition - with no CCTV scoring	320.3	8	6.8	8	24	1.4	1.5	2.1	18.9	No	Lowest Priority
02400170240016	Condition - with no CCTV scoring	285.1	8	7.1	8	24	1.4	1.5	2.1	18.9	No	Lowest Priority
02401270240124	Condition - with no CCTV scoring	279.2	8	6.9	8	24	1.4	1.5	2.1	18.9	No	Lowest Priority
03400650340045	Condition - with no CCTV scoring	250.9	8	6.1	8	34	1.4	1.5	2.1	18.9	No	Lowest Priority
03400450340081	Condition - with no CCTV scoring	258.7	8	6.1	8	34	1.4	1.5	2.1	18.9	No	Lowest Priority
04400920440089	Condition - with no CCTV scoring	432.8	8	6.7	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04400870440088	Condition - with no CCTV scoring	324.6	8	6.4	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04400880440095	Condition - with no CCTV scoring	305.3	8	6.5	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04401000440102	Condition - with no CCTV scoring	287.1	8	6.8	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04401020440104	Condition - with no CCTV scoring	397.8	8	6.6	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04401080440107	Condition - with no CCTV scoring	464.7	8	6.5	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04401070440109	Condition - with no CCTV scoring	90.2	8	7.1	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04401090440110	Condition - with no CCTV scoring	86.7	8	6.7	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04400840440085	Condition - with no CCTV scoring	291.3	8	6.4	8	44	1.4	1.5	2.1	18.9	No	Low Priority
04601670460169	Condition - with no CCTV scoring	799	8	7.0	8	46	1.4	1.5	2.1	18.9	No	Highest Priority
07300570730058	Condition - with no CCTV scoring	300.1	8	7.4	8	73	1.4	1.5	2.1	18.9	No	High Priority
07300660730065	Condition - with no CCTV scoring	176	8	7.9	8	73	1.4	1.5	2.1	18.9	No	High Priority
07300650730064	Condition - with no CCTV scoring	249.6	8	8.0	8	73	1.4	1.5	2.1	18.9	No	High Priority
07700690770066	Condition - with no CCTV scoring	634.4	8	4.1	8	77	1.4	1.5	2.1	18.9	No	Highest Priority
02200870220088	Condition - with no CCTV scoring	257.2	8	7.1	8	22	1.5	1.4	2.1	18.9	No	Low Priority
02302140230215	Condition - with no CCTV scoring	277.1	8	12.0	8	23	2.1	1.0	2.1	18.8	No	Lowest Priority
07202480720247	Condition - with no CCTV scoring	167.1	8	6.6	8	72	1.6	1.3	2.1	18.8	No	Moderate Priority
04400780440079	Condition - with no CCTV scoring	315	8	6.5	8	44	1.5	1.4	2.1	18.8	No	Low Priority
04401280440077	Condition - with no CCTV scoring	404.2	8	6.2	8	44	1.5	1.4	2.1	18.8	No	Low Priority
06301350630136	Condition - with no CCTV scoring	186	8	10.5	8	63	1.5	1.4	2.1	18.8	No	Moderate Priority
07200270720026	Condition - with no CCTV scoring	205.4	8	10.2	8	72	1.5	1.4	2.1	18.8	No	Moderate Priority
01201390120067	Condition - with no CCTV scoring	341.2	8	7.3	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01200440120067	Condition - with no CCTV scoring	271.5	8	7.0	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01200660120044	Condition - with no CCTV scoring	388	8	6.6	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01202160120059	Condition - with no CCTV scoring	208.5	8	6.7	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01200470120046	Condition - with no CCTV scoring	422.8	8	6.7	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01200400120044	Condition - with no CCTV scoring	272.8	8	6.6	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01200420120041	Condition - with no CCTV scoring	219.4	8	6.7	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01200410120038	Condition - with no CCTV scoring	345.7	8	6.6	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01200390120040	Condition - with no CCTV scoring	162.6	8	6.6	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
01200380120039	Condition - with no CCTV scoring	350.7	8	6.6	8	12	1.4	1.5	2.1	18.7	No	Lowest Priority
04401790340014	Condition - with no CCTV scoring	155.3	8	6.9	8	34	1.4	1.5	2.1	18.7	No	Lowest Priority
03400140340015	Condition - with no CCTV scoring	191.9	8	6.9	8	34	1.4	1.5	2.1	18.7	No	Lowest Priority
03400590340060	Condition - with no CCTV scoring	98.3	8	6.8	8	34	1.4	1.5	2.1	18.7	No	Lowest Priority
04401800440179	Condition - with no CCTV scoring	103.5	8	7.2	8	44	1.4	1.5	2.1	18.7	No	Low Priority
06501080650105	Condition - with no CCTV scoring	339.6	8	5.8	8	65	1.4	1.5	2.1	18.7	No	Moderate Priority
01100960110097	Condition - with no CCTV scoring	417.8	8	8.0	8	11	1.6	1.3	2.1	18.7	No	Lowest Priority
02500720250064	Condition - with no CCTV scoring	223.6	8	7.4	8	25	1.4	1.5	2.0	18.6	No	Lowest Priority
02602660260264	Condition - with no CCTV scoring	146.6	8	7.8	8	26	1.4	1.5	2.0	18.6	No	Low Priority
03400230340022	Condition - with no CCTV scoring	167.8	8	6.0	8	34	1.4	1.5	2.0	18.6	No	Lowest Priority
04401780440176	Condition - with no CCTV scoring	175	8	9.2	8	44	1.4	1.5	2.0	18.6	No	Low Priority
07201870720192	Condition - with no CCTV scoring	79.1	8	5.7	8	73	1.4	1.5	2.0	18.6	No	High Priority
01201530110049	Condition - with no CCTV scoring	61.1	8	9.6	8	11	1.6	1.3	2.0	18.6	No	Lowest Priority
01100950110092	Condition - with no CCTV scoring	312.5	8	8.3	8	11	1.6	1.3	2.0	18.6	No	Lowest Priority
01100940110095	Condition - with no CCTV scoring	507.7	8	8.1	8	11	1.6	1.3	2.0	18.6	No	Lowest Priority
02201000220099	Condition - with no CCTV scoring	290.4	8	8.5	8	22	1.6	1.3	2.0	18.6	No	Low Priority
02200840220085	Condition - with no CCTV scoring	425.5	8	8.2	8	22	1.6	1.3	2.0	18.6	No	Low Priority
03601900360189	Condition - with no CCTV scoring	84.6	8	7.2	8	36	1.7	1.2	2.0	18.6	No	High Priority
03700670370068	Condition - with no CCTV scoring	114.1	8	4.2	8	37	1.2	1.7	2.0	18.6	No	Low Priority
01202580120222	Condition - with no CCTV scoring	151.5	8	8.3	8	12	1.5	1.4	2.0	18.5	No	Lowest Priority
01202100120211	Condition - with no CCTV scoring	157.7	8	8.1	8	12	1.5	1.4	2.0	18.5	No	Lowest Priority
01201910120193	Condition - with no CCTV scoring	277.3	8	9.1	8	12	1.5	1.4	2.0	18.5	No	Lowest Priority
01201930120192	Condition - with no CCTV scoring	49.2	8	8.8	8	12	1.5	1.4	2.0	18.5	No	Lowest Priority
03400070340006	Condition - with no CCTV scoring	199.3	8	8.3	8	34	1.5	1.4	2.0	18.5	No	Lowest Priority
03400050340003	Condition - with no CCTV scoring	118.7	8	8.4	8	34	1.5	1.4	2.0	18.5	No	Lowest Priority
01100540110050	Condition - with no CCTV scoring	121.4	8	8.1	8	11	1.5	1.4	2.0	18.5	No	Lowest Priority
01100550110054	Condition - with no CCTV scoring	297.7	8	8.2	8	11	1.5	1.4	2.0	18.5	No	Lowest Priority
01300020130001	Condition - with no CCTV scoring	83.4	8	5.9	8	13	1.4	1.5	2.0	18.5	No	Lowest Priority
02200780220080	Condition - with no CCTV scoring	201.2	8	7.1	8	22	1.5	1.4	2.0	18.5	No	Low Priority
02300340230030	Condition - with no CCTV scoring	174.9	8	6.7	8	23	1.4	1.5	2.0	18.5	No	Lowest Priority
02300790230061	Condition - with no CCTV scoring	308.4	8	7.6	8	23	1.4	1.5	2.0	18.5	No	Lowest Priority
02300480230041	Condition - with no CCTV scoring	8.9	8	7.5	8	23	1.4	1.5	2.0	18.5	No	Lowest Priority
02301990230097	Condition - with no CCTV scoring	102.5	6	7.4	8	23	1.4	1.5	2.0	18.5	No	Lowest Priority
02301070230061	Condition - with no CCTV scoring	288.3	8	8.0	8	23	1.4	1.5	2.0	18.5	No	Lowest Priority
02302680230267	Condition - with no CCTV scoring	144.8	8	8.5	8	23	2.0	1.0	2.0	18.5	No	Lowest Priority
02602580260259	Condition - with no CCTV scoring	156.8	8	7.3	8	26	1.4	1.5	2.0	18.5	No	Low Priority
03400820340081	Condition - with no CCTV scoring	130.6	8	5.4	8	34	1.4	1.5	2.0	18.5	No	Lowest Priority
06501070650108	Condition - with no CCTV scoring	267	8	6.0	8	65	1.4	1.5	2.0	18.5	No	Moderate Priority
06501090650111	Condition - with no CCTV scoring	340.9	12	5.0	12	65	1.4	1.5	2.0	18.5	No	Moderate Priority
06501060650107	Condition - with no CCTV scoring	267.6	8	6.1	8	65	1.4	1.5	2.0	18.5	No	Moderate Priority
06600990660100	Condition - with no CCTV scoring	26.2	6	5.8	8	66	1.4	1.5	2.0	18.5	No	Highest Priority
06600980660097	Condition - with no CCTV scoring	121	6	6.0	8	66	1.4	1.5	2.0	18.5	No	Highest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
07301080730104	Condition - with no CCTV scoring	245	8	6.6	8	73	1.4	1.5	2.0	18.5	No	High Priority
07301370730135	Condition - with no CCTV scoring	237.7	8	5.1	8	73	1.4	1.5	2.0	18.5	No	High Priority
07300300730029	Condition - with no CCTV scoring	382.4	8	6.0	8	73	1.4	1.5	2.0	18.5	No	High Priority
07700670770065	Condition - with no CCTV scoring	542.5	8	2.5	8	77	1.4	1.5	2.0	18.5	No	Highest Priority
08700640870065	Condition - with no CCTV scoring	196.2	8	5.5	8	87	1.4	1.5	2.0	18.5	No	Moderate Priority
08800650880063	Condition - with no CCTV scoring	143.8	6	6.0	8	88	1.4	1.5	2.0	18.5	No	Low Priority
08800630880039	Condition - with no CCTV scoring	82	6	5.1	8	88	1.4	1.5	2.0	18.5	No	Low Priority
08901190890120	Condition - with no CCTV scoring	339.6	12	7.2	12	89	1.5	1.4	2.0	18.5	No	Low Priority
09601090960076	Condition - with no CCTV scoring	343	6	7.8	8	96	1.4	1.5	2.0	18.5	No	Low Priority
09600970970048	Condition - with no CCTV scoring	382	6	6.0	8	96	1.4	1.5	2.0	18.5	No	Low Priority
09600440960050	Condition - with no CCTV scoring	240	6	5.8	8	96	1.4	1.5	2.0	18.5	No	Low Priority
09600450960044	Condition - with no CCTV scoring	201	6	5.7	8	96	1.4	1.5	2.0	18.5	No	Low Priority
09700810970082	Condition - with no CCTV scoring	286	8	6.5	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09700240970023	Condition - with no CCTV scoring	168.8	8	5.1	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09701190970022	Condition - with no CCTV scoring	121	8	6.8	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09700920970086	Condition - with no CCTV scoring	230.2	8	5.5	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09701050970001	Condition - with no CCTV scoring	64.6	8	7.4	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09700440960074	Condition - with no CCTV scoring	321.2	8	7.8	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09700470970044	Condition - with no CCTV scoring	143	8	7.0	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09700480970059	Condition - with no CCTV scoring	109.3	6	6.3	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09600500970068	Condition - with no CCTV scoring	111	6	5.9	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
09700610970063	Condition - with no CCTV scoring	187	6	6.2	8	97	1.4	1.5	2.0	18.5	No	Lowest Priority
00000040000005	Condition - with no CCTV scoring	348.3	15	9.4	15	00	1.6	1.3	2.0	18.5	No	Lowest Priority
00000020000003	Condition - with no CCTV scoring	347.5	15	9.3	15	00	1.6	1.3	2.0	18.5	No	Lowest Priority
00000130000001	Condition - with no CCTV scoring	350	15	9.6	15	00	1.6	1.3	2.0	18.5	No	Lowest Priority
00000110000012	Condition - with no CCTV scoring	349.8	15	9.6	15	0	1.6	1.3	2.0	18.5	No	Lowest Priority
00000050000006	Condition - with no CCTV scoring	349.8	15	8.9	15	00	1.6	1.3	2.0	18.5	No	Lowest Priority
01100470110048	Condition - with no CCTV scoring	77.4	8	10.2	8	11	1.6	1.3	2.0	18.5	No	Lowest Priority
01100920110081	Condition - with no CCTV scoring	271.7	8	8.6	8	11	1.6	1.3	2.0	18.5	No	Lowest Priority
01200510120161	Condition - with no CCTV scoring	298.8	8	15.4	8	12	1.5	1.4	2.0	18.4	No	Lowest Priority
01202230120111	Condition - with no CCTV scoring	278.4	8	8.2	8	12	1.5	1.4	2.0	18.4	No	Lowest Priority
02300740230026	Condition - with no CCTV scoring	441.8	8	8.3	8	23	1.5	1.4	2.0	18.4	No	Lowest Priority
02300750230074	Condition - with no CCTV scoring	449	8	8.3	8	23	1.5	1.4	2.0	18.4	No	Lowest Priority
02300260230027	Condition - with no CCTV scoring	290.3	8	8.6	8	23	1.5	1.4	2.0	18.4	No	Lowest Priority
02300290330070	Condition - with no CCTV scoring	450	8	8.2	8	23	1.5	1.4	2.0	18.4	No	Lowest Priority
02501640250163	Condition - with no CCTV scoring	339.9	8	13.0	8	25	1.5	1.4	2.0	18.4	No	Lowest Priority
02602590260253	Condition - with no CCTV scoring	162.4	8	9.7	8	26	1.5	1.4	2.0	18.4	No	Low Priority
07200210720022	Condition - with no CCTV scoring	157.4	8	8.3	8	72	1.5	1.4	2.0	18.4	No	Moderate Priority
09600760960074	Condition - with no CCTV scoring	196	6	12.2	8	96	1.5	1.4	2.0	18.4	No	Low Priority
09601020970049	Condition - with no CCTV scoring	152.8	6	10.3	8	96	1.5	1.4	2.0	18.4	No	Low Priority
09700270970023	Condition - with no CCTV scoring	182.2	8	8.8	8	97	1.5	1.4	2.0	18.4	No	Lowest Priority
09800180980017	Condition - with no CCTV scoring	341	8	8.7	8	98	1.5	1.4	2.0	18.4	No	Lowest Priority
07300090720011	Condition - with no CCTV scoring	365.6	8	6.4	8	72	1.8	1.1	2.0	18.4	No	Moderate Priority
02302640230214	Condition - with no CCTV scoring	78.9	8	9.7	8	23	2.0	1.0	2.0	18.4	No	Lowest Priority
02302740230275	Condition - with no CCTV scoring	149.7	8	9.3	8	23	2.0	1.0	2.0	18.4	No	Lowest Priority
04300430430044	Condition - with no CCTV scoring	556.7	24	1.9	24	43	1.7	1.2	2.0	18.3	No	Low Priority
01202110120204	Condition - with no CCTV scoring	211	8	8.0	8	12	1.4	1.5	2.0	18.3	No	Lowest Priority
01202000120201	Condition - with no CCTV scoring	388	8	8.0	8	12	1.4	1.5	2.0	18.3	No	Lowest Priority
01201140120214	Condition - with no CCTV scoring	339	8	6.7	8	12	1.4	1.5	2.0	18.3	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01202140120113	Condition - with no CCTV scoring	298.5	8	5.6	8	12	1.4	1.5	2.0	18.3	No	Lowest Priority
01202130120214	Condition - with no CCTV scoring	298.4	8	7.7	8	12	1.4	1.5	2.0	18.3	No	Lowest Priority
03400600340069	Condition - with no CCTV scoring	242.6	8	6.5	8	34	1.4	1.5	2.0	18.3	No	Lowest Priority
03400780340075	Condition - with no CCTV scoring	157.9	8	7.7	8	34	1.4	1.5	2.0	18.3	No	Lowest Priority
03400690340074	Condition - with no CCTV scoring	213.2	8	6.4	8	34	1.4	1.5	2.0	18.3	No	Lowest Priority
03400060340042	Condition - with no CCTV scoring	62.5	8	7.4	8	34	1.4	1.5	2.0	18.3	No	Lowest Priority
01101650110090	Condition - with no CCTV scoring	164.4	8	12.2	8	11	1.6	1.3	2.0	18.3	No	Lowest Priority
01202020120204	Condition - with no CCTV scoring	359.5	8	11.5	8	12	1.5	1.4	2.0	18.3	No	Lowest Priority
01202040120215	Condition - with no CCTV scoring	354	8	11.8	8	12	1.5	1.4	2.0	18.3	No	Lowest Priority
01202150120213	Condition - with no CCTV scoring	310.9	8	13.9	8	12	1.5	1.4	2.0	18.3	No	Lowest Priority
03400040340016	Condition - with no CCTV scoring	119.9	8	8.2	8	34	1.5	1.4	2.0	18.3	No	Lowest Priority
05500570550058	Condition - with no CCTV scoring	262.8	8	7.9	8	55	1.7	1.2	2.0	18.2	No	High Priority
05500580550059	Condition - with no CCTV scoring	137	8	8.0	8	55	1.7	1.2	2.0	18.2	No	High Priority
05600060560197	Condition - with no CCTV scoring	64.4	8	5.9	8	56	1.7	1.2	2.0	18.2	No	Highest Priority
05602000560198	Condition - with no CCTV scoring	297	8	4.6	8	56	1.7	1.2	2.0	18.2	No	Highest Priority
00000100000011	Condition - with no CCTV scoring	248.1	15	7.4	15	0	1.4	1.4	2.0	18.2	No	Lowest Priority
01100830110084	Condition - with no CCTV scoring	274.8	8	14.3	8	11	1.5	1.3	2.0	18.2	No	Lowest Priority
01101000110089	Condition - with no CCTV scoring	289.3	8	12.5	8	11	1.5	1.3	2.0	18.2	No	Lowest Priority
01100820110083	Condition - with no CCTV scoring	301.1	8	12.2	8	11	1.5	1.3	2.0	18.2	No	Lowest Priority
08901260890127	Condition - with no CCTV scoring	349	8	7.9	8	89	1.4	1.4	2.0	18.2	No	Low Priority
01201280120129	Condition - with no CCTV scoring	280.8	8	5.9	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01201300120123	Condition - with no CCTV scoring	269.5	8	6.1	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01201230120122	Condition - with no CCTV scoring	164.6	8	6.5	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01200830120084	Condition - with no CCTV scoring	138.7	8	5.2	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01200810120083	Condition - with no CCTV scoring	211.5	8	5.6	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01202210120222	Condition - with no CCTV scoring	365.8	8	6.9	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01200480120161	Condition - with no CCTV scoring	466.3	8	5.1	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01201860120105	Condition - with no CCTV scoring	180.3	8	8.0	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
01201100120184	Condition - with no CCTV scoring	158.6	8	7.6	8	12	1.4	1.5	2.0	18.2	No	Lowest Priority
02301790230180	Condition - with no CCTV scoring	453	8	7.4	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301800230178	Condition - with no CCTV scoring	123.9	8	7.4	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301820230179	Condition - with no CCTV scoring	223.1	6	7.2	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301780230184	Condition - with no CCTV scoring	272.3	8	7.4	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301640230187	Condition - with no CCTV scoring	242.8	8	7.0	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301880230189	Condition - with no CCTV scoring	287.4	6	7.2	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301910230190	Condition - with no CCTV scoring	218.2	8	7.5	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301950230187	Condition - with no CCTV scoring	86	6	7.4	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300940230078	Condition - with no CCTV scoring	130.2	6	6.9	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300980230096	Condition - with no CCTV scoring	281.1	8	7.1	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300780230054	Condition - with no CCTV scoring	143.4	8	7.3	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300910230090	Condition - with no CCTV scoring	144.8	8	7.4	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301630230164	Condition - with no CCTV scoring	204.6	8	6.9	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301650230166	Condition - with no CCTV scoring	218.3	6	7.0	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301660230167	Condition - with no CCTV scoring	58.5	6	7.2	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300900230060	Condition - with no CCTV scoring	119.7	8	7.8	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300890230090	Condition - with no CCTV scoring	141.5	8	7.1	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02301930230191	Condition - with no CCTV scoring	232.1	8	7.3	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300590230057	Condition - with no CCTV scoring	292.1	8	7.3	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
02300920230089	Condition - with no CCTV scoring	271.9	8	7.1	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02300920230186	Condition - with no CCTV scoring	224.1	8	7.1	8	23	1.4	1.5	2.0	18.2	No	Lowest Priority
03401300340048	Condition - with no CCTV scoring	96.4	8	5.5	8	24	1.4	1.5	2.0	18.2	No	Lowest Priority
02401290240126	Condition - with no CCTV scoring	72.7	8	7.1	8	24	1.4	1.5	2.0	18.2	No	Lowest Priority
02401230240122	Condition - with no CCTV scoring	180.2	8	7.0	8	24	1.4	1.5	2.0	18.2	No	Lowest Priority
02602560260253	Condition - with no CCTV scoring	80.4	8	7.7	8	26	1.4	1.5	2.0	18.2	No	Low Priority
04401130440103	Condition - with no CCTV scoring	355.8	8	7.3	8	44	1.4	1.5	2.0	18.2	No	Low Priority
04401140440073	Condition - with no CCTV scoring	442.9	8	6.7	8	44	1.4	1.5	2.0	18.2	No	Low Priority
04401030440100	Condition - with no CCTV scoring	345.9	8	7.3	8	44	1.4	1.5	2.0	18.2	No	Low Priority
04400730440072	Condition - with no CCTV scoring	444.6	8	6.8	8	44	1.4	1.5	2.0	18.2	No	Low Priority
06300370630038	Condition - with no CCTV scoring	136.2	8	5.3	8	63	1.4	1.5	2.0	18.2	No	Moderate Priority
06300400630037	Condition - with no CCTV scoring	110.9	8	6.2	8	63	1.4	1.5	2.0	18.2	No	Moderate Priority
06300350630040	Condition - with no CCTV scoring	217	8	6.6	8	63	1.4	1.5	2.0	18.2	No	Moderate Priority
07201580720159	Condition - with no CCTV scoring	248.4	8	5.6	8	72	1.4	1.5	2.0	18.2	No	Moderate Priority
07201590720162	Condition - with no CCTV scoring	238.5	8	5.5	8	72	1.4	1.5	2.0	18.2	No	Moderate Priority
07300150730013	Condition - with no CCTV scoring	74.4	8	7.3	8	73	1.4	1.5	2.0	18.2	No	High Priority
01201150120116	Condition - with no CCTV scoring	369.2	8	10.2	8	12	1.5	1.4	2.0	18.2	No	Lowest Priority
02300850230086	Condition - with no CCTV scoring	349.6	8	9.8	8	23	1.5	1.4	2.0	18.2	No	Lowest Priority
02301850230088	Condition - with no CCTV scoring	161.2	8	11.7	8	23	1.5	1.4	2.0	18.2	No	Lowest Priority
02301720230185	Condition - with no CCTV scoring	108.9	8	13.0	8	23	1.5	1.4	2.0	18.2	No	Lowest Priority
02300880230085	Condition - with no CCTV scoring	132.7	8	10.6	8	23	1.5	1.4	2.0	18.2	No	Lowest Priority
02301710230172	Condition - with no CCTV scoring	321.9	8	14.1	8	23	1.5	1.4	2.0	18.2	No	Lowest Priority
06301330630135	Condition - with no CCTV scoring	76.1	8	8.2	8	63	1.5	1.4	2.0	18.2	No	Moderate Priority
07300630730061	Condition - with no CCTV scoring	300.5	8	8.0	8	73	1.5	1.4	2.0	18.2	No	High Priority
07300610730060	Condition - with no CCTV scoring	272.2	8	8.2	8	73	1.5	1.4	2.0	18.2	No	High Priority
07300320730033	Condition - with no CCTV scoring	300.1	8	8.1	8	73	1.5	1.4	2.0	18.2	No	High Priority
07300310730032	Condition - with no CCTV scoring	250	8	8.4	8	73	1.5	1.4	2.0	18.2	No	High Priority
02302240230262	Condition - with no CCTV scoring	167.9	8	12.7	8	23	2.0	1.0	2.0	18.1	No	Lowest Priority
04400480440049	Condition - with no CCTV scoring	263.5	8	5.2	8	44	1.2	1.7	2.0	18.1	No	Low Priority
01202770110074	Condition - with no CCTV scoring	402.2	8	8.1	8	11	1.4	1.4	2.0	18.1	No	Lowest Priority
01202710110074	Condition - with no CCTV scoring	301.4	8	8.7	8	11	1.4	1.4	2.0	18.1	No	Lowest Priority
01100740110165	Condition - with no CCTV scoring	140.6	8	9.8	8	11	1.4	1.4	2.0	18.1	No	Lowest Priority
08901110890112	Condition - with no CCTV scoring	670.4	8	7.9	8	89	1.4	1.4	2.0	18.1	No	Low Priority
01200340120032	Condition - with no CCTV scoring	417.6	8	7.9	8	11	1.4	1.5	2.0	18.1	No	Lowest Priority
01200670120138	Condition - with no CCTV scoring	295.5	8	5.9	8	12	1.4	1.5	2.0	18.1	No	Lowest Priority
01202120120206	Condition - with no CCTV scoring	315	8	8.0	8	12	1.4	1.5	2.0	18.1	No	Lowest Priority
01202030120202	Condition - with no CCTV scoring	346.5	8	8.0	8	12	1.4	1.5	2.0	18.1	No	Lowest Priority
01201130120111	Condition - with no CCTV scoring	271.1	8	7.1	8	12	1.4	1.5	2.0	18.1	No	Lowest Priority
01201110120218	Condition - with no CCTV scoring	163.7	8	7.0	8	12	1.4	1.5	2.0	18.1	No	Lowest Priority
01202880120004	Condition - with no CCTV scoring	206.1	8	8.2	8	12	1.4	1.5	2.0	18.1	No	Lowest Priority
02300100230002	Condition - with no CCTV scoring	408.9	8	7.5	8	23	1.4	1.5	2.0	18.1	No	Lowest Priority
02300020230003	Condition - with no CCTV scoring	98.2	8	7.5	8	23	1.4	1.5	2.0	18.1	No	Lowest Priority
03400760340077	Condition - with no CCTV scoring	177.3	8	7.3	8	34	1.4	1.5	2.0	18.1	No	Lowest Priority
03400520340053	Condition - with no CCTV scoring	296.3	8	7.0	8	34	1.4	1.5	2.0	18.1	No	Lowest Priority
03400750340076	Condition - with no CCTV scoring	259.8	8	7.2	8	34	1.4	1.5	2.0	18.1	No	Lowest Priority
03400530340076	Condition - with no CCTV scoring	254	8	7.0	8	34	1.4	1.5	2.0	18.1	No	Lowest Priority
03400570340050	Condition - with no CCTV scoring	280.2	8	6.0	8	34	1.4	1.5	2.0	18.1	No	Lowest Priority
01202180120216	Condition - with no CCTV scoring	120	8	8.5	8	12	1.5	1.4	2.0	18.1	No	Lowest Priority
07800620770163	Condition - with no CCTV scoring	559.8	8	10.0	8	77	1.2	1.7	2.0	18.0	No	Highest Priority
02200990220085	Condition - with no CCTV scoring	353.6	8	9.1	8	22	1.5	1.3	2.0	18.0	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02200850220086	Condition - with no CCTV scoring	272.8	8	8.3	8	22	1.5	1.3	2.0	18.0	No	Low Priority
02400190240142	Condition - with no CCTV scoring	373.7	8	5.5	8	24	1.4	1.5	2.0	17.9	No	Lowest Priority
05400740540045	Condition - with no CCTV scoring	302.5	8	5.4	8	54	1.4	1.5	2.0	17.9	No	Moderate Priority
01201030120104	Condition - with no CCTV scoring	27	8	9.0	8	12	1.5	1.4	2.0	17.9	No	Lowest Priority
02602640260263	Condition - with no CCTV scoring	348.1	8	8.0	8	26	1.5	1.4	2.0	17.9	No	Low Priority
03300420330041	Condition - with no CCTV scoring	421.3	8	8.3	8	33	1.5	1.4	2.0	17.9	No	Low Priority
05400730540045	Condition - with no CCTV scoring	124.7	8	8.6	8	54	1.5	1.4	2.0	17.9	No	Moderate Priority
05400720540073	Condition - with no CCTV scoring	121	8	8.4	8	54	1.5	1.4	2.0	17.9	No	Moderate Priority
06700410670042	Condition - with no CCTV scoring	338.8	8	5.0	8	67	1.5	1.4	2.0	17.9	No	Highest Priority
02401610240160	Condition - with no CCTV scoring	420.2	10	14.3	10	24	2.0	1.0	2.0	17.9	No	Lowest Priority
04400820440083	Condition - with no CCTV scoring	91.2	8	6.0	8	44	1.3	1.6	2.0	17.9	No	Low Priority
05603090560308	Condition - with no CCTV scoring	295.8	8	5.6	8	56	1.6	1.2	2.0	17.9	No	Highest Priority
06402040640078	Condition - with no CCTV scoring	466.3	8	5.7	8	64	1.6	1.2	2.0	17.9	No	Moderate Priority
01100430110044	Condition - with no CCTV scoring	255.8	8	8.1	8	11	1.5	1.3	2.0	17.9	No	Lowest Priority
01100450110047	Condition - with no CCTV scoring	330.2	8	8.3	8	11	1.5	1.3	2.0	17.9	No	Lowest Priority
01100460110048	Condition - with no CCTV scoring	283.6	8	8.1	8	11	1.5	1.3	2.0	17.9	No	Lowest Priority
01100960110093	Condition - with no CCTV scoring	290.8	8	8.0	8	11	1.5	1.3	2.0	17.9	No	Lowest Priority
08901290890121	Condition - with no CCTV scoring	361.3	8	6.9	8	89	1.4	1.4	2.0	17.8	No	Low Priority
08901170890119	Condition - with no CCTV scoring	347.7	8	7.6	8	89	1.4	1.4	2.0	17.8	No	Low Priority
08901200890129	Condition - with no CCTV scoring	347.7	8	7.8	8	89	1.4	1.4	2.0	17.8	No	Low Priority
01202590120187	Condition - with no CCTV scoring	273.3	8	7.5	8	12	1.8	1.1	2.0	17.8	No	Lowest Priority
02401590240158	Condition - with no CCTV scoring	22.2	10	6.1	10	24	1.8	1.1	2.0	17.8	No	Lowest Priority
02401570240156	Condition - with no CCTV scoring	250	10	7.6	10	24	1.8	1.1	2.0	17.8	No	Lowest Priority
02401580240157	Condition - with no CCTV scoring	114.5	10	6.2	10	24	1.8	1.1	2.0	17.8	No	Lowest Priority
02401530240152	Condition - with no CCTV scoring	112	10	6.5	10	24	1.8	1.1	2.0	17.8	No	Lowest Priority
01200920120093	Condition - with no CCTV scoring	226.3	8	8.0	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200970120098	Condition - with no CCTV scoring	401.4	8	7.3	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200960120097	Condition - with no CCTV scoring	135	8	7.2	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200870120088	Condition - with no CCTV scoring	218.3	8	6.2	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200860120087	Condition - with no CCTV scoring	215.2	8	6.4	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200720120069	Condition - with no CCTV scoring	375.1	8	6.3	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200710120069	Condition - with no CCTV scoring	390.4	8	6.1	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200240120025	Condition - with no CCTV scoring	345.9	8	10.3	8	12	1.5	1.4	2.0	17.8	No	Lowest Priority
01200210120018	Condition - with no CCTV scoring	185	8	8.0	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200190120017	Condition - with no CCTV scoring	389.2	8	7.9	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01201010120100	Condition - with no CCTV scoring	255.9	8	7.6	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01201000120099	Condition - with no CCTV scoring	418.9	8	7.5	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200990120051	Condition - with no CCTV scoring	304	8	7.1	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200980120080	Condition - with no CCTV scoring	402.9	8	7.6	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
01200590120060	Condition - with no CCTV scoring	58.8	8	6.6	8	12	1.4	1.5	2.0	17.8	No	Lowest Priority
C7	Condition - with no CCTV scoring	94.1	8	272.4	8	12	1.5	1.4	2.0	17.8	No	Lowest Priority
02300300230031	Condition - with no CCTV scoring	270.4	8	5.7	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300830230034	Condition - with no CCTV scoring	288.4	8	6.5	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300170230009	Condition - with no CCTV scoring	250.7	8	6.9	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300870230017	Condition - with no CCTV scoring	324.3	8	6.9	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300860230087	Condition - with no CCTV scoring	155.8	8	6.6	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300120230011	Condition - with no CCTV scoring	243.5	8	7.1	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300130230012	Condition - with no CCTV scoring	277.9	8	7.1	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300140230013	Condition - with no CCTV scoring	153	8	6.7	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02300820230034	Condition - with no CCTV scoring	100.4	8	5.9	8	23	1.4	1.5	2.0	17.8	No	Lowest Priority
02300610230048	Condition - with no CCTV scoring	275.4	8	8.0	8	23	1.5	1.4	2.0	17.8	No	Lowest Priority
02302120230061	Condition - with no CCTV scoring	220.4	8	8.5	8	23	1.5	1.4	2.0	17.8	No	Lowest Priority
03400480340049	Condition - with no CCTV scoring	156.6	8	6.1	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
02401220240124	Condition - with no CCTV scoring	240.9	8	7.2	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
02400160240015	Condition - with no CCTV scoring	258.1	8	6.9	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
02400150240010	Condition - with no CCTV scoring	113	8	7.0	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
02400100240014	Condition - with no CCTV scoring	129.6	8	6.8	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
02400090240010	Condition - with no CCTV scoring	332.1	8	6.2	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
02400080240009	Condition - with no CCTV scoring	91.2	8	6.1	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
02401240240121	Condition - with no CCTV scoring	279.6	8	6.8	8	24	1.4	1.5	2.0	17.8	No	Lowest Priority
03300400330039	Condition - with no CCTV scoring	537.4	8	9.8	8	33	1.5	1.4	2.0	17.8	No	Low Priority
03400500340065	Condition - with no CCTV scoring	438.6	8	6.1	8	34	1.4	1.5	2.0	17.8	No	Lowest Priority
03800370380038	Condition - with no CCTV scoring	575.2	8	5.7	8	38	1.4	1.5	2.0	17.8	No	Low Priority
04400770440075	Condition - with no CCTV scoring	405.9	8	6.3	8	44	1.5	1.4	2.0	17.8	No	Low Priority
05401970540199	Condition - with no CCTV scoring	299.6	8	6.7	8	54	1.4	1.5	2.0	17.8	No	Moderate Priority
05502130550210	Condition - with no CCTV scoring	559.5	8	6.3	8	55	1.4	1.5	2.0	17.8	No	High Priority
06200140620015	Condition - with no CCTV scoring	162.4	8	6.0	8	62	1.4	1.5	2.0	17.8	No	Low Priority
06501090650106	Condition - with no CCTV scoring	142.4	8	5.0	8	65	1.4	1.5	2.0	17.8	No	Moderate Priority
06501620650109	Condition - with no CCTV scoring	678.7	8	5.9	8	65	1.4	1.5	2.0	17.8	No	Moderate Priority
06501260650125	Condition - with no CCTV scoring	402.5	8	5.5	8	65	1.4	1.5	2.0	17.8	No	Moderate Priority
07301090730108	Condition - with no CCTV scoring	240	8	9.0	8	73	1.5	1.4	2.0	17.8	No	High Priority
07301260730127	Condition - with no CCTV scoring	89.5	8	5.6	8	73	1.4	1.5	2.0	17.8	No	High Priority
09600980960100	Condition - with no CCTV scoring	161.6	6	7.2	8	96	1.4	1.5	2.0	17.8	No	Low Priority
09601070960103	Condition - with no CCTV scoring	387.3	6	7.4	8	96	1.4	1.5	2.0	17.8	No	Low Priority
09601030960102	Condition - with no CCTV scoring	157	6	7.3	8	96	1.4	1.5	2.0	17.8	No	Low Priority
09700060970092	Condition - with no CCTV scoring	104	8	5.8	8	97	1.4	1.5	2.0	17.8	No	Lowest Priority
09701090970055	Condition - with no CCTV scoring	325	8	6.9	8	97	1.5	1.4	2.0	17.8	No	Lowest Priority
01100900110091	Condition - with no CCTV scoring	393.3	8	8.1	8	11	1.5	1.3	2.0	17.7	No	Lowest Priority
01100930110094	Condition - with no CCTV scoring	388.7	8	9.2	8	11	1.5	1.3	2.0	17.7	No	Lowest Priority
02302490230248	Condition - with no CCTV scoring	239.8	8	12.8	8	23	2.0	1.0	2.0	17.7	No	Lowest Priority
02401660240165	Condition - with no CCTV scoring	115.2	8	8.8	8	24	2.0	1.0	2.0	17.7	No	Lowest Priority
02302370230238	Condition - with no CCTV scoring	366.4	8	7.2	8	23	1.8	1.1	1.9	17.7	No	Lowest Priority
02401780240179	Condition - with no CCTV scoring	345.8	8	7.4	8	24	1.8	1.1	1.9	17.7	No	Lowest Priority
02401800240181	Condition - with no CCTV scoring	124.2	8	7.3	8	24	1.8	1.1	1.9	17.7	No	Lowest Priority
0850016LIFTSTA	Condition - with no CCTV scoring	39.6	8	8.0	8	85	1.8	1.1	1.9	17.7	No	Lowest Priority
03200720320073	Condition - with no CCTV scoring	347	8	8.0	8	32	1.4	1.4	1.9	17.7	No	Lowest Priority
04401760440175	Condition - with no CCTV scoring	113.7	8	8.2	8	44	1.3	1.5	1.9	17.7	No	Low Priority
01100840110085	Condition - with no CCTV scoring	26.7	8	12.4	8	11	1.5	1.3	1.9	17.6	No	Lowest Priority
01100760110083	Condition - with no CCTV scoring	218.9	8	8.5	8	11	1.5	1.3	1.9	17.6	No	Lowest Priority
01100890110092	Condition - with no CCTV scoring	297.2	8	8.1	8	11	1.5	1.3	1.9	17.6	No	Lowest Priority
01101010110092	Condition - with no CCTV scoring	103.3	8	8.2	8	11	1.5	1.3	1.9	17.6	No	Lowest Priority
01100870110090	Condition - with no CCTV scoring	289.1	8	7.8	8	11	1.4	1.4	1.9	17.6	No	Lowest Priority
05301050530068	Condition - with no CCTV scoring	146.8	8	5.9	8	53	1.4	1.4	1.9	17.6	No	Moderate Priority
07202420720241	Condition - with no CCTV scoring	378	8	4.5	8	72	1.6	1.2	1.9	17.6	No	Moderate Priority
01201950120191	Condition - with no CCTV scoring	161.1	8	8.7	8	12	1.4	1.4	1.9	17.6	No	Lowest Priority
01201840120191	Condition - with no CCTV scoring	252.2	8	8.1	8	12	1.4	1.4	1.9	17.6	No	Lowest Priority
01200620120060	Condition - with no CCTV scoring	286.5	8	8.1	8	12	1.4	1.4	1.9	17.6	No	Lowest Priority
01201170120116	Condition - with no CCTV scoring	390.2	8	9.0	8	12	1.4	1.4	1.9	17.6	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01201160120209	Condition - with no CCTV scoring	343.3	8	8.1	8	12	1.4	1.4	1.9	17.6	No	Lowest Priority
01201850120184	Condition - with no CCTV scoring	487.1	8	8.3	8	12	1.4	1.4	1.9	17.6	No	Lowest Priority
02301840230173	Condition - with no CCTV scoring	173.5	8	8.3	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301960230173	Condition - with no CCTV scoring	81.4	6	9.1	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02300930230088	Condition - with no CCTV scoring	273	8	8.6	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301730230171	Condition - with no CCTV scoring	107.8	8	9.9	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301890230190	Condition - with no CCTV scoring	343.6	8	8.3	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301870230189	Condition - with no CCTV scoring	244.8	8	8.2	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301900230192	Condition - with no CCTV scoring	325.1	8	8.4	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301940230195	Condition - with no CCTV scoring	182	6	8.4	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02300960230078	Condition - with no CCTV scoring	135.6	8	9.3	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301920230184	Condition - with no CCTV scoring	63.5	8	8.4	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02301860230172	Condition - with no CCTV scoring	116.8	8	8.6	8	23	1.4	1.4	1.9	17.6	No	Lowest Priority
02401260240125	Condition - with no CCTV scoring	115.6	8	8.2	8	24	1.4	1.4	1.9	17.6	No	Lowest Priority
01200640120061	Condition - with no CCTV scoring	288.9	8	7.4	8	12	1.3	1.5	1.9	17.5	No	Lowest Priority
01200100120013	Condition - with no CCTV scoring	161.7	8	6.0	8	12	1.3	1.5	1.9	17.5	No	Lowest Priority
01200130120011	Condition - with no CCTV scoring	256.5	8	7.1	8	12	1.3	1.5	1.9	17.5	No	Lowest Priority
01200090120010	Condition - with no CCTV scoring	81	8	6.5	8	12	1.3	1.5	1.9	17.5	No	Lowest Priority
05500730550074	Condition - with no CCTV scoring	523.6	8	5.0	8	55	1.3	1.5	1.9	17.5	No	High Priority
07202250720226	Condition - with no CCTV scoring	227	8	5.1	8	72	1.3	1.5	1.9	17.5	No	Moderate Priority
07300160730015	Condition - with no CCTV scoring	87.3	8	5.4	8	73	1.3	1.5	1.9	17.5	No	High Priority
01100590110056	Condition - with no CCTV scoring	148.5	8	53.0	8	11	1.5	1.3	1.9	17.5	No	Lowest Priority
02401620240161	Condition - with no CCTV scoring	164.5	8	10.1	8	24	1.9	1.0	1.9	17.5	No	Lowest Priority
09701960970194	Condition - with no CCTV scoring	491.7	8	7.7	8	97	1.6	1.2	1.9	17.5	No	Lowest Priority
01100240120031	Condition - with no CCTV scoring	427.3	8	7.7	8	11	1.4	1.4	1.9	17.5	No	Lowest Priority
01202060120203	Condition - with no CCTV scoring	76.8	8	8.7	8	12	1.4	1.4	1.9	17.4	No	Lowest Priority
02300050230003	Condition - with no CCTV scoring	91.5	8	8.5	8	23	1.4	1.4	1.9	17.4	No	Lowest Priority
01200650120066	Condition - with no CCTV scoring	371.7	8	6.7	8	12	1.3	1.5	1.9	17.4	No	Lowest Priority
01201790120119	Condition - with no CCTV scoring	313.8	8	8.0	8	12	1.3	1.5	1.9	17.4	No	Lowest Priority
01200290120281	Condition - with no CCTV scoring	325.3	8	7.1	8	12	1.3	1.5	1.9	17.4	No	Lowest Priority
01200310120029	Condition - with no CCTV scoring	172	8	7.8	8	12	1.3	1.5	1.9	17.4	No	Lowest Priority
02300060230005	Condition - with no CCTV scoring	147.3	8	4.1	8	23	1.3	1.5	1.9	17.4	No	Lowest Priority
03400790340053	Condition - with no CCTV scoring	70.8	8	5.8	8	34	1.3	1.5	1.9	17.4	No	Lowest Priority
03400540340052	Condition - with no CCTV scoring	109.4	8	6.9	8	34	1.3	1.5	1.9	17.4	No	Lowest Priority
02401600240159	Condition - with no CCTV scoring	193.3	10	9.2	10	24	1.9	1.0	1.9	17.4	No	Lowest Priority
06500150650016	Condition - with no CCTV scoring	446.8	8	4.0	8	65	1.6	1.2	1.9	17.4	No	Moderate Priority
02302480230247	Condition - with no CCTV scoring	264.2	8	8.3	8	23	1.9	1.0	1.9	17.3	No	Lowest Priority
02401740240175	Condition - with no CCTV scoring	203	8	8.1	8	24	1.7	1.1	1.9	17.2	No	Lowest Priority
02501150250116	Condition - with no CCTV scoring	454.8	8	7.5	8	25	1.7	1.1	1.9	17.2	No	Lowest Priority
01202360120100	Condition - with no CCTV scoring	302.9	8	8.8	8	12	1.4	1.4	1.9	17.2	No	Lowest Priority
01200200120024	Condition - with no CCTV scoring	342.3	8	8.2	8	12	1.4	1.4	1.9	17.2	No	Lowest Priority
01200230120020	Condition - with no CCTV scoring	211.2	8	8.2	8	12	1.4	1.4	1.9	17.2	No	Lowest Priority
01200220120023	Condition - with no CCTV scoring	267.2	8	8.2	8	12	1.4	1.4	1.9	17.2	No	Lowest Priority
01200180120020	Condition - with no CCTV scoring	255.3	8	8.0	8	12	1.4	1.4	1.9	17.2	No	Lowest Priority
01200170120018	Condition - with no CCTV scoring	260.6	8	8.1	8	12	1.4	1.4	1.9	17.2	No	Lowest Priority
01201670120051	Condition - with no CCTV scoring	403	8	8.3	8	12	1.4	1.4	1.9	17.2	No	Lowest Priority
02300090230007	Condition - with no CCTV scoring	258.7	8	8.5	8	23	1.4	1.4	1.9	17.2	No	Lowest Priority
02302090230210	Condition - with no CCTV scoring	397.3	8	11.0	8	23	1.4	1.4	1.9	17.2	No	Lowest Priority
02302110230212	Condition - with no CCTV scoring	404.6	8	10.1	8	23	1.4	1.4	1.9	17.2	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03300860330074	Condition - with no CCTV scoring	19.1	8	11.9	8	33	1.4	1.4	1.9	17.2	No	Low Priority
09601000960103	Condition - with no CCTV scoring	125	6	9.5	8	96	1.4	1.4	1.9	17.2	No	Low Priority
09700820970083	Condition - with no CCTV scoring	426	8	6.2	8	97	1.4	1.4	1.9	17.2	No	Lowest Priority
01202990120300	Condition - with no CCTV scoring	236.3	8	7.8	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01203020120022	Condition - with no CCTV scoring	336.9	8	7.5	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200890120091	Condition - with no CCTV scoring	258.8	8	6.7	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200900120078	Condition - with no CCTV scoring	180.2	8	6.6	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200880120089	Condition - with no CCTV scoring	295.4	8	6.2	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200800120077	Condition - with no CCTV scoring	396.1	8	7.6	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200780120075	Condition - with no CCTV scoring	190.7	8	6.5	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200750120077	Condition - with no CCTV scoring	160.3	8	6.5	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200760120074	Condition - with no CCTV scoring	277.3	8	6.1	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200730120074	Condition - with no CCTV scoring	280.7	8	6.1	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200690120070	Condition - with no CCTV scoring	414.2	8	6.0	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01201080120110	Condition - with no CCTV scoring	151.7	8	7.9	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01201070120108	Condition - with no CCTV scoring	234	8	8.0	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200600120061	Condition - with no CCTV scoring	285.5	8	6.6	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200580120056	Condition - with no CCTV scoring	60	8	7.2	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200550120056	Condition - with no CCTV scoring	332.4	8	7.7	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01200540120055	Condition - with no CCTV scoring	138.7	8	7.0	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01201690120109	Condition - with no CCTV scoring	188.6	8	8.0	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01201830120169	Condition - with no CCTV scoring	184.5	8	8.0	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
01203040120299	Condition - with no CCTV scoring	42.9	8	7.6	8	12	1.3	1.5	1.9	17.2	No	Lowest Priority
02300310230033	Condition - with no CCTV scoring	321.2	8	5.3	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300840230083	Condition - with no CCTV scoring	300	8	4.6	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02301080230080	Condition - with no CCTV scoring	274.5	8	7.1	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300800230106	Condition - with no CCTV scoring	302.7	8	7.5	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300630230080	Condition - with no CCTV scoring	175.5	8	7.5	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300620230063	Condition - with no CCTV scoring	178.9	8	7.6	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300810230107	Condition - with no CCTV scoring	174.8	8	7.5	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300660230081	Condition - with no CCTV scoring	213.3	8	7.5	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300350230032	Condition - with no CCTV scoring	107.5	8	5.7	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300320230031	Condition - with no CCTV scoring	105.7	8	5.9	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300080230007	Condition - with no CCTV scoring	291.9	8	6.4	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300180230009	Condition - with no CCTV scoring	257.2	8	5.3	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300040230008	Condition - with no CCTV scoring	84.8	8	6.7	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02301060230107	Condition - with no CCTV scoring	254.7	8	7.5	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02301040230105	Condition - with no CCTV scoring	265.5	8	8.0	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300530230049	Condition - with no CCTV scoring	14.8	8	6.3	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300570230058	Condition - with no CCTV scoring	280.8	8	7.2	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300580230053	Condition - with no CCTV scoring	127.3	8	7.6	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300670230068	Condition - with no CCTV scoring	241.6	8	7.0	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300700230067	Condition - with no CCTV scoring	277	8	7.8	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300710230067	Condition - with no CCTV scoring	164.5	8	6.4	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300730230070	Condition - with no CCTV scoring	134.5	8	7.4	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02300600230057	Condition - with no CCTV scoring	119.3	8	7.5	8	23	1.3	1.5	1.9	17.2	No	Lowest Priority
02401190240121	Condition - with no CCTV scoring	228.2	8	5.8	8	24	1.3	1.5	1.9	17.2	No	Lowest Priority
02401210240008	Condition - with no CCTV scoring	191.4	8	5.7	8	24	1.3	1.5	1.9	17.2	No	Lowest Priority
03300850330086	Condition - with no CCTV scoring	160.8	8	7.6	8	33	1.3	1.5	1.9	17.2	No	Low Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
03300840330085	Condition - with no CCTV scoring	113.4	8	7.8	8	33	1.3	1.5	1.9	17.2	No	Low Priority
03400490340050	Condition - with no CCTV scoring	149.8	8	6.0	8	34	1.3	1.5	1.9	17.2	No	Lowest Priority
06800070680008	Condition - with no CCTV scoring	38.9	8	5.5	8	67	1.3	1.5	1.9	17.2	No	Highest Priority
06701190680007	Condition - with no CCTV scoring	106	8	5.0	8	67	1.3	1.5	1.9	17.2	No	Highest Priority
06800100680008	Condition - with no CCTV scoring	351.9	8	5.2	8	68	1.3	1.5	1.9	17.2	No	Lowest Priority
07300980730137	Condition - with no CCTV scoring	140.1	8	5.2	8	73	1.3	1.5	1.9	17.2	No	High Priority
08901180890117	Condition - with no CCTV scoring	351.5	8	8.2	8	89	1.5	1.3	1.9	17.2	No	Low Priority
09601080960107	Condition - with no CCTV scoring	213.7	6	5.9	8	96	1.3	1.5	1.9	17.2	No	Low Priority
02301500230137	Condition - with no CCTV scoring	264.3	8	6.8	8	23	1.7	1.1	1.9	17.1	No	Lowest Priority
02301510230150	Condition - with no CCTV scoring	301.6	8	6.7	8	23	1.7	1.1	1.9	17.1	No	Lowest Priority
04400170440192	Condition - with no CCTV scoring	5.8	15	7.3	15	44	1.7	1.1	1.9	17.1	No	Low Priority
02401540240153	Condition - with no CCTV scoring	23	10	10.9	10	24	1.9	1.0	1.9	17.1	No	Lowest Priority
04401750440138	Condition - with no CCTV scoring	231.9	8	10.2	8	44	1.4	1.4	1.9	17.1	No	Low Priority
01100440110045	Condition - with no CCTV scoring	239.4	8	8.4	8	11	1.4	1.3	1.9	17.0	No	Lowest Priority
01100880110089	Condition - with no CCTV scoring	472	8	8.1	8	11	1.4	1.3	1.9	17.0	No	Lowest Priority
03200730320006	Condition - with no CCTV scoring	137.3	8	8.7	8	32	1.4	1.3	1.9	17.0	No	Lowest Priority
02302460230245	Condition - with no CCTV scoring	100.6	8	12.7	8	23	1.9	1.0	1.9	17.0	No	Lowest Priority
02302470230246	Condition - with no CCTV scoring	258	8	12.8	8	23	1.9	1.0	1.9	17.0	No	Lowest Priority
02401630240164	Condition - with no CCTV scoring	24.2	8	9.4	8	24	1.9	1.0	1.9	17.0	No	Lowest Priority
02401640240162	Condition - with no CCTV scoring	135.1	8	9.5	8	24	1.9	1.0	1.9	17.0	No	Lowest Priority
02401650240164	Condition - with no CCTV scoring	107.1	6	9.0	8	24	1.9	1.0	1.9	17.0	No	Lowest Priority
01202220120223	Condition - with no CCTV scoring	277.2	8	8.4	8	12	1.4	1.4	1.9	17.0	No	Lowest Priority
01200630120064	Condition - with no CCTV scoring	282.6	8	8.2	8	12	1.4	1.4	1.9	17.0	No	Lowest Priority
03300410330040	Condition - with no CCTV scoring	319.6	8	8.2	8	33	1.4	1.4	1.9	17.0	No	Low Priority
03801470380148	Condition - with no CCTV scoring	228.8	8	6.0	8	38	1.4	1.4	1.9	17.0	No	Low Priority
01202640110072	Condition - with no CCTV scoring	181.3	8	6.1	8	11	1.3	1.4	1.9	16.9	No	Lowest Priority
01100580110057	Condition - with no CCTV scoring	101.4	8	8.0	8	11	1.3	1.4	1.9	16.9	No	Lowest Priority
01100720110071	Condition - with no CCTV scoring	156.4	8	11.4	8	11	1.4	1.3	1.9	16.9	No	Lowest Priority
01101640110073	Condition - with no CCTV scoring	163.3	8	11.9	8	11	1.4	1.3	1.9	16.9	No	Lowest Priority
01100710110164	Condition - with no CCTV scoring	203.6	8	12.2	8	11	1.4	1.3	1.9	16.9	No	Lowest Priority
01100930110090	Condition - with no CCTV scoring	302.3	8	9.2	8	11	1.4	1.3	1.9	16.9	No	Lowest Priority
01200150120013	Condition - with no CCTV scoring	171	8	5.8	8	12	1.3	1.5	1.9	16.9	No	Lowest Priority
02400180240019	Condition - with no CCTV scoring	149.6	8	5.5	8	24	1.3	1.5	1.9	16.9	No	Lowest Priority
03900180390016	Condition - with no CCTV scoring	174	8	6.0	8	38	1.3	1.5	1.9	16.9	No	Low Priority
03900160390017	Condition - with no CCTV scoring	104.4	8	5.0	8	38	1.3	1.5	1.9	16.9	No	Low Priority
01202070120208	Condition - with no CCTV scoring	415.2	8	9.0	8	12	1.4	1.4	1.8	16.8	No	Lowest Priority
01202010120202	Condition - with no CCTV scoring	97.6	8	9.0	8	12	1.4	1.4	1.8	16.8	No	Lowest Priority
01201190120114	Condition - with no CCTV scoring	94.4	8	8.1	8	12	1.4	1.4	1.8	16.8	No	Lowest Priority
01202090120114	Condition - with no CCTV scoring	362.7	8	8.1	8	12	1.4	1.4	1.8	16.8	No	Lowest Priority
01202780110075	Condition - with no CCTV scoring	349.3	8	8.5	8	11	1.4	1.3	1.8	16.8	No	Lowest Priority
01100750110076	Condition - with no CCTV scoring	340.7	8	8.6	8	11	1.4	1.3	1.8	16.8	No	Lowest Priority
01100990110100	Condition - with no CCTV scoring	475.6	8	8.2	8	11	1.4	1.3	1.8	16.8	No	Lowest Priority
02302280230229	Condition - with no CCTV scoring	223.3	8	18.4	8	23	1.8	1.0	1.8	16.7	No	Lowest Priority
04401490440148	Condition - with no CCTV scoring	93	8	7.8	8	44	1.7	1.1	1.8	16.7	No	Low Priority
04400680440067	Condition - with no CCTV scoring	247.7	6	13.8	8	44	1.4	1.4	1.8	16.7	No	Low Priority
06700420670072	Condition - with no CCTV scoring	348	8	5.1	8	67	1.3	1.5	1.8	16.6	No	Highest Priority
09701950970196	Condition - with no CCTV scoring	34.5	8	7.4	8	97	1.5	1.2	1.8	16.6	No	Lowest Priority
09701520970195	Condition - with no CCTV scoring	23.1	8	7.0	8	97	1.5	1.2	1.8	16.6	No	Lowest Priority
01202970120205	Condition - with no CCTV scoring	483.5	8	9.1	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01203000120115	Condition - with no CCTV scoring	257.8	8	8.1	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01202050120203	Condition - with no CCTV scoring	357.9	8	8.8	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01201740120173	Condition - with no CCTV scoring	121.3	8	8.6	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01201730120170	Condition - with no CCTV scoring	221.5	8	8.7	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01201700120171	Condition - with no CCTV scoring	351.1	8	8.5	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01200280120058	Condition - with no CCTV scoring	230.1	8	9.2	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01201970120198	Condition - with no CCTV scoring	379.3	8	8.9	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01201990120033	Condition - with no CCTV scoring	418.8	8	8.1	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01201090120108	Condition - with no CCTV scoring	363.8	8	8.1	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
01202980120183	Condition - with no CCTV scoring	112.5	8	8.2	8	12	1.4	1.4	1.8	16.6	No	Lowest Priority
02301020230100	Condition - with no CCTV scoring	287.4	8	8.8	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02301000230101	Condition - with no CCTV scoring	365.8	8	8.2	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02301010230018	Condition - with no CCTV scoring	259.1	8	9.1	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02301030230102	Condition - with no CCTV scoring	297	8	8.0	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02301030230104	Condition - with no CCTV scoring	278	8	8.0	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02300680230069	Condition - with no CCTV scoring	166.6	8	9.0	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02300720230070	Condition - with no CCTV scoring	416.1	8	8.3	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02300690230079	Condition - with no CCTV scoring	278	8	9.1	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02302100230058	Condition - with no CCTV scoring	139.2	8	9.1	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02301050230106	Condition - with no CCTV scoring	244.6	8	8.2	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
02302760230211	Condition - with no CCTV scoring	131	8	8.9	8	23	1.4	1.4	1.8	16.6	No	Lowest Priority
03801480380149	Condition - with no CCTV scoring	264.1	8	6.2	8	38	1.4	1.4	1.8	16.6	No	Low Priority
09701240970119	Condition - with no CCTV scoring	308.4	8	9.3	8	97	1.4	1.4	1.8	16.6	No	Lowest Priority
STN_0020120290	Condition - with no CCTV scoring	169.3	8	4.6	8	12	1.3	1.4	1.8	16.6	No	Lowest Priority
02302380230239	Condition - with no CCTV scoring	400.9	8	9.5	8	23	1.8	1.0	1.8	16.6	No	Lowest Priority
02302450230243	Condition - with no CCTV scoring	98.1	8	8.9	8	23	1.8	1.0	1.8	16.6	No	Lowest Priority
02401790240180	Condition - with no CCTV scoring	20.9	8	8.7	8	24	1.8	1.0	1.8	16.6	No	Lowest Priority
01200910120090	Condition - with no CCTV scoring	275.7	8	5.6	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200680120071	Condition - with no CCTV scoring	385.3	8	7.1	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200820120079	Condition - with no CCTV scoring	276.2	8	5.9	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200790120081	Condition - with no CCTV scoring	58.8	8	5.8	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200770120079	Condition - with no CCTV scoring	281.9	8	5.2	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200740120075	Condition - with no CCTV scoring	342.7	8	5.8	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200700120073	Condition - with no CCTV scoring	121.2	8	6.3	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200610120065	Condition - with no CCTV scoring	371.4	8	7.3	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200320120031	Condition - with no CCTV scoring	305	8	7.3	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01200330120032	Condition - with no CCTV scoring	305.6	8	7.8	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
01201980120033	Condition - with no CCTV scoring	301.3	8	6.8	8	12	1.3	1.5	1.8	16.5	No	Lowest Priority
02301150230116	Condition - with no CCTV scoring	327.1	8	4.5	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02301160230038	Condition - with no CCTV scoring	112.8	8	4.9	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300380230037	Condition - with no CCTV scoring	317.3	8	4.9	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300370230036	Condition - with no CCTV scoring	213.3	8	5.0	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300360230033	Condition - with no CCTV scoring	99.6	8	4.7	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02302030230115	Condition - with no CCTV scoring	177	8	4.9	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300640230065	Condition - with no CCTV scoring	77	8	4.8	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300650230066	Condition - with no CCTV scoring	380.7	8	5.5	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300450330084	Condition - with no CCTV scoring	254.8	8	5.0	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300460230045	Condition - with no CCTV scoring	351	8	5.0	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02302050230046	Condition - with no CCTV scoring	163.9	8	4.5	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02302040230205	Condition - with no CCTV scoring	290.7	8	5.1	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300010230204	Condition - with no CCTV scoring	250	8	5.6	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
02300070230001	Condition - with no CCTV scoring	189	8	5.5	8	23	1.3	1.5	1.8	16.5	No	Lowest Priority
05400570540059	Condition - with no CCTV scoring	125	8	6.8	8	54	1.3	1.5	1.8	16.5	No	Moderate Priority
06502620650015	Condition - with no CCTV scoring	189.6	6	4.8	8	65	1.3	1.5	1.8	16.5	No	Moderate Priority
02301540230151	Condition - with no CCTV scoring	296.5	8	6.7	8	23	1.6	1.1	1.8	16.4	No	Lowest Priority
00200030020002	Condition - with no CCTV scoring	350.6	8	8.1	8	01	1.4	1.3	1.8	16.3	No	Lowest Priority
01000020110069	Condition - with no CCTV scoring	195.5	8	9.6	8	01	1.4	1.3	1.8	16.3	No	Lowest Priority
00200050100002	Condition - with no CCTV scoring	301	8	8.2	8	01	1.4	1.3	1.8	16.3	No	Lowest Priority
00200040120262	Condition - with no CCTV scoring	300.5	8	8.2	8	02	1.4	1.3	1.8	16.3	No	Lowest Priority
00200020020001	Condition - with no CCTV scoring	469.3	8	8.1	8	02	1.4	1.3	1.8	16.3	No	Lowest Priority
01100680110164	Condition - with no CCTV scoring	199.2	8	8.2	8	11	1.4	1.3	1.8	16.3	No	Lowest Priority
01100570110056	Condition - with no CCTV scoring	210.4	8	8.7	8	11	1.4	1.3	1.8	16.3	No	Lowest Priority
02302430230242	Condition - with no CCTV scoring	139.3	12	9.5	12	23	1.8	1.0	1.8	16.3	No	Lowest Priority
04300240430023	Condition - with no CCTV scoring	382	21	8.0	21	43	1.8	1.0	1.8	16.3	No	Low Priority
02302350230234	Condition - with no CCTV scoring	218.9	8	7.8	8	23	1.6	1.1	1.8	16.2	No	Lowest Priority
02302370230236	Condition - with no CCTV scoring	264.1	8	7.2	8	23	1.6	1.1	1.8	16.2	No	Lowest Priority
02301480230149	Condition - with no CCTV scoring	402	8	7.2	8	23	1.6	1.1	1.8	16.1	No	Lowest Priority
02301490230150	Condition - with no CCTV scoring	254	8	7.4	8	23	1.6	1.1	1.8	16.1	No	Lowest Priority
02301520230137	Condition - with no CCTV scoring	348.2	8	6.3	8	23	1.6	1.1	1.8	16.1	No	Lowest Priority
02302230230224	Condition - with no CCTV scoring	261.4	8	7.6	8	23	1.6	1.1	1.8	16.1	No	Lowest Priority
02302210230222	Condition - with no CCTV scoring	138.5	8	7.5	8	23	1.6	1.1	1.8	16.1	No	Lowest Priority
02302220230223	Condition - with no CCTV scoring	129.3	8	7.9	8	23	1.6	1.1	1.8	16.1	No	Lowest Priority
06701230670121	Condition - with no CCTV scoring	29.3	8	6.4	8	67	1.6	1.1	1.8	16.1	No	Highest Priority
02302420230215	Condition - with no CCTV scoring	231.3	12	12.9	12	23	1.8	1.0	1.8	16.1	No	Lowest Priority
02302500230249	Condition - with no CCTV scoring	182.1	8	7.0	8	23	1.8	1.0	1.8	16.1	No	Lowest Priority
02500520250049	Condition - with no CCTV scoring	354	8	9.8	8	25	1.8	1.0	1.8	16.1	No	Lowest Priority
02302250230224	Condition - with no CCTV scoring	161.6	8	15.9	8	23	1.8	1.0	1.8	16.0	No	Lowest Priority
02302290230230	Condition - with no CCTV scoring	139.8	8	16.8	8	23	1.8	1.0	1.8	16.0	No	Lowest Priority
06701220670121	Condition - with no CCTV scoring	370.1	8	111.3	8	67	1.8	1.0	1.8	16.0	No	Highest Priority
01202080120209	Condition - with no CCTV scoring	93.7	8	8.0	8	12	1.3	1.4	1.8	16.0	No	Lowest Priority
01200110120012	Condition - with no CCTV scoring	300.1	8	8.3	8	12	1.3	1.4	1.8	16.0	No	Lowest Priority
01201710120172	Condition - with no CCTV scoring	346.4	8	8.5	8	12	1.3	1.4	1.8	16.0	No	Lowest Priority
01201880120174	Condition - with no CCTV scoring	184.1	8	9.4	8	12	1.3	1.4	1.8	16.0	No	Lowest Priority
04300190430018	Condition - with no CCTV scoring	11.5	21	7.4	21	43	1.5	1.2	1.8	15.9	No	Low Priority
01100870110088	Condition - with no CCTV scoring	476	8	7.8	8	11	1.3	1.4	1.8	15.9	No	Lowest Priority
01200140120068	Condition - with no CCTV scoring	137.9	8	5.8	8	12	1.2	1.5	1.7	15.8	No	Lowest Priority
01200120120014	Condition - with no CCTV scoring	270.7	8	6.0	8	12	1.2	1.5	1.7	15.8	No	Lowest Priority
02302510230250	Condition - with no CCTV scoring	196.7	8	9.8	8	23	1.7	1.0	1.7	15.8	No	Lowest Priority
02302520230251	Condition - with no CCTV scoring	159.5	8	8.9	8	23	1.7	1.0	1.7	15.8	No	Lowest Priority
02400140240011	Condition - with no CCTV scoring	35.9	8	5.6	8	24	1.2	1.5	1.7	15.8	No	Lowest Priority
04502410450240	Condition - with no CCTV scoring	253.2	8	5.7	8	45	1.2	1.5	1.7	15.8	No	High Priority
01202340120142	Condition - with no CCTV scoring	354.3	8	6.3	8	12	1.6	1.1	1.7	15.8	No	Lowest Priority
02401520240102	Condition - with no CCTV scoring	167.1	10	10.0	10	24	1.6	1.1	1.7	15.7	No	Lowest Priority
02302170230218	Condition - with no CCTV scoring	249.7	8	13.8	8	23	1.7	1.0	1.7	15.6	No	Lowest Priority
02302410230232	Condition - with no CCTV scoring	282.3	8	10.2	8	23	1.7	1.0	1.7	15.6	No	Lowest Priority
02302390230240	Condition - with no CCTV scoring	304.6	8	10.9	8	23	1.7	1.0	1.7	15.6	No	Lowest Priority
02302590230260	Condition - with no CCTV scoring	293.9	8	10.1	8	23	1.7	1.0	1.7	15.6	No	Lowest Priority
05801030680050	Condition - with no CCTV scoring	398.6	8	7.9	8	58	1.6	1.1	1.7	15.5	No	High Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01300700130074	Condition - with no CCTV scoring	137.9	8	12.2	8	13	1.7	1.0	1.7	15.5	No	Lowest Priority
02301560230152	Condition - with no CCTV scoring	340.6	8	6.4	8	23	1.5	1.1	1.7	15.4	No	Lowest Priority
02302180230219	Condition - with no CCTV scoring	133.6	8	7.9	8	23	1.5	1.1	1.7	15.4	No	Lowest Priority
04301030430020	Condition - with no CCTV scoring	359	21	4.8	21	43	1.4	1.2	1.7	15.4	No	Low Priority
02302530230252	Condition - with no CCTV scoring	200.4	8	7.6	8	23	1.7	1.0	1.7	15.4	No	Lowest Priority
01202310120227	Condition - with no CCTV scoring	189.9	8	8.1	8	12	1.7	1.0	1.7	15.3	No	Lowest Priority
01202300120226	Condition - with no CCTV scoring	334.3	8	8.1	8	12	1.7	1.0	1.7	15.3	No	Lowest Priority
01201480120149	Condition - with no CCTV scoring	100.9	8	7.6	8	12	1.5	1.1	1.7	15.2	No	Lowest Priority
02301530230154	Condition - with no CCTV scoring	302.1	8	5.6	8	23	1.5	1.1	1.7	15.2	No	Lowest Priority
02302360230215	Condition - with no CCTV scoring	319.3	8	8.7	8	23	1.7	1.0	1.7	15.2	No	Lowest Priority
02302400230241	Condition - with no CCTV scoring	211.4	8	8.7	8	23	1.7	1.0	1.7	15.2	No	Lowest Priority
02501140250113	Condition - with no CCTV scoring	347.9	8	8.7	8	25	1.7	1.0	1.7	15.2	No	Lowest Priority
02501130250115	Condition - with no CCTV scoring	280.2	8	8.4	8	25	1.7	1.0	1.7	15.2	No	Lowest Priority
02501170250087	Condition - with no CCTV scoring	367	8	8.1	8	25	1.7	1.0	1.7	15.2	No	Lowest Priority
04300170430016	Condition - with no CCTV scoring	653.8	21	8.3	21	43	1.5	1.1	1.7	15.1	No	Low Priority
02302270230226	Condition - with no CCTV scoring	241.1	8	10.0	8	23	1.7	1.0	1.7	15.1	No	Lowest Priority
02302260230225	Condition - with no CCTV scoring	203.2	8	9.8	8	23	1.7	1.0	1.7	15.1	No	Lowest Priority
01100490120154	Condition - with no CCTV scoring	320.8	8	9.4	8	11	1.7	1.0	1.7	15.0	No	Lowest Priority
01202700120271	Condition - with no CCTV scoring	136.3	8	7.9	8	12	1.4	1.2	1.6	15.0	No	Lowest Priority
02302190230228	Condition - with no CCTV scoring	265.5	8	12.5	8	23	1.6	1.0	1.6	14.9	No	Lowest Priority
01202350120224	Condition - with no CCTV scoring	226.9	8	7.1	8	12	1.5	1.1	1.6	14.9	No	Lowest Priority
02302200230219	Condition - with no CCTV scoring	275.8	6	6.0	8	23	1.5	1.1	1.6	14.9	No	Lowest Priority
02302600230261	Condition - with no CCTV scoring	236.1	8	10.4	8	23	1.6	1.0	1.6	14.8	No	Lowest Priority
02302610230227	Condition - with no CCTV scoring	113.4	8	11.9	8	23	1.6	1.0	1.6	14.8	No	Lowest Priority
02501160250087	Condition - with no CCTV scoring	280	8	8.5	8	25	1.6	1.0	1.6	14.8	No	Lowest Priority
01201500120152	Condition - with no CCTV scoring	290.8	8	7.8	8	12	1.5	1.1	1.6	14.8	No	Lowest Priority
08700160870013	Condition - with no CCTV scoring	8.5	8	4.9	8	87	1.5	1.1	1.6	14.8	No	Moderate Priority
01201490120153	Condition - with no CCTV scoring	332.9	8	10.2	8	11	1.6	1.0	1.6	14.7	No	Lowest Priority
02500710250069	Condition - with no CCTV scoring	174.5	8	7.2	8	25	1.5	1.1	1.6	14.7	No	Lowest Priority
01202270120232	Condition - with no CCTV scoring	325.1	8	9.1	8	12	1.6	1.0	1.6	14.6	No	Lowest Priority
01202260120227	Condition - with no CCTV scoring	266	8	9.1	8	12	1.6	1.0	1.6	14.6	No	Lowest Priority
01202250120226	Condition - with no CCTV scoring	262.2	8	9.1	8	12	1.6	1.0	1.6	14.6	No	Lowest Priority
01202290120225	Condition - with no CCTV scoring	396.8	8	8.1	8	12	1.6	1.0	1.6	14.6	No	Lowest Priority
02302540230253	Condition - with no CCTV scoring	322.2	8	8.0	8	23	1.6	1.0	1.6	14.6	No	Lowest Priority
02302580230259	Condition - with no CCTV scoring	288.3	8	7.9	8	23	1.6	1.0	1.6	14.6	No	Lowest Priority
02401750240177	Condition - with no CCTV scoring	343.8	8	7.8	8	24	1.6	1.0	1.6	14.6	No	Lowest Priority
04300220430021	Condition - with no CCTV scoring	255	21	10.9	21	43	1.6	1.0	1.6	14.6	No	Low Priority
06402050640204	Condition - with no CCTV scoring	469	8	6.7	8	64	1.3	1.2	1.6	14.6	No	Moderate Priority
01202540120253	Condition - with no CCTV scoring	157.4	8	6.5	8	12	1.5	1.1	1.6	14.6	No	Lowest Priority
04300180430017	Condition - with no CCTV scoring	523	21	7.5	21	43	1.5	1.1	1.6	14.6	No	Low Priority
07300100730011	Condition - with no CCTV scoring	301.7	8	6.2	8	73	1.5	1.1	1.6	14.5	No	High Priority
04400700440068	Condition - with no CCTV scoring	172.8	6	7.0	8	44	1.2	1.4	1.6	14.5	No	Low Priority
01300730130070	Condition - with no CCTV scoring	151.4	8	8.9	8	13	1.6	1.0	1.6	14.5	No	Lowest Priority
01300720130073	Condition - with no CCTV scoring	205.6	8	9.0	8	13	1.6	1.0	1.6	14.5	No	Lowest Priority
01300710130072	Condition - with no CCTV scoring	76.2	8	8.7	8	13	1.6	1.0	1.6	14.5	No	Lowest Priority
02302550230256	Condition - with no CCTV scoring	243.5	8	8.3	8	23	1.6	1.0	1.6	14.5	No	Lowest Priority
04300130430043	Condition - with no CCTV scoring	795.7	24	5.5	24	43	1.3	1.2	1.6	14.4	No	Low Priority
02401480230227	Condition - with no CCTV scoring	266.2	8	8.8	8	23	1.6	1.0	1.6	14.4	No	Lowest Priority
09701510970194	Condition - with no CCTV scoring	34.1	8	9.2	8	97	1.6	1.0	1.6	14.4	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01201580120160	Condition - with no CCTV scoring	176.1	8	7.7	8	12	1.4	1.1	1.6	14.3	No	Lowest Priority
04300160430015	Condition - with no CCTV scoring	661.3	21	8.6	21	43	1.4	1.1	1.6	14.3	No	Low Priority
06301240630120	Condition - with no CCTV scoring	302.1	8	6.2	8	63	1.4	1.1	1.6	14.3	No	Moderate Priority
06301410630124	Condition - with no CCTV scoring	76.1	8	6.4	8	63	1.4	1.1	1.6	14.3	No	Moderate Priority
06301240630120	Condition - with no CCTV scoring	145.5	8	6.2	8	63	1.4	1.1	1.6	14.3	No	Moderate Priority
01202690120270	Condition - with no CCTV scoring	201.8	8	8.1	8	12	1.4	1.1	1.6	14.2	No	Lowest Priority
02301470230148	Condition - with no CCTV scoring	418.9	8	5.0	8	23	1.4	1.1	1.6	14.2	No	Lowest Priority
02301550230156	Condition - with no CCTV scoring	344.3	8	5.6	8	23	1.4	1.1	1.6	14.2	No	Lowest Priority
02401770240178	Condition - with no CCTV scoring	83.5	8	5.9	8	24	1.6	1.0	1.6	14.2	No	Lowest Priority
01201600120162	Condition - with no CCTV scoring	294.7	8	8.1	8	12	1.6	1.0	1.6	14.1	No	Lowest Priority
01201620120163	Condition - with no CCTV scoring	107.4	8	8.2	8	12	1.6	1.0	1.6	14.1	No	Lowest Priority
01202240120225	Condition - with no CCTV scoring	268.6	8	9.1	8	12	1.5	1.0	1.5	14.0	No	Lowest Priority
01202280120224	Condition - with no CCTV scoring	401.1	8	8.1	8	12	1.5	1.0	1.5	14.0	No	Lowest Priority
02302540230255	Condition - with no CCTV scoring	156.9	8	8.0	8	23	1.5	1.0	1.5	14.0	No	Lowest Priority
02302560230257	Condition - with no CCTV scoring	259.3	8	7.8	8	23	1.5	1.0	1.5	14.0	No	Lowest Priority
02302570230258	Condition - with no CCTV scoring	182.4	8	7.7	8	23	1.5	1.0	1.5	14.0	No	Lowest Priority
01201570120160	Condition - with no CCTV scoring	342.6	8	10.7	8	12	1.5	1.0	1.5	13.9	No	Lowest Priority
01201520120154	Condition - with no CCTV scoring	293.8	8	8.8	8	12	1.5	1.0	1.5	13.9	No	Lowest Priority
02401490240148	Condition - with no CCTV scoring	211	8	7.0	8	24	1.5	1.0	1.5	13.9	No	Lowest Priority
02401760240175	Condition - with no CCTV scoring	119.4	8	7.0	8	24	1.5	1.0	1.5	13.9	No	Lowest Priority
04400710440070	Condition - with no CCTV scoring	62.1	6	6.0	8	44	1.1	1.4	1.5	13.9	No	Low Priority
06301260630124	Condition - with no CCTV scoring	69.5	8	4.6	8	63	1.4	1.1	1.5	13.8	No	Moderate Priority
07300120730016	Condition - with no CCTV scoring	110	8	6.7	8	73	1.4	1.1	1.5	13.8	No	High Priority
07300110730012	Condition - with no CCTV scoring	119.7	8	7.1	8	73	1.4	1.1	1.5	13.8	No	High Priority
01202570120253	Condition - with no CCTV scoring	343.4	8	9.0	8	12	1.5	1.0	1.5	13.7	No	Lowest Priority
01202530120252	Condition - with no CCTV scoring	331.5	8	8.6	8	12	1.5	1.0	1.5	13.7	No	Lowest Priority
01202550120252	Condition - with no CCTV scoring	110.8	8	9.1	8	12	1.5	1.0	1.5	13.7	No	Lowest Priority
01202520120258	Condition - with no CCTV scoring	171	8	8.5	8	12	1.5	1.0	1.5	13.7	No	Lowest Priority
02501450250146	Condition - with no CCTV scoring	239.4	8	8.8	8	25	1.5	1.0	1.5	13.7	No	Lowest Priority
02501370250140	Condition - with no CCTV scoring	243.4	8	8.7	8	25	1.5	1.0	1.5	13.7	No	Lowest Priority
02501400250143	Condition - with no CCTV scoring	323	8	8.9	8	25	1.5	1.0	1.5	13.7	No	Lowest Priority
02501430250145	Condition - with no CCTV scoring	130.9	8	8.7	8	25	1.5	1.0	1.5	13.7	No	Lowest Priority
02200720120165	Condition - with no CCTV scoring	174.9	8	4.5	8	12	1.4	1.1	1.5	13.7	No	Lowest Priority
06500050650004	Condition - with no CCTV scoring	384.2	12	6.5	12	65	1.5	1.0	1.5	13.6	No	Moderate Priority
04300230430022	Condition - with no CCTV scoring	14	21	10.6	21	43	1.5	1.0	1.5	13.6	No	Low Priority
01202890120290	Condition - with no CCTV scoring	175.3	8	6.5	8	12	1.4	1.1	1.5	13.5	No	Lowest Priority
01202930120294	Condition - with no CCTV scoring	456	8	7.9	8	12	1.4	1.1	1.5	13.5	No	Lowest Priority
05801040580103	Condition - with no CCTV scoring	344.8	8	7.5	8	58	1.4	1.1	1.5	13.5	No	High Priority
04300110430013	Condition - with no CCTV scoring	668.1	21	8.8	21	43	1.3	1.1	1.5	13.4	No	Low Priority
04300120430011	Condition - with no CCTV scoring	642.6	21	7.0	21	43	1.2	1.2	1.5	13.3	No	Low Priority
01203010120063	Condition - with no CCTV scoring	128.2	8	7.3	8	12	1.3	1.1	1.5	13.3	No	Lowest Priority
01202600120259	Condition - with no CCTV scoring	259.9	8	8.0	8	12	1.3	1.1	1.5	13.3	No	Lowest Priority
01200250120243	Condition - with no CCTV scoring	40.1	8	13.3	8	12	1.5	1.0	1.5	13.2	No	Lowest Priority
01202430120242	Condition - with no CCTV scoring	275.7	8	13.2	8	12	1.5	1.0	1.5	13.2	No	Lowest Priority
01202900120291	Condition - with no CCTV scoring	352.6	8	10.6	8	12	1.5	1.0	1.5	13.2	No	Lowest Priority
02501480250024	Condition - with no CCTV scoring	277.2	8	11.7	8	25	1.5	1.0	1.5	13.2	No	Lowest Priority
06500080650006	Condition - with no CCTV scoring	129.2	12	3.6	12	65	1.5	1.0	1.5	13.2	No	Moderate Priority
06500060650005	Condition - with no CCTV scoring	484.5	12	5.1	12	65	1.5	1.0	1.5	13.2	No	Moderate Priority
01202800110087	Condition - with no CCTV scoring	299.4	8	7.6	8	11	1.3	1.1	1.4	13.0	No	Lowest Priority

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
01202800110099	Condition - with no CCTV scoring	473.5	8	7.6	8	11	1.3	1.1	1.4	13.0	No	Lowest Priority
01202560120255	Condition - with no CCTV scoring	245.9	8	9.0	8	12	1.4	1.0	1.4	13.0	No	Lowest Priority
01201900120175	Condition - with no CCTV scoring	338.7	8	8.7	8	12	1.4	1.0	1.4	13.0	No	Lowest Priority
01201890120190	Condition - with no CCTV scoring	229	8	8.7	8	12	1.4	1.0	1.4	13.0	No	Lowest Priority
01201870120188	Condition - with no CCTV scoring	176.1	8	7.5	8	12	1.3	1.1	1.4	13.0	No	Lowest Priority
01202660120267	Condition - with no CCTV scoring	500	8	8.2	8	12	1.4	1.0	1.4	13.0	No	Lowest Priority
01201430120144	Condition - with no CCTV scoring	220.4	8	6.8	8	12	1.3	1.1	1.4	13.0	No	Lowest Priority
02501390250142	Condition - with no CCTV scoring	304.2	8	8.6	8	25	1.4	1.0	1.4	13.0	No	Lowest Priority
02501420250144	Condition - with no CCTV scoring	222.2	8	8.5	8	25	1.4	1.0	1.4	13.0	No	Lowest Priority
02501460250147	Condition - with no CCTV scoring	417.4	8	9.4	8	25	1.4	1.0	1.4	13.0	No	Lowest Priority
02501410250142	Condition - with no CCTV scoring	413.6	8	8.3	8	25	1.4	1.0	1.4	13.0	No	Lowest Priority
02501380250139	Condition - with no CCTV scoring	415.3	8	8.3	8	25	1.4	1.0	1.4	13.0	No	Lowest Priority
02501380250137	Condition - with no CCTV scoring	246.9	8	8.3	8	25	1.4	1.0	1.4	13.0	No	Lowest Priority
04300270430024	Condition - with no CCTV scoring	681	21	8.2	21	43	1.4	1.0	1.4	13.0	No	Low Priority
01202650120264	Condition - with no CCTV scoring	70.2	8	4.3	8	12	1.3	1.1	1.4	12.8	No	Lowest Priority
01202410120242	Condition - with no CCTV scoring	292.6	8	8.1	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202370120236	Condition - with no CCTV scoring	269.5	8	8.2	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202380120237	Condition - with no CCTV scoring	265.4	8	8.1	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202390120238	Condition - with no CCTV scoring	267.3	8	8.1	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202390120240	Condition - with no CCTV scoring	293.1	8	8.1	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202400120241	Condition - with no CCTV scoring	292.4	8	8.1	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202440120245	Condition - with no CCTV scoring	301.3	8	11.6	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202420120247	Condition - with no CCTV scoring	266.5	8	8.5	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202910120292	Condition - with no CCTV scoring	343.3	8	8.1	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
01202790120278	Condition - with no CCTV scoring	326.2	8	14.1	8	12	1.4	1.0	1.4	12.7	No	Lowest Priority
02501470250148	Condition - with no CCTV scoring	169.1	8	10.3	8	25	1.4	1.0	1.4	12.7	No	Lowest Priority
09700140970013	Condition - with no CCTV scoring	99	8	8.1	8	97	1.4	1.0	1.4	12.7	No	Lowest Priority
00200010120263	Condition - with no CCTV scoring	355.1	8	8.1	8	02	1.4	1.0	1.4	12.6	No	Lowest Priority
01100690120261	Condition - with no CCTV scoring	336	8	8.1	8	11	1.4	1.0	1.4	12.6	No	Lowest Priority
01202610120260	Condition - with no CCTV scoring	329.9	8	8.1	8	12	1.4	1.0	1.4	12.6	No	Lowest Priority
01202630120260	Condition - with no CCTV scoring	195.5	8	8.1	8	12	1.4	1.0	1.4	12.6	No	Lowest Priority
01202620120261	Condition - with no CCTV scoring	195.9	8	9.3	8	12	1.4	1.0	1.4	12.6	No	Lowest Priority
06301280630127	Condition - with no CCTV scoring	123.3	8	5.0	8	63	1.4	1.0	1.4	12.6	No	Moderate Priority
01202760120277	Condition - with no CCTV scoring	217	8	6.9	8	12	1.3	1.1	1.4	12.5	No	Lowest Priority
01202730120272	Condition - with no CCTV scoring	112.4	8	7.9	8	12	1.3	1.1	1.4	12.5	No	Lowest Priority
01202820120281	Condition - with no CCTV scoring	392.5	8	7.9	8	12	1.3	1.1	1.4	12.5	No	Lowest Priority
01202840120285	Condition - with no CCTV scoring	70.9	8	7.6	8	12	1.3	1.1	1.4	12.5	No	Lowest Priority
01202460120247	Condition - with no CCTV scoring	262.3	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202450120246	Condition - with no CCTV scoring	260.1	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202500120028	Condition - with no CCTV scoring	191	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202490120250	Condition - with no CCTV scoring	205.3	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202480120249	Condition - with no CCTV scoring	240.7	8	8.5	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202950120296	Condition - with no CCTV scoring	162.4	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202940120295	Condition - with no CCTV scoring	370.6	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202920120295	Condition - with no CCTV scoring	334.4	8	8.2	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01201750120173	Condition - with no CCTV scoring	336.9	8	8.4	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202680120269	Condition - with no CCTV scoring	367.7	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202670120268	Condition - with no CCTV scoring	154.8	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority
01202720120268	Condition - with no CCTV scoring	288.9	8	8.1	8	12	1.4	1.0	1.4	12.3	No	Lowest Priority

Non CCTV Pipe by Risk Score

Pipe ID	Category	Pipe Length	Pipe Diameter	Pipe Depth	Replacement Diameter Size	Grid ID	CoF Score	LoF Score	Raw Risk Score	Adjusted Risk Score	Capacity Study	Action
02501440250147	Condition - with no CCTV scoring	94.4	8	9.4	8	25	1.4	1.0	1.4	12.3	No	Lowest Priority
04300150430014	Condition - with no CCTV scoring	651	21	8.0	21	43	1.2	1.1	1.3	12.2	No	Low Priority
04300140430012	Condition - with no CCTV scoring	664.1	21	7.9	21	43	1.2	1.1	1.3	12.2	No	Low Priority
04301010430103	Condition - with no CCTV scoring	339.9	21	8.6	21	43	1.3	1.0	1.3	12.1	No	Low Priority
01202830120282	Condition - with no CCTV scoring	449.7	8	5.8	8	12	1.2	1.1	1.3	12.0	No	Lowest Priority
01202750120274	Condition - with no CCTV scoring	349.5	8	8.1	8	12	1.3	1.0	1.3	11.8	No	Lowest Priority
01202740120272	Condition - with no CCTV scoring	154.7	8	8.6	8	12	1.3	1.0	1.3	11.8	No	Lowest Priority
01202870120288	Condition - with no CCTV scoring	152.7	8	8.1	8	12	1.3	1.0	1.3	11.8	No	Lowest Priority
01202860120287	Condition - with no CCTV scoring	341.2	8	8.1	8	12	1.3	1.0	1.3	11.8	No	Lowest Priority
01202850120286	Condition - with no CCTV scoring	214.9	8	8.0	8	12	1.3	1.0	1.3	11.8	No	Lowest Priority
01202960120022	Condition - with no CCTV scoring	196.4	8	8.2	8	12	1.3	1.0	1.3	11.8	No	Lowest Priority

APPENDIX K

LIFT STATION ASSESSMENT

Lift Station Assessment

SBMWD 2019 Sewer Master Plan Update

Report Date November 4, 2019

Prepared for:

SBMWD

Prepared by:

Stantec

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1.0 INTRODUCTION

In January 2018 the San Bernardino Municipal Water Department (SBMWD) authorized Contract No. 1674 for updating the 2017 Sewer Master Plan. A part of this scope is to perform an evaluation and condition assessment of 15 lift stations[1] in the District's service area. Within the service area, twelve lift stations are relatively small and serve small service sub-areas.[2] Three are relatively large and serve all of of the overall sewershed.

The key elements of the evaluation and condition assessment include the following review elements:

- Site access
- Drainage
- Security
- Structures
- Pumping equipment
- Electrical equipment
- Instrumentation and controls

Stantec and its subconsultant for confined space entry, V&A Consultants (V&A), conducted lift station inspections.[3] The same inspection form was used for all inspections.

The blank facility inspection form and completed forms can be found in Appendix A. Selected site photos for each lift station are included in Appendix B. Appendix C contains a listing of power usage at the 12 smaller lift stations and derived daily pump run hours.

1.1 PRIMARY OBJECTIVE

The goal of this task is to inspect the sanitary sewage lift stations owned and operated by SBMWD and evaluate the facilities for continued operation. Stantec field verified inventory and condition, identified deficiencies in the facilities and provided recommendations on upgrades. SBMWD staff input was key to determining the prioritization of improvements.

1.2 SITE INVENTORY AND ASSESSMENTS

SBWMD owns and operates fifteen sanitary lift stations that transmit wastewater through the collection system and to the San Bernardino Water Reclamation Plant (WRP). A map depicting the lift stations is depicted below as Figure

[1] Although some of the facilities may quality as "pump stations" due to their long force mains, for the sake of uniformity, in this report the term "lift station" is used exclusively.
[2] These 12 lift stations were transferred to the Department's authority in 2017, previously administered under the City of San Bernardino Public Works Department.
[3] V&A conducted inspections requiring confined space entry, such as dry pit – wet well stations with limited access and other areas where confined space entry was required.

1-1. Table 1-1 lists all the lift stations studied in this lift station assessment, along with capacity (for some, estimated from pump discharge size and pump horsepower). The last column lists derived average daily run hours.[4]

Table 1-1 Lift Station List

Lift Station Number	Name/Year	Type	Estimated Firm Capacity (gpm / gpd or mgd)	Daily Pump Run Hours
LS#1	Carousel Mall/1972	Package / Prefab Dry Pit	300 / 432,000	0.1
LS#2	May Company/1966	Package / Prefab Dry Pit	450 / 648,000	3.9
LS#3	Colton/2004	Dry Pit	600[5] / 864,000	4.3
LS#4	Fairway/1974	Package / Prefab Dry Pit	1420 / 2.04 mgd	0.9
LS#5	Airport/1973-1986	Package / Prefab Dry Pit	220[5] / 316,800	2.6
LS#6	Valley Truck Farm/1984	Self Priming	250[5] / 360,000	2.5
LS#7	Allen/1991	Submersible	220[5] / 316,800	1.4
LS#8	Pine/1972	Self Priming	300[5] / 432,000	6.4
LS#9	City Hall/1997	Submersible	250[5] / 360,000	(No meter)
LS#10	Meridian/1992	Self Priming	600[5] / 864,000	4.7
LS#11	Macy/1987	Self Priming	220[5] / 316,800	5.0
LS#12	Riverwalk	Submersible	200 / 288,000	6.9
AA	Arrowhead/1968	Dry Pit, Large, VFDs	54,000 / 78 mgd	--
BB	E Street/1991	Dry Pit, Large, VFDs	9,000 / 13 mgd	--
CC	East Interceptor / 1992	Archimedes Screw Pump	25,000 / 36 mgd	--

[4] From available SCE bills, using kwh use (maximum month) where available. Not used for large (more than two pump) lift stations.
[5] Pump nameplate capacity unavailable. Flow estimated using assumed velocity at pump size or pump discharge piping, wet well depth and checking against motor hp. See Appendix C.

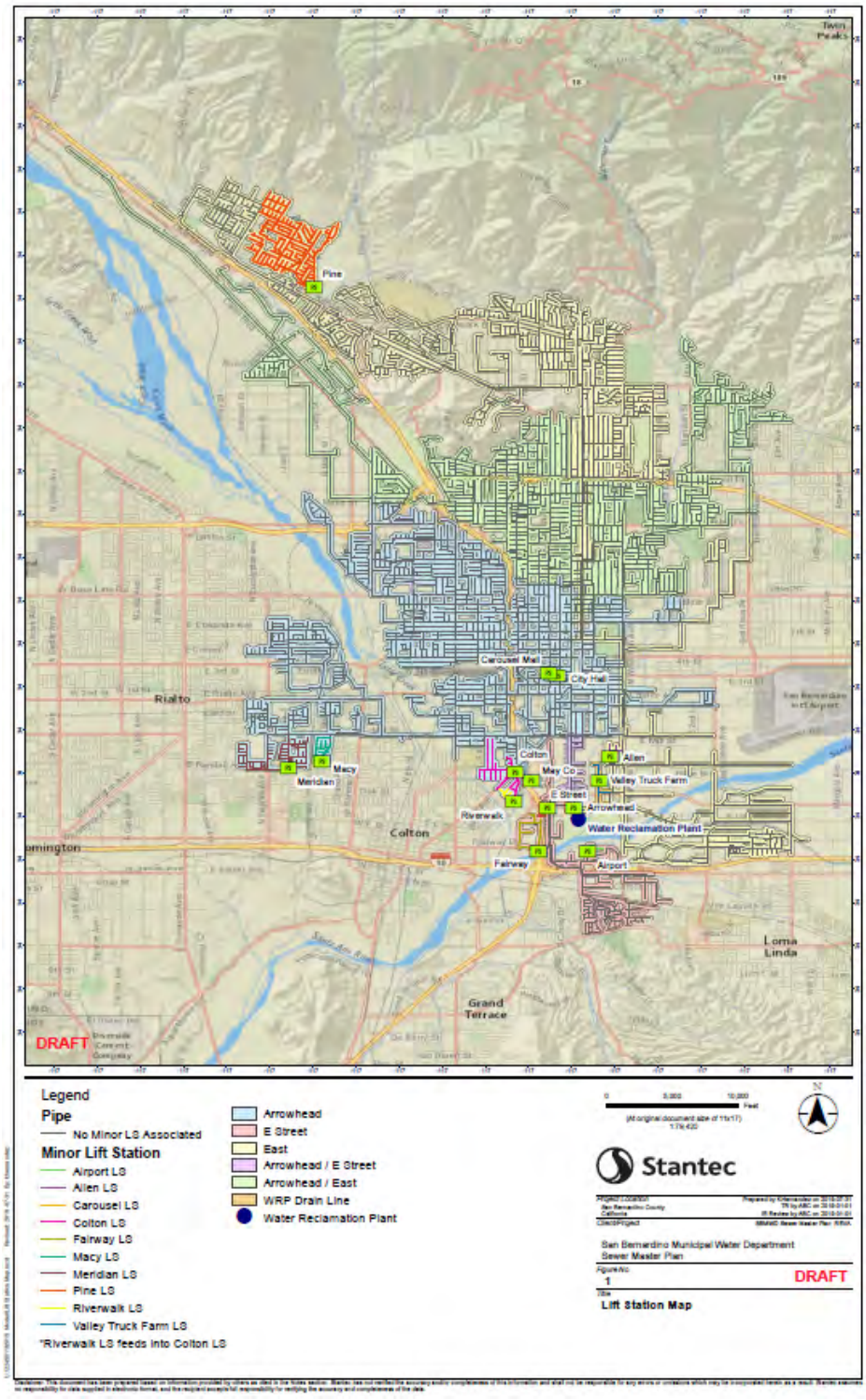


Figure 1-1 Lift Station Map

2.0 LIFT STATIONS (LS) INVENTORY AND ASSESSMENTS

For each lift station a tabular summary of findings, observations and recommendations is presented. Recommendations for improvements at each lift station was summarized at the last part of the table. Within the tables photos numbers are embedded. All photos referenced are reproduced in Appendix B.

The photos in Appendix B are numbered with the first two characters as the lift station number (for 01 – 12) or letters (for Arrowhead - AA, E Street - BB and East Interceptor - CC). Photos are further categorized with a letter (G – general; M – mechanical, S – structural, E – Electrical and C – communication). In each lift station table, the list of relevant photos are given in the right column. Where a specific item relates to a specific photo, the photo number is given following the relevant table entry.

One item in the structural compliance that applies to many lift stations is concern of overturn for the propane tanks. Five lift stations have on-site propane storage for either standby generator engines or pump engines. Three of the tanks are confined with fencing or walls; two appear to have no overturn restraint (Colton and Macy Street). Propane tank overturn is a concern for a seismic event. All propane tanks should be provided with straps to prevent overturn.

For electrical NEC compliance, lift station photos were inspected by an electrical engineer and comments noted. Two sections of NEC that are particularly pertinent are these below:

- NEC 2017 300.5 D Protection from Damage (Page 70-136) – pertains to cables not in conduit
- NEC 2017 110.16 Arc Flash Hazard Warning. Electrical equipment, such as switchboards, panelboards, industrial control panels, MCC shall be field marked to warn qualified persons of potential electric arc flash hazards. This is no voltage limit.

Cables that are unprotected is noted in the tables where found.

The tables do not articulate the lack of Arc Flash labels, since, although required by NEC 2017, there were no labels found in any lift station electrical panel. Arc Flash labels should be applied to all lift station electrical panels.

The prioritization of lift station improvements was established with SBMWD staff input. The overall strategy is to prioritize lift stations for improvements as follows:

- Immediate Lift stations most in need of improvements 2020 to 2021
- Short Term Second tier lift station improvements 2022 to 2025
- Long Term Third tier lift station improvements 2026 to 2030
- Future Fourth tier lift station improvements 2031 to 2035

Note that the recommended improvements will address all recommendations for a given lift station in a single improvement project for that lift station. The intent is to avoid multiple projects for any given lift station. Note also that there were no lift stations that were placed in the “Future” improvement category; all were assigned one of the first three priorities.

2.1 CAROUSEL LIFT STATION – LS #1

The Carousel lift station is located at 320½ North 'E' Street[6] and consists of two pumps located in a dry well, a separate cylindrical wet well, and electrical equipment. The cylindrical dry pit contains the pumps, the electrical panels, the sump pump, and the control panel. The lift station is below grade with a secured hatch limiting access to the structure. Access to the wet well is through a separate manhole lid. A picture depicting the facility and its surroundings inside the Carousel Mall is shown on Figure 2-1. Table 2-1 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-1 Carousel Lift Station

[6] Lift station binder indicates address 500 – 700 North E St (Carousel Mall east breezeway)

Table 2-1 Carousel Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Dry pit system by Smith & Loveless installed in steel cylinder with hatch • Separate cylindrical brick wet well with manhole lid	Year of installation: 1972 (Catalog indicates 1967. However, Central City Mall, original name of Carousel Mall, opened in 1972) Location in abandoned mall requires caution for O&M staff; recommend two staff for all visits. Lift station receives very little flow at this time, due to very light use of Carousel Mall (0.1 hour run time average per day).	Dry Pit Entry Hatch (Photos 01-01G, 01-02G)
Pumps • Two 4” pumps alternate lead and lag status; one pump runs for each pump-down cycle • Type: solids handling vertical overhung impeller • Pump size: 4B2A • Pump manufacturer: Smith & Loveless • Serial Nos.: 865167E-1; 710250816 / P4394996 • Design flow rate: 300 gpm at 15 ft TDH • RPM: 900	• Pumps appear in good condition, but are very old, original to the LS. • Lift station in early years registered starts 6 times per hour; if pumps alternate, 3 starts per hour for each pump (acceptable). However, current usage (Appendix C) indicates less than one start per hour, likely due to low retail traffic at mall	01-03M, 01-04M, 01-06M
Pump motor • 2 hp / 900 rpm • Manufacturer: • Model: VONO • 208V; 8.4A; 60 Hz; 3-phase	• Damaged shroud on Pump #2 motor • Reported history of over-greasing of motors may reduce motor life	01-03M, 01-04M, 01-05M
Piping and ancillary equipment • Pipe material: DI • Pump suction pipe diameter 6” with gate valve • Pump discharge 4” with check and gate valve • Force main: 6”	• Missing bolt on 4” check valve Pump #1, top flange • Piping otherwise in good condition • Pump #2 check valve looks new	01-09M, 01-10M, 01-11M

Description	Condition/comments	Photos
Structure • Access via parking structure roads; not well secured • Drainage to curb, good • Hatch secured; dry pit intrusion alarm • Steel cylinder dry pit • Brick wet well, 6 ft diameter • Ladder and manway for dry pit entry • Sump pump in dry pit floor • Padlock on dry pit access hatch • Sump recess and sump pump in bottom of dry pit	• Dry well ladders - corrosion at base • Wet well in very good condition, no sign of corrosion / degradation	01-12S, 01-13S, 01-08M
Electrical & controls: • 208V electrical service • Meter tracking no. 259000-004112 • Electrical service & other junction boxes mounted to side of dry well hatch cylinder • Bubbler level indicating system • Service panel 208V Square D 100A, 240V, 3ph; Cat. No. DTU323NRB • Local control panel in dry well ➢ 208V circuit breakers: main plus one for each pump ➢ Hand-Off-Auto switch for each pump ➢ Reset pushbutton each pump ➢ Pump alternator switch ➢ Bubbler alternator switch ➢ 120V circuit breakers for lights, blower & dehumidifier, sump pump & air compressor & control • Dry pit flood switch	➢ All electrical is quite old, possibly original to 1972, but functional ➢ No sign of imminent failure ➢ Bubbler compressor looks new ➢ Junction box at top of dry pit ladder cover missing, low-voltage cables exposed	01-14E thru 01-20E, 01-07M

Description	Condition/comments	Photos
Communication • Panel for dialer box (Dialog Scout) • Intrusion alarm	➢ Panel and intrusion alarm appear relatively new and in good condition.	01-21C
Standby generator • No on-site generator • Plug for trailer mounted 208V trailer	➢ Trailer mounted generator set up is acceptable	01-15E
Ventilation ➢ Vent fan for dry pit, none for wet well	➢ Exhaust fan only, no supply fan.	
Operation & maintenance • Since there is little usage, relatively little attention needed		
Summary • Very old lift station (46 years) • Dry pit entry requires confined space procedures (two staff) • Dry pit and wet well are in good condition except ladder. • Pumps and motors are very old. • Light use of this lift station puts it lower on priority for upgrades, until there is expectation / plan for increase of wastewater flow.		
Recommendations • Immediate ➢ Replace missing bolt on Pump #1 check valve • 2 to 5 years ➢ Evaluate need for this LS, given the low usage; if there are new tenants in mall, usage may increase • 6 to 10 years ➢ Replace ladder to dry pit (safety) ➢ Replace pumps and motors if LS will continue in service ➢ Replace the control panel and placing new control panel above grade; consider potential for vandalism, given location in abandoned mall breezeway ➢ Replace bubbler with ultrasonic level indicating system ➢ Upgrade with SCADA and remote monitoring ➢ Replace dry pit with new; consider this earlier if there is major construction in the area of the lift station.		

2.2 MAY CO LIFT STATION – LS #2

The May Co Lift station (LS#2) is located at 320 Inland Center Mall and consists of two pumps located in a dry well, a separate cylindrical wet well, and electrical equipment. The cylindrical dry pit contains the pumps, the electrical panels, the sump pump, and the control panel. The lift station dry well is below grade with a secured hatch limiting access to the structure. Access to the wet well is through a separate manhole lid. A picture depicting the facility is shown on Figure 2-2. Table 2-2 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-2 May Co Lift Station

Table 2-2 May Co Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Dry pit package system by Smith & Loveless installed in steel cylinder with hatch. • Separate cylindrical wet well with manhole lid.	Year of installation 1966 (basis: Inland Center Mall which this lift station serves opened in 1966)	02-01G
Pumps: • Two 4" pumps alternate lead and lag status. One pump runs for each pump-down cycle. • Type: solids handling vertical overhung impeller • Pump size 4B3 • Pump Manufacturer: Smith and Loveless • Model No: 284-12920-01 • Serial Nos: 66340137 & 66340138 • Design flow rate: 450 gpm at 48 ft TDH • RPM: 1160	• Pumps appear to be in good condition, but are original to the lift station and quite old. SBMWD staff indicate spare parts no longer available. • Lift station pump run hours averaged 3.9 per day (Appendix C).	02-10M, 02-11M
• Pump motor: • 10 hp / 1160 rpm • Manufacturer: Smith & Loveless • Model: 284-12920-01 • 240/480V; 26/13A, 60 Hz; 3-Phase	• Motors appear to be in good condition, but are original to the lift station and quite old • Motor coating mildly deteriorated • Reported history of over-greasing of motors may reduce motor life	02-11M
Piping and ancillary equipment: • Pipe material: DI • Pump suction pipe diameter – 6" with isolation gate valve • Pump discharge 4" increased to pipe 6" with horizontal swing check valve (spring type) and gate valve. • Force main 8"	• Piping coatings generally in good condition with minor deterioration • Coating deteriorated on check valve • Discharge gate valves appear new • Pump #2 check valve looks relatively new, but needs recoating	02-12M thru 02-14M

Description	Condition/comments	Photos
Structure ➢ Access via parking lot for mall, SW ➢ Drainage uphill is problematic because surrounding hillside soil washes into lift station area in heavy rain; drainage otherwise is to parking lot ➢ Dry pit hatch and panels secured; dry pit intrusion alarm ➢ Hillside above lift station is relatively steep with no vegetation ➢ Steel cylinder dry pit ➢ Steel cylinder wet well, 6-ft diameter ➢ Ladder and manway for dry pit entry ➢ Wet well rungs welded onto side of wet well entry ➢ Padlock on dry pit access hatch ➢ Sump recess and sump pump in bottom of dry pit	➢ Dry pit ladder replaced circa 2017 per SBMWD staff ➢ Rungs on wet well ladder corroded and unsafe ➢ Deteriorated liner at bottom of dry pit	02-20S thru 02-24S
Electrical & controls: ➢ 480 volt service to LS ➢ Meter tracking no. 256000-107250 ➢ 480 V 30 A circuit breaker for each pump ➢ Run time meters for each pump; ➢ Bubbler system for level element ➢ Dry pit flood alarm	➢ Run times 837834 / 834393 hours ➢ Pump LCP does not have on/off/fail indicator lights ➢ Panel coating failing ➢ Has High/Low level alarm in wet well ➢ Bubbler compressor looks new ➢ Junction box at top of dry pit ladder is missing its cover; cables showing outside box (low voltage) ➢ Per SBMWD staff, ATS is relatively new (meeting 7/23/19)	02-30E thru 02-34E
Communication • Panel for dialer box • Intrusion alarm	• Panel in good condition	02-40C

Description	Condition/comments	Photos
Standby generator • Mfr: Olympian • Enclosure with panel inside • Kw rating not visible • Propane tank on site approx. 33 gallon • Generator Run-Stop-Auto switch (set to Auto)	➢ Generator has required frequent maintenance per SBMWD staff ➢ Panel in good condition ➢ Run time 145 hours	02-35E, 02-36E
Ventilation: • Ventilation fan for dry pit		

Summary

- Oldest lift station (53 years) in system
- Dry pit entry requires confined space procedures (two staff)
- Dry pit and wet well are in fair condition.
- Wet well ladder should be removed (unsafe)
- Lift station receives regular usage, despite relatively light use of mall.

Recommendations:

- Immediate
  - ➢ None
- 2 to 6 years
  - ➢ Replace wet well
  - ➢ Remove ladder rungs from wet well
  - ➢ Improve or install retaining wall to prevent soil erosion above lift station
  - ➢ Perform pump starts per hour inspection; if greater than 12 starts per hour for the lift station, add “replace wet well” to 2 to 5 years line items
  - ➢ Replace generator
  - ➢ Upgrade with SCADA with remote monitoring
  - ➢ Replace bubbler level system with ultrasonic
  - ➢ Consider move control panels to above grade (except pump controls, which should remain near pumps)
  - ➢ Replace control panel
  - ➢ Repair liner at bottom of dry pit
  - ➢ Re-coat dry pit and piping
  - ➢ Replace pumps and motors
- 6 to 10 years
  - ➢ Replace lift station with submersible type with guide rails.

2.3 COLTON LIFT STATION – LS #3

The Colton Lift station is located at 841 Inland Center Drive and consists of two pumps (with space for third pump) located in a dry well, a cylindrical brick wet well, and electrical equipment. The dry pit contains the pumps, the electrical panels, the sump pump, and the control panel. The lift station is below grade with a secured hatch limiting access to the structure. Access to the wet well is through a secured hatch. A picture depicting the facility is shown on Figure 2-3. Table 2-3 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.

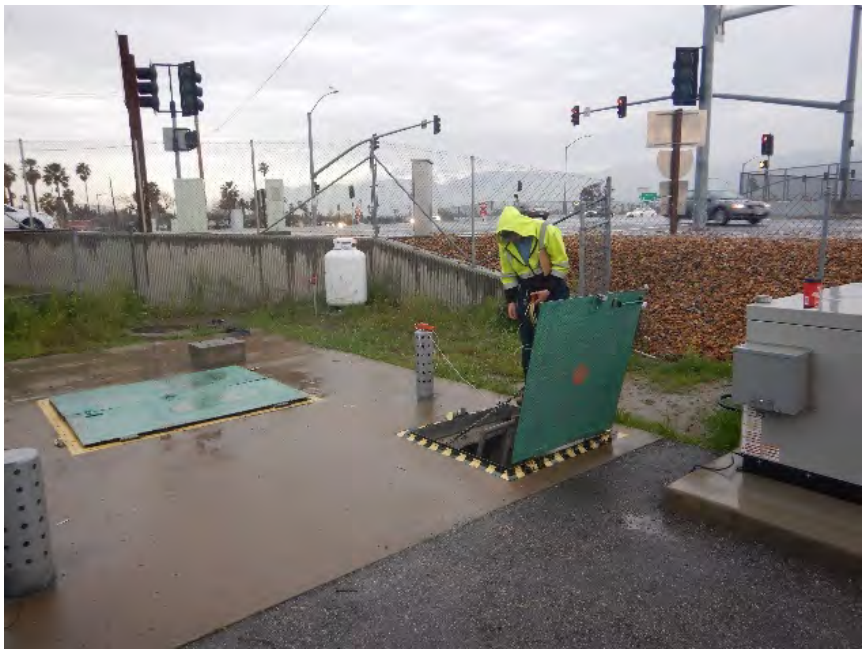


Figure 2-3 Colton Lift Station

Table 2-3 Colton Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Dry pit / wet pit • Rectangular dry pit with rectangular hatch • Space and piping for 3rd pump	Year installed prior to 2005 (propane tank is stamped 2004)	03-01G, 02G

Description	Condition/comments	Photos
Pumps • Two 6” pumps alternate lead and lag status; one pump runs for each pump-down cycle • Type: solids handling vertical overhung impeller • Space and piping for 3rd pump • Pump manufacturer: Mody • Model: MSE215006 / MSE215016 • Serial Nos.: 19008100 / 108552015 • Design flow rate: 600 gpm at 30 ft TDH (estimated from pump size and wet well depth)	• Pumps in good condition; replaced in 2010 (S/N 19068100) and 2015 (S/N 10866215) per Mody Pump • Current usage is 4.3 pump run hours per day (derived from SCE billing); earlier study in catalog indicate lift station starts 15 times per hour; since two pumps alternate, 7.5 starts per hour per pump (borderline excessive) • Pumps lack an access handhole, require removal and disassembly of suction elbow to clear pump clog	03-10M thru 15M
Pump motor • 10 hp / 1150 and 1140 rpm • 230V, 60 hz, 3 phase • 29 & 29.4 A •	• Reported history of over-greasing of motors may reduce motor life	
Piping and ancillary equipment • Pipe material: DI • 10” suction header feeds all pumps • 8” suction pipe to each pump with shutoff gate valve • Riser from pump has 6x8 elbow, 8” swing check valve (possibly rubber disc) and 8” plug valve • Force main: 10”	• Pipe and fittings have spot corrosion • Vertical swing check valve generally undesirable due to solids settling and interfering with check valve opening	03-16M thru 17M
Structure • Access via Inland Center Dr. • Drainage appears to be good • Padlock on access hatches, panels • Dry pit intrusion alarm • Fenced entire area with padlock • Dry pit - rectangular floor plan, concrete	• Heavy corrosion at base of ladders in dry pit • Hatch lids are heavy, could use hydraulic assist type	03-20S thru 24S

Description	Condition/comments	Photos
• Cylindrical brick wet well, 8 ft diameter with manhole lid • Rectangular hatches for dry pit and wet well without hydraulic assist • Sump pump in dry pit, mfr Little Giant • Slab on grade for generator		
Electrical & controls: ➢ 480V electrical service ➢ Meter tracking number 254000-027661 ➢ SCE meter S/N: 26000107345 ➢ Mercoid MCP Pump Controller ➢ Wet well high, low level and cutoff switches (no bubbler) ➢ Magnetic flow meter on 10-inch force main inside LS ➢ Dry pit flood alarm ➢ Pump has on/off/fail indicator lights ➢ It has a panel for telemetry alarm ➢ No elapsed time meters ➢ High/Low level and low level cutoff switches in wet well	➢ Conduit from SCE outdoor terminal junction box (bottom exit) to lift station appears overfilled. Second conduit from same box (side exit) has newer cables and is not overfilled. ➢ Inside dry pit, exposed ends of cables should be capped or cables removed if unused	03-30E thru 39E
Communication • Dialog Scout dialer	• Panel in good condition	
Standby Generator ➢ Standby generator on-site ➢ Manufacturer: Generac ➢ 240V ➢ Model: RG02724JNAX ➢ Serial: 3001991693 ➢ 120 Gallon propane tank (2004)	➢ Generac generator is new, installed in 2017 per paperwork inside generator panel ➢ Run time 10,796 hours may reflect earlier use or erroneous reading on run time meter, since it is unlikely this generator has run 15 hours every day since 2017. ➢ Propane tank should be provided with overturn restraint for seismic event	03-36E thru 38E

Description	Condition/comments	Photos
Ventilation: • No mechanical ventilation	➢ Dry pit requires constant ventilation to meet NFPA 820	
Operation & Maintenance information: • (No items noted)		
Summary • Dry pit entry requires confined space procedures (two staff) • Lift station run hours are in the high range for system lift stations • Space for 3rd pump offers flexibility for near term improvement		
Recommendations • Immediate ➢ None • 2 to 5 years ➢ Repair or replace ladder to dry pit (safety) ➢ Install dry pit ventilation system (safety) ➢ Provide overturn restraint for propane tank (safety) ➢ Perform pump starts per hour inspection; if greater than 12 starts per hour for the lift station, add third pump in available space or change to variable speed drives ➢ Remove unused equipment, cable, conduit (except for 3rd pump) ➢ Replace level float system with ultrasonic level element ➢ Recoat piping in dry pit ➢ Upgrade controls to include SCADA and remote monitoring ➢ Consider moving electrical panels to above grade (except pump controls which should remain near pumps) • 6 to 10 years ➢ Replace lift station with submersible type with guide rails		

2.4 FAIRWAY LIFT STATION – LS #4

The Fairway Lift Station (LS#4) is located at 649 West Fairway Drive is a package type prefabricated lift station, consisting of two pumps located in a dry pit, a cylindrical steel wet well, and electrical equipment. The cylindrical steel dry pit contains the pumps, the electrical panels, the sump pump, and the control panel. The lift station is below grade with a secured hatch limiting access to the structure. Access to the wet well is through a secured hatch. A picture depicting the facility is shown on Figure 2-4. Table 2-4 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-4 Fairway Lift Station

Table 2-4 Fairway Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Dry pit package / prefabricated system by Cantex installed in steel cylinder with hatch • Separate cylindrical concrete wet well with manhole lid	Year of installation 1974 (per Cantex shop drawing) Crowded dry pit	04-01G thru 03G
Pumps • Two 6” dry pit pumps alternate lead and lag; one pump runs for each pump-down cycle • Type: solids handling vertical overhung impeller • Pump mfrs: Fairbanks Morse & Mody • Size: 6x8 (discharge x suction); impeller dia. 11-5/16” • Models: E5433B & MSP3-150-4 • Serial Nos.: K2W1078147-1 & 11CB64220 • Pump capacity: 1420 gpm at 32 ft TDH	• Pump nameplate rating of 1420 gpm seems high for 8-ft diameter wet well and 3-ft working depth under normal operation. • Lift station pump run averages 0.9 hours per day (Appendix C); relatively light usage. • Pump #1 appears to be original to lift station; pump #2 looks relatively new, replaced 2018 per Mody Pump.	04-11M thru 14M
Pump motor • 15 hp / 1170 & 1766 rpm • Frame: 284TCZ • 230V, 40A, 60 hz, 3 ph	• Reported history of over-greasing of motors may reduce motor life	04-19M
Piping and ancillary equipment • Pipe material: DI • 10” suction for each pump, with gate valve; reduces to 8” upstream of pump suction elbow • Discharge 6x8 swing check valve horizontal and 8” gate valve • Force main riser 8” **(to be verified)**	• Pipe supports below discharge pipe are plastic pipe with wood “shim”	04-18M
Structure • Access via West Fairway Dr.	• Dry pit crowded • Dry pit steel walls in good condition	04-20S thru 23S

Description	Condition/comments	Photos
• Drainage could be problematic due to sloped soil (no vegetation) on side away from access road • Site is not fenced • Padlock on dry pit access hatch; intrusion alarm inside dry pit • Steel cylinder dry pit; access via steel cylinder and secured hatch • Concrete cylinder 8-ft diameter wet well with manhole lid • Slab-on-grade surrounds both dry pit hatchway and wet well • Sump recess and sump pump in bottom of dry pit under discharge riser	• Wet well walls in good condition, except near manhole lid frame, where exposed aggregate	
Electrical Service: • 240V electrical panel includes: • Circuit breakers / switches for main 240V service, Pump No. 1 and Pump No. 2. • H-O-A switches for each pump • Alternator switch • Meter tracking no.: 256000-080390 • Circuit breakers for low voltage elements: ➢ Control ➢ Dehumidifier ➢ Sump pump ➢ Light / Exhaust fan ➢ Bubbler compressor ➢ Alarm interface • 240/120 2 kVA step down transformer, wall mounted	➢ Dry pit space is tight, may not meet NEC clear space requirements for electrical panels	04-30E thru 37E

Description	Condition/comments	Photos
• Pumps do not have on/off/fail indicator lights • High/Low level alarm in wet well • Has Sump high water level alarm • Does not have a low level cut off switch		
Communication • DiaLog Scout dialer • Intrusion alarm	➢ Good condition with exception below ➢ Intrusion alarm reported not working	04-40C
Standby generator ➢ No generator on site ➢ Connection for 240V trailer mounted generator; manual transfer switch	➢ Generator hookup is sufficient for size of lift station	
Ventilation: • Ventilation fan for the dry pit runs continuously		
Operation & maintenance • Bubbler clogs periodically requiring emergency maintenance		
Summary • Very old lift station (45 years) • Dry pit entry requires confined space procedures (two staff) • Dry pit space is tight • Lift Station usage relatively light		
Recommendations • Immediate ➢ None • 2 to 5 years ➢ Replace intrusion alarm ➢ Replace pumps (2) ➢ Replace pipe supports in dry pit where missing or inadequate ➢ Repair concrete near wet well lid frame (exposed aggregate) ➢ Relocate / replace electrical panels to above grade (except pump controls, which should remain near pumps) ➢ Replace bubbler with ultrasonic level system ➢ Re-coat dry pit piping ➢ Replace dialer system with SCADA and remote monitoring capability • 6 to 10 years ➢ None		

2.5 AIRPORT LIFT STATION – LS #5

The Airport lift station is located at 1892 Commerce Center West and consists of two pumps located in a dry well, a wet well, an air compressor, and electrical equipment. The dry pit contains the pumps, the electrical panels, the sump pump, the air compressor, and the control panel. The lift station is below grade with a secured hatch limiting access to the structure. Access to the wet well is through a secured hatch. A picture depicting the facility is shown on Figure 2-5. Table 2-5 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-5 Airport Lift Station

Table 2-5 Airport Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Package dry pit with wet well in separate structures. • Type: solids handling vertical overhung impeller type • Dry pit manufacturer: Hydromatic • Dry pit S/N: 67-527-DEC	Year installed: 1973 – 1986 (per Hydr-O-Matic email, serial no. not found; data range based on address of company on nameplate – moved there in 1973 – and when this style pump no longer sold – 1986)	05-01G, 02G
Pumps • Two 4” dry pit non-clog pumps alternate lead and lag; one pump runs for each pump-down cycle • Pump size: 4” • Pump mfr: Hydromatic • Pump capacity: 220 gpm at 20 ft TDH (estimated from pump size, motor hp and wet well depth)	➢ Pumps appear to be in good condition; both are original to the package dry pit. ➢ Pump run time 2.6 hours/day ➢ Pump run times 83783 & 83439 hours, pretty even; pump run hours have averaged 10 hours/day if installed 1973; more if later. ➢ Minimum LS & pump age 33 years.	05-10M, 11M
Pump Motors ➢ 3 hp / 865 rpm ➢ GE Model 5K6227XH2000A ➢ 200V, 60 hz, 3 ph; 15/6.3A ➢ S/N: KMJ1020278 & KMJ1020279	➢ Motors appear in good condition ➢ Reported history of over-greasing of motors may reduce motor life	05-11M
Piping and ancillary equipment • Pipe material: DI • 4” suction pipe with gate valve • Discharge pipe with 4x6 swing check valve and 6” gate valve • Force main: 6”	➢ Spot corrosion on piping in dry pit	(see Pump photos)
Structure ➢ Access via Commerce Center West (dead end road, low traffic) ➢ Drainage to sidewalk and curb, good	➢ Dry pit condition fair, could use some touchup coating ➢ Concrete wet well condition good	05-21S thru 25S

Description	Condition/comments	Photos
➢ No fencing; dry pit hatch padlocked; dry pit intrusion alarm ➢ Steel cylinder dry pit ➢ Concrete wet well, 4 ft diameter ➢ Recess in dry pit bottom with sump pump with integral float switch		
Electrical & controls: ➢ 208V service ➢ Meter Tracking No.: 256000-133329 ➢ Service panel self standing with trailer-mount generator connection ➢ Local panel with: ➢ Bubbler instrumentation ➢ Wet well level indicator ➢ Shut off switches for main power, Pump #1, Pump #2 ➢ H-O-A switch for each pump ➢ Pump run time meters ➢ 8 low voltage circuit breakers ➢ Float switches in wet well ➢ Dry pit flood switch	➢ Bubbler conduit tape coating failing and conduit corroded ➢ Bubbler clogs periodically requiring emergency maintenance ➢ Exposed cables at top of dry pit ladder (Photo 05-33E)	05-31E thru 33E
Communication • DiaLog Scout dialer panel	• Panel in good condition	05-40C
Standby generator ➢ No on-site generator ➢ Connection for 208V trailer mounted standby generator		05-34E
Ventilation: • Ventilation fan (mfr. Cincinnatti Fan) for the dry pit		05-18M
Operation & Maintenance • Has a bubbler system which periodically fails		

Description	Condition/comments	Photos
• Float switch is not currently functioning		
Summary • Old (33 - 45 years) packaged lift station with original pumps • Dry pit entry requires confined space procedures (two staff)		
Recommendations • Immediate ➢ None • 2 to 5 years ➢ None • 6 to 10 years ➢ Replace pumps & motors ➢ Recoat piping in dry pit ➢ Replace bubbler system with ultrasonic ➢ Replace backup float switch system ➢ Recoat piping ➢ Replace dialer with SCADA and remote monitoring ➢ Relocate (and replace) pump electrical panels to above grade (except pump controls which should remain near pumps)		

2.6 VALLEY TRUCK FARM LIFT STATION - LS #6

Valley Truck Farm Lift Station (LS #6) is located adjacent to 995 South Washington Avenue. It is a package lift station system with two above ground self-priming pumps. This lift station lifts sanitary sewage from a cylindrical below grade wet-well through a force main to the gravity system. The lift station is covered by a fiberglass enclosure with hinged openings. A picture depicting the facility is shown on Figure 2-6. Table 2-6 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-6 Valley Truck Farm Lift Station

Table 2-6: Valley Truck Farm Lift Station Assessment

Description	Condition/comments	Photos
Lift Station Configuration • Self-priming	• Year of installation 1984 (per pump vendor MultiW email) • Lift station scheduled for replacement by developer per SBMWD staff	06-01G, 02G

Description	Condition/comments	Photos
Pumps: • Two surface-mounted 4" pumps alternate lead and lag status. One pump runs for each pump-down cycle. • Pump Manufacturer: Gorman Rupp • Model No: T4A3S-B • Serial No: 1475615 • Capacity 250 gpm at 30 ft TDH (estimated from 6 ft/sec discharge velocity, wet well depth and motor hp)	• Above grade facilities good condition • Crowded mechanical equipment difficult to work on • Close pipe bends difficult to access • Pump run hours 2.5 per day (Appendix C)	06-11M, 12M
Pump motor • 5 hp / 1720 rpm • Manufacturer: Siemens – Allis • Enclosure: ODP • 230V: 14.2/7.1A; 60 hz; 3-Phase • Nameplate efficiency: 81.5%	➢ Motors in good condition	06-12M
Piping and ancillary equipment • Pipe material: DI • Suction pipe riser dia. 4" • Horizontal 4" swing check on discharge • • 4" three-way valve at tee where 4" discharges combine • Force main 6"	➢ Piping inside wet well shows signs of corrosion ➢ Hole in one suction pipe reported by SBMWD staff	06-11M

Description	Condition/comments	Photos
Structure ➢ Access via South Washington Ave ➢ Open flat area with limited vegetation, drainage not problematic ➢ No fencing; lift station fiberglass enclosure padlocked; panels padlocked; intrusion alarm inside enclosure ➢ Slab-on-grade covers 8-ft diameter unlined concrete wet well ➢ Fiberglass enclosure for electrical, pumps, motors, bolted to SOG ➢ Manhole lid access to wet well	➢ Slab-on-grade concrete chipped at edges ➢ Fiberglass enclosure in good condition ➢ Exposed aggregate below wet well manhole rim ➢ Concrete wet well interior otherwise looks good..	06-20S thru 22S
Electrical & Controls • 240V / 60 hz / 3 phase service, meter is pole mounted • Meter serial no. 256000-015950 or 26000-080319 • 120/240V disconnects for outlet and transformer are in fiberglass enclosure • Wet well level indicator and pump controls in separate self-standing control panel	• Control panel replaced 2016 manufacturer MultiW, good condition • Cables set directly on slab on grade inside enclosure (unprotected)	06-30E thru 35E
Communication • Self-standing panel for telemetry (dialup)	• Panel in good condition	06-40C
Standby generator • No on-site standby generator • Trailer genset connection	• Sufficient for size of lift station	06-36E - Generator connection on side of panel
Ventilation: • Fan located on enclosure	➢ Fan disconnected and non-operational	

Description	Condition/comments	Photos
Operation & Maintenance information: • Pumps will occasionally lose prime, but very rarely. • Very rare ragging issues. • No system alarm or warning history • No operation problems • No recent maintenance activities performed aside from twice weekly inspections[7] • Self-priming units in general tend to be higher maintenance per SBMWD staff		
Summary • Lift station in area of former housing, now open field • Lift station usage is average for the system per SCE billing analysis • Per SBMWD staff, this lift station is scheduled for replacement by a developer		
Recommendations • Immediate ➢ None • 2 to 5 years ➢ None • 6 to 10 years ➢ Replace vent fan ➢ Rehab wet well concrete exposed aggregate below frame (restore concrete & coat) ➢ Consider replacement of self-priming pumps with submersible pumps / guide rails and reconfiguration of lift station & wet well accordingly (timing due to reported developer plans to replace lift station) ➢ Evaluate lift station capacity and performance if served area flows have increased		

2.7 ALLEN LIFT STATION - LS #7

The Allen Lift Station (LS #7) is located adjacent to 741 Allen Street. It is a submersible lift station with all elements below grade except two self-standing electrical panels. Lift station includes a wet-well and a valve vault structure. An unsecured hatch covers the valve vault and a manhole lid covers the wet well. A picture depicting the facility is shown on Figure 2-7. Table 2-7 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.

[7] Per Lift Station Data catalog, Attachment "6" – Pump Station Preventive Maintenance. This document indicates the historical preventive maintenance practice by City of San Bernardino Public Services Department. SBMWD continues to employ similar or more rigorous procedures and frequency.



Figure 2-7 Allen Lift Station

Table 2-7 Allen Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Submersible with below-grade valve vault • No slab-on-grade around wet well manhole lid • No guide rails for pump removal and reinstallation; pumps have integral support for placing on wet well bottom (no base elbow), typical for very small pumps • Self-standing electric power service panel and pump local control panel	• Year of installation 1991 (per date of Essco pump curve)	07-01G, 02G
Pumps • Two 3" (estimated) submersible vortex 8-vane pumps alternate lead and lag status. One pump runs for each pump-down cycle. • Pump manufacturers and models: Mody – 508A; Essco – 493 • Pump capacity: 220 gpm at 25 ft TDH (estimated from pump curve, wet well depth)	• Pumps & motors not visible to inspect (underwater) • Run times 290 and 219 hr, respectively. May have been reset (hours are too low unless recently replaced) • Average daily pump run hours 1.4 (Appendix C) • Pump #2 has high failure rate	
Pump motors: • 5 hp • 1740 rpm • 208V, 60 hz, 3 phase		
Piping and ancillary equipment • 4" Check valves and gate shutoff valves in below-ground vault • Force main size: 4" ➢ 4" flanged force main tap with gate valve	➢ Force main tap enables trailer mounted self-priming pump in emergency failure to bypass pumps	07-10M thru 12M
Structure • Access via Allen Street • Potential erosion onto wet well cover, but otherwise drainage is to curb • No fencing; panels locked; valve vault hatch unsecured • Concrete valve vault with sump & sump pump	• Wet well condition good • No locks on valve vault hatch • Heavy hatch cover	07-20S thru 24S

Description	Condition/comments	Photos
• Concrete pedestal with unistrut mounted power panel & control panel • Concrete wet well 7-ft diameter, 19 ft deep • Wet well manhole lid entry • No guide rails		
Electrical & controls • Service size 100 amp / 240V • Meter S/N: 256000-076234 • Mercoid MPC level controller • Pump on/off backup float • Electric meter serial no. 256000-076234	• Service size on Square D nameplate for double-throw safety switch (07-34E) • Control panel replaced 2016 manufacturer MultiW, in good condition	07-30E thru 37E
Communication • Dialog Scout call out alarm	• Panel in good condition	07-40C, 41C
Standby power • No standby generator • Connection for trailer mounted generator, 208V	• Appropriate for small lift station	07-32E
Ventilation • No ventilation	• None required	
Operation & maintenance • Pending order to replace both pumps		
Summary • Lightly used submersible lift station		
Recommendations • Immediate ➢ Replace discharge hoses ➢ Install non-eroding ground cover uphill from wet well lid (up to near the tree) • 2 to 5 years ➢ None • 6 to 10 years ➢ Replace valve vault hatch cover with hydraulic assist type ➢ Replace pumps with guide rail type ➢ Add fence for security around lift station		

2.8 PINE LIFT STATION – LS #8

The Pine Lift Station (LS#8) is located at 2403 West Christine Street and consists of three self-priming pumps, a small masonry structure, a backup generator, and electrical equipment. The building contains the pumps, the backup generator, the electrical panels, and the control panel. The lift station is above grade with secured doors limiting

access to the structure and a fence prevents access to the wet well. A manhole lid covers the access to the wet well A picture depicting the facility is shown on Figure 2-8. Table 2-8 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-8 Pine Lift Station

Table 2-8 Pine Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Self-priming, duplex with propane fueled engine-drive backup for one pump	Year installed: 1972 (based on Gorman-Rupp pump shop drawing filename Track No. 13036 Lift Station.pdf)	08-01G, 02G
Pumps	• Pumps appear in good condition	08-11M thru 16M

Description	Condition/comments	Photos
• Two surface-mounted 4” pumps alternate lead and lag status. One pump runs for each pump-down cycle. • Pump Manufacturer: Gorman Rupp • Model No: T4A3S-B	• Total run hours 40,470 and 38,702 (average 6.8 hrs/day from 1986) • Pump average daily run time 6.4 hours (Appendix C)	
Pump motors • 15 hp / 460V / 14.9A / 1760 rpm • Frame 254T Engine • Mfr: Wisconsin • Model: VG4DG • Serial: 6188908 • 120 gal propane fuel tank	• Motors appear to be in good condition • Engine appears to be in good condition; run hours 232 • Flashing around part of the exhaust pipe but insufficient and supported by wood	08-14M, 15M, 18M
Piping and ancillary equipment • Pipe material: DI • Suction size 4” • Discharge size 4” with vertical swing check valve and three-way valve where discharges combine • Release valve on each pump discharge • Force main size 4”	• Piping in good condition with mild paint flaking	08-10M, 17M
Structure • Access via West Christine St • Drainage good; surrounded by lawn; drains to curb • No fencing; building locked with intrusion alarm • Slab on grade with CMU wall building for pumps, engine and electrical panels • Building with wood-framed hip roof, asphalt shingles • Concrete wet well, 6 ft diameter, 15 ft depth • Manhole lid cover on wet well	• Building and SOG in good condition • Exposed aggregate below wet well manhole frame (08-23S)	08-20S thru 23S
Electrical & controls	• Control panel installed 1987 (based on Gorman-Rupp	08-31E thru 36E, 01G

Description	Condition/comments	Photos
• Meter in white metal box to left of building (from street side) • Control panel with H-O-A switches, Mercoid pump controller, run time meters, lead pump selector, pump high temp indicators • Solid state motor starters, 480V, in wall mounted panels (mfr – Motortronics) • Controls are 480V, not stepped down	shop drawing filename Tract No. 13036 – Duplex Pump Control.pdf) • Panel appears to be in good condition	
Communication • Dialog Scout • Intrusion Alarm	• Dialer panel & intrusion alarm in good condition	08-40C
Standby generator • No generator • Standby engine to power one of two pumps	• Appropriate for this type and size of lift station • Engine exhaust flashing around part of the exhaust pipe; insufficient and improperly supported by wood	
Ventilation • Passive ventilation via louvers	• Sufficient for this type lift station	
Operation & maintenance • Operation problems: ragging • Maintenance activities required for deragging & removal of fats, oils, and grease		
Summary • One of the more heavily used lift stations • Overall good condition		
Recommendations • Immediate ➢ None • 2 to 5 years ➢ None • 6 to 10 years ➢ Concrete spot repair ➢ Restore concrete below wet well manhole lid and apply protective coating ➢ Replace control panel (33 years old) ➢ Replace pumps & motors		

2.9 CITY HALL LIFT STATION – LS #9

The City Hall Lift Station (LS#9) is located at 300 North "D" Street and consists of two submersible pumps located in a wet well and electrical equipment. This lift station is located in the basement of the prior City Hall Building. The lift station is behind a locked door in the basement of the structure, as shown in Figure 2-9. A floor hatch covers the access to the wet well Table 2-9 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-9 City Hall Lift Station

Table 2-9 City Hall Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Submersible, duplex • Basement installation in building • Old City Hall building is no longer in service (moved to new address in 2017) • Little usage for this lift station at this time; Old City Hall building may be	Year installed: 1997 (per City of San Bernardino catalog; vendor MultiW indicated approximately 2003 in email)	09-10M

Description	Condition/comments	Photos
seismically unsuitable for tenants per		
Pumps • Two 4” submersible pumps alternate lead and lag status. One pump runs for each pump-down cycle. • Pump manufacturers and models: Essco 4-220616-3 4” • Pump capacity: 250 gpm at 25 ft TDH (Appendix C)	• Pumps and motors not visible to inspect (underwater) • Run time not available (no electric meter)	
Pump motors • 3 hp / 480V • 1750 rpm		
Piping and ancillary equipment • Pipe material: DI and steel • 4” discharge riser for each pump with swing check valve and gate valve	• Vertical swing check valve with long riser above is not ideal	
Structure • Access requires entry to old City Hall building; basement location challenging for pump removal • Drainage N/A (inside bldg.) • Building is locked and security guard on site • Pump wet well, concrete, 5-ft diameter, built into basement of City Hall building • Hatch over wet well for pump removal • Rails for pump removal and re-installation • Shares room with potable water booster pumps for building	• No visible evidence of structural degradation to wet well area or walls of basement	09-20S
Electrical & controls • 480V power supply • No dedicated electric meter; power supplied via City Hall electrical infrastructure	• Control panel replaced 2008 manufacturer MultiW	09-30E

Description	Condition/comments	Photos
• Main disconnect box • Dry transformer • Control panel with disconnect, H-O-A selector switch for each pump (2); reset pushbutton • Float switch for high level alarm		
Communication • Dialog Scout dialer panel	• Dialer appears to be in good condition	09-40C
Standby generator • Pumps are served by building's overall standby generator in lower level of parking structure		
Ventilation • Basement is ventilated via building ventilation system		
Operation & maintenance • Lightly used lift station; minimal O&M required • Rails make pump removal & reinstall convenient		
Summary • Building served may not be in use in the foreseeable future; low usage for this lift station • Equipment and structure (for the lift station) in good condition		
Recommendations • Immediate ➢ Keep pumps in service for light use • 2 to 5 years ➢ Reassess potential for City Hall building rehab and future use of lift station; if building to be structurally rehabbed, continue normal maintenance • 6 to 10 years ➢ Replace hatch on wet well ➢ Replace two 3 hp pumps and motors		

2.10 MERIDIAN LIFT STATION - LS #10

The Meridian Lift Station (LS#10) is located at 800 South Meridian at NW corner of Randall and Meridian. Lift station consists of two self-priming pumps located in a small FRP enclosure, a below grade wet well from which the pumps pull wastewater, and electrical equipment. The enclosure contains pumps, electrical panels, and the control panel. The lift station is above grade (except for wet well) with the enclosure secured to a concrete pad. A manhole lid covers the access to the wet well A picture depicting the facility is shown on Figure 2-10. Table 2-10 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-10 Meridian Lift Station

Table 2-10 Meridian Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration: • Self-priming, duplex • Fiberglass sliding enclosure	Year of installation: 1992 (per email from pump vendor MultiW)	10-01G, 02G
Pumps • Two surface-mounted 4" pumps alternate lead and lag status. One pump runs for each pump-down cycle • Mfr: Gorman Rupp • Model: T6A3-B • Capacity 600 gpm at 65 ft TDH (Appendix C) • S/N: 1167349 & 790785	• Average run time 4.7 hours/day; moderate to high usage • Pump 1 appears to be new	10-10M thru 12M
Pump motors • Pump1 ➢ 30 hp ➢ 1750 rpm ➢ Mfr: Siemens Allis • Pump2 ➢ 30 hp	• Pump 2 motor showing signs of failure per SBMWD staff	10-11M, 12M

Description	Condition/comments	Photos
➢ 1770 rpm ➢ Mfr: Toshiba International		
Piping and ancillary equipment • Piping material: DI 6" suction • 6" discharge with swing check valve and common three-way discharge valve • Air release upstream of each check valve	• Piping and valves where above ground generally in good condition • Leaking air vac valve • Piping in wet well (two suction and one discharge) corroded. Staff indicate piping will be replaced.	10-13M
Structure • Access via South Meridian or Randall • Flat unpaved area; drainage not an issue • Padlocked fence surrounds entire lift station; fiberglass enclosure also padlocked with intrusion alarm • Security camera • Slab on grade for pump enclosure • Fiberglass enclosure with half cylinder shape, slides to open • Locked enclosure • Chain link fence around lift station with lock on gate • Manhole lid for wet well • 8-ft diameter concrete wet well, 23 ft deep • Gravel base between lift station fence and road pavement	• Padlocked fence, concrete slab and enclosure in good condition • Wet well exposed aggregate below manhole rim and inside wet well • Gravel layer may be too thick; truck tires sink into gravel • Sliding enclosure opening can be difficult per staff	10-22S thru 24S
Electrical & controls • SCE power pole with meter number 256000-110612 • Main service panel 200 amp, 480V – Square D double throw • Intrusion alarm and Mercoid pump controller mounted on	• Power pole leans and may fall; requires SCE attention (10-01G) • UPS recently added • Gorman-Rupp control panel appears to be in good condition • Electrical & controls generally in good condition	10-30E thru 39E

Description	Condition/comments	Photos
face of Gorman Rupp control panel • UPS • Outdoor flood lights	• No NEC compliance concerns observed • Rigid metal conduit apparently used to support outdoor light fixture • Reported frequent false alarms from intrusion alarm upon staff entry	
Communication • Dialog Scout panel • Cameras	• Dialog panel in good condition • Cameras non-functional	10-41C
Standby generator • Connection for trailer mounted generator, 480V	• Appropriate for this size lift station	10-33E
Ventilation • None	• Not required	
Operation & maintenance • No O&M issues with this lift station except reported issues with suction piping		
Summary • Lift station in generally good condition except wet well • Leaning power pole is a concern		
Recommendations • Immediate ➢ Contact SCE regarding leaning power pole ➢ Provide full replacement of lift station with submersible pump type lift station with guide rails • 2 to 5 year ➢ None • 6 to 10 year ➢ None		

2.11 MACY LIFT STATION - LS #11

The Macy Lift Station (LS#11) is located adjacent to 1695 N Macy Street in Colton and consists of two self-priming pumps located in a small masonry structure, a below grade wet well from which the pumps pull wastewater, and electrical equipment. The building contains a backup generator, both pumps, electrical panels, and the control panel. The lift station is above grade with secured doors limiting access to the structure. A manhole lid covers the access to the wet well A picture depicting the facility is shown on Figure 2-11. Table 2-11 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-11 Macy Lift Station

Table 2-11 Macy Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration ➢ Self priming, duplex ➢ Building encloses pumps & panels	Year of installation: 1987 (per City of San Bernardino catalog date; could be earlier)	11-01G
Pumps • Two surface-mounted 4" pumps alternate lead and lag status. One pump runs for each pump-down cycle • Pump Manufacturer: Gorman Rupp • Model No: T4A3S-B • S/N 1475618	➢ No SCE billing available to estimate run hours/day ➢ Pump condition good, but ragging is an issue	11-11M thru 11-13M
Pump motors • 15 hp / 460V / 1765 rpm • Frame 254T Engine	➢ Motors in good condition ➢ Engine exhaust pipe is insulated, but remains a fire hazard where supported on wooden frame	11-14M thru 11-16M

Description	Condition/comments	Photos
• Mfr: Wisconsin • Model: VG4DG • Spec No.: 359346 • 120 gal propane fuel tank	➢ Propane tank not supported for overturn	
Piping and ancillary equipment • Pipe material: DI • Suction size 4” • Discharge size 4” with vertical swing check valve and three-way valve where discharges combine • Release valve on each pump discharge • Force main size 4”	➢ Piping above grade looks good ➢ Swing check valves should be horizontal where possible ➢ Check valves reported to clog frequently	11-17M
Structure • Access via North Macy Street in Colton • Located next to curb, lawn on two sides; drains to curb • Entire lift station area fenced; padlock on fence • Lock on building door w/ intrusion alarm • CMU block building with wood-framed hip roof • 5-ft diameter concrete wet well, 15 ft deep	➢ Structure in good condition ➢ [No photos of wet well; not inspected]	11-01G, 11-20S
Electrical & controls • Meter in white metal box to left of building (from street side) • Control panel with H-O-A switches, Mercoid pump controller, run time meters, lead pump selector, pump high temp indicators • Solid state motor starters, 480V, in wall mounted panels (mfr – Motortronics) • Controls are 480V, not stepped down	➢ UPS undersized per SBMWD staff ➢ Control panel replaced 2016 manufacturer MultiW, good condition	11-31E thru 1136E

Description	Condition/comments	Photos
• UPS serves the Site Control Logic, allowing operation of propane Wisconsin engine to drive one pump		
Communication • Dialog Scout	➢ Panel appears to be in good condition	11-40C
Standby generator • No generator • Standby engine to power one of two pumps	➢ Sufficient backup provided ➢ Engine exhaust pipe insulation may not protect wooden framing	11-12M, 11-16M, 11-19M
Ventilation • Passive ventilation via louvers	➢ Sufficient for self priming pump building	
Operation & maintenance • Pump ragging • Replaced impeller on pump 2 • Chronic ragging of check valves • No water available for priming pumps		
Summary • Equipment in good condition • Ragging of pumps & valves a chronic maintenance issue		
Recommendations • Immediate ➢ Provide improved heat insulation between engine exhaust pipe and wooden frame members (safety item) • 2 to 5 years ➢ None • 6 to 10 years ➢ Strap propane tank to prevent overturn (safety item) ➢ Replace UPS with larger unit ➢ Reconfigure piping to allow horizontal swing check valves ➢ Replace two 15 hp pumps and motors with submersible (chopper) pumps w/ guide rails		

2.12 RIVERWALK LIFT STATION - LS #12

The Riverwalk Lift Station (LS#12) is located at 1197 South Scenic Drive and consists of two submersible pumps located in a wet well, a small masonry structure, a backup generator, and electrical equipment. The building contains the backup generator, the electrical panels, and the control panel. A picture depicting the facility is shown on Figure 2-12.

Table 2-12 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-12 Riverwalk Lift Station

Table 2-12 Riverwalk Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Submersible with below-grade valve vault • Separate structure for pumps, local control panel and standby generator	Year of installation: 1998 (based on generator ATS install date)	12-01G, 02G
Pumps: • Two 3” submersible pumps alternate lead and lag status. One pump runs for each pump-down cycle. • Vortex type pump 8 vane • Pump size: 3x8 (discharge x max impeller) • Pump Manufacturers: Essco and Mody • Pump Capacity: 200 gpm at 35 ft TDH	• Pumps & motors not visible to inspect (underwater) • Recent power usage indicates pump run hours of 6.9 hours/day; highest usage of all the small lift statons • Historically, lift station starts 5 times per hour; if pumps alternate, 2.5 starts per hour for each pump motor (acceptable) • Pump curve available dated 12/89; capacity estimated from pump curve for 7”C impeller	
Pump motors: • 7.5 hp • 1760 rpm • 208V, 60 hz, 3 phase		
Piping and ancillary equipment • 4” check and shutoff valves in below grade vault	• Piping/valves in good condition	12-10M
Structure • Access via South Scenic Drive • Unpaved area, drains away from lift station • Padlocked gate / fencing next to building, but not valve vault or wet well; building locked with intrusion alarm • 5-ft diameter concrete wet well with 2 submersible pumps • Wet well access via rectangular metal hatch cover	• Wet well concrete shows no sign of corrosion, good condition • Valve vault walls and floor in good condition; dry, no sign of leakage • Difficult to fence in valve vault & wet well due to construction next to and overlapping sidewalk; potential trip hazard • Aluminum hatch covers for valve vault & wet well in good condition • CMU building in good condition	12-20S thru 23S

Description	Condition/comments	Photos
• Rectangular concrete valve vault with rectangular metal hatch cover; drain via hole in concrete bottom • CMU block building set on concrete slab-on-grade with wood-frame gable roof with asphalt shingles • Wet well and valve vault cover adjacent to and overlapping sidewalk in public ROW, not enclosed • Passive drainage for CMU building and valve vault		
Electrical & controls ➢ Utility power from ground-level transformer in enclosure, approximately 40 feet from lift station ➢ Meter S/N 256000-015919 ➢ Local control panel ➢ Mercoid MPC pump controller ➢ Hand-Off-Auto each pump ➢ On/off/fail indicator light each pump ➢ Run time each pump	• Control panel replaced 2016 manufacturer MultiW, good condition • Note on panel indicates bubbler was removed 6/15; replaced by Mercoid Pump Controller • Electrical equipment in good condition	12-30E thru 29E
Communication ➢ Dialer Panel ➢ Telemetry ➢ Wet well level indicator	• All in good condition	12-40C

Description	Condition/comments	Photos
Standby generator ➢ Manufacturer: Onan ➢ Voltage rating: 208V ➢ KW/KVA rating: (not visible) ➢ Run time: 171 hrs ➢ Propane storage capacity: 60 gal ➢ ATS mfr. Onan	➢ On-site standby generator and fuel storage system are in good condition; in service start date December 1998 per Cummins (now owns Onan) ➢ Exhaust system supported in part by wood; fire hazard	12-36E, 37E
Ventilation (none)	• Ventilation not required for below or above-grade structures due to either no hazardous gases (valve vault, CMU building) or no entry (wet well) • No odor complaints	
Operation & maintenance information: • No pump or equipment failures • No operation problems • Maintenance activities (cleaning) required for fats, oils, and grease buildup; vactor as necessary 2 to 3 times annually		
Summary • Lift station functions well and is in very good condition • Oil & grease is maintenance concern		
Recommendations • Immediate ➢ Replace generator exhaust support with heat resistant material ➢ Add caution paint to valve vault curb where it overlaps sidewalk (safety item) • 2 to 5 years ➢ None • 6 to 10 years ➢ Replace two 7.5 hp pumps and motors		

2.13 ARROWHEAD LIFT STATION

The Arrowhead lift station is located at the SBMWD WRP. This large 78 mgd peak flow capacity lift station, built in 1968, is one of three primary lift station responsible for delivering wastewater to the WRP. The facility consists of a masonry structure housing five pumps located in a dry well, ancillary mechanical equipment and electrical equipment. Four of its five pumps are driven by natural gas and digester gas engines. The lift station is above grade with limited access to the structure due to its location on the WRP site. Access to the wet well is through unsecured access hatches. A picture depicting the facility is shown on Figure 2-13. Table 2-13 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.

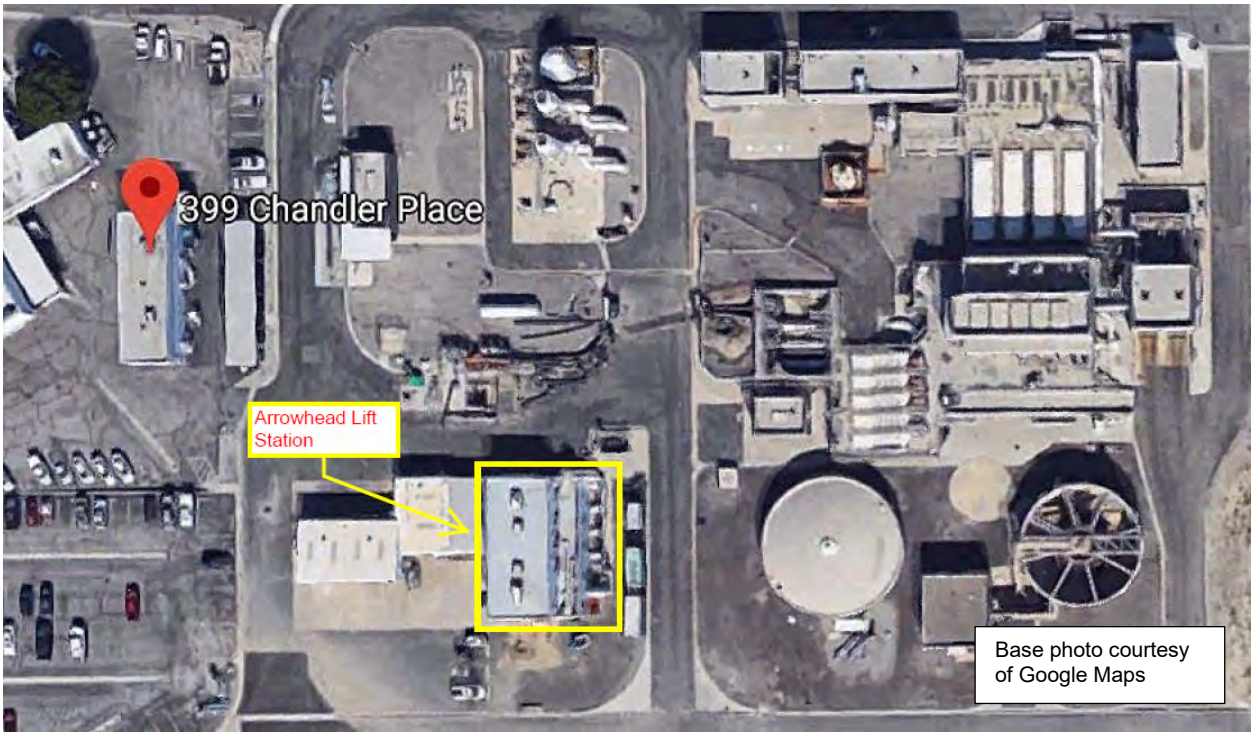


Figure 2-13 Arrowhead Lift Station Location

Table 2-13 Arrowhead Lift Station Assessment

Description	Condition/comments	Photos
Lift Station Configuration • Dry pit / wet well • Long drive shafts (drivers in upper level, pumps in lower level) • Five pumps in line draw from single wet well • Concrete plenum with feeds to each pump's bell suction (no horizontal suction piping) • Slide gates isolate each pump at suction end plenum • Pumps 1-4 engine driven • Pump 5 electric motor driven	➢ Year of Installation: 1968 (as-built drawings for 5th pump reference original drawings dated 1967) ➢ Pump 5 added 2015	(see Figure 2-13)
Pumps • Four (4) engine drive pumps ➢ Pump mfr: Worthington ➢ Model: 20MNZ-1	➢ Moderate to severe coating failure on four engine drive pumps	AA-05M thru 11M

Description	Condition/comments	Photos
➢ S/N: (pumps 1, 2 & 4 only) 41Z000132-3, 41Z000132-2 and 41Z000132-4 ➢ Capacity: 14,400 gpm at 39 ft TDH at 450 rpm • One (1) motor drive pump ➢ Pump mfr: Pentair Fairbanks NIJHUIS ➢ Capacity: 13,500 gpm at 40 ft TDH at 594 rpm ➢ 200 hp VFD drive	➢ Moderate and spot severe corrosion on coating for Pump 5 base ➢ Pumps 1-4 are old and approaching end of useful life within 10 years ➢ Wet well has small working volume (approximately 7,400 gallons) and pumps must be variable speed	
Pump motors / engines • Engines (Pumps 1-4) ➢ Engines 1 and 4 fueled by natural gas ➢ Engines 2 and 3 fueled by digester gas ➢ Manufacturer: Caterpillar ➢ Model: G342 ➢ BOM: 90514 ➢ 6 cylinder ➢ 5.75 bore x 8 stroke ➢ Engine S/N: 71B1797 (one reported) ➢ Full load engine rpm 1200 ➢ Engine hp: 225 • Gear Drives (Pumps 1-4) ➢ Mfr: Johnson Gear & Manufacturing Co. Ltd. ➢ BHP: 255 at 860 rpm ➢ Gear Drive S/N: 45419, 45418, 45420, 45421 • Motor (Pump 5) ➢ Mfr: US Motors ➢ 200 hp ➢ 594 rpm (120 – 600) ➢ 460V / 3 ph ➢ 12 – 60 hz (variable speed) ➢ 234.5 amps ➢ Inverter duty	➢ Engines 1-4 are old and approaching end of useful life within 10 years	AA-13M thru 29M

Description	Condition/comments	Photos
Piping and ancillary equipment ➢ Pipe material: DI ➢ Suction pipe attached to pump and cast in concrete floor / plenum; nominal 20” ➢ Slide gates (mfr: Waterman) on suction plenum; gate hand-crank operator stands mounted on main floor near pump engine / motors ➢ Discharge pipe size 20” ➢ Swing check valves w/ spring, 20” ➢ Increasing elbow 20 x 24 to vertical riser ➢ 24” vertical risers ➢ 24” horizontal discharge gate valve (motorized for Pump 5) ➢ Channel monster grinder on wet well inlet, 5 hp (see Appendix A) ➢ Foul air blower (see Appendix A) ➢ Air Compressors (2) ➢ (1) 15 hp motor drive, 1760 rpm; 145 to 175 psig; model BRA-15; S/N R40-A09541; 770 rpm ➢ (2) Wisconsin engine drive; model TJD1; spec no. 320846; S/N: 95090544	➢ Mild to moderate corrosion on pipe risers 1-3 in intermediate level; evidence of minor leakage at pipe joints ➢ Moderate to severe corrosion on pump level discharge pipes for Pumps 1-4 ➢ Materials stored too close to gate operators, would impede access	AA-30M thru 49M
Structure • Access via entrance to WRP • No drainage issues noted; area surrounded by hardscape • Security via WRP entrance • Dry pit lower level: Concrete walled pump room w/concrete floor • Intermediate level: Concrete walled w/ concrete floor, houses drive shafts and DI risers; intermediate supports for long drive shafts • Upper level: Concrete houses engines (4) and pump motor (1)	➢ Drain covers missing and damaged in pump room floor ➢ Wet well hatch covers moderately to severely corroded ➢ Wet well opening rim chipping ➢ Wall and ceiling tiles peeling off and have fallen per staff ➢ Concrete structure generally in good condition	AA-50S thru 56S

Description	Condition/comments	Photos
• Wet well: concrete • Basement sump pumps		
Electrical & Controls ➢ MCC 2 serves lift station; 480V / 3ph / 3W ➢ Engine control panel (Murphy – Murphymatic Controller) ➢ Wet well ultrasonic level element; indicator provided ➢ Wet well float switch backup ➢ Channel monster control panel ➢ Explosion proof lights and receptacles ➢ H2S gas meter near foul air blower discharge (wet well room) ➢ PLC 16 serves lift station	➢ Pumps have on/off/fail indicator lights ➢ Has outdoor flood lights for night work ➢ Has emergency lighting provided for power ➢ Float switch beneath Gate 3 in wet well has loose electrical housing ➢ Wet well hatch area poorly lit	AA-60E thru 72E
Communication • Telemetry via PLC 16 to WRP Control Room	• No problems reported	AA-65E
Standby generator • For Pump 5 – included with loads supported by generator in RS-1 building • Other 4 pumps are engine driven		
Ventilation: • Building has dry well ventilation fan • Building has makeup air openings for dry well • Building has fan controls, timer, thermostat	• No odor complaints • Ventilation is good generally • Some evidence of insufficient ventilation due to cracking ceiling paint in basement	AA-40M AA-41M Vent ductwork
Operation & maintenance • No pump or equipment failures • No operation problems • Maintenance activities required: Oil change • Pending work or maintenance orders: Engine drives 2 and 3 will be replaced per SBMWD staff		
Summary • Large old lift station with primarily engine drives • Pumps 1-4 and engines approaching end of useful lift within 10 years (50 years old now) • Pump 5 is new (2015)		

Description	Condition/comments	Photos
• Structure is generally sound • Wet well hatches are potential safety concern		
Recommendations • Immediate ➢ None • 2 to 5 years ➢ Replace wet well hatches / hinges / frames where corroded (safety item) ➢ Repair wall and ceiling tiles where damaged (safety item) ➢ Improve lighting in wet well hatch access area (safety item); may be only change out of lamps with higher lumens ➢ Repair loose housing for level switch at Gate 3 ➢ Per SBMWD staff: retrofit engine drives to motor drives with VFDs for digester gas engine pumps ➢ Replace missing and damaged drain covers in pump room ➢ Investigate ventilation and humidity in pump room / basement for adequate ventilation ➢ Replace pumps 1 – 4 with inverter duty electric motor drive pumps ➢ Repair paint failures on Pump 5 and on piping ➢ Replace discharge gate valves pumps 1 - 4 ➢ Replace discharge check valves pumps 1 - 4 ➢ Prep and paint Pump 1, 2, 3 riser piping (4 and 5 recently recoated) ➢ Prep and paint equipment not covered in Immediate above ➢ Prep and recoat ceiling of pump room basement ➢ Inspect suction gates and repair as needed ➢ Consider retrofit remaining two engines to VFD motor drive • 6 to 10 years ➢ None		

2.14 E STREET LIFT STATION

The E Street Lift Station at 1302 E Street consists of three pumps located in a dry well, a masonry structure, a backup generator, and electrical equipment. This 13-mgd peak flow capacity facility is one of three primary lift stations responsible for delivering wastewater to the WRP. The building contains the pumps, the electrical panels, and the control panel. A separate building houses the backup generator. The lift station has a two-chamber wet well. This lift station's force main terminates at the WRP. The lift station is above grade with secured doors and security fencing. A manhole lid covers the access to the wet well A picture depicting the facility is shown on Figure 2-14. Table 2-14 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.



Figure 2-14 E Street Lift Station

Table 2-14 E Street Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Dry pit with dual chamber wet well • Motors mounted on ground level concrete slab, pumps on lower level, riser pipes and drive shafts in mid-level • Vertical pumps in pump room with pump suction bells in wet well • Pump nos. 1 and 2 can pump from North Wet Well	• Year of installation: 1991 (based on Carollo original drawings dated 1990 & pump curve dated 1991) • Wet well setup facilitates ease of maintenance (can isolate one wet well)	BB-01G thru 03G

Description	Condition/comments	Photos
• Pump nos. 2 and 3 can pump from South Wet Well (Pump 2 piped to pump from either WW) • Variable speed motors		
Pumps • 3 vertical pumps • Mfr: Dresser Pumps • Size & type: 10-MFV-21 • Order No.: TP92247 • Capacity: 4500 gpm at 100 ft TDH at 1175 rpm • At min rpm: 2000 gpm at 39 ft TDH at 700 rpm • 6” diameter max solids	• Mild corrosion / coating failure on pump casings • Pump data from pump performance curve	BB-10M, 12M
Pump motors • Mfr: US Motors • 200 hp / 236A / 1191 rpm • 460V / 60 hz / 3 ph • Frame: 5807P • Inverter Duty	• Motors in good condition	BB-15M thru 18M
Piping and ancillary equipment • Pipe material: DI • 18” suction pipe w/ plug vlv • 18” discharge w/ swing check horizontal & plug vlv on riser • 24” discharge header & force mains • 12” pressure / surge relief valve atop 24” force main, discharges to south wet well • Two basement sump pumps • Air gap tank for seal water system • Hydropneumatic tank for seal water system • Force main splits into two 24” at north wall • Odor scrubber no longer in service, except foul air fan inside enclosure	• Piping in good condition • Foul air ductwork in good condition • No-longer-used foul air scrubber should be removed, leaving foul air fan • If odor complaints or concerns, consider adding odor scrubber to replace non-functional unit • Seal water system in good condition	BB-18M thru 36M

Description	Condition/comments	Photos
• Foul air ductwork draws from wet wells and inlet channel (upstream of wet wells) • Foul air fan remains in service		
Structural • Access via E Street • Drainage to hardscape and to ribbon gutter • Entire lift station fenced with locked gate • Both buildings locked (no intrusion alarms) • Fencing surrounds lift station, locked gate • Pump Building ➢ Three levels: basement, intermediate and main ➢ All at grade & below walls & slabs cast-in-place concrete ➢ CMU building walls above grade ➢ Metal deck with builtup roofing • Generator Building ➢ One level ➢ CMU building walls ➢ Metal deck with built-up roofing Wet wells • Concrete, PVC lined	• Visible structures are in good condition • Wet well concrete recently inspected by SBMWD staff – walls show no sign of corrosion (PVC liner intact) • Minor damage to PVC liner at north wet well manhole opening	BB-40S thru 45S
Electrical & controls • SCE transformer pad mounted east of Generator Room • SCE meter no. 259000-39391 inside Pump Building • MCC VE serves lift station • ATS built into MCC lineup • Bubbler panel in separate enclosure	• No problems reported • Bubbler system should be replaced with ultrasonic per SBMWD staff • VFDs have no nameplate visible	BB-50E thru 60E

Description	Condition/comments	Photos
• Three VFD panels, one per pump, separate enclosure ea. • PLC 22 serves lift station • Antenna mounted outside pump building no longer in use, replaced by fiber communication		
Communication • Telemetry from PLC YY to WRP Control Room via fiber communication	• No problems reported	BB-55E, 56E
Standby generator • Manufacturer: Caterpillar • 1800 rpm • Diesel engine model 3412 • Generator Model: SR4 • Generator S/N: 6FA07083 • Arrangemt No.: 5N8670 • Capacity: 750 kw / 600 kVA • Output: 480V / 902A • Underground diesel fuel tank; horizontal cylinder with 18" thick concrete anti-flotation deadman & tiedowns; approx. 4,000 gal capacity	• Generator appears in good condition • Run hours 120 • Outdoor diesel piping insulation requires replacement; piping appears rusted • Underground diesel tank info from as-builts	BB-61E thru 65E, 42S
Ventilation • Pump Bldg: ➢ Dedicated roof exhaust fan for main level ➢ Supply roof mounted fan serves main & basement ➢ Roof exhaust fan serves basement ➢ Foul air withdrawn from inlet channel and wet wells; not scrubbed • Generator Bldg ➢ Ventilation / cooling for generator engine when	• Info gathered from as-built drawings, roof equipment not inspected • Foul air withdrawal from wet well may no longer be needed, since no scrubbing provided.	BB-21M, 39M

Description	Condition/comments	Photos
running, discharge thru plenum vertically ➢ Makeup air via 11'-4" x 12' intake louver		
Operation & maintenance • System can overflow; abnormally high level in wet well will cause sewage spill out of manhole on Fairway Drive • Sanitary sewer system sensor failure • Pump or equipment failure: level sensor • Ragging is a common issue • Maintenance activities required for ragging • Pending work or maintenance orders: Seal water pump • Wear ring problems on pumps 1 & 3		
Summary • Medium large lift station in good condition, the newest of the larger lift stations (1991) • Minor issues		
Recommendations • Immediate ➢ None • 2 to 5 years ➢ None • 6 to 10 years ➢ Replace bubbler level system with ultrasonic ➢ Replace 3 – 200 hp pumps and motors		

2.15 EAST INTERCEPTOR LIFT STATION

The East Interceptor lift station, located inside the WRP, consists of three screw pumps located as shown in Figure 2-15 and electrical equipment. This lift station lifts the wastewater located in the WRP. Table 2-15 presents a summary of the findings and observations made during the detailed condition assessment of the facilities.

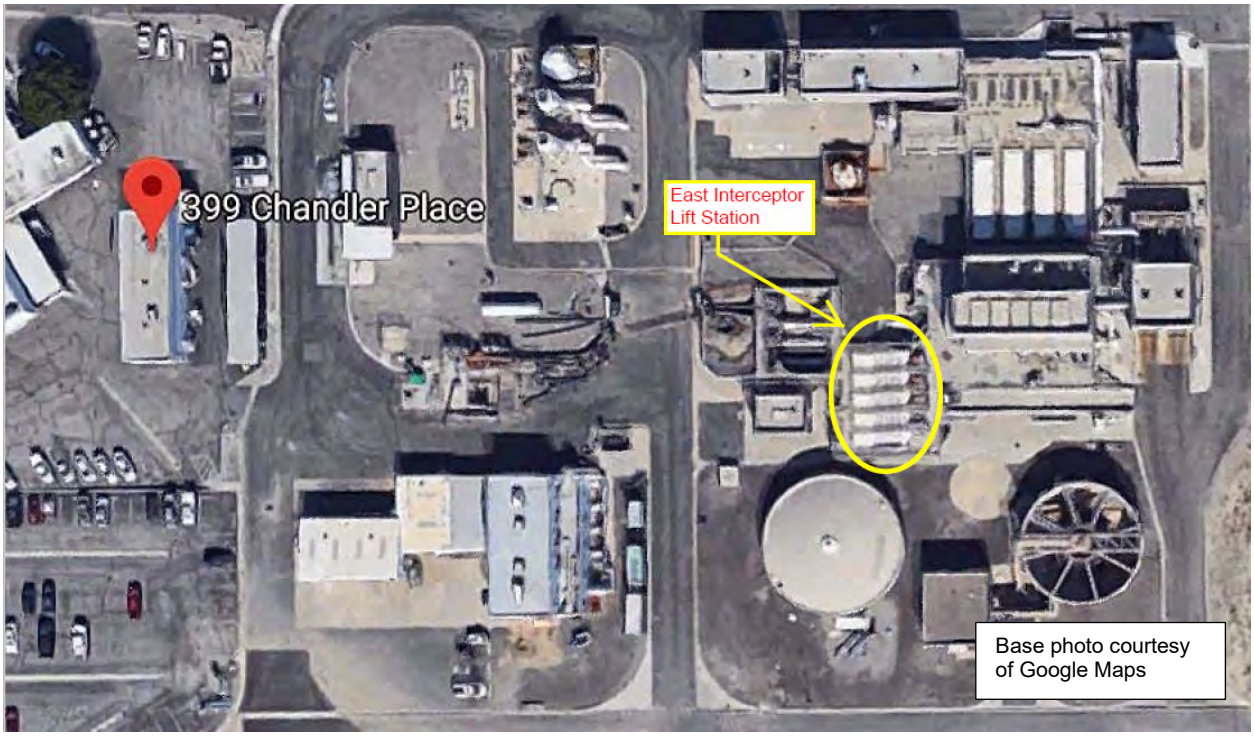


Figure 2-15 East Interceptor Lift Station Location

Table 2-15 East Interceptor Lift Station Assessment

Description	Condition/comments	Photos
Lift station configuration • Three (3) screw pumps draw from common forebay, numbered from north to south (northerlymost is Pump 1) • Space for two additional screw pumps • Screw pump forebay is fed via a 54-inch pipe with 36-inch magnetic flow meter;	• Installation date: 1992 (based on original drawings dated February 1991) • Highly effective for varying flows and low (fixed) lift.	CC-08M

Description	Condition/comments	Photos
top of 54-inch pipe set set at elevation 7 ft ± below bottom of screw • Screw pump afterbay is joined by two (2) force mains, 54 and 30 inch; all flow routed to bar screens		
Pumps • 66-inch steel augers (3 pumps) rest in fiberglass-lined concrete troughs at 30-degree angle • Auger length approx.. 45 ft • Lift: 8.3 ft (per hydraulic profile) • Capacity: 12,500 gpm • Deflector shields for each pump to prevent backflow • Inferred speed: 40 rpm (1780/45)	• No pump nameplate found • Auger edges worn; wearing surface originally applied is worn off • Auger lower bearing not visible (coated in rags) • Deflector shield supports are failing on Pump 3 and highly corroded on others • Fiberglass liner is peeling off, bulging, and disbanded throughout. • Moderate to heavy corrosion on bolts and mounting hardware • Screws 1 and 2 are corroded	CC-03M thru 17M
Pump motors • 60 hp / 1775; 1780; 1780 rpm (varies) • 460V / 60 hz / 3 ph • Mfr: Toshiba; US Electric Motors; US Electric Motors • S/N: 95608468; W10W2530276-6T; W10W2530276-ST Gear reducer • Mfr: Flender Corporation • Type: H3SH08 • Ratio: 45:1 • Service HP: 60 • Catalog HP: 109 • S/N (for Pump 1,2,3): D24-210-639-1-3; D24-210-639-1-2; D24-210-639-1-1	• Coating failures throughout • Motor base traps water due to angle & no weep holes	CC-20M thru 36M
Piping and ancillary equipment • One gate can shut off all flow to the screw pump forebay	• Gates appear to be in good condition, but should be exercised if not done regularly	CC-13M, 15M

Description	Condition/comments	Photos
• Gates isolate each screw pump suction from the forebay channel; hand crank operator stand • Sample pumps for Arrowhead LS and E Street LS were decommissioned years ago		
Structure • Access via entry to WRP • Site surrounded by hardscape, drainage not an issue • Security via WRP entry • Upstream meter structure cast-in-place concrete floor and walls • Screw augers rest in fiberglass liner which lines concrete trough, with deflector plate • Deflector plates supported by steel rods	• Steel rods supporting deflector plate corroded and some have failed • Concrete where visible appears in good condition	CC-14M, 40S, all Pump photos
Electrical & controls • MCC H1E serves Screw Pump Nos. 1 and 2 and their lube oil pumps • MCC H2E serves Screw Pump No. 3 and its lube oil pump • Control Panel Section C (in Headworks Electricla Control Building) includes screw pump controls • PLC (shown on drawing N-6)	• Drawings in *Primary Hydraulic Reliability Project* E-4, E-6, E-20, E-31A (MCC H1E & H2E plan), E-33 (MCC H1E & H2E elevations) • MCC H1E, H2E and Control Panels located in Headworks Electrical Control Building	CC-50E
Communication • Control Panel Section C reports to PLC	• PLC located in Headworks Electrical / Control Building	
Standby generator • Standby power is provided by the Headworks Generator		
Ventilation • Foul air collection duct, 8” dia, runs parallel to pump inlets, near bottom of auger well above water level • Drawings show 550 cfm exhausted from Lift Station screw pumps (Primary	• Screens on foul air collection clogged • Foul air collection not likely to be effective for odor control even with unclogged screens	CC-18M, clogged screen on foul air duct

Description	Condition/comments	Photos
Hydraulic Reliability Project 1991, drawing FA-12)		
Operation & maintenance • Foul air screens need regular cleaning • Grit & rags at auger inlet should be removed quarterly or more often		
Summary • Large lift station, 36 mgd peak capacity, only screw pump in the system • Low lift, high capacity • Highly effective for accepting varying influent flow • Pumps need rehab		
Recommendations • Immediate ➢ Apply safety striping to stairs next to augers (safety item) ➢ Unclog foul air screens ➢ Provide weep hole or drainage for three motor supports to prevent water accumulation • 2 to 5 years ➢ For each screw pump: Complete rehab, including replace pump trough fiberglass liners, auger wearing surface, deflector shield support replacement, rehab gear and replace motor • 6 to 10 years ➢ None		

APPENDIX/DIVIDER TITLE

Appendix Subtitle

Appendix A LIFT STATION ASSESSMENT FORM

Facility Name: _____

Date / Time: _____

Reviewer: _____

Summary

Overall Condition	
General Comments	
Key Issues	
Observations	
Recommentaions	

Pump Information

Remaining Useful Life			
Pump Manufacturer			
Model No.			
Serial No.			
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

Motor Information

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.			
Horse Power			
Phase		Frame No.	
Voltage		Cycle	
Amperage		Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping			
Inflow Pipe Diam (in)		Force Main Diam (in)	
Piping			
ON / OFF Level (ft)			
Sump Pump			
Drainage			
Valves in Pumping Station			
Standby Units			
Wet Well			
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	
Standby Unit Available for Sump Pump	
On-Site Standby Generator	
On-Site Fuel Storage for Standby Generator	
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	
Panel for Telemetry Alarms	
Wet Well Level Indicator	
Elapsed (Running) Time Meters	
Explosion-Proof Lights and Receptacles	
Outdoor Floodlights for Night Work	
Emergency Lighting Provided for Power Outages	
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	

Sump High Water Station Flooded Alarm	
Pump On/Check Valve Closed Alarm	
Low Level Cut-off Switch	
Level Transmitters	
Flowmeter	
Power Out Alarm	
Gas Detection Alarm	
Other Comments	

Ventilation

Dry Well Ventilation Fan	
Wet Well Ventilation Fan	
Makeup Air Openings for Dry Well	
Fan Controls - Timer, Thermostat	
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors			
Unprotected Windows			
Intrusion Alarm			
Adequate Building Security			
Ladder to Wet Well			
Climbing Safety Equipment Available at Station			
Motor Shaft Guards			
Personnel Safety Alarm			
Odor Control Chlorine/Air Injection Equipment			
Emergency Comunication			
Chemical storage, Eye Wash and ect			
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	
Adequate Clearance Around Equipment	
Hoist/Crane Present for Removing Equipment	
Wet Well Lined with PVC	
Wel Well Isolated into Separate Compartments	
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	
O&M Manual for this Station	
Overall Building Condition	
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

Facility Name: CAROUSEL LS #1

Date / Time: 03.06.2019

Reviewer: MS/FM [V&A]

Summary

Overall Condition	
General Comments	- in abandoned mall, personnel should not travel alone when visiting location. There are loiterers and squatters (police were conducting a raid for suspected trespassers at the time of the assessment)
Key Issues	- corrosion at base of ladders inside dry well - damaged shroud at top of motor for Pump #2
Observations	- missing bolt on 4-in check valve (Pump 1 discharge) - brick wet well
Recommentaions	- replace bubbler system piping with new level detection system (transducer) - repair corrosion damage to ladder - replace missing bolt on Smith & Loveless check valve

Pump & Motor Information

~~Pump Information~~ (1) (2) (both)

Remaining Useful Life			
Pump Manufacturer	Smith & Loveless		
Model No.	Type VONO		
Serial No.	865167E-1 two nameplates. 1 - 710250816, 2 - P4394996		
Design Flow Rate	300 gpm	Design R.P.M.	850
Pump Design Head	15-ft	Design Efficiency	
Date Installed			
Notes	Product No. 0020F-1HAN-004 Size: 4B2A		

~~Motor Information~~

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.	900		
Horse Power	2		
Phase	3	Frame No.	215
Voltage	200 208	Cycle	60 Hz
Amperage	8.4 8.26	Power Factor	
Shaft Type		Enclosure Type	'VENT'
Nameplate Efficiency			

Date Installed	
Notes	INSULATION TYPE: F

Pump and Equipment Condition

Piping			
Inflow Pipe Diam (in)	6	Force Main Diam (in)	6
Piping	6-in, 4-in at pump discharge to 4x4x6-in (vertical) tee.		
ON / OFF Level (ft)			
Sump Pump	Yes		
Drainage	No		
Valves in Pumping Station	(2x) 6-in Iowa Gate Valves, (1x) 4-in Smith & Loveless check valve, (1x) SCI Thailand		
Standby Units	check valves, (2x) 4-in Stockham gate valves. All in good condition. No		
Wet Well			
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	
Standby Unit Available for Sump Pump	
On-Site Standby Generator	
On-Site Fuel Storage for Standby Generator	
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	Yes (dialer system)
Wet Well Level Indicator	Bubbler System, float switch
Elapsed (Running) Time Meters	No
Explosion-Proof Lights and Receptacles	No
Outdoor Floodlights for Night Work	No
Emergency Lighting Provided for Power Outages	No
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Bubbler

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	No
Level Transmitters	Bubbler System
Flowmeter	No
Power Out Alarm	No
Gas Detection Alarm	No
Other Comments	

Ventilation

Dry Well Ventilation Fan	Yes
Wet Well Ventilation Fan	No
Makeup Air Openings for Dry Well	Yes
Fan Controls - Timer, Thermostat	No
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	No
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	Padlock on access hatch		
Unprotected Windows	N/A		
Intrusion Alarm	Yes		
Adequate Building Security	Yes		
Ladder to Wet Well	No, but there is a ladder to dry well		
Climbing Safety Equipment Available at Station	ladder safety post for dry well		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	No		
Odor Control Chlorine/Air Injection Equipment	No		
Emergency Comunication	Dialer Box		
Chemical storage, Eye Wash and ect	No		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	No
Adequate Clearance Around Equipment	No
Hoist/Crane Present for Removing Equipment	Not readily but accessible
Wet Well Lined with PVC	No
Wel Well Isolated into Separate Compartments	No
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	No
O&M Manual for this Station	Office
Overall Building Condition	Good
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

CAROUSEL 6 OF 6

Facility Name: MAYCO LS #2

Date / Time: 03.06.2019

Reviewer: MS/FM [V&A]

Summary

Overall Condition	
General Comments	- moderate condition, should be rehabilitated before failures occur
Key Issues	- liner at bottom of dry well is flaking and mild corrosion has occurred as a result - minor corrosion on piping where coating has failed ~~- ladder has experienced significant corrosion at bottom of dry well~~
Observations	- metal rungs in wet well are significantly corroded and appear unsafe
Recommentaions	- replace bubbler system piping with new level detection system (transducer) - repair liner at bottom of dry well ~~- repair corrosion damage to ladder at the bottom of the dry well~~ - remove ladder rungs from wet well, they are unsafe and should not be used. Entries should be made with davit arm or tripod with harnesses.

Pump & Motor Information

~~**Pump Information**~~ (1) (2) (both)

Remaining Useful Life	Smith & Loveless		
Pump Manufacturer			
Model No.	Design A; Motor Type D P1; Frame 2844; Model 284-12920-01		
Serial No.	66340137 66340138		
Design Flow Rate	450 gpm	Design R.P.M.	1160
Pump Design Head	48 ft	Design Efficiency	
Date Installed			
Notes	INSULATION: H Size: 4B3 SF: 1.15 @ 40 deg-C		

~~**Motor Information**~~

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.			
Horse Power	10		
Phase	3	Frame No.	
Voltage	240/480	Cycle	60 Hz
Amperage	26/13	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping	good condition		
Inflow Pipe Diam (in)	6	Force Main Diam (in)	8
Piping			
ON / OFF Level (ft)			
Sump Pump	good condition		
Drainage			
Valves in Pumping Station	(2x) 6-in Iowa gate valves @ suction, (1x) 6-in Smith & Loveless check valve,		
Standby Units	(1x) 6-in Thailand check valve, (2x) 6-in Mueller gate valves at discharge		
Wet Well			
Other Comments	6-in piping to pump, neck down to 4-in at discharge then increase to 6-in through check and gate valves, then combined 6x6x8-in (vertical) tee		

Standby Units Condition

Standby Unit Available for Large Pumps	
Standby Unit Available for Sump Pump	
On-Site Standby Generator	
On-Site Fuel Storage for Standby Generator	
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes	coating has failed on panelboard, metal still appears to be in tact.		

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	Yes (dialer system)
Wet Well Level Indicator	Bubbler System, float switch
Elapsed (Running) Time Meters	Yes - 837834 / 834393 (hours)
Explosion-Proof Lights and Receptacles	No
Outdoor Floodlights for Night Work	No
Emergency Lighting Provided for Power Outages	No
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	Yes
Level Transmitters	Bubbler System
Flowmeter	No
Power Out Alarm	No
Gas Detection Alarm	No
Other Comments	

Ventilation

Dry Well Ventilation Fan	Yes
Wet Well Ventilation Fan	No
Makeup Air Openings for Dry Well	Yes
Fan Controls - Timer, Thermostat	No
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	No
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	Padlock on access hatch		
Unprotected Windows			
Intrusion Alarm	Yes		
Adequate Building Security	Yes		
Ladder to Wet Well	No, but there is a ladder to dry well		
Climbing Safety Equipment Available at Station	ladder safety post for dry well		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	No		
Odor Control Chlorine/Air Injection Equipment	No		
Emergency Comunication	Dialer Box		
Chemical storage, Eye Wash and ect	No		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	No
Adequate Clearance Around Equipment	No
Hoist/Crane Present for Removing Equipment	Not readily but accessible
Wet Well Lined with PVC	No
Wel Well Isolated into Separate Compartments	No
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	No
O&M Manual for this Station	Office
Overall Building Condition	Fair
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

Facility Name: COLTON LS #3

Date / Time: 03.06.2019

Reviewer: MS/FM [V&A]

Summary

Overall Condition	
General Comments	- facility is in moderate, but operable condition. it would benefit from removal of abandoned equipment (conduits and any potential associated control panels) and securing of access hatches described below.
Key Issues	- no cleanout below pumps - heavy corrosion at base of ladders inside dry well - no mechanical ventilation - both access hatches are without hydraulic assistance or operable safety chains. - minor corrosion has occurred where coating has failed. needs rehabilitation.
Observations	- abandoned conduit inside dry well - it was not clear if flow meter on effluent piping is still functional
Recommentaions	- replace access hatches with new ones to avoid hazardous working conditions. - repair corrosion damage and coating on piping - repair corrosion damage to ladder.

Pump & Motor Information

~~Pump Information~~ (1) (2) (both)

Remaining Useful Life			
Pump Manufacturer	Mody		
Model No.	MSE215006 ver 1.0 MSE215016 ver 1.0		
Serial No.	19008100 108662015		
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes	INSULATION: TYPE H I.P. No: X8		

~~Motor Information~~

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.	1150 1140		
Horse Power	10		
Phase	3	Frame No.	
Voltage	230	Cycle	60 Hz
Amperage	29 29.4	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping			
Inflow Pipe Diam (in)	10	Force Main Diam (in)	10
Piping	elbows to pump 8x6-in --> 6-in at pump, 8-in at risers (vertical) to 10-in main		
ON / OFF Level (ft)			
Sump Pump	yes, submerged (could not evaluate)		
Drainage	good, sump		
Valves in Pumping Station	(2x) 8-in Mueller Gate Valves, (3x) Pratt Gate Valves, (1x) 10-in butterfly? on force main		
Standby Units			
Wet Well			
Other Comments	touch-up needed, minor corrosion has occurred where coating has failed.		

Standby Units Condition

Standby Unit Available for Large Pumps	No
Standby Unit Available for Sump Pump	No
On-Site Standby Generator	Yes
On-Site Fuel Storage for Standby Generator	Yes, 120-gallon propane tank
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer	Eaton		
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer	Generac		
Voltage Rating	240	kW/kVA Rating	
Date Installed	Built 2004		
Elapsed Run Time	10,796 hrs		
Fuel Storage Capacity	120 gallons		
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	Yes
Panel for Telemetry Alarms	Yes
Wet Well Level Indicator	No
Elapsed (Running) Time Meters	No
Explosion-Proof Lights and Receptacles	No
Outdoor Floodlights for Night Work	No
Emergency Lighting Provided for Power Outages	No
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	Yes
Level Transmitters	Float Switch
Flowmeter	No
Power Out Alarm	No
Gas Detection Alarm	No
Other Comments	

Ventilation

Dry Well Ventilation Fan	No
Wet Well Ventilation Fan	No
Makeup Air Openings for Dry Well	Yes
Fan Controls - Timer, Thermostat	No
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	No
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	padlocks on access hatches		
Unprotected Windows			
Intrusion Alarm	Yes		
Adequate Building Security	Yes		
Ladder to Wet Well	No, but there is a ladder to dry well		
Climbing Safety Equipment Available at Station	No		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	No		
Odor Control Chlorine/Air Injection Equipment	No		
Emergency Comunication	Dialer Box		
Chemical storage, Eye Wash and ect	No		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	Yes, however hatch is in need of replacement.
Adequate Clearance Around Equipment	Yes
Hoist/Crane Present for Removing Equipment	Not readily but equipment is accessible
Wet Well Lined with PVC	No
Wel Well Isolated into Separate Compartments	No
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	No
O&M Manual for this Station	Office
Overall Building Condition	Good
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

Facility Name: FAIRWAY LS #4

Date / Time: 03.06.2019

Reviewer: MS/FM [V&A]

Summary

Overall Condition	
General Comments	Overall good condition Pump 1 (north) is old and soon to be replaced Pump 2 (south) is new and in good condition
Key Issues	-tight space
Observations	
Recommentaions	-pipe supports beneath effluent piping (gate valves) needed. currently jury-rigged with open pipe and wood. - replace bubbler system piping with new level detection system (transducer) - repair security system, intrusion alarm is not working.

Pump & Motor Information

~~Pump Information~~ (1) (2) (both)

Remaining Useful Life			
Pump Manufacturer	Fairbanks Morse		
Model No.	5433B 11CB64220		
Serial No.	K2W1078147-1 MSP3-150-4 VER 1.0		
Design Flow Rate	1420 gpm	Design R.P.M.	1170
Pump Design Head	32-ft	Design Efficiency	
Date Installed			
Notes	IMPELLER DIAMETER 11-5/16		

~~Motor Information~~

Manufacturer	RELIANCE DUTY MASTER AC MOTOR		
Model Type	FRAME 234TZZ-B TYPE B		
Serial No.	P28G5243A-G19-N		
Full Load R.P.M.	1170 1766		
Horse Power	15		
Phase	3	Frame No.	284TCZ
Voltage	230/460 240	Cycle	60 Hz
Amperage	40/20 40A	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	INSULATION CLASS B INSULATION TYPE H

Pump and Equipment Condition

Piping			
Inflow Pipe Diam (in)	10	Force Main Diam (in)	10
Piping	moderate to good condition		
ON / OFF Level (ft)			
Sump Pump	Yes, good condition		
Drainage	good, sump		
Valves in Pumping Station	(2x) 10-in to 8x6-in Mueller gate valve to pumps (suction), (2x) 6x10-in		
Standby Units	Mueller check valves & (2x) 10-in Mueller gate valves on discharge		
Wet Well			
Other Comments	(S) coating in overall good condition (N) coating in moderate condition, minor corrosion where coating has failed.		

Standby Units Condition

Standby Unit Available for Large Pumps	
Standby Unit Available for Sump Pump	
On-Site Standby Generator	
On-Site Fuel Storage for Standby Generator	
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer	CanTex Harsco		
# Circuits Available/Used	2		
Voltage Rating	240/480	Current Rating	
Date Installed			
Notes	Good condition		

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	Enclosure for dialer system
Wet Well Level Indicator	Bubbler System, float switch
Elapsed (Running) Time Meters	No
Explosion-Proof Lights and Receptacles	No
Outdoor Floodlights for Night Work	No
Emergency Lighting Provided for Power Outages	No
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	No
Level Transmitters	Bubbler System
Flowmeter	No
Power Out Alarm	No
Gas Detection Alarm	No
Other Comments	

Ventilation

Dry Well Ventilation Fan	Yes
Wet Well Ventilation Fan	No
Makeup Air Openings for Dry Well	Yes
Fan Controls - Timer, Thermostat	No
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	No
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	padlock on access hatch		
Unprotected Windows	N/A		
Intrusion Alarm	Needs replacement (does not work)		
Adequate Building Security	Yes, besides intrusion alarm not working		
Ladder to Wet Well	No, but there is a ladder to dry well		
Climbing Safety Equipment Available at Station	ladder safety post for dry well		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	No		
Odor Control Chlorine/Air Injection Equipment	No		
Emergency Comunication	Dialer Box		
Chemical storage, Eye Wash and ect	No		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	No
Adequate Clearance Around Equipment	No
Hoist/Crane Present for Removing Equipment	Not readily but accessible
Wet Well Lined with PVC	No
Wel Well Isolated into Separate Compartments	No
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	Yes
O&M Manual for this Station	
Overall Building Condition	Good
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

Facility Name: AIRPORT LS #5

Date / Time: 03.05.2019

Reviewer: MS/FM [V&A]

Summary

Overall Condition	
General Comments	good condition, clean.
Key Issues	- coating failures on pumps (mechanical wear) - heavy corrosion on level sensor piping (wrapped in tape to keep from falling apart) - bubbler system is used for level detection based on pressure (head) under water. it has been known to become clogged periodically, requiring emergency maintenance.
Observations	- minor corrosion on chimney at welds (between chimney and cone). - pumps appear outdated but are still operable. - level indicator is lying on floor, it appears that it will require more flow to make it float high enough to trigger.
Recommentaions	- re-coat effluent piping - replace bubbler system piping with new level detection system (transducer) - new pumps would be more efficient

Pump & Motor Information

~~Pump Information~~ (1) (2) (both)

Remaining Useful Life			
Pump Manufacturer	General Electric		
Model No.	5K6227XH2008A		
Serial No.	KMJ1020278 KMJ1020279		
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

~~Motor Information~~

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.	"FL Speed: 865"		
Horse Power	3		
Phase	3	Frame No.	215TPZ10
Voltage	200	Cycle	60 Hz
Amperage	15/6.3	Power Factor	1.5
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	INSULATION CLASS: B

Pump and Equipment Condition

Piping			
Inflow Pipe Diam (in)	4	Force Main Diam (in)	6
Piping	good condition		
ON / OFF Level (ft)			
Sump Pump	Zoeller Co, good condition		
Drainage	sump, good condition		
Valves in Pumping Station	(2x) Mueller 4-in gate valves; (2x) 4x6-in check valves; (2x) 6-in Mueller gate valves (good condition)		
Standby Units	lead/lag configuration		
Wet Well			
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	
Standby Unit Available for Sump Pump	
On-Site Standby Generator	
On-Site Fuel Storage for Standby Generator	
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used	2/1		
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	Yes (enclosure for dialer system)
Wet Well Level Indicator	Bubbler System, float switch
Elapsed (Running) Time Meters	Yes - 837834 / 834393 (hours)
Explosion-Proof Lights and Receptacles	No
Outdoor Floodlights for Night Work	No
Emergency Lighting Provided for Power Outages	No
Other Comments	- conduit/piping for bubbler system is in terrible condition, taped shut.

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	Yes
Level Transmitters	Bubbler System
Flowmeter	No
Power Out Alarm	No
Gas Detection Alarm	No
Other Comments	

Ventilation

Dry Well Ventilation Fan	Yes
Wet Well Ventilation Fan	No
Makeup Air Openings for Dry Well	Yes
Fan Controls - Timer, Thermostat	No
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	No
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	Padlock on access hatch		
Unprotected Windows			
Intrusion Alarm	Yes		
Adequate Building Security	Yes		
Ladder to Wet Well	No, but there is a ladder to dry well		
Climbing Safety Equipment Available at Station	ladder safety post for dry well		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	No		
Odor Control Chlorine/Air Injection Equipment	No		
Emergency Comunication	Dialer Box		
Chemical storage, Eye Wash and ect	No		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	No
Adequate Clearance Around Equipment	No
Hoist/Crane Present for Removing Equipment	Not readily but accessible
Wet Well Lined with PVC	No
Wel Well Isolated into Separate Compartments	No
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	Yes
O&M Manual for this Station	Office
Overall Building Condition	Fair
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

Facility Name: Valley Truck Farm #6
Date / Time: 9-4-19 7:30AM
Reviewer: CSM

Summary

Overall Condition	Moderate
General Comments	• Difficult to work on • Pumps on surface
Key Issues	• Pumps can lose prime • close sweeps hard to maintain
Observations	• some concrete corrosion • pipe corrosion in wet
Recommendations	

Pump Information

Remaining Useful Life			
Pump Manufacturer	Gorman Rupp		
Model No.	T4A3S-B		
Serial No.	1175615		
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed	~1987		
Notes	• self priming • surface mounted • 2 pumps		

Motor Information

Manufacturer	~~No Data~~ Siemens-Allis		
Model Type			
Serial No.			
Full Load R.P.M.	1720		
Horsepower	5		
Phase	3	Frame No.	
Voltage	230/460	Cycle	
Amperage	14.2/7.1	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency	81.5		

SCE PSC

Date Installed	w/ pump
Notes	

Pump and Equipment Condition

Piping	~~OA~~		
Inflow Pipe Diam (in)	6 in/4in	Force Main Diam (in)	6in
Piping			
ON / OFF Level (ft)			
Sump Pump	No		
Drainage			
Valves in Pumping Station	07		
Standby Units	1+1		
Wet Well			
Other Comments	• OK above grade • poor below grade, corroded		

Standby Units Condition

~~None~~ See Above	
Standby Unit Available for Large Pumps	Yes
Standby Unit Available for Sump Pump	No sump pump
On-Site Standby Generator	No
On-Site Fuel Storage for Standby Generator	No
Other Comments	

Electrical Service

Transformer Size	can't see
Transformer Mfg Date	can't see
Notes	• Pole Mounted • 120 V & 480 V

Motor Control Center Information - switch board - No other dat

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info	- None		
Voltage Rating	480	Current Rating	
Date Installed	~		
Notes	- See pic , stands pumps across not		

Panelboard Information NA

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information None

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	. Yes
Panel for Telemetry Alarms	. Yes
Wet Well Level Indicator	. Yes
Elapsed (Running) Time Meters	. Yes
Explosion-Proof Lights and Receptacles	. ~
Outdoor Floodlights for Night Work	. No
Emergency Lighting Provided for Power Outages	. No
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	No
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	Yes
Level Transmitters	Yes/No
Flowmeter	No
Power Out Alarm	No
Gas Detection Alarm	No
Other Comments	

Ventilation

Dry Well Ventilation Fan	
Wet Well Ventilation Fan	
Makeup Air Openings for Dry Well	
Fan Controls - Timer, Thermostat	
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	
Other Comments	Above grad Fan on enclosur - disconnecto

Building Security & Safety Condition Non

Deadbolts on Doors			
Unprotected Windows			
Intrusion Alarm			
Adequate Building Security			
Ladder to Wet Well			
Climbing Safety Equipment Available at Station			
Motor Shaft Guards			
Personnel Safety Alarm			
Odor Control Chlorine/Air Injection Equipment			
Emergency Communication			
Chemical storage, Eye Wash and ect			
Other Comments			

Building Condition and Maintenace None

Equipment Easily Removed and Out of Reach	
Adequate Clearance Around Equipment	
Hoist/Crane Present for Removing Equipment	
Wet Well Lined with PVC	
Wel Well Isolated into Separate Compartments	
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	
O&M Manual for this Station	
Overall Building Condition	
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	No
Pump or Equipment Failures	~~No~~ lost prime + reggse
System Alarm or Warning history	No
Operating Problems	No
Type of Maintenance Activities	None

Pending Work/Maintenance Orders	No
Other Comments	

Facility Name: Allen #7
Date / Time: 9-4-18 8:00 AM
Reviewer: CSM

Summary

Overall Condition	
General Comments	• poor • No hydraulics on hatches • Metal ends broken
Key Issues	• Confined space
Observations	• tree by wetwell creates a slope
Recommendations	• pumps on rails • replace hatches • add fence • replace discharge pipe

Pump Information - V+A to check

Remaining Useful Life			
Pump Manufacturer			
Model No.			
Serial No.			
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

Motor Information - V+A to check

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.			
Horsepower			
Phase		Frame No.	
Voltage		Cycle	
Amperage		Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping	flex coupling No rails		
Inflow Pipe Diam (in)		Force Main Diam (in)	
Piping	4 in flex		
ON / OFF Level (ft)			
Sump Pump	Yes		
Drainage			
Valves in Pumping Station			
Standby Units	Yes 1+1		
Wet Well			
Other Comments	• wet well in good condition • New pump on rails needed • dangerous for staff • No backup pump		

Standby Units Condition

Standby Unit Available for Large Pumps	1+1
Standby Unit Available for Sump Pump	NO
On-Site Standby Generator	No
On-Site Fuel Storage for Standby Generator	No
Other Comments	

Electrical Service

Transformer Size	can't find
Transformer Mfg Date	
Notes	

Motor Control Center Information Switchboard

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating	208V	Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer	NA		
# Circuits Available/Used			
Voltage Rating	120/208	Current Rating	
Date Installed	NA		
Notes	• Needs an MCC • No starter		

Standby Generator Information None

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	✓
Panel for Telemetry Alarms	✓
Wet Well Level Indicator	✓
Elapsed (Running) Time Meters	✓
Explosion-Proof Lights and Receptacles	✓
Outdoor Floodlights for Night Work	no
Emergency Lighting Provided for Power Outages	no
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	✓

Sump High Water Station Flooded Alarm	no
Pump On/Check Valve Closed Alarm	✓
Low Level Cut-off Switch	✓
Level Transmitters	✓
Flowmeter	no
Power Out Alarm	no
Gas Detection Alarm	no
Other Comments	• poor equipment

Ventilation None

Dry Well Ventilation Fan	
Wet Well Ventilation Fan	
Makeup Air Openings for Dry Well	
Fan Controls - Timer, Thermostat	
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	
Other Comments	

Building Security & Safety Condition None

Deadbolts on Doors			
Unprotected Windows			
Intrusion Alarm			
Adequate Building Security			
Ladder to Wet Well			
Climbing Safety Equipment Available at Station			
Motor Shaft Guards			
Personnel Safety Alarm			
Odor Control Chlorine/Air Injection Equipment			
Emergency Communication			
Chemical storage, Eye Wash and ect			
Other Comments			

Building Condition and Maintenace None

Equipment Easily Removed and Out of Reach	
Adequate Clearance Around Equipment	
Hoist/Crane Present for Removing Equipment	
Wet Well Lined with PVC	
Wel Well Isolated into Separate Compartments	
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	
O&M Manual for this Station	
Overall Building Condition	
Other Comments	add'l ladder + Davit · No latch- · Heavy Hatches · Not good security

O& M Information (last 12 months)

Sanitary Sewer Overflow	No
Pump or Equipment Failures	Yes pump #2
System Alarm or Warning history	No
Operating Problems	no rails ; No vents
Type of Maintenance Activities	2 new pumps

Pending Work/Maintenance Orders	Pumps #2 will be replaced
Other Comments	

LS #8

Facility Name: Pine
Date / Time: 9-4-18 | 11:35
Reviewer: CSM

Summary

Overall Condition	OK
General Comments	• self priming • short cycle time - 30 minutes • corroded pipe in WW • WW has minor corrosion some aggregate exposed
Key Issues	• noisy
Observations	• have water for priming • OK PS
Recommendations	• discuss w/ Francisco.

Pump Information

Remaining Useful Life			
Pump Manufacturer	Gorman Rupp		
Model No.	~~See photos~~		
Serial No.			
Design Flow Rate	See pump manual	Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

Motor Information

Manufacturer	Gorman Rupp		
Model Type			
Serial No.			
Full Load R.P.M.			
Horsepower	15		
Phase	3	Frame No.	
Voltage	460	Cycle	
Amperage	19.9	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping	good		
Inflow Pipe Diam (in)	6 in	Force Main Diam (in)	
Piping	good		
ON / OFF Level (ft)	yes 5.5		
Sump Pump	no, surface drain		
Drainage			
Valves in Pumping Station	yes		
Standby Units	yes		
Wet Well			
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	yes
Standby Unit Available for Sump Pump	NA
On-Site Standby Generator	yes
On-Site Fuel Storage for Standby Generator	yes; propane
Other Comments	

Electrical Service

Transformer Size	NA can't read
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer	NA		
Configuration (Single- or Double-Ended)			
Starter/Drive Info	soft start		
Voltage Rating	460	Current Rating	
Date Installed			
Notes	OH		

Panelboard Information

Manufacturer	~		
# Circuits Available/Used	~		
Voltage Rating	460 ± 10%	Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer	doesn't say		
Voltage Rating	460	kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	Yes
Panel for Telemetry Alarms	Yes
Wet Well Level Indicator	Yes
Elapsed (Running) Time Meters	39,507 / 37,808
Explosion-Proof Lights and Receptacles	Yes
Outdoor Floodlights for Night Work	No
Emergency Lighting Provided for Power Outages	No
Other Comments	~

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	Yes
Level Transmitters	Yes
Flowmeter	No
Power Out Alarm	Yes
Gas Detection Alarm	No
Other Comments	

Ventilation

Dry Well Ventilation Fan	passive no
Wet Well Ventilation Fan	no
Makeup Air Openings for Dry Well	no
Fan Controls - Timer, Thermostat	no
Number of Air Changes/Hour per Code for Dry Well	~
Odor Complaints	~
Other Comments	louvres

Building Security & Safety Condition

Deadbolts on Doors	yes
Unprotected Windows	no
Intrusion Alarm	yes
Adequate Building Security	yes
Ladder to Wet Well	no
Climbing Safety Equipment Available at Station	no
Motor Shaft Guards	~
Personnel Safety Alarm	no
Odor Control Chlorine/Air Injection Equipment	no
Emergency Communication	no
Chemical storage, Eye Wash and ect	no
Other Comments	

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	yes
Adequate Clearance Around Equipment	no
Hoist/Crane Present for Removing Equipment	no
Wet Well Lined with PVC	no
Wel Well Isolated into Separate Compartments	no
Wet Well Sludge Removal Procedure	~
Clean-Outs on Pump Volute and Suction Elbow	no
O&M Manual for this Station	yes
Overall Building Condition	OK
Other Comments	• building is OK • Not new but not failing • fence has some corrosion

O& M Information (last 12 months)

Sanitary Sewer Overflow	no
Pump or Equipment Failures	no
System Alarm or Warning history	no
Operating Problems	ragging
Type of Maintenance Activities	rags + FOG

Pending Work/Maintenance Orders	No
Other Comments	

LS #9

Facility Name: City Hall
Date / Time: 4-4-19 / 11 AM
Reviewer: CSM

Summary

Overall Condition	
General Comments	· in city hall · hatch is poor · Brick MH
Key Issues	· in a building · Vault is no longer used
Observations	
Recommendations	

Pump Information submersible see manual

Remaining Useful Life			
Pump Manufacturer			
Model No.			
Serial No.			
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

Motor Information Submerged see manual

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.			
Horsepower			
Phase	3	Frame No.	
Voltage	460	Cycle	
Amperage		Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping	steel		
Inflow Pipe Diam (in)	6in	Force Main Diam (in)	
Piping	good		
ON / OFF Level (ft)	3.5		
Sump Pump	Yes		
Drainage	Yes		
Valves in Pumping Station	Yes		
Standby Units	1+1		
Wet Well	yes		
Other Comments	oh condition		

Standby Units Condition

Standby Unit Available for Large Pumps	Yes
Standby Unit Available for Sump Pump	NO
On-Site Standby Generator	NO
On-Site Fuel Storage for Standby Generator	NO
Other Comments	

Electrical Service NA

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information panel

Manufacturer	NA		
Configuration (Single- or Double-Ended)	1+1		
Starter/Drive Info	None		
Voltage Rating	460	Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information None

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	Yes
Wet Well Level Indicator	Yes
Elapsed (Running) Time Meters	No
Explosion-Proof Lights and Receptacles	NA
Outdoor Floodlights for Night Work	NA
Emergency Lighting Provided for Power Outages	
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	No
Low Level Cut-off Switch	No
Level Transmitters	Yes
Flowmeter	No
Power Out Alarm	Yes
Gas Detection Alarm	No
Other Comments	in basement of city hall

Ventilation

Dry Well Ventilation Fan	Yes
Wet Well Ventilation Fan	NO
Makeup Air Openings for Dry Well	Yes
Fan Controls - Timer, Thermostat	Yes
Number of Air Changes/Hour per Code for Dry Well	~
Odor Complaints	NO
Other Comments	shares room w/ booster pumps

Building Security & Safety Condition

Deadbolts on Doors	Yes		
Unprotected Windows	NO		
Intrusion Alarm	Yes		
Adequate Building Security	Yes		
Ladder to Wet Well	NO		
Climbing Safety Equipment Available at Station	NO		
Motor Shaft Guards	NA		
Personnel Safety Alarm	NO		
Odor Control Chlorine/Air Injection Equipment	no		
Emergency Communication	NO		
Chemical storage, Eye Wash and ect	NO		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	Yes
Adequate Clearance Around Equipment	Yes
Hoist/Crane Present for Removing Equipment	no
Wet Well Lined with PVC	no
Wel Well Isolated into Separate Compartments	no
Wet Well Sludge Removal Procedure	~
Clean-Outs on Pump Volute and Suction Elbow	no
O&M Manual for this Station	Yes
Overall Building Condition	bad
Other Comments	Brick WW in basement

O& M Information (last 12 months)

Sanitary Sewer Overflow	NO
Pump or Equipment Failures	no
System Alarm or Warning history	NO
Operating Problems	no
Type of Maintenance Activities	FOG

Pending Work/Maintenance Orders	NO
Other Comments	

Facility Name: Meridian #10
Date / Time: 4-4-18 / 9:15
Reviewer: CSM

Summary

Overall Condition	OK
General Comments	• self priming pumps
Key Issues	• small wet well • sliding cover • motor is starting to go bad #2
Observations	• corroded pipings • leaking air vac
Recommendations	• replace wet well/piping • submersible pip • remove rock outside

Pump Information see pic

Remaining Useful Life			
Pump Manufacturer	German Rupp		
Model No.			
Serial No.			
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

Motor Information

Manufacturer	see pic siemens		
Model Type			
Serial No.			
Full Load R.P.M.	1750		
Horsepower	30		
Phase	3	Frame No.	
Voltage	230/460	Cycle	
Amperage	69.0/34.9	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency	91		

Date Installed	~
Notes	

Pump and Equipment Condition

Piping	900		
Inflow Pipe Diam (in)	6 in	Force Main Diam (in)	
Piping	900		
ON / OFF Level (ft)	Yes		
Sump Pump	NO		
Drainage	gravity		
Valves in Pumping Station	Yes ; 9000		
Standby Units	1+1		
Wet Well	Surface mounted		
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	1+1
Standby Unit Available for Sump Pump	NO
On-Site Standby Generator	NO
On-Site Fuel Storage for Standby Generator	NO
Other Comments	gen set connect

Electrical Service

Transformer Size	~ None set ~
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer	~~Pacific~~ Switch board		
Configuration (Single- or Double-Ended)			
Starter/Drive Info	starts across line		
Voltage Rating	460	Current Rating	
Date Installed			
Notes	Needs a consolidate MCC w/ starters		

Panelboard Information

Manufacturer	NA		
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information None

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes	· ~~NA~~ Have cables & connect		

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	Yes
Wet Well Level Indicator	Yes
Elapsed (Running) Time Meters	No
Explosion-Proof Lights and Receptacles	No
Outdoor Floodlights for Night Work	Yes
Emergency Lighting Provided for Power Outages	Yes
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	NO
Pump On/Check Valve Closed Alarm	NO
Low Level Cut-off Switch	YES
Level Transmitters	YES
Flowmeter	NO
Power Out Alarm	YES
Gas Detection Alarm	YES/NO
Other Comments	

Ventilation None

Dry Well Ventilation Fan	
Wet Well Ventilation Fan	
Makeup Air Openings for Dry Well	
Fan Controls - Timer, Thermostat	
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	—		
Unprotected Windows	—		
Intrusion Alarm	Yes		
Adequate Building Security	Yes/No		
Ladder to Wet Well			
Climbing Safety Equipment Available at Station	No		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	No		
Odor Control Chlorine/Air Injection Equipment	No		
Emergency Communication	No		
Chemical storage, Eye Wash and ect	No		
Other Comments	• Rolling fiberglass enclosure • corrosion it wont		

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	Yes
Adequate Clearance Around Equipment	No
Hoist/Crane Present for Removing Equipment	No
Wet Well Lined with PVC	No
Wel Well Isolated into Separate Compartments	No
Wet Well Sludge Removal Procedure	—
Clean-Outs on Pump Volute and Suction Elbow	No
O&M Manual for this Station	Yes?
Overall Building Condition	Yes/No Basic
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

Facility Name: Macy Lift Station #11
Date / Time: 9-4-18
Reviewer: CSM

Summary

Overall Condition	OK
General Comments	• equipment above grade ok
Key Issues	• UPS is undersized • pump nagging - mop heads • check valves rag up weekly
Observations	• Wet well in good condit. • No water for priming • fence for security • intrusion alarms are odd
Recommendations	• new UPS • submersible pumps

Pump Information

Remaining Useful Life	~		
Pump Manufacturer	Gorman Rupp		
Model No.			
Serial No.			
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

Motor Information

Manufacturer	~~TM~~		
Model Type	T4A 34-B		
Serial No.	1475618		
Full Load R.P.M.	1760		
Horsepower	15		
Phase	3	Frame No.	
Voltage	230/460	Cycle	
Amperage	39.2	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	~
Notes	

Pump and Equipment Condition

Piping	4in	OH	
Inflow Pipe Diam (in)	4in	Force Main Diam (in)	
Piping	OK		
ON / OFF Level (ft)	✓		
Sump Pump	No		
Drainage	OK, gravity		
Valves in Pumping Station	Yes, vertical clogging		
Standby Units	(4)		
Wet Well	Yes		
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	Yes (+1)
Standby Unit Available for Sump Pump	No
On-Site Standby Generator	Yes
On-Site Fuel Storage for Standby Generator	Yes, propane
Other Comments	

Electrical Service

Transformer Size	can't access
Transformer Mfg Date	
Notes	• ground mounted • OH

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info	RVSS		
Voltage Rating	480	Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer	NA		
# Circuits Available/Used	can't see		
Voltage Rating	110/120	Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer	can't see		
Voltage Rating	480	kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity	~60 gal		
Connection Receptable for Standby Generator	Y/N		
Transfer Switch Information	ATS		
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	Y/N
Wet Well Level Indicator	Y/N
Elapsed (Running) Time Meters	Y/N
Explosion-Proof Lights and Receptacles	Y/N
Outdoor Floodlights for Night Work	No
Emergency Lighting Provided for Power Outages	No
Other Comments	undersized UPS

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Y/N

Sump High Water Station Flooded Alarm	YES
Pump On/Check Valve Closed Alarm	NO
Low Level Cut-off Switch	YES
Level Transmitters	YES
Flowmeter	NO
Power Out Alarm	YES
Gas Detection Alarm	NO
Other Comments	• UPS undersized

Ventilation

Dry Well Ventilation Fan	No - has louvers
Wet Well Ventilation Fan	No
Makeup Air Openings for Dry Well	No
Fan Controls - Timer, Thermostat	No
Number of Air Changes/Hour per Code for Dry Well	8
Odor Complaints	
Other Comments	passive system

Building Security & Safety Condition

Deadbolts on Doors	No
Unprotected Windows	No
Intrusion Alarm	Yes
Adequate Building Security	Yes
Ladder to Wet Well	No
Climbing Safety Equipment Available at Station	No
Motor Shaft Guards	Yes
Personnel Safety Alarm	No
Odor Control Chlorine/Air Injection Equipment	No
Emergency Communication	No
Chemical storage, Eye Wash and ect	No
Other Comments	

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	Yes
Adequate Clearance Around Equipment	No
Hoist/Crane Present for Removing Equipment	No
Wet Well Lined with PVC	No
Wel Well Isolated into Separate Compartments	Yes
Wet Well Sludge Removal Procedure	/
Clean-Outs on Pump Volute and Suction Elbow	No
O&M Manual for this Station	Yes
Overall Building Condition	Poor
Other Comments	· CMU block · wood roof

O& M Information (last 12 months)

Sanitary Sewer Overflow	No
Pump or Equipment Failures	rags; replaced impeller on #2
System Alarm or Warning history	No
Operating Problems	rogging
Type of Maintenance Activities	rogging

Pending Work/Maintenance Orders	No
Other Comments	

Facility Name: Riverwalk #12
Date / Time: 9-4-18 / 10 AM
Reviewer: CSM

Summary

Overall Condition	
General Comments	• Recent • good condition • new facily
Key Issues	None
Observations	• really good condition
Recommendations	• Make this district standard • put fence around wet well

Pump Information

Remaining Useful Life	Submersible can't access see record drawing		
Pump Manufacturer			
Model No.			
Serial No.			
Design Flow Rate		Design R.P.M.	
Pump Design Head		Design Efficiency	
Date Installed			
Notes			

Motor Information

Manufacturer			
Model Type			
Serial No.			
Full Load R.P.M.			
Horsepower			
Phase		Frame No.	
Voltage		Cycle	
Amperage		Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping	6in good		
Inflow Pipe Diam (in)	6in	Force Main Diam (in)	
Piping			
ON / OFF Level (ft)	yes		
Sump Pump	~~yes~~ NO		
Drainage	yes passive		
Valves in Pumping Station	vault		
Standby Units	1+1		
Wet Well	yes		
Other Comments	good condition		

Standby Units Condition

Standby Unit Available for Large Pumps	yes 1+1
Standby Unit Available for Sump Pump	no submersible
On-Site Standby Generator	yes
On-Site Fuel Storage for Standby Generator	yes
Other Comments	n/a

Electrical Service

Transformer Size	~
Transformer Mfg Date	~
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating	120/240V	Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer	Onan		
Voltage Rating	240	kW/kVA Rating	
Date Installed			
Elapsed Run Time	171 hours		
Fuel Storage Capacity	~ 60 gal propane		
Connection Receptable for Standby Generator			
Transfer Switch Information	ATS Onan		
Notes	good		

Electrical - Other

Pump On/Off/ Fail Indicator Lights	Yes
Panel for Telemetry Alarms	Yes
Wet Well Level Indicator	Yes
Elapsed (Running) Time Meters	Yes
Explosion-Proof Lights and Receptacles	Yes
Outdoor Floodlights for Night Work	NO
Emergency Lighting Provided for Power Outages	Yes
Other Comments	good

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Y / N
Pump On/Check Valve Closed Alarm	Y / N
Low Level Cut-off Switch	Y / N
Level Transmitters	Y / N
Flowmeter	NO
Power Out Alarm	Y / N
Gas Detection Alarm	NO
Other Comments	GOOD

Ventilation

Dry Well Ventilation Fan	passive
Wet Well Ventilation Fan	no
Makeup Air Openings for Dry Well	no
Fan Controls - Timer, Thermostat	no
Number of Air Changes/Hour per Code for Dry Well	~
Odor Complaints	no
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	yes		
Unprotected Windows	no		
Intrusion Alarm	yes		
Adequate Building Security	yes		
Ladder to Wet Well	yes		
Climbing Safety Equipment Available at Station	no		
Motor Shaft Guards	NA		
Personnel Safety Alarm	no		
Odor Control Chlorine/Air Injection Equipment	no		
Emergency Communication	no		
Chemical storage, Eye Wash and ect	no		
Other Comments	good!		

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	yes
Adequate Clearance Around Equipment	yes
Hoist/Crane Present for Removing Equipment	no
Wet Well Lined with PVC	
Wel Well Isolated into Separate Compartments	NO
Wet Well Sludge Removal Procedure	~
Clean-Outs on Pump Volute and Suction Elbow	
O&M Manual for this Station	yes
Overall Building Condition	good
Other Comments	really good

O& M Information (last 12 months)

Sanitary Sewer Overflow	No
Pump or Equipment Failures	No
System Alarm or Warning history	No
Operating Problems	No
Type of Maintenance Activities	FOG

Pending Work/Maintenance Orders	No
Other Comments	Good Condition!

Facility Name: Arrowhead LS #A
Date / Time: 9-4-18 / 1.45 PM
Reviewer: CSM

Summary

Overall Condition	
General Comments	• Engine driven pumps will be decommissioned
Key Issues	
Observations	• some seepage off old pumps
Recommendations	

Pump Information

Remaining Useful Life			
Pump Manufacturer	Worthing ton		
Model No.			
Serial No.	~~3000~~ 412000132-4		
Design Flow Rate	14,4~~00~~	Design R.P.M.	720
Pump Design Head	very low	Design Efficiency	
Date Installed			
Notes			

Motor Information Engine driven / electric

Manufacturer	US Motors		
Model Type	JVE7		
Serial No.			
Full Load R.P.M.	594		
Horsepower	200	250 ENG 200 DC	
Phase	3Ø	Frame No.	
Voltage	460	Cycle	
Amperage	27	Power Factor	
Shaft Type	extended	Enclosure Type	
Nameplate Efficiency			

Date Installed	~
Notes	

Pump and Equipment Condition

Piping	DI,		
Inflow Pipe Diam (in)	36	Force Main Diam (in)	
Piping	DI		
ON / OFF Level (ft)	No		
Sump Pump	Yes		
Drainage	Yes		
Valves in Pumping Station	Yes		
Standby Units	Yes (4+)		
Wet Well	no		
Other Comments	wet pit / dry pit		

Standby Units Condition

Standby Unit Available for Large Pumps	Yes (4+)
Standby Unit Available for Sump Pump	
On-Site Standby Generator	Yes, plant
On-Site Fuel Storage for Standby Generator	Yes
Other Comments	

Electrical Service

Transformer Size	~
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer	Eaton		
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating	460	Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	Yes
Panel for Telemetry Alarms	Yes
Wet Well Level Indicator	NA
Elapsed (Running) Time Meters	No
Explosion-Proof Lights and Receptacles	Yes
Outdoor Floodlights for Night Work	Yes
Emergency Lighting Provided for Power Outages	Yes
Other Comments	@ plant

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	YES
Pump On/Check Valve Closed Alarm	NO
Low Level Cut-off Switch	YES
Level Transmitters	YES
Flowmeter	YES
Power Out Alarm	YES
Gas Detection Alarm	NO
Other Comments	GOOD

Ventilation

Dry Well Ventilation Fan	Yes
Wet Well Ventilation Fan	NA
Makeup Air Openings for Dry Well	Yes
Fan Controls - Timer, Thermostat	Yes
Number of Air Changes/Hour per Code for Dry Well	~
Odor Complaints	no
Other Comments	good!

Building Security & Safety Condition

Deadbolts on Doors	Yes		
Unprotected Windows	No		
Intrusion Alarm	Yes		
Adequate Building Security	Yes		
Ladder to Wet Well	NA		
Climbing Safety Equipment Available at Station	NA		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	no		
Odor Control Chlorine/Air Injection Equipment	no		
Emergency Communication	no		
Chemical storage, Eye Wash and ect	yes		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	Yes
Adequate Clearance Around Equipment	Yes
Hoist/Crane Present for Removing Equipment	Yes
Wet Well Lined with PVC	NA
Wet Well Isolated into Separate Compartments	NA
Wet Well Sludge Removal Procedure	NA
Clean-Outs on Pump Volute and Suction Elbow	no
O&M Manual for this Station	Yes
Overall Building Condition	good
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	no
Pump or Equipment Failures	no
System Alarm or Warning history	no
Operating Problems	no
Type of Maintenance Activities	oil change etc

Pending Work/Maintenance Orders	engine driven pumps will be replace (DG only; units 1 & 3)
Other Comments	

Facility Name: ARROWHEAD LS

Date / Time: 03.05.2019

Reviewer: Michael Sherman/Farshad Malek [V&A]

Summary

Overall Condition	
General Comments	Wet Well: moderate condition. Abandoned equipment is still in place, existing equipment is operable but near time for rehabilitation. Five pump intake gates: #1, 2, 4, & 5 are operated from ground elevation, #3 is operated from wet well due to building layout & constructability. Pump Room: Overall good condition. Five pumps; (2) Natural Gas, (2) Digester Gas, (1) Electric. Basement & Intermediate Level: Significant corrosion throughout piping, staining on walls as a result.
Key Issues	Wet well: access hatches leading to wet well are not secure. hinges and bolts are broken and/or heavily corroded. Basement & Intermediate Level: significant corrosion throughout piping.
Observations	-corrosion on 24-in pumps #1-#3 on discharge piping at intermediate level. Pumps 4 & 5 discharge piping is in good condition with newer coating. -ceiling/paint in pump room basement has a crack formed on ceiling from drip line possibly due to moisture/condensation. indication of poor ventilation.
Recommentaions	- repair coating on piping in pump room basement & intermediate level. - replace or repair hatches in wet well so that they are secure. - replace cracked/damaged drain covers

Pump Information (PUMPS #1-3) Engines 1-4 (Pump #5 uses an electric motor)

Remaining Useful Life			
Pump Manufacturer	Worthington Corporation	Johnson Gear & Manufacturing Co Ltd.	
Model No.	PUMPS 1-3: 20MNZ-1; PUMPS 4 & 5 plate missing (likely same).		
Serial No.	P1: 41Z000132-3; 41Z000132-2; 41Z000132-4 P1: 45419; P2: 45418; P3: 45420; P4: 45421		
Design Flow Rate	14400 gpm	Design R.P.M.	450
Pump Design Head	39-ft	Design Efficiency	
Date Installed			
Notes	HP: 210		

Motor Information (#1-4) (#5)

Manufacturer	Caterpillar	Nidec Motor Corporation (US Motors)	
Model Type	G3472	Upper End Bearing: 130BC02JP3 ; Lower End Bearing: 130BC02J3	
Serial No.	M1: 71B1796; M2: 71B799; M3: 71B1797; M4: 7104086	P5: X 04 20150741-0001 R 0001	
Full Load R.P.M.	1200	594	
Horse Power	225	200	
Phase	3	Frame No.	5809VP, TYPE JVEI
Voltage	460	Cycle	60
Amperage	271	Power Factor	72.6
Shaft Type		Enclosure Type	TEFC
Nameplate Efficiency	95.0		

Date Installed	
Notes	SERVICE FACTOR (SF): 1.15

Pump and Equipment Condition

Piping			
Inflow Pipe Diam (in)	20-in influent	Force Main Diam (in)	24-in effluent
Piping	coating failures throughout with minor corrosion where coating has failed.		
ON / OFF Level (ft)			
Sump Pump	yes, good condition		
Drainage	yes, lids are corroded. drain cover is missing at Pump 1, drain cover broken at Pump 4		
Valves in Pumping Station	coating failures throughout with minor corrosion where coating has failed.		
Standby Units			
Wet Well			
Other Comments	coating failures and corrosion primarily occur at bolts and washers around pump shaft and valves (pump room basement).		

Standby Units Condition

Standby Unit Available for Large Pumps	
Standby Unit Available for Sump Pump	
On-Site Standby Generator	
On-Site Fuel Storage for Standby Generator	
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)	Single		
Starter/Drive Info	Direct (no indication of VFDs except for pump #5)		
Voltage Rating	480 3ph/3W	Current Rating	
Date Installed			
Notes	Overall good condition; clean; some missing screws at base near equipment pad.		

Panelboard Information

Manufacturer	Altronic Controls (Pumps 1-4)		
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes	Good condition		

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other (In Pump Room)

	Air Compressor 1 (North)	Air Compressor 2 (South)
Pump On/Off/ Fail Indicator Lights		
Panel for Telemetry Alarms		
Wet Well Level Indicator	Yes	
Elapsed (Running) Time Meters		
Explosion-Proof Lights and Receptacles		
Outdoor Floodlights for Night Work		
Emergency Lighting Provided for Power Outages		
Other Comments	Manufacturer: Champion Unit Model: BRA-15 Serial No: R40-A09541 Max RPM: 770 Unit Pressure Factory Set at 140-175 PSIG Model: TJD1; Spec No: 320846 Serial No: 95090544	Motor (for air compressor) Manufacturer: Dayton Unit Model: 3KW46G Serial No: AS6071037196 HP: 15, 11kW Volts: 208-230/460; Amps: 38.8-35.1/17.5 60Hz, 3-phase, SF: 1.15, Enclosure: ODP RPM: 1760, Efficiency: 91.6

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	Yes

Sump High Water Station Flooded Alarm	Yes
Pump On/Check Valve Closed Alarm	Yes
Low Level Cut-off Switch	Yes
Level Transmitters	Yes
Flowmeter	Yes
Power Out Alarm	Yes
Gas Detection Alarm	Yes
Other Comments	-float switch beneath the Gate 3 (wet well) is operable but electrical housing is not secure, should be repaired. -H2S gas meter near foul air blower discharge end of wet well room -Killark pressure gauge @ foul air blower discharge

Ventilation

Dry Well Ventilation Fan	Yes, good condition
Wet Well Ventilation Fan	Yes, good condition
Makeup Air Openings for Dry Well	
Fan Controls - Timer, Thermostat	Yes, good condition
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	No
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors	No		
Unprotected Windows	N/A, in secured plant		
Intrusion Alarm	N/A, in secured plant		
Adequate Building Security	Yes		
Ladder to Wet Well	stairs		
Climbing Safety Equipment Available at Station	N/A		
Motor Shaft Guards	Yes		
Personnel Safety Alarm	Yes		
Odor Control Chlorine/Air Injection Equipment	Yes		
Emergency Comunication	nothing beyond typical plant	protocol	
Chemical storage, Eye Wash and ect	No		
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	medium difficulty, pumps must be moved (rolled on trolley) before it may be crane-lifted.
Adequate Clearance Around Equipment	Yes
Hoist/Crane Present for Removing Equipment	not readily but is accessible
Wet Well Lined with PVC	t-lock
Wel Well Isolated into Separate Compartments	Yes
Wet Well Sludge Removal Procedure	No
Clean-Outs on Pump Volute and Suction Elbow	Yes
O&M Manual for this Station	Office
Overall Building Condition	Good with exception of wall/ceiling tiles peeling
Other Comments	Wall and ceiling tiles are peeling off and have been reported to be falling off.

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

FOUL AIR BLOWER (WET WELL)
MANUFACTURER: HARTZELL FAN, INC.
MODEL: 40-22-C13
SERIAL NO: 9360467-03
CFM: 2,000
MOTOR: 1,800 RPM
VOLTS: 40/6/3
SP (IN WC): 175
FAN RPM: 1207
FR: 1451
AMPS: 2.1
CUSTOMER P.O.: 2P4607

FOUL AIR BLOWER
SUCTION: 12-IN
DISCHARGE: 16-IN

MUFFIN MONSTER (WET WELL)
MANUFACTURER: BALDOR RELIANCE
MODEL: BM361ST
SERIAL NO: 36A0035543H1
RPM: 1,745
HP: 5
PHASE: 3
VOLTAGE: 208/230/460
AMPERAGE: 14.2-13.6/6.8
NAMEPLATE EFFICIENCY: 87.5
ENCLOSURE TYPE: TEFC

Facility Name: E Street LS #B
Date / Time: 9-4-18 / 1:45 PM
Reviewer: CSM

Summary

Overall Condition	
General Comments	• exterior in good condition • upper level looks good
Key Issues	• None
Observations	• good condition • put some paint on pumps
Recommendations	

Pump Information

Remaining Useful Life	~		
Pump Manufacturer	Dresser / Worthington		
Model No.			
Serial No.	~		
Design Flow Rate	4700	Design R.P.M.	
Pump Design Head	100	Design Efficiency	
Date Installed	~		
Notes	could use a new coat of paint		

Motor Information

Manufacturer	US motors		
Model Type	titan		
Serial No.	649763		
Full Load R.P.M.	1191		
Horsepower	200		
Phase	3	Frame No.	
Voltage	480V	Cycle	
Amperage	235	Power Factor	
Shaft Type		Enclosure Type	
Nameplate Efficiency			

Date Installed	
Notes	

Pump and Equipment Condition

Piping	DI		
Inflow Pipe Diam (in)	24"	Force Main Diam (in)	
Piping	DI		
ON / OFF Level (ft)	NA		
Sump Pump	Yes		
Drainage	Yes		
Valves in Pumping Station	Yes		
Standby Units	Yes 2+1		
Wet Well	no		
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	Yes 2+1
Standby Unit Available for Sump Pump	no
On-Site Standby Generator	Yes
On-Site Fuel Storage for Standby Generator	Yes
Other Comments	Good condition +1

Electrical Service

Transformer Size	~
Transformer Mfg Date	~
Notes	

Motor Control Center Information

Manufacturer	Westinghouse		
Configuration (Single- or Double-Ended)	~		
Starter/Drive Info	VFDs		
Voltage Rating	480	Current Rating	800A
Date Installed	~		
Notes	looks good		

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer	Cat		
Voltage Rating	480V	kW/kVA Rating	
Date Installed			
Elapsed Run Time	~		
Fuel Storage Capacity	~		
Connection Receptable for Standby Generator	hard wired		
Transfer Switch Information	ATS		
Notes	good!		

Electrical - Other

Pump On/Off/ Fail Indicator Lights	yes
Panel for Telemetry Alarms	yes
Wet Well Level Indicator	yes
Elapsed (Running) Time Meters	~~yes~~ no
Explosion-Proof Lights and Receptacles	yes
Outdoor Floodlights for Night Work	yes
Emergency Lighting Provided for Power Outages	yes
Other Comments	good

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	yes

Sump High Water Station Flooded Alarm	Y N
Pump On/Check Valve Closed Alarm	Y N
Low Level Cut-off Switch	Y N
Level Transmitters	Y N
Flowmeter	Y N
Power Out Alarm	Y N
Gas Detection Alarm	Y N
Other Comments	5000

Ventilation

Dry Well Ventilation Fan	yes
Wet Well Ventilation Fan	no
Makeup Air Openings for Dry Well	yes
Fan Controls - Timer, Thermostat	yes
Number of Air Changes/Hour per Code for Dry Well	~
Odor Complaints	no
Other Comments	good

Building Security & Safety Condition

Deadbolts on Doors	yes
Unprotected Windows	no
Intrusion Alarm	yes
Adequate Building Security	yes
Ladder to Wet Well	NA
Climbing Safety Equipment Available at Station	yes
Motor Shaft Guards	yes
Personnel Safety Alarm	no
Odor Control Chlorine/Air Injection Equipment	no
Emergency Communication	no
Chemical storage, Eye Wash and ect	yes
Other Comments	good

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	yes
Adequate Clearance Around Equipment	yes
Hoist/Crane Present for Removing Equipment	yes
Wet Well Lined with PVC	NA
Wel Well Isolated into Separate Compartments	NA
Wet Well Sludge Removal Procedure	NA
Clean-Outs on Pump Volute and Suction Elbow	no
O&M Manual for this Station	yes
Overall Building Condition	good
Other Comments	good!

O& M Information (last 12 months)

Sanitary Sewer Overflow	yes BUT! season failure
Pump or Equipment Failures	blocked season
System Alarm or Warning history	Ragging
Operating Problems	ragging
Type of Maintenance Activities	ragging

Pending Work/Maintenance Orders	Seal water pump near rinse pump PS 103
Other Comments	

LS #C

Facility Name: EAST INTERCEPTOR

Date / Time: 03.05.2019

Reviewer: MS/FM [V&A]

Summary (1) (2) (3) (all)

Overall Condition	
General Comments	-foul air inlet screen clogged, however it was cleaned during the assessment -foul air inlet screen clogged, not cleaned during the assessment -foul air inlet screen clogged, not cleaned during the assessment
Key Issues	-fiberglass liner peeling off, bulging, disbonded throughout. -corrosion throughout -mud valve is clogged; stem supports have corroded and failed -coating failure and heavy corrosion on slide gate -moderate to heavy corrosion on bolts and mounting hardware -moderate to heavy corrosion on bolts and mounting hardware -moderate to heavy corrosion on bolts and mounting hardware
Observations	-screws: moderate to heavy corrosion throughout including at mounting brackets and bolts. -structure as a whole is in better condition than #1, fiberglass liner is not delaminating. -screw has moderate to heavy corrosion throughout, liner is failing. -screw 3 is in better condition thatn #1-2 with regards to corrosion, however liner has still failed.
Recommentaions	-paint striping at stairs on upper level near drive units (trip-hazard). -remove grit more frequently, too much build-up. -replace supports (for Archimedes screws as well as mud valves). -repair fiberglass liner on and around Screw #1, it is falling apart. -repair guard/shield at top of Screw #3, could not be removed during the assessment because the hardware was broken.

Drive
~~Pump~~ **Information**

Remaining Useful Life			
Pump Manufacturer	Flender Corporation		
Model No.	H30H08		
Serial No.	D24-210-639-1-3 (Drive No. 1) D24-210-639-1-2 (Drive No. 2) D24-210-639-1-1 (Drive No. 3)		
Design Flow Rate		Design R.P.M.	1633
Pump Design Head		Design Efficiency	
Date Installed			
Notes	-coating failures throughout -mild corrosion where coating has failed -motor base traps water due to angle of decline with no weep holes for accumulated water, method of drainage desired to prevent further corrosion -Ratio: 45:1 -Service HP: 60 -Catalog HP: 109		

Motor Information

Manufacturer	Toshiba; Emerson; Emerson		
Model Type	TKKH; TE; TE		
Serial No.	95608468; W10W2530276-6T; W10W2530276-ST		
Full Load R.P.M.	1775; 1780; 1780		
Horse Power	60		
Phase	3	Frame No.	364T
Voltage	230/460	Cycle	60 Hz
Amperage	140/70; 142/71; 140/70	Power Factor	84; 86.5; 86.5
Shaft Type		Enclosure Type	TEFC
Nameplate Efficiency	95; 94.5; 94.5		

Date Installed	
Notes	

Pump and Equipment Condition

Piping			
Inflow Pipe Diam (in)		Force Main Diam (in)	
Piping			
ON / OFF Level (ft)			
Sump Pump			
Drainage			
Valves in Pumping Station			
Standby Units			
Wet Well			
Other Comments			

Standby Units Condition

Standby Unit Available for Large Pumps	
Standby Unit Available for Sump Pump	
On-Site Standby Generator	
On-Site Fuel Storage for Standby Generator	
Other Comments	

Electrical Service

Transformer Size	
Transformer Mfg Date	
Notes	

Motor Control Center Information

Manufacturer			
Configuration (Single- or Double-Ended)			
Starter/Drive Info			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Panelboard Information

Manufacturer			
# Circuits Available/Used			
Voltage Rating		Current Rating	
Date Installed			
Notes			

Standby Generator Information

Manufacturer			
Voltage Rating		kW/kVA Rating	
Date Installed			
Elapsed Run Time			
Fuel Storage Capacity			
Connection Receptable for Standby Generator			
Transfer Switch Information			
Notes			

Electrical - Other

Pump On/Off/ Fail Indicator Lights	No
Panel for Telemetry Alarms	No
Wet Well Level Indicator	No
Elapsed (Running) Time Meters	No
Explosion-Proof Lights and Receptacles	No
Outdoor Floodlights for Night Work	
Emergency Lighting Provided for Power Outages	
Other Comments	

Telemetry Data and Alarms Condition

Wet Well High/Low Level Alarm	No

Sump High Water Station Flooded Alarm	
Pump On/Check Valve Closed Alarm	
Low Level Cut-off Switch	
Level Transmitters	
Flowmeter	
Power Out Alarm	
Gas Detection Alarm	
Other Comments	

Ventilation

Dry Well Ventilation Fan	
Wet Well Ventilation Fan	
Makeup Air Openings for Dry Well	
Fan Controls - Timer, Thermostat	
Number of Air Changes/Hour per Code for Dry Well	
Odor Complaints	
Other Comments	

Building Security & Safety Condition

Deadbolts on Doors			
Unprotected Windows			
Intrusion Alarm			
Adequate Building Security			
Ladder to Wet Well			
Climbing Safety Equipment Available at Station			
Motor Shaft Guards	Yes		
Personnel Safety Alarm			
Odor Control Chlorine/Air Injection Equipment			
Emergency Comunication			
Chemical storage, Eye Wash and ect			
Other Comments			

Building Condition and Maintenace

Equipment Easily Removed and Out of Reach	
Adequate Clearance Around Equipment	
Hoist/Crane Present for Removing Equipment	
Wet Well Lined with PVC	
Wel Well Isolated into Separate Compartments	
Wet Well Sludge Removal Procedure	
Clean-Outs on Pump Volute and Suction Elbow	
O&M Manual for this Station	Office
Overall Building Condition	
Other Comments	

O& M Information (last 12 months)

Sanitary Sewer Overflow	
Pump or Equipment Failures	
System Alarm or Warning history	
Operating Problems	
Type of Maintenance Activities	

Pending Work/Maintenance Orders	
Other Comments	

Appendix B LIFT STATION PHOTOGRAPHS

01 - Carousel LS



01-01G Location



01-02G Dry Pit Exterior

01-03M Pump1 & Motor



01-04M Pump2 & Motor





01-05M Pump Motor Nameplate



01-06M Pump Nameplate



01-07M Bubbler Compressor



01-08M Sump Pump

01-09M Check Valve w/ Bolts



01-10M Gate Valve

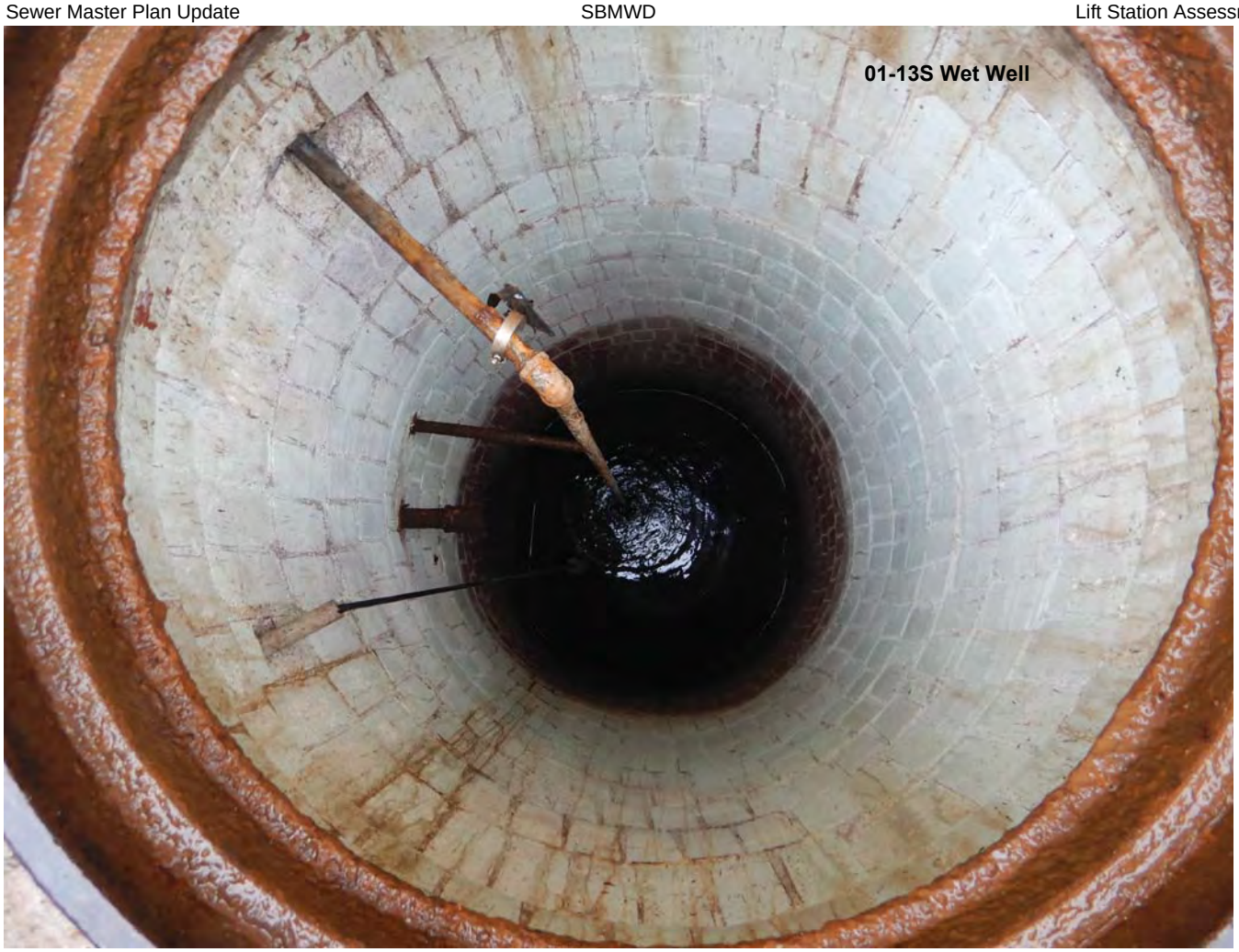




01-11M New Check Valve



01-12S Dry Pit Hatch



01-13S Wet Well



01-14E Service Panel w Generator Hookup



01-15E Generator Hookup



01-16E Main Switch



01-17E Control Panel & Bubbler Panel



01-18E Control Panel Detail

01-19E Low Voltage Breakers



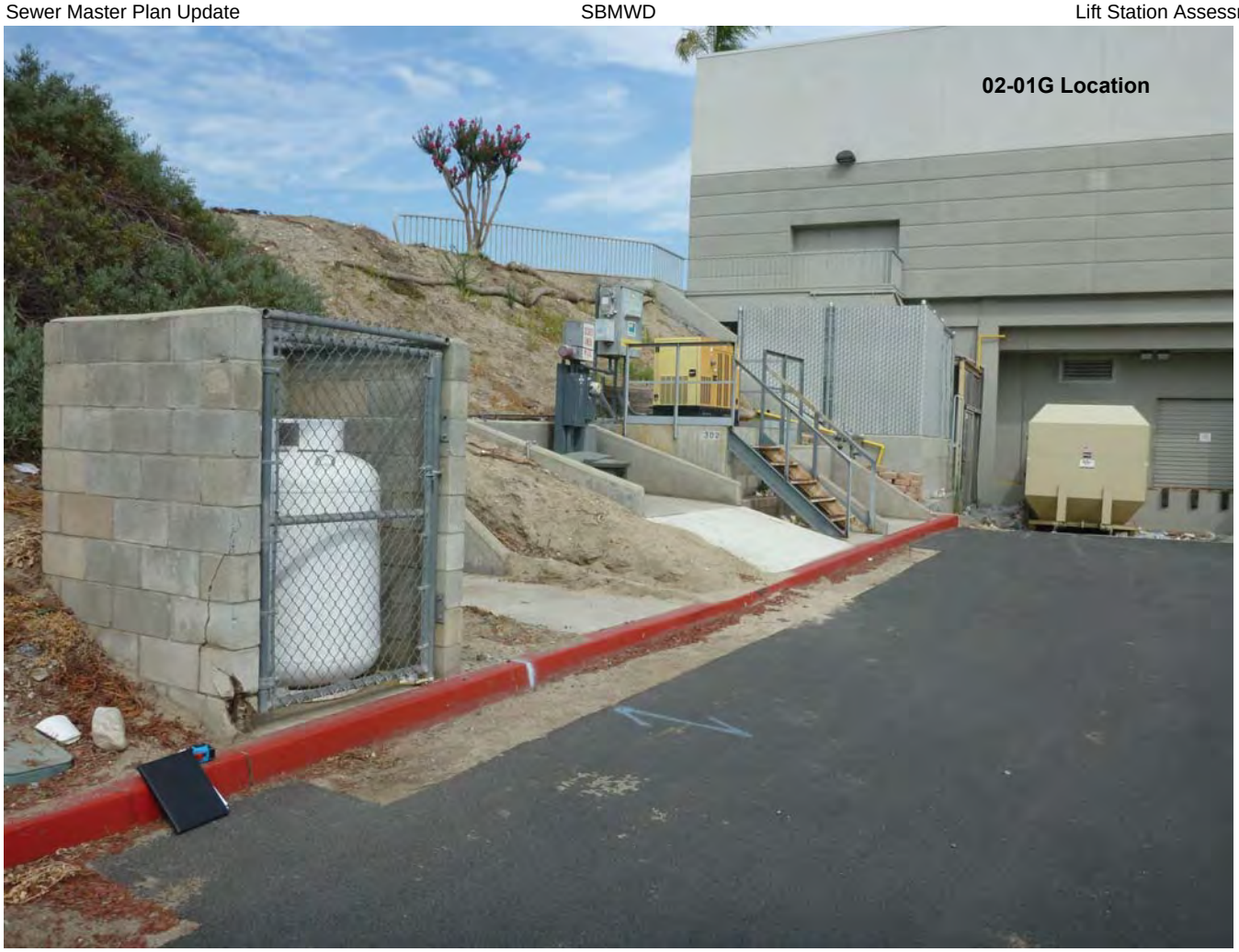
01-20E Flood Switch





01-21C Dialog Scout Panel

02 - May Co LS


02-01G Location


02-10M Pump2



02-11M Pump & Motor Nameplate



02-12M Gate Valve



02-13M Check & Gate Valves



02-14M Check Valve Coating



02-15M Bubbler Compressor



02-16M Sump Pump



02-20S Dry Pit Hatch



02-21S Wet Well Lid



02-22S Dry Pit Ladder



02-23S Dry Pit Bottom Steel Corrosion



02-24S Wet Well Inside



02-30E SCE Meter



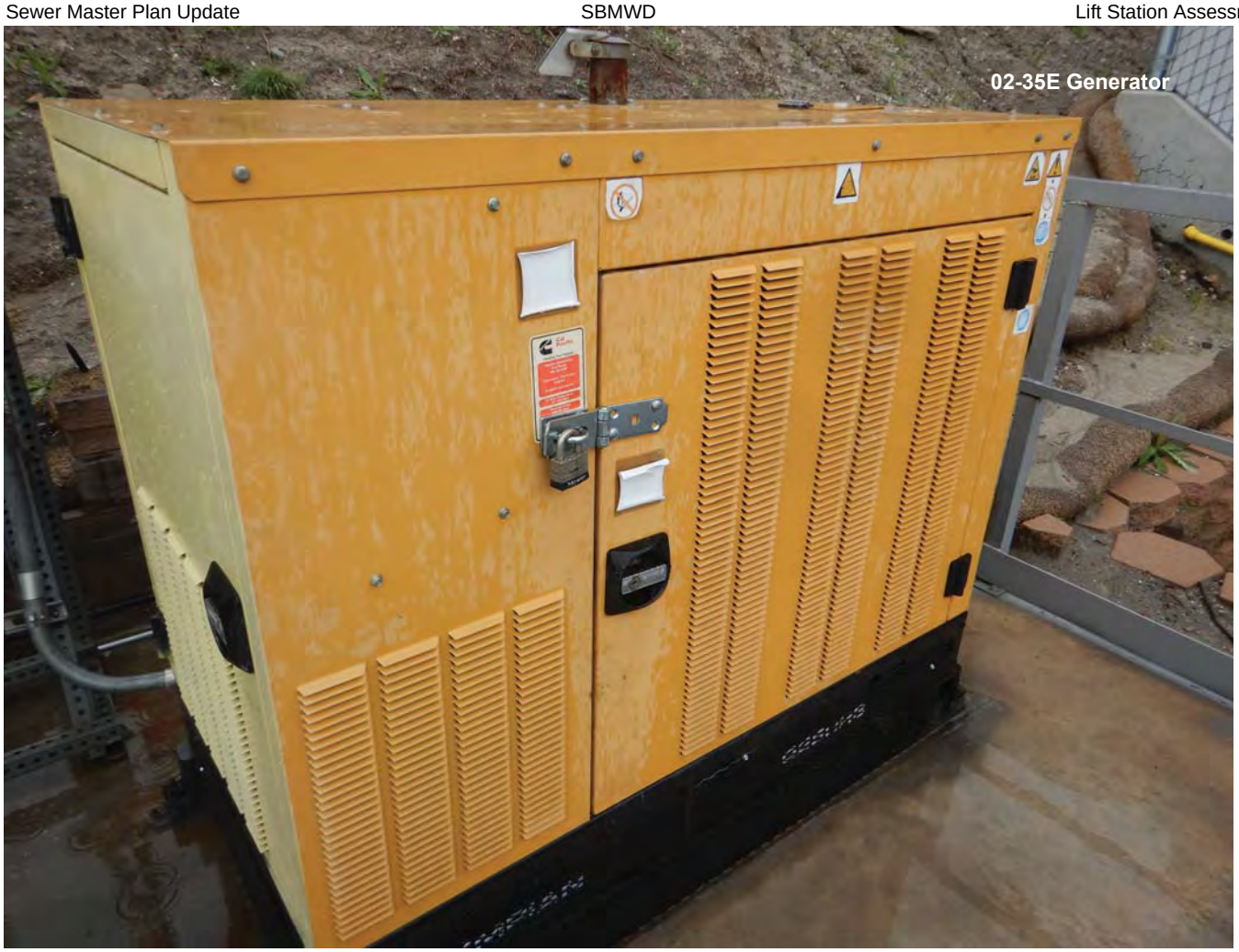
02-31E Main Disconnect



02-32E Main Service Panel


02-33E Control Panel
S&L


02-34E Flood Switch



02-35E Generator



02-36E Generator Panel



02-37E Generator Panel



02-38E Propane Tank



02-39E Trailer Gen Hookup



02-40C Dialog Scout Panel

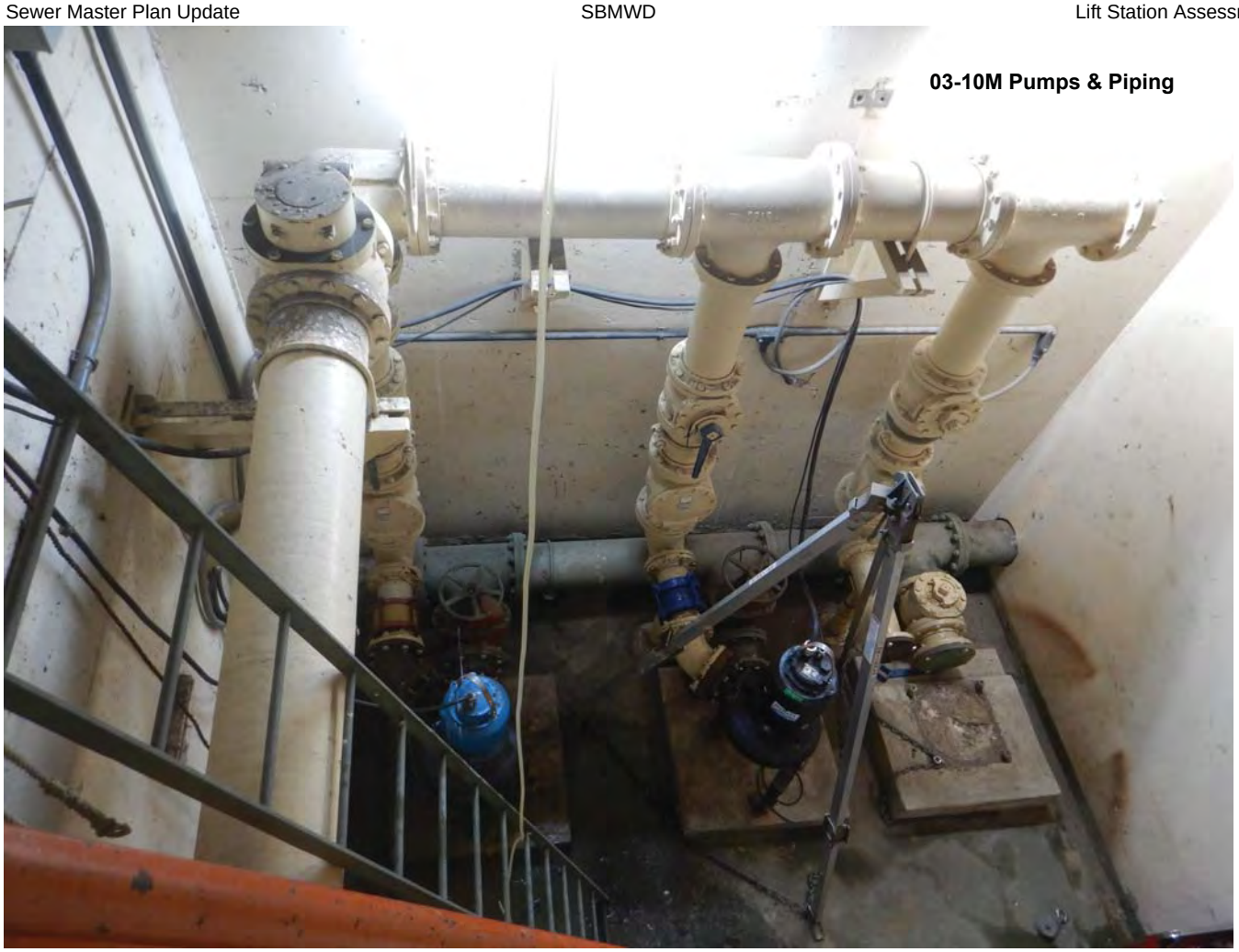
03 - Colton LS

03-01G Location



03-02G Lift Station

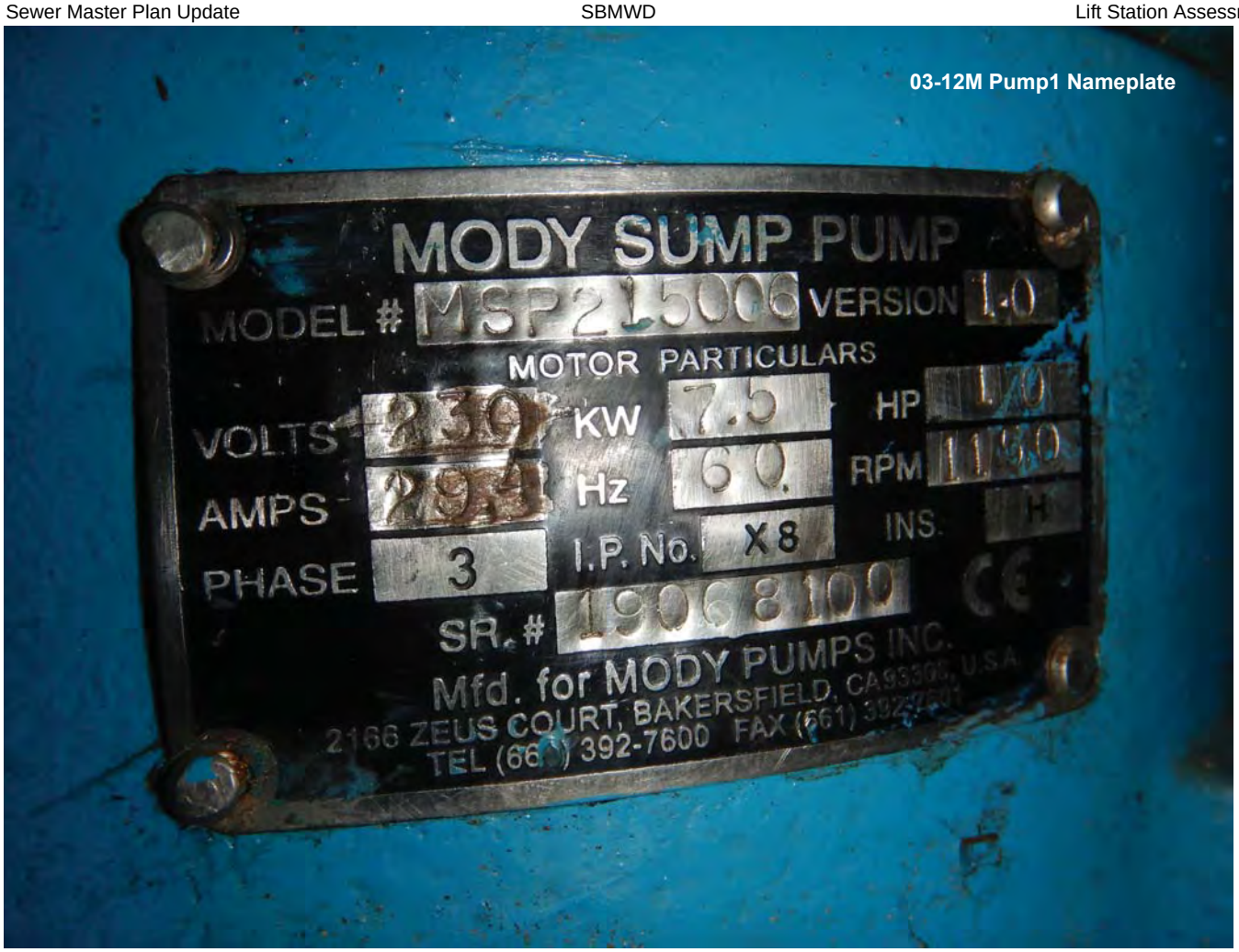




03-10M Pumps & Piping



03-11M Pump1



03-12M Pump1 Nameplate



03-13 Pump2



03-14M Pump2 Nameplate



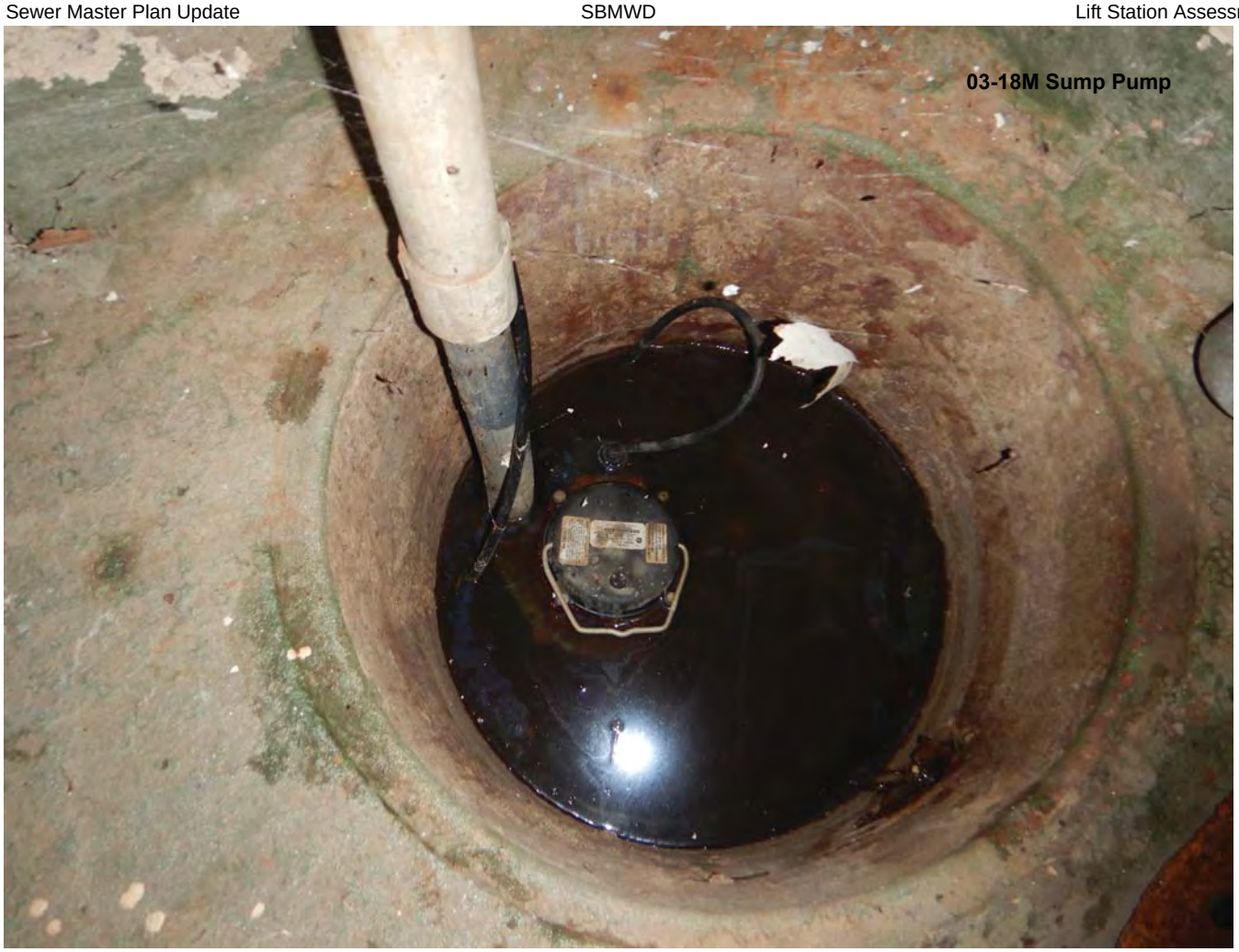
03-15M Pump3 Space



03-16M Pipe Corrosion



03-17M Plug & Check Valves



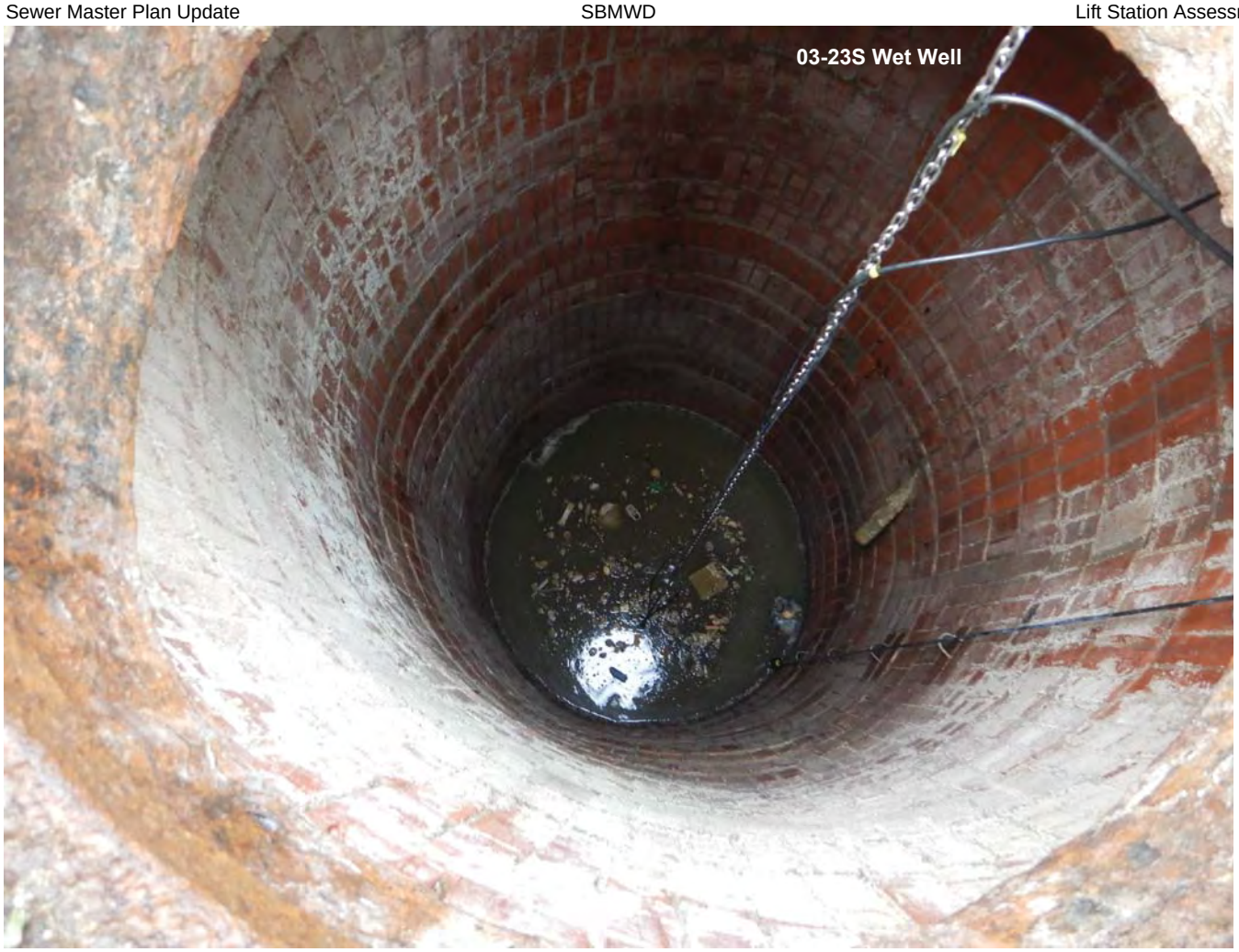
03-18M Sump Pump



03-20S Dry Pit Equipment Hatch


03-21S Dry Pit Access Hatch


03-22S Wet Well Lid



03-23S Wet Well



03-24S Ladder Corrosion



03-30E Service Panel



03-31E SCE Meter

03-32E Main Service Box Inside



03-33E Motor Starter Panels





03-34E Control Panel



03-35E Main Circuit Box & Intrusion Alarm



03-36E Generator



03-37E Generator Panel


03-38E Propane Tank


03-39E Magmeter

04 - Fairway LS


04-01G Location

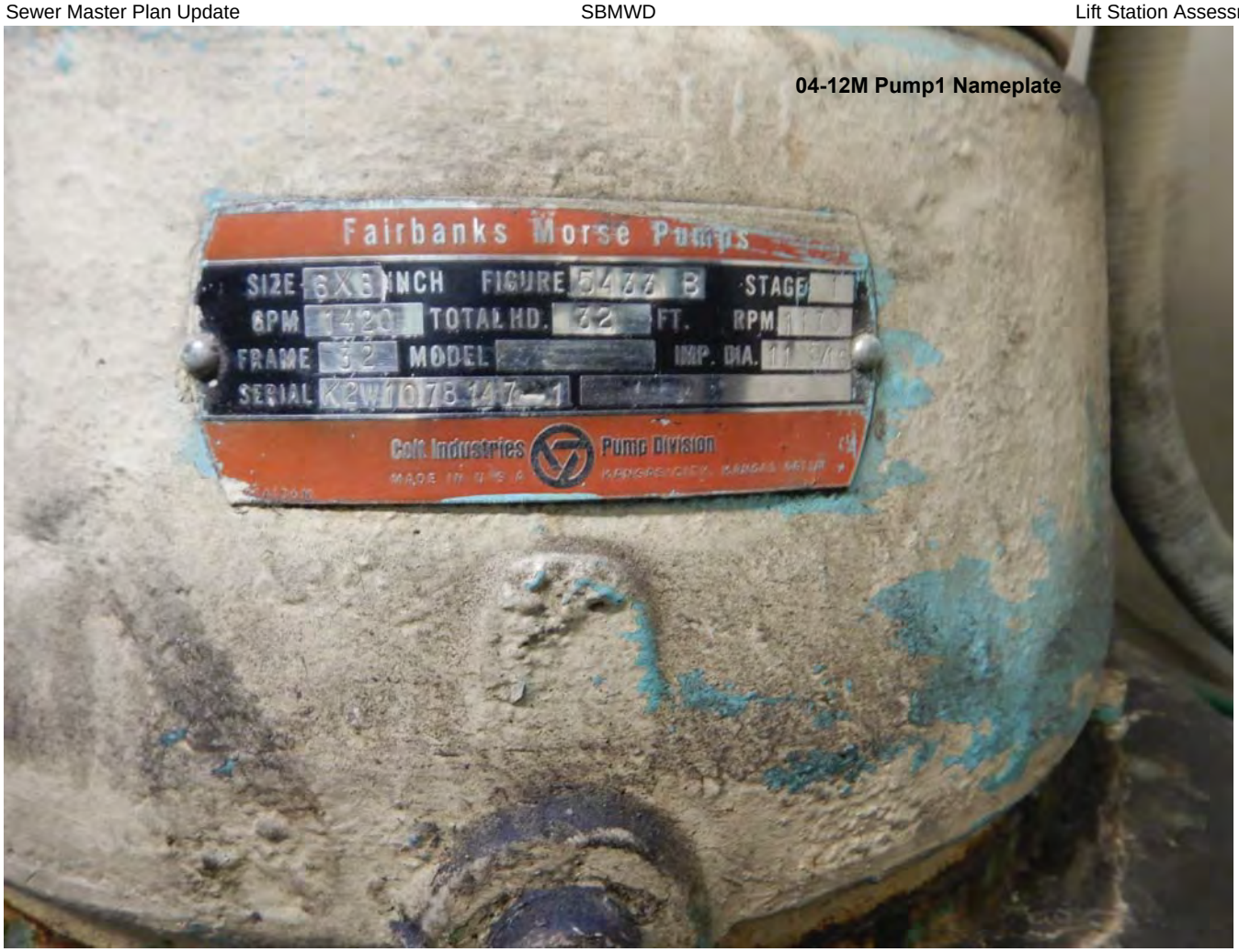

04-02G Lift Station
SECURITY
CAMERA
IN USE



04-03G Dry Pit Nameplate



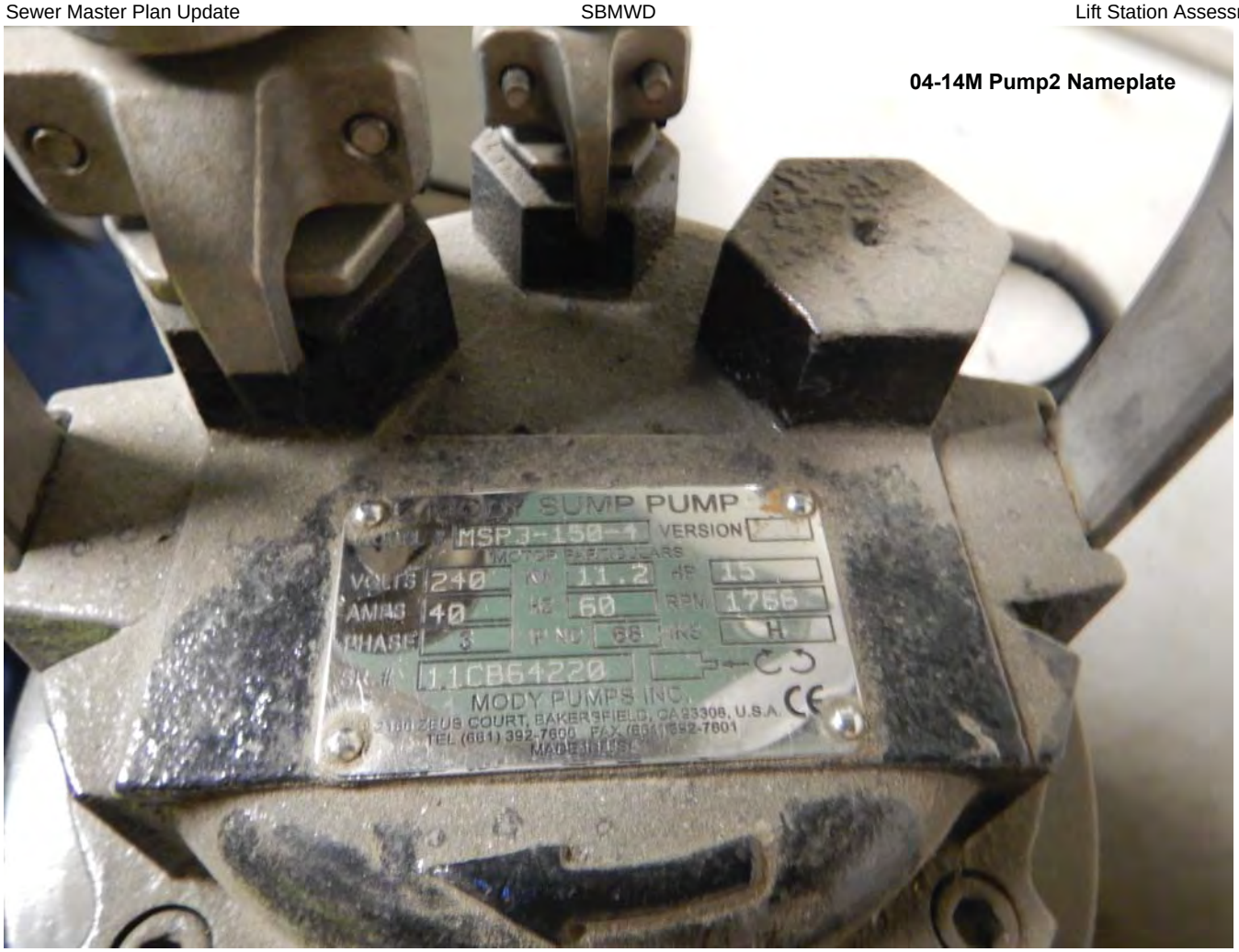
04-11M Pump1



04-12M Pump1 Nameplate



04-12M Pump2



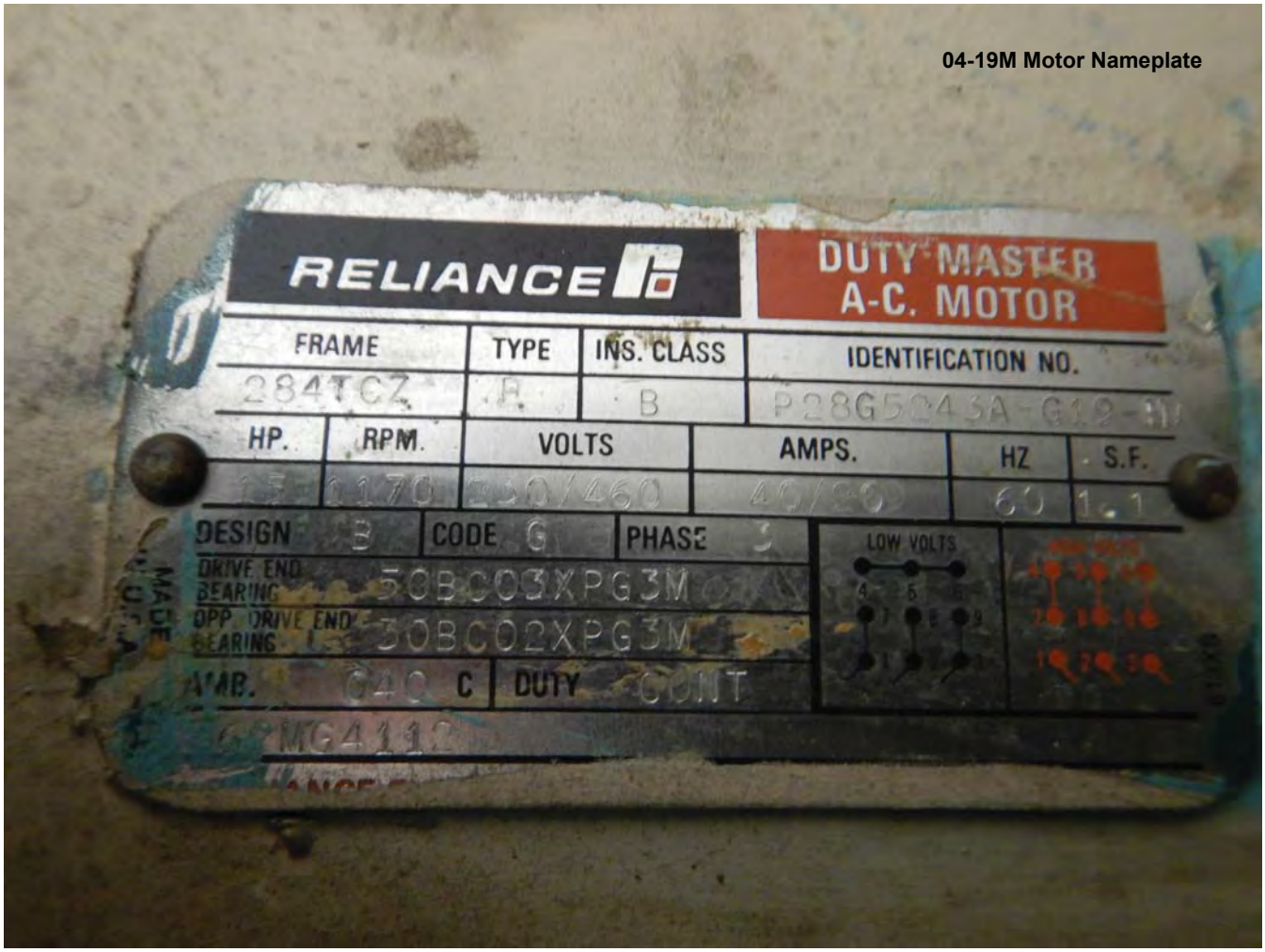
04-14M Pump2 Nameplate



04-18E Piping



04-18M Suction Pipe



04-19M Motor Nameplate



04-19M Sump Pump



04-20S Dry Pit Hatch



04-21S Dry Pit Ladder



04-22S Wet Well Rim Corrosion



04-23S Wet Well



04-30E SCE Meter & Service Panel


04-33E Breakers & Pump Panel


04-34E 120V Breakers
CONTROL
DEHUMIDIFIER
SUMP PUMP
LIGHT EX-FAN
COMPRESSOR
ALARM INTERFACE
H O A PUMP #1
H O A PUMP #2
ALTERNATOR
BUBBLE
INSID



04-35E Step Down Transformer



04-36E Bubbler Panel.

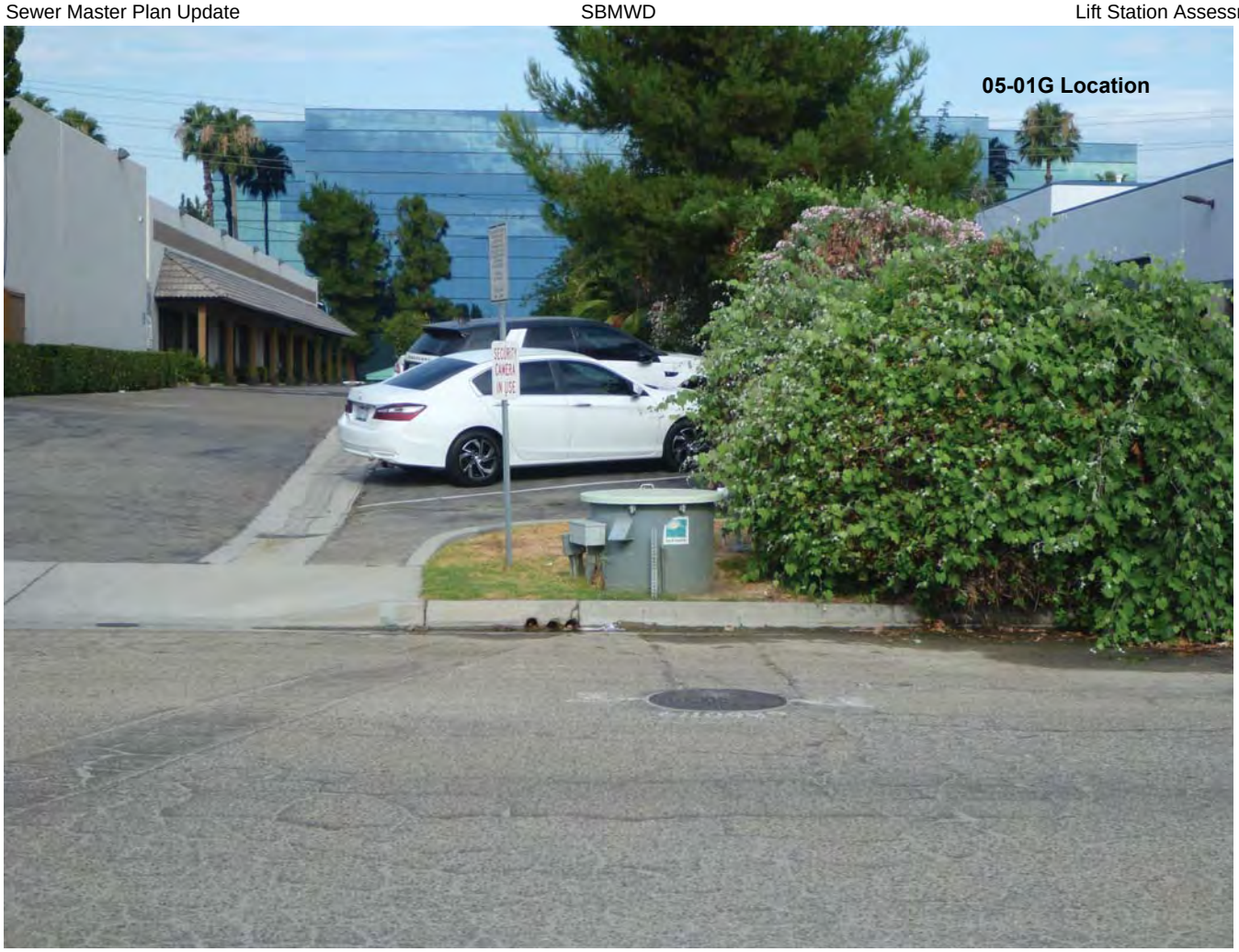


04-37E Dry Pit Flood Float



04-40C Dialog Scout Panel

05 - Airport LS



05-01G Location



05-02G Dry Pit Nameplate



05-10M Pump1



05-11M Motor Nameplate



05-18M Vent Fan



05-19M Bubbler Compressor


05-19M Sump Pump


05-21 Dry Pit Ladder Tube


05-22S Wet Well Cover & Rim

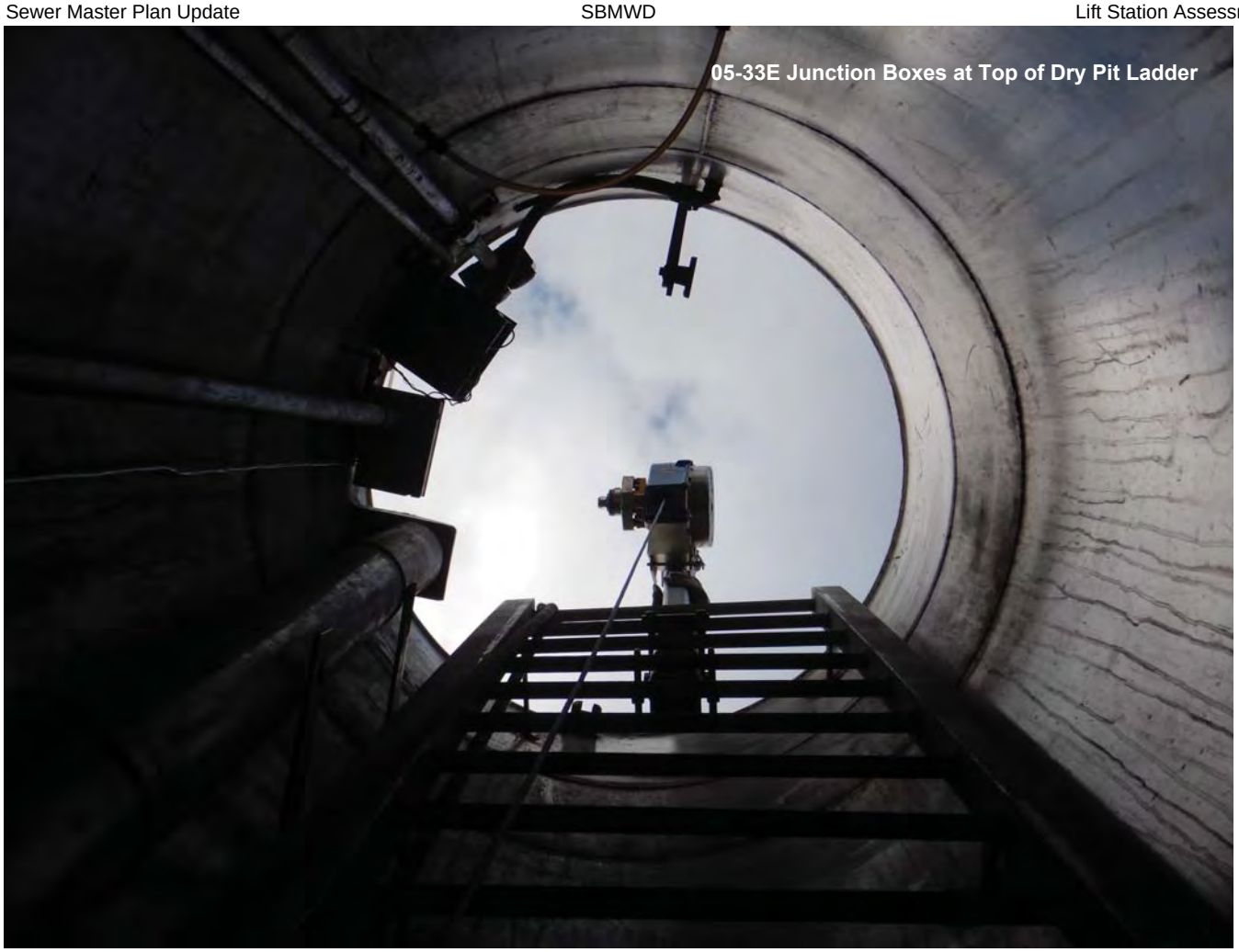

05-25S Wet Well

05-31E Breaker, Control, Bubbler Panels



05-32E Flood Float





05-33E Junction Boxes at Top of Dry Pit Ladder



05-40C Dialog Scout Panel

06 - Valley Truck Farm LS



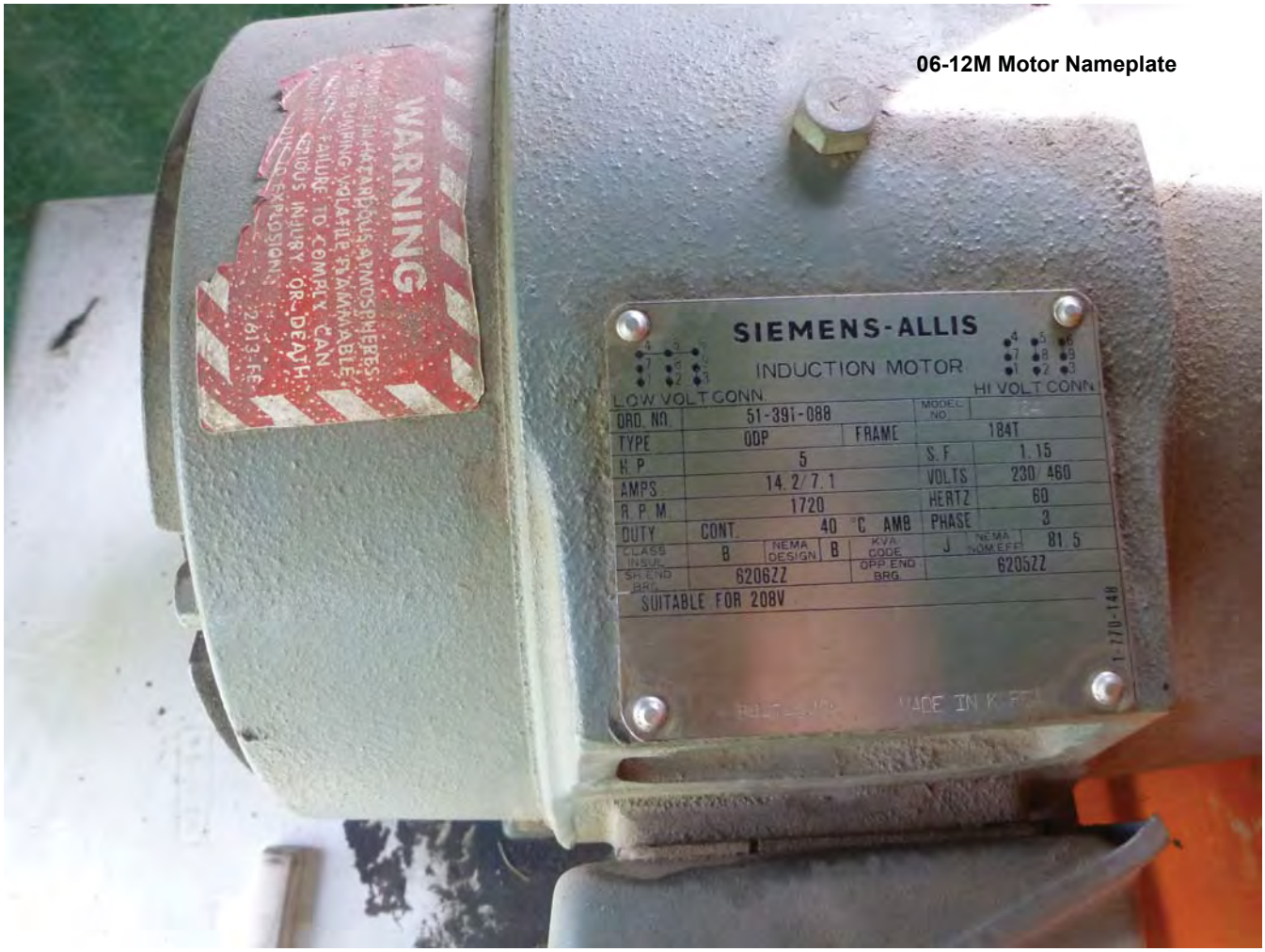
06-01G Location



06-02G Lift Station & Panels



06-11M Pumps & Piping



06-12M Motor Nameplate



06-20S Slab on Grade Cracks



06-21S Wet Well Lid & Rim



06-22S Wet Well Pipes



06-30E SCE Meter



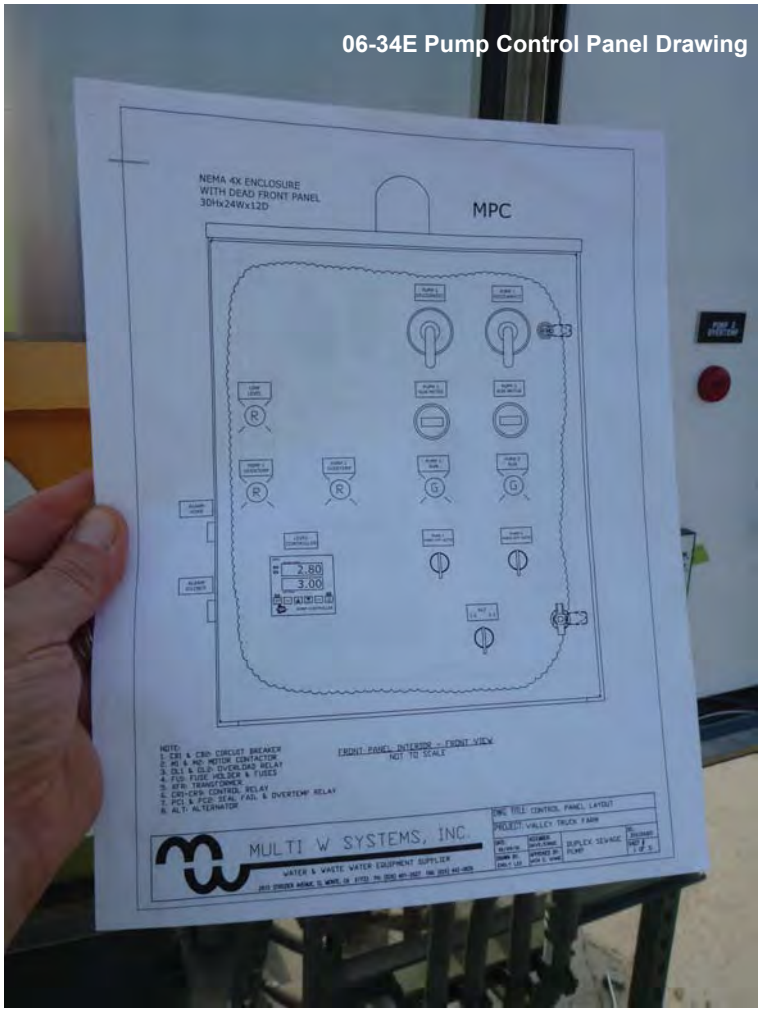
06-31E Pump Control Panel



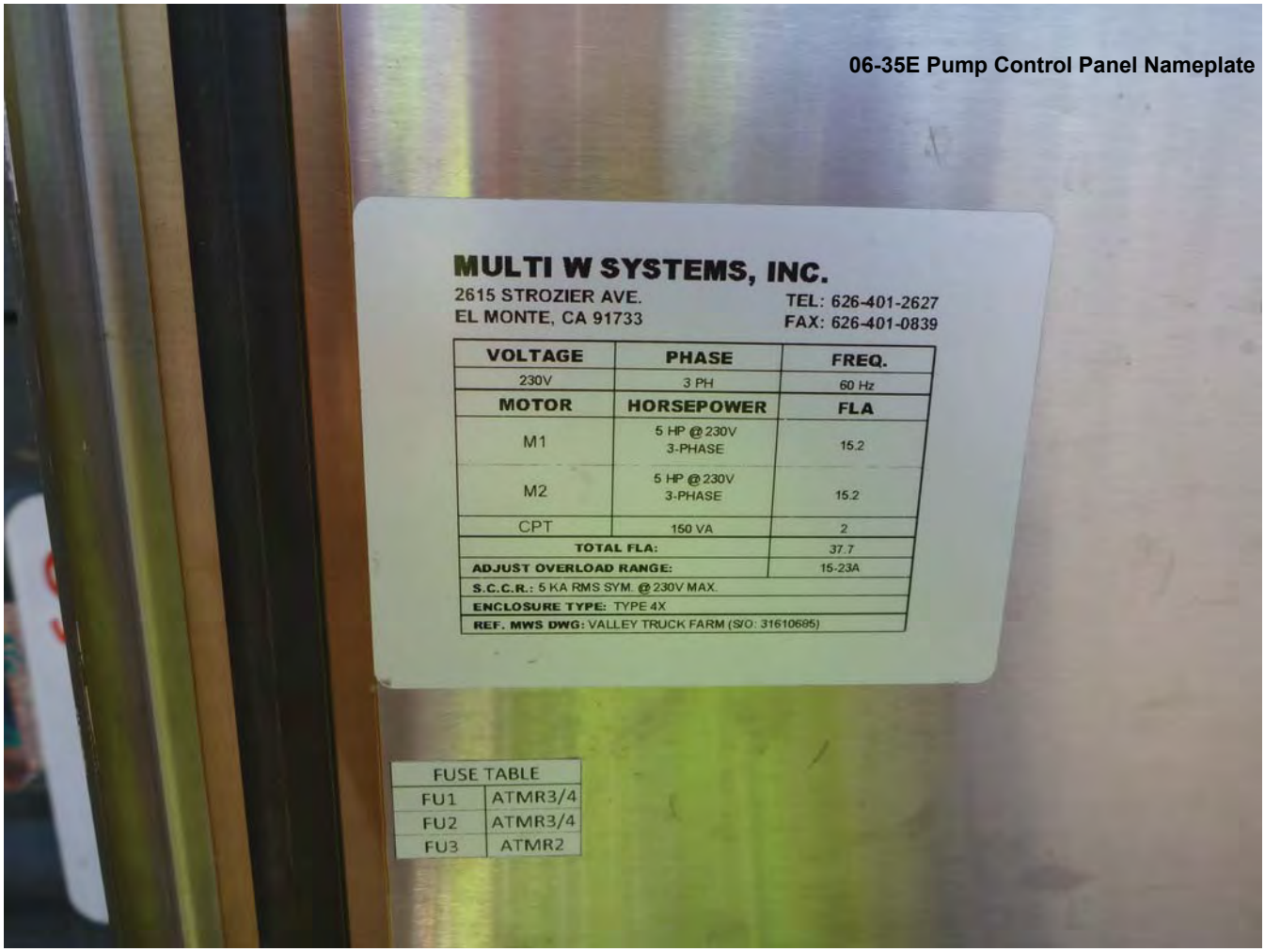
06-32E Mercoid Pump Controller



06-33E Low Voltage Disconnects



06-34E Pump Control Panel Drawing



06-35E Pump Control Panel Nameplate


06-40C Dialog Scout Panel

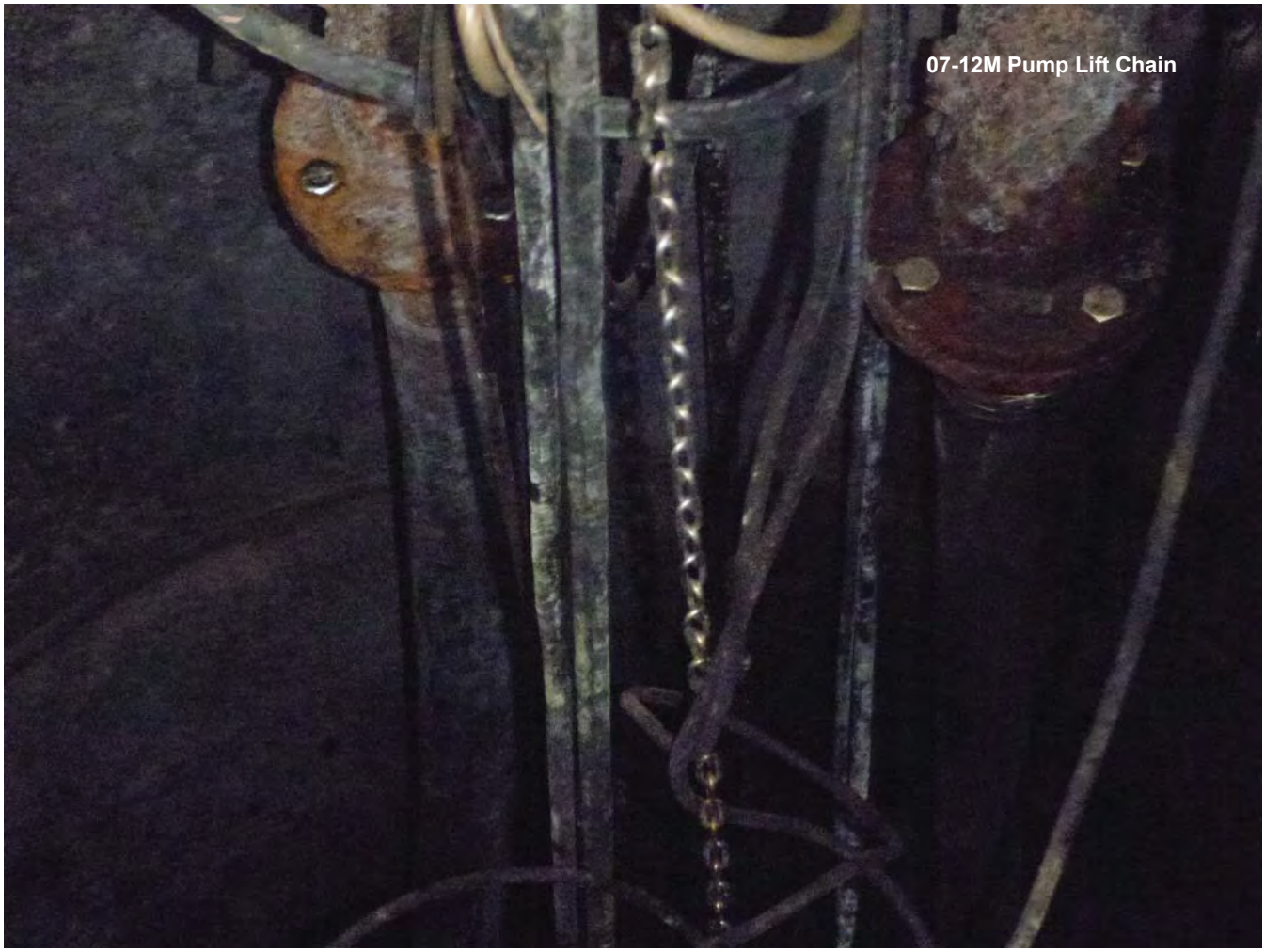
07 - Allen LS


07-01G Location


07-02G Location2


07-10M Valves & FM Tap


07-11M Valve Vault Sump Pump



07-12M Pump Lift Chain



07-20S Valve Vault Hatch



07-21S Valve Vault Ladder



07-22S Wet Well MH Lid



07-23S Wet Well Lid



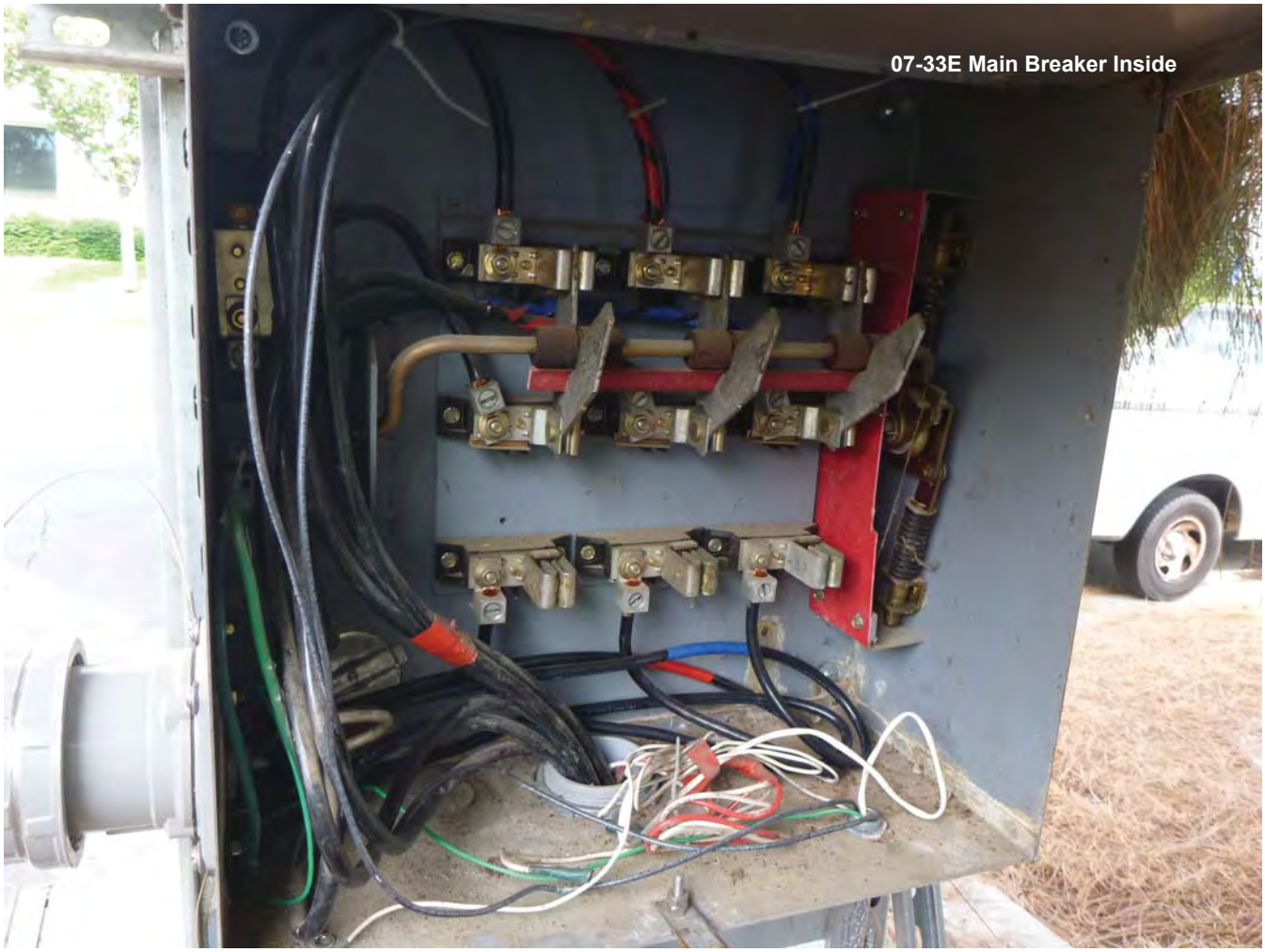
07-24S Wet Well Inside


07-30E Service
Panel & SCE Meter


07-31E SCE Meter
SCE 256000-076234



07-32E Main Breaker & Generator Hookup



07-33E Main Breaker Inside



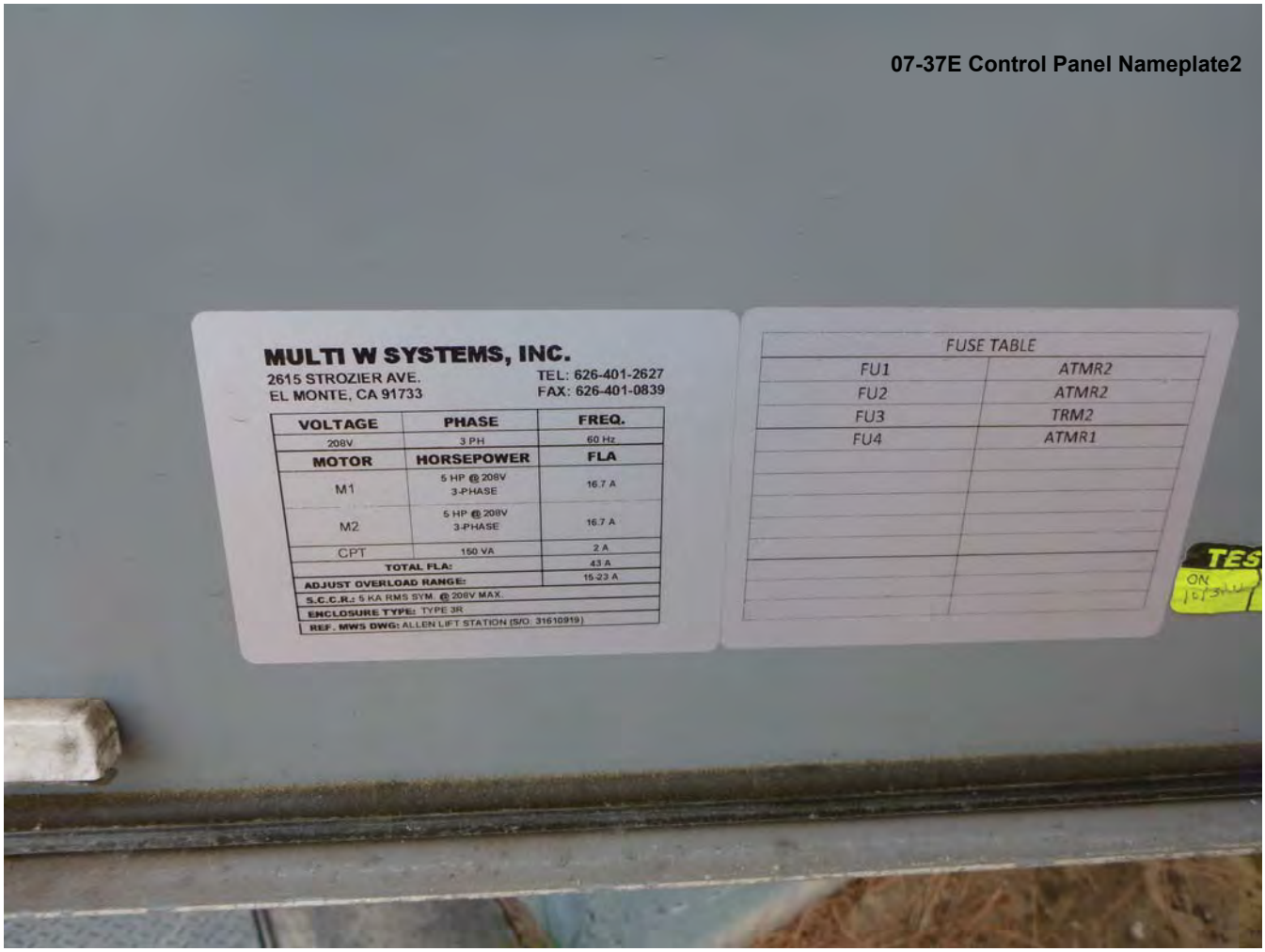
07-34E Main Breaker Nameplate



07-35E Control Panel Open



07-36E Control Panel Nameplate



07-37E Control Panel Nameplate2



07-40C Dialer Panel & Generator Hookup



07-41C Dialer & Intrusion Alarm

08 - Pine LS


08-01G Location


08-02G Location2
2403
S8W01



08-10M Riser Pipes & High Level Switch



08-11M Pumps & Piping



08-12M Pump1 Closeup



08-13M Pump Nameplate


08-14M Pump2


08-15M Pump2 & Engine


08-16M Pump2 Closeup
Super
TSERIES


08-17M Check Valve & Air Release Valve
Super
TSERIES


08-18M Propane Tank


08-20S Bldg & Wet Well Lid
2403
NO SMOKING
SECURITY CAMERA IN USE



08-21S Wet Well Lid & Entry



08-22S Wet Well Inside



08-23S Exposed Aggregate



08-31E Control Panel



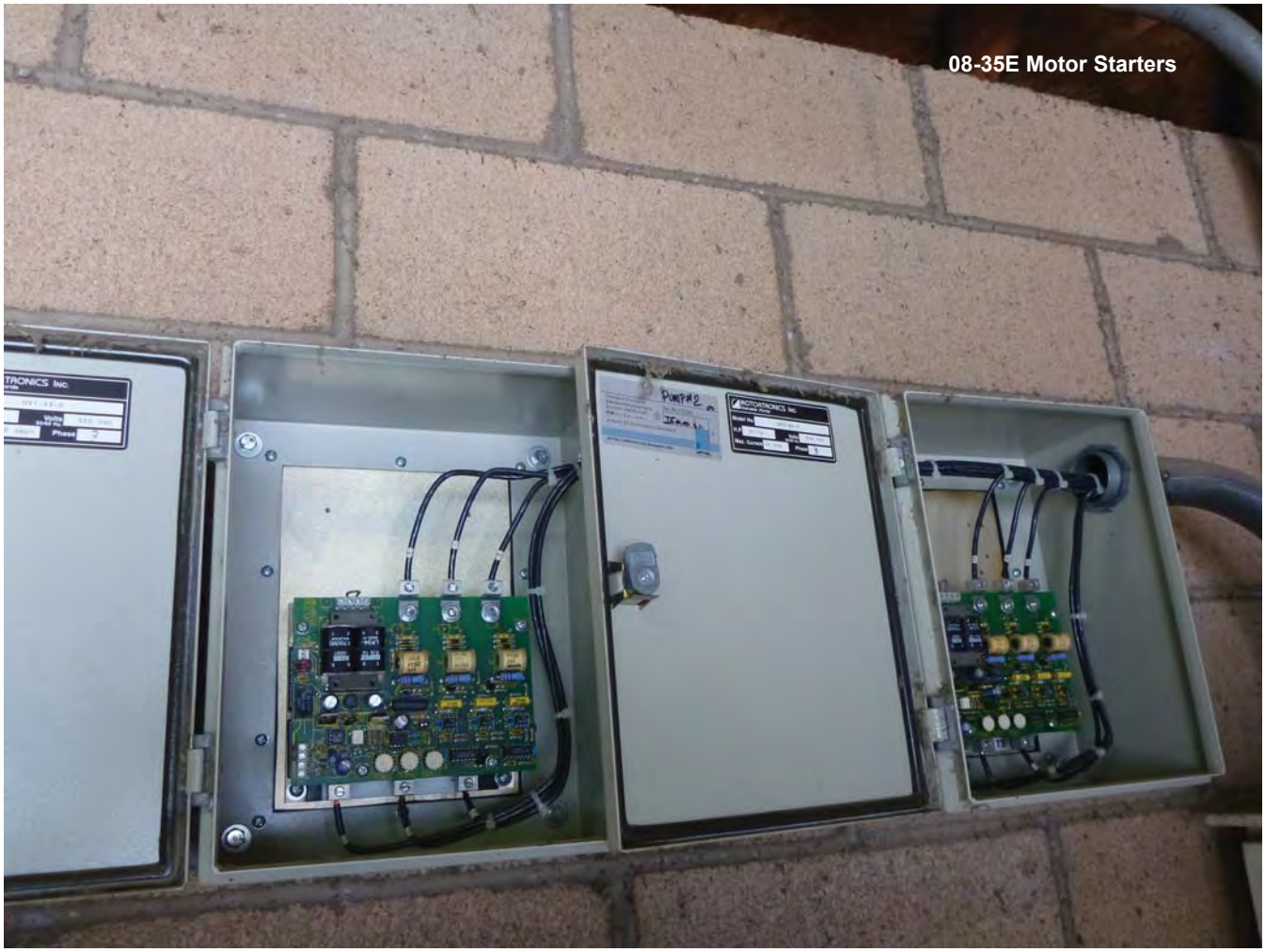
08-32E Control Panel Closeup



08-33E Control Panel Closeup2



08-34E Control Panel Nameplate



08-35E Motor Starters



08-36E Engine HOA Switch



08-40C Dialog Scout & Intrusion Alarm Panel

09 - City Hall LS



09-10M Riser Pipes & Valves



09-20S Wet Well


09-30E Electrical Panels
115 VOLTS

10 - Meridian LS


10-01G Location1


10-02G Location2
STOP


10-10M Pumps & Piping


10-11M Pump1


10-12M Pump2


10-13M Discharge Valves



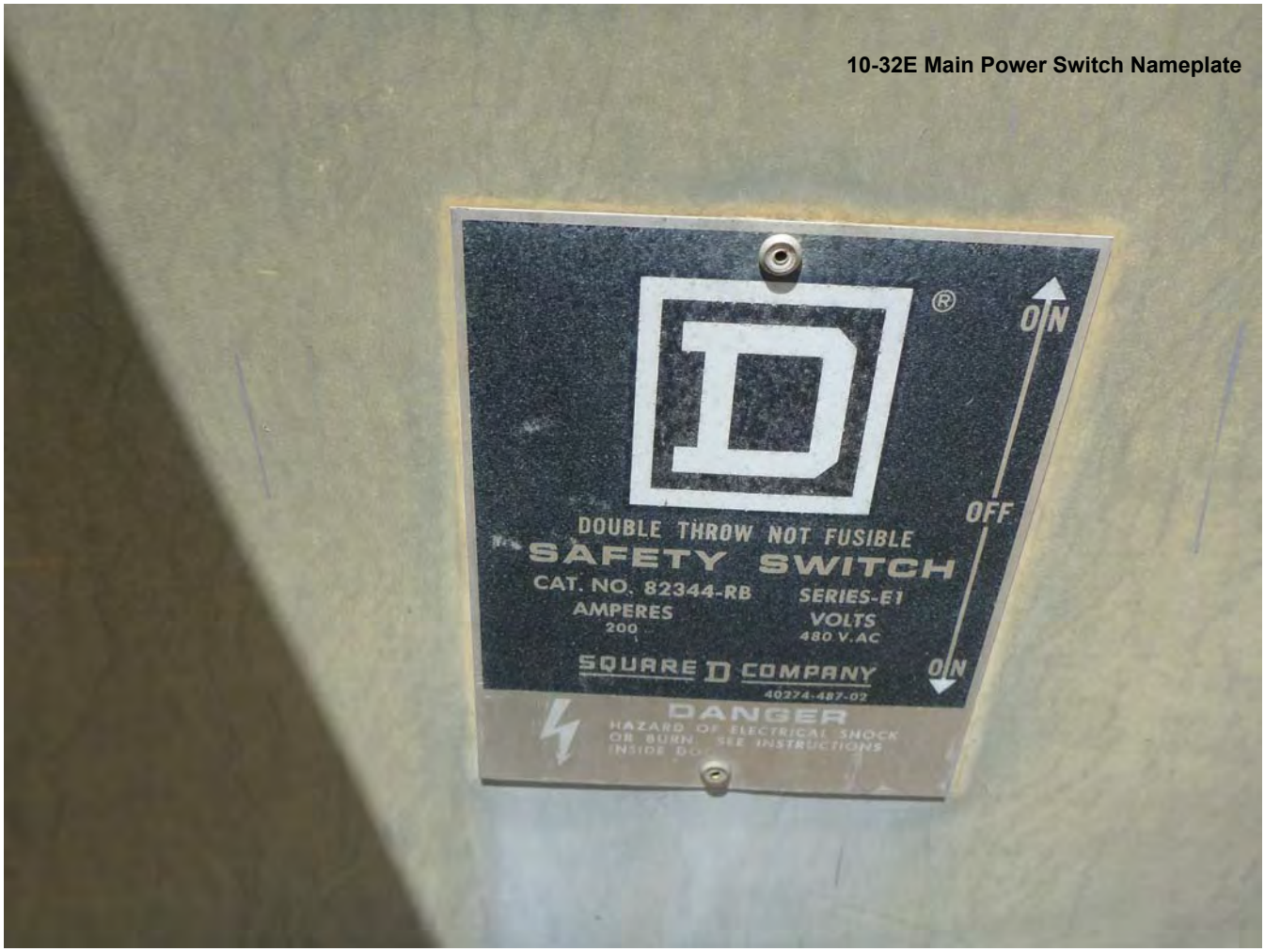
10-22S Wet Well Exposed Aggregate



10-23S Wet Well Inside


10-24S WW Interior Wall & Riser


10-30E SCE Meter1



10-32E Main Power Switch Nameplate



10-33E Generator Hookup

10-39E StepDown Transformer



10-40C Intrusion Alarm & Mercoid Pump Controller





10-41C Dialog Scout Panel



10-31E SCE Meter Closeup

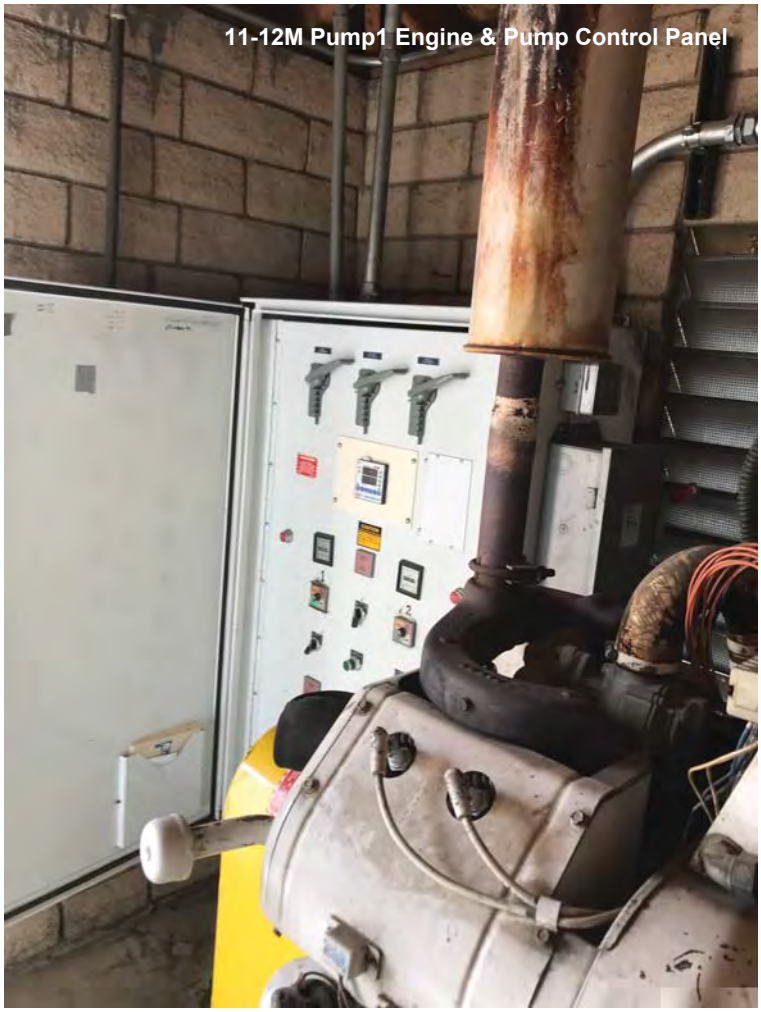

10-S21 Wet Well Lid & Entry

11 - Macy LS

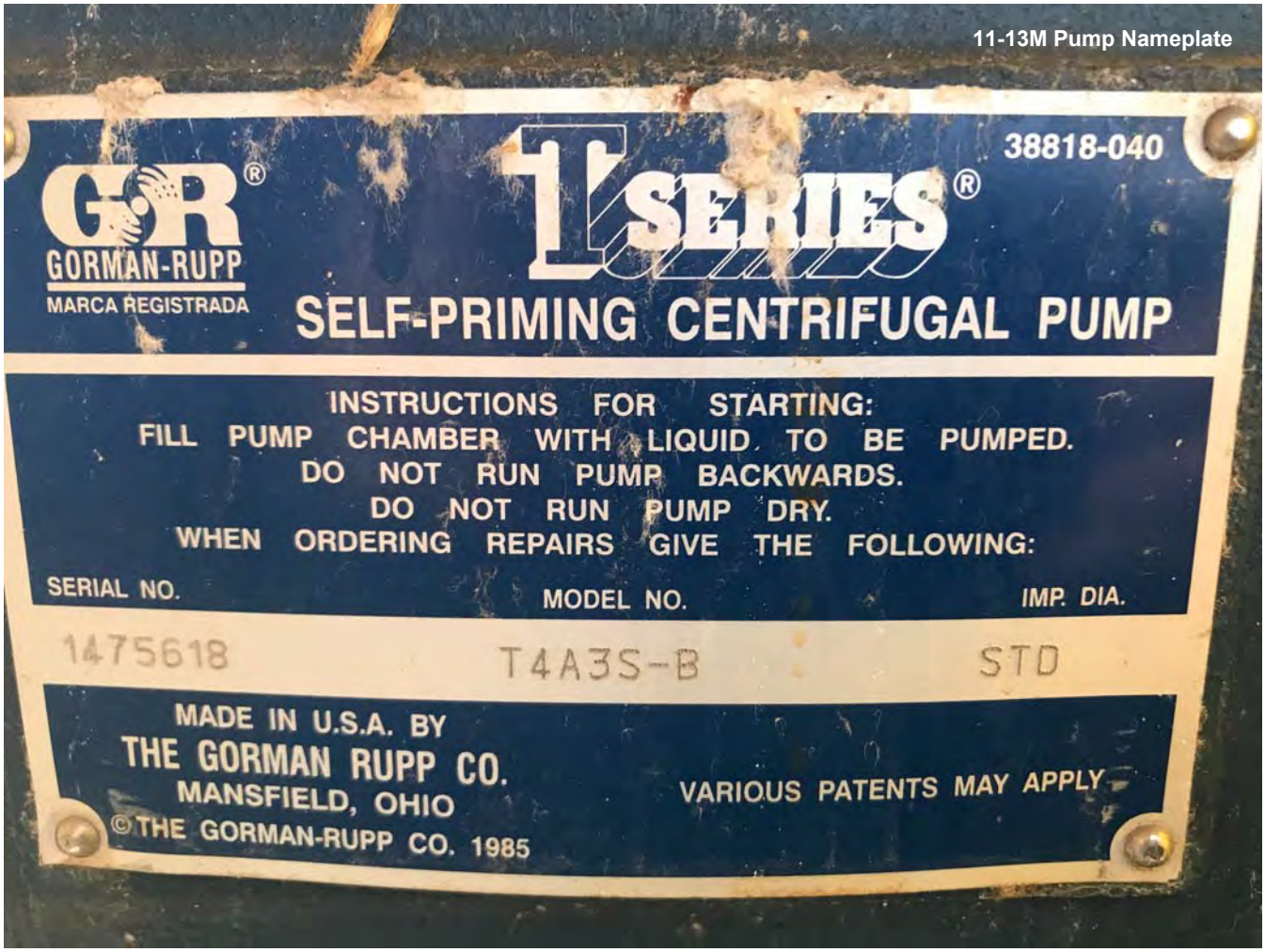

11-01G Macy Street View
Photo courtesy of Google Maps Street View


11-11M Pump2

11-12M Pump1 Engine & Pump Control Panel

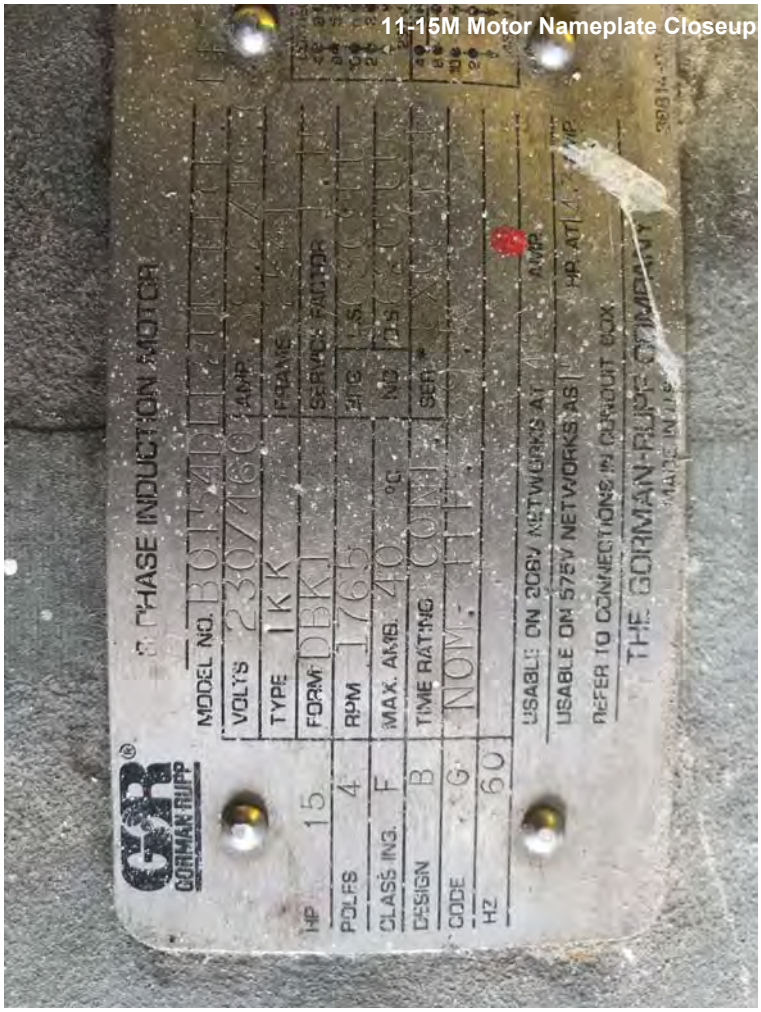


11-13M Pump Nameplate





11-14M Motor Nameplate



11-15M Motor Nameplate Closeup


11-16M Engine


11-17M Suction Pipe & Air Release


11-18M Propane Tank


11-20S Wet Well MH Lid



11-30E Service Box



11-31E Service Box & Transformer



11-33E Control Panel Exterior



11-34E Control Panel Inside



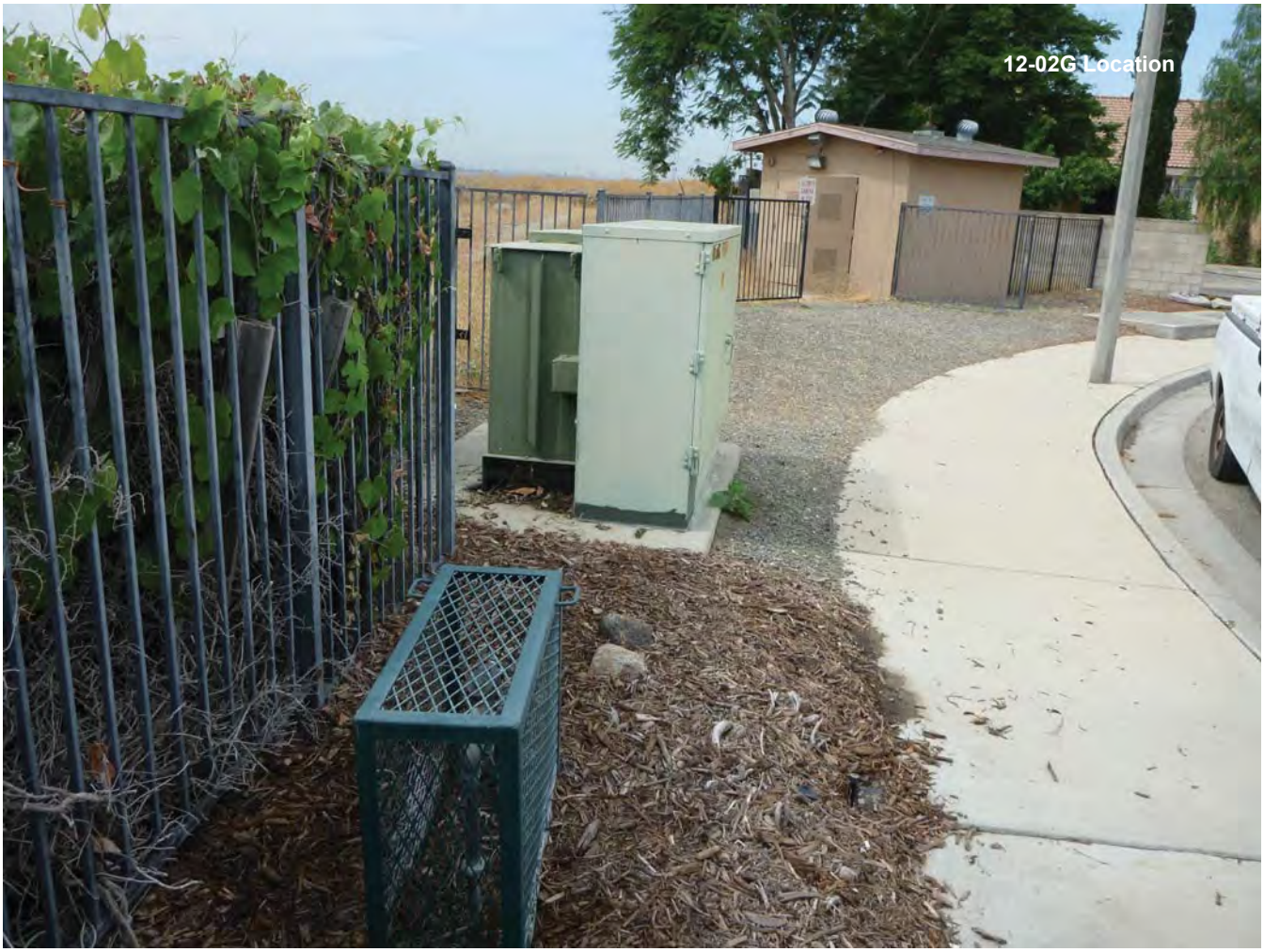
11-35E Motor Starter Panels



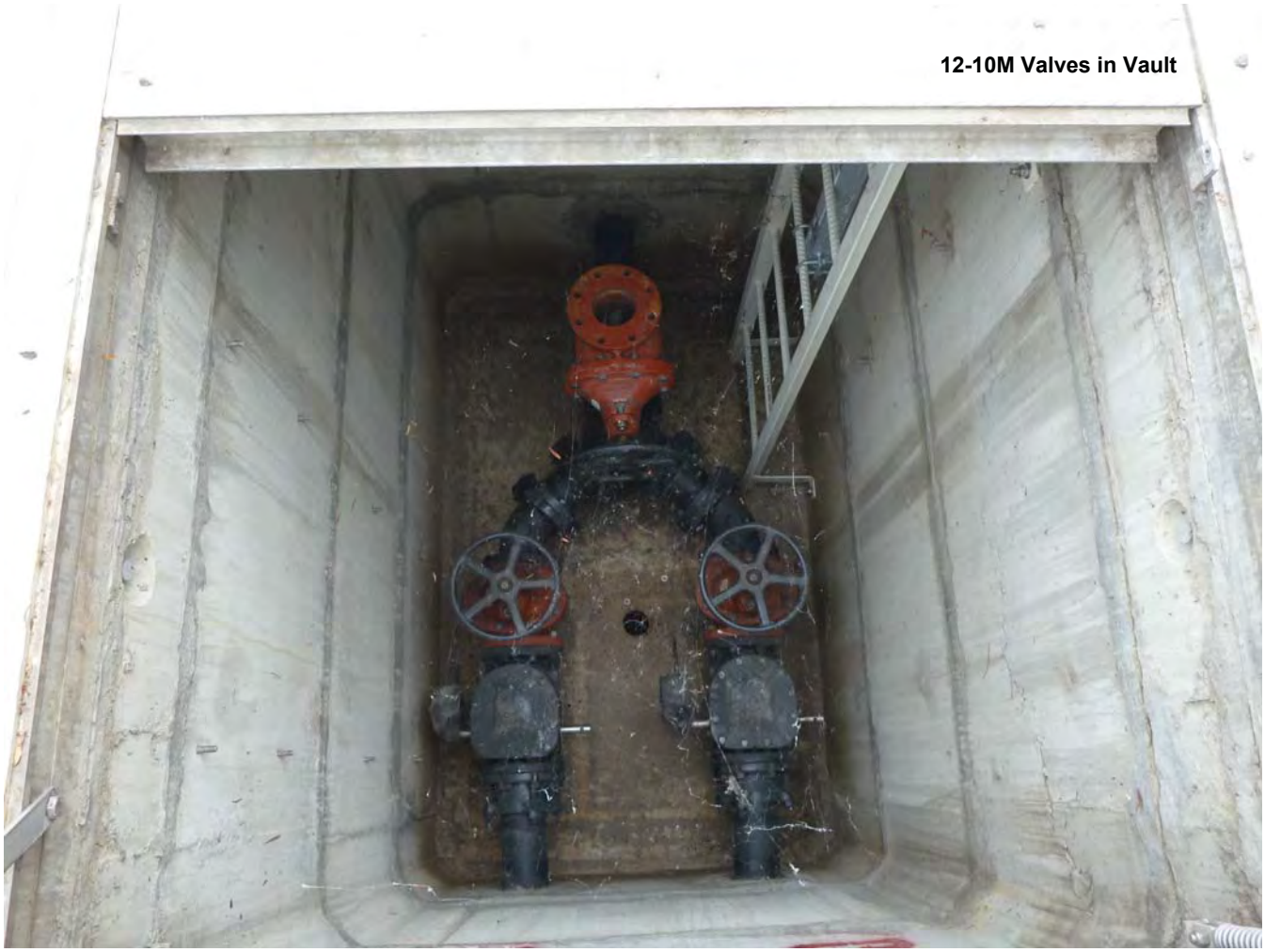
11-36E Motor Starter Panels Closeup

12 - Riverwalk LS


12-01G Riverwalk Street View
Photo courtesy of Google Maps Street View


12-02G Location

12-10M Valves in Vault





12-20S Electrical Building



12-21S Valve Vault and Wet Well Hatches



12-22S Wet Well Hatch Open



12-23 Wet Well Inside



12-30E SCE Meter & Main Panel



12-30AE SCE Meter Closeup



12-31E Control Panel


12-32E Pump Control Closeup
CRAMER
HOURS
PUMP 1
RUN
RESET


12-33E Control Panel Tag
Underwriters
Laboratories Inc.®
LISTED
ENCLOSED INDUSTRIAL
CONTROL PANEL
NO. AP- 28025
ENGINEERS SALES –
SERVICE CO., INC.
WARNING
HIGH VOLTAGE AND ROTATING PARTS CAN CAUSE SERIOUS OR FATAL INJURY. INSTALLATION, OPERATION, AND MAINTENANCE OF ELECTRICAL MACHINERY SHOULD BE PERFORMED BY QUALIFIED PERSONNEL. MAKE SURE THAT THE MOTOR AND EQUIPMENT ARE GROUNDED AND PROTECTED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND LOCAL CODES. SEE NEMA MG-2 SAFETY STANDARD.
LOW VOLTS
HIGH VOLTS
T4 T5 T6
T7 T8 T9
T1 T2 T3
L1 L2 L3
W/O 1575-A



12-34E Auto Transfer Switch



12-35E Breakers



12-36E Generator Control Panel



12-37E Generator



12-38E Main Fuse



12-39E Propane Tank



12-40C Dialer Panel & Intrusion Alarm



12-40C Dialog Scout Panel

AA - Arrowhead LS



AA-05M Engine Driven Pumps (4)



AA-06M Pump Nameplate



AA-07M Drive Shaft Guard Loose



AA-08M Pump2 Nameplate



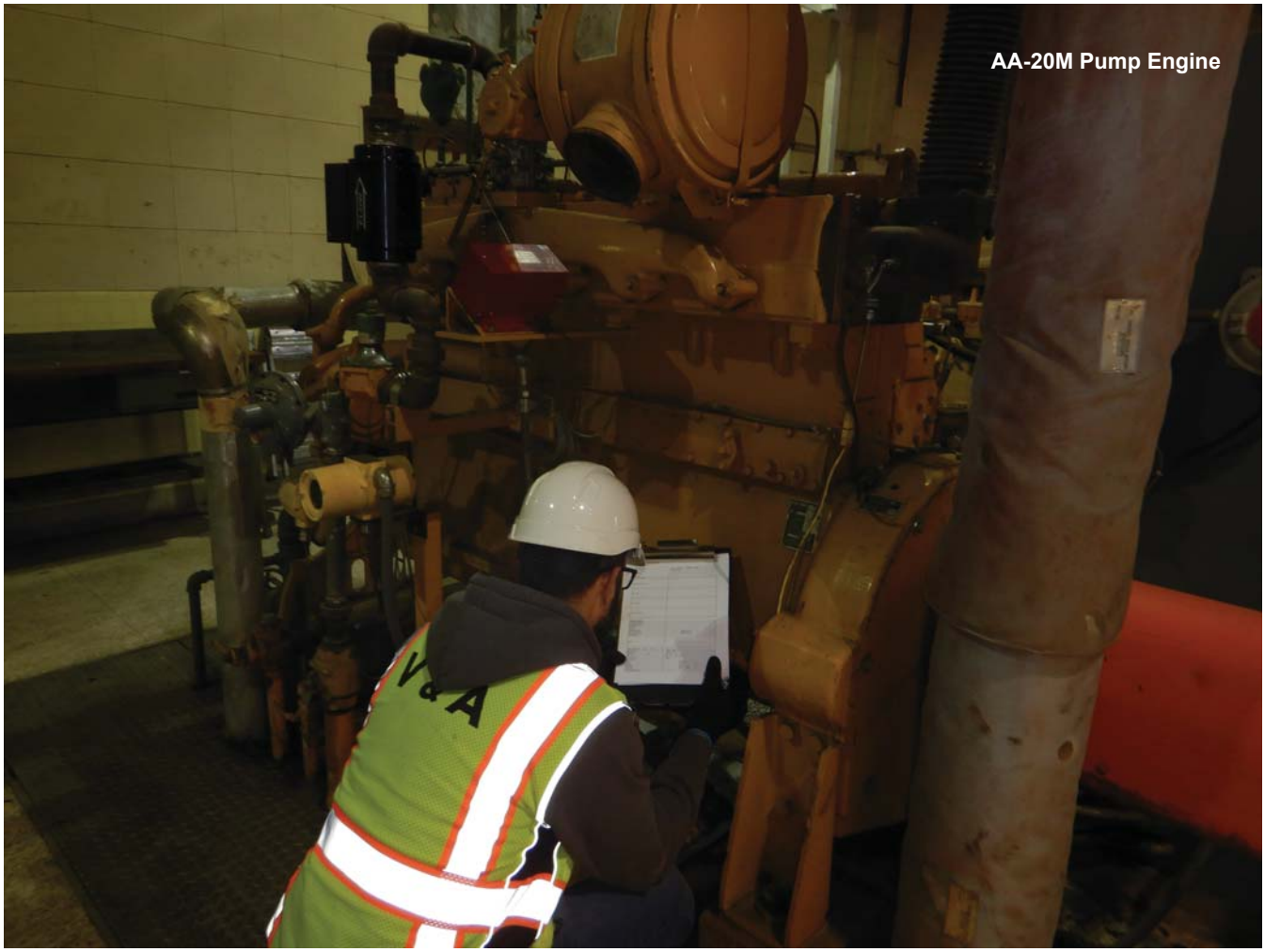
AA-09M Pump5 Base Spot Corrosion



AA-10M Pump5


AA-11M Pump5-2


AA-13M Engine Drain Pump Casing Coating



AA-20M Pump Engine



AA-21M Engine Nameplate



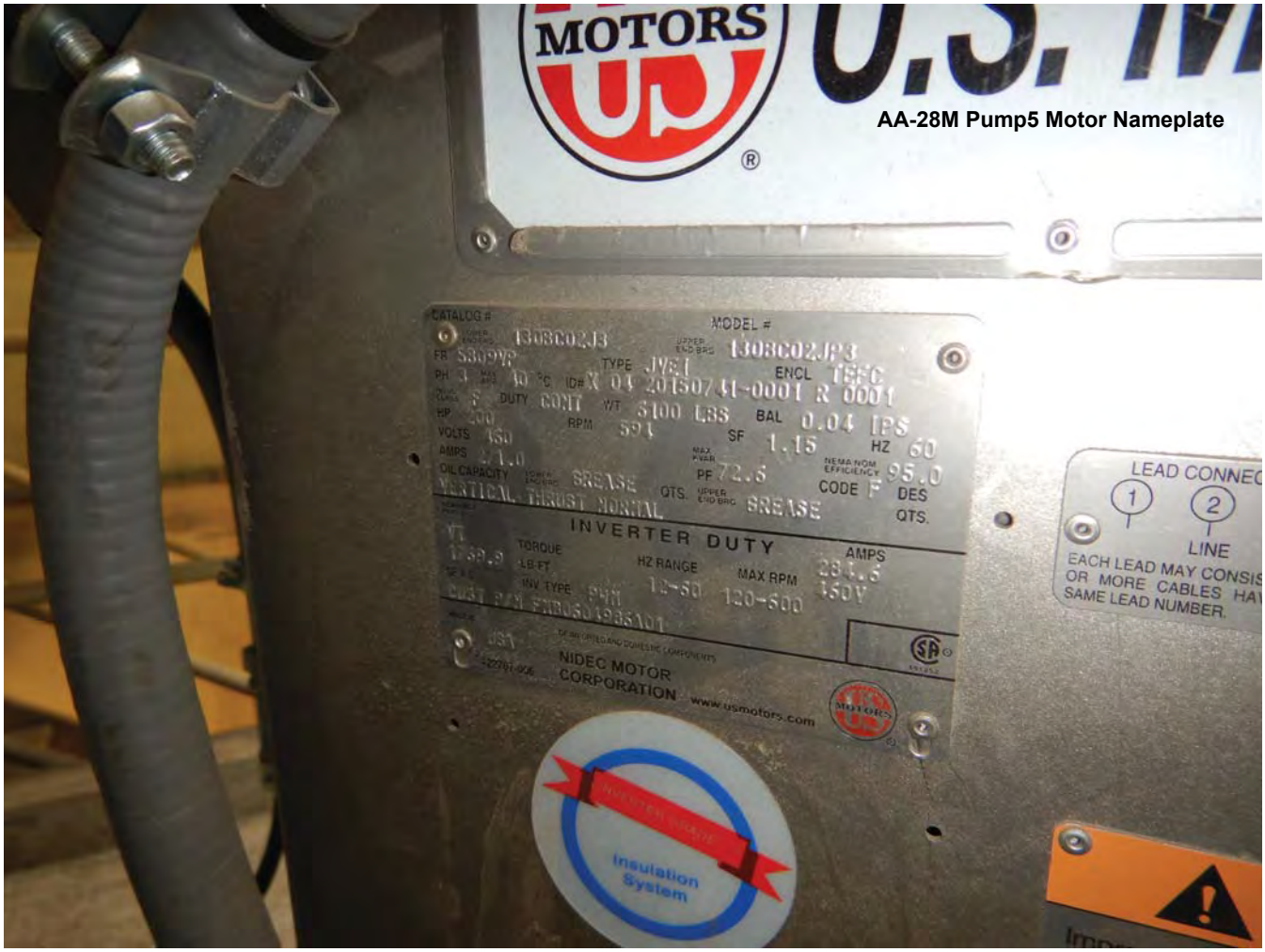
AA-24M Engine Right Angle Drives



AA-25M Angle Drive Nameplate



AA-27M Pump5 Motor



AA-28M Pump5 Motor Nameplate



AA-29M Drive Shafts & Discharge Risers



AA-30M Check Valve


AA-31M Pump 2, Discharge Check Valve & Riser


AA-36M Pump5 Check Valve



AA-38M Discharge Risers Intermediate Level



AA-40M Vent Fan Nameplate



AA-42M WW Grinder Motor



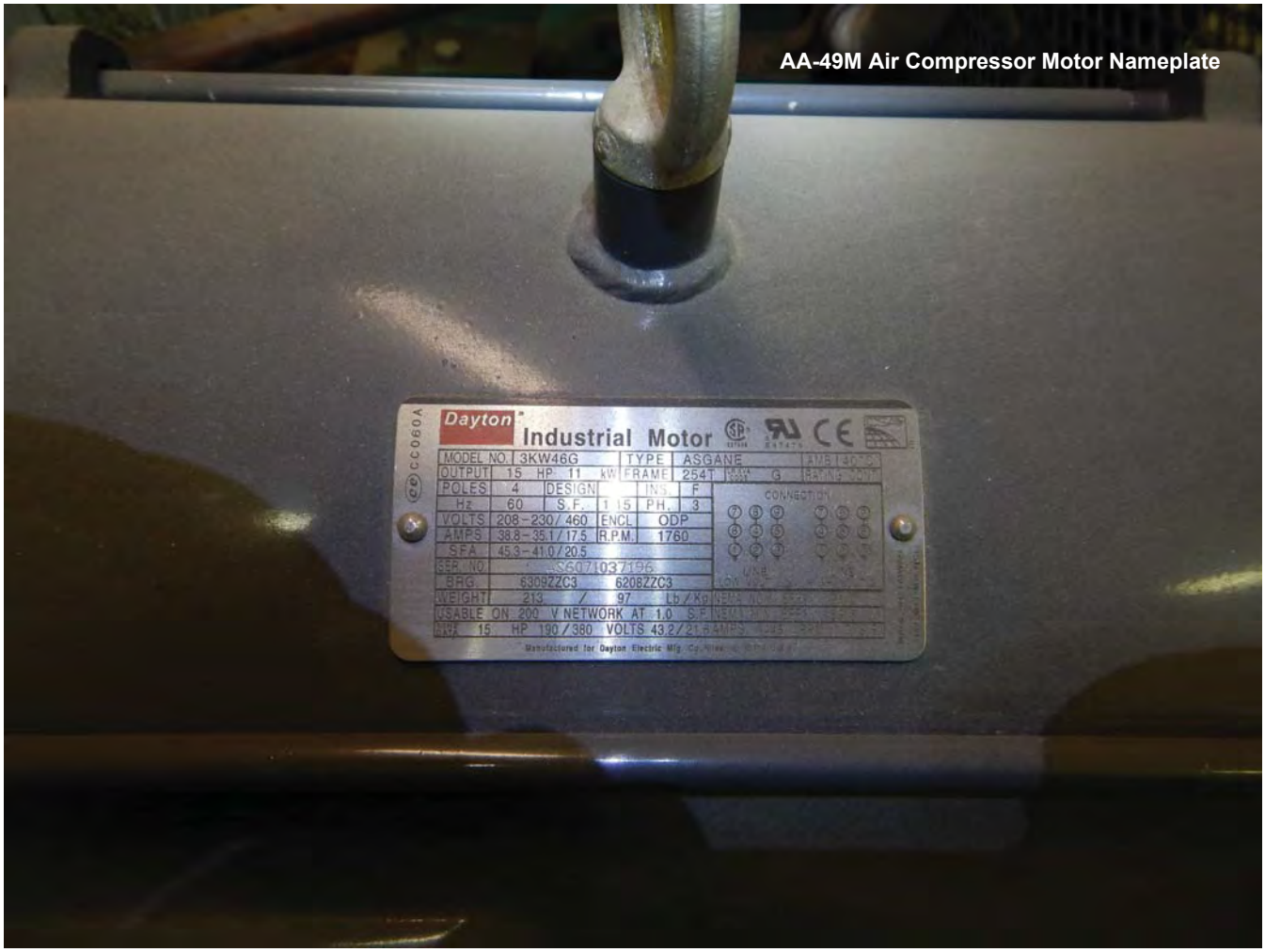
AA-43M WW Grinder Motor Nameplate



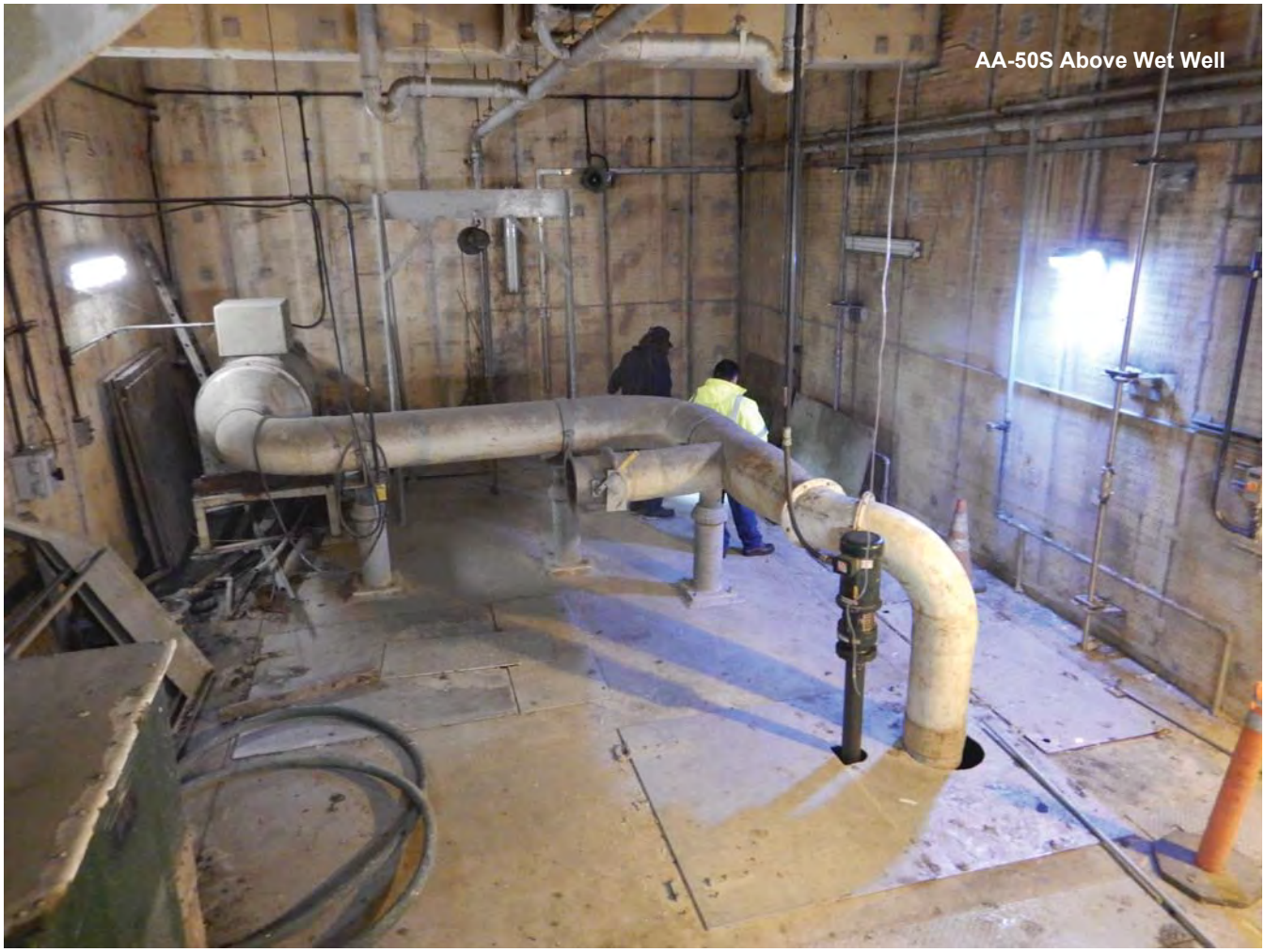
AA-45M Wet Well Gate 3



AA-48M Air Compressors



AA-49M Air Compressor Motor Nameplate


AA-50S Above Wet Well


AA-51S Wet Well Hatch Corrosion


AA-53S Wet Well Hatch


AA-55S WW Hatch Hinge Corrosion


AA-56S Drain Cover



AA-60E MCC-2



AA-65E PLC Cabinet



AA-66E Engine Controller



AA-69E Wet Well LE



AA-70E Explosion Proof LIT



AA-72E Channel Monster Local Control Panel

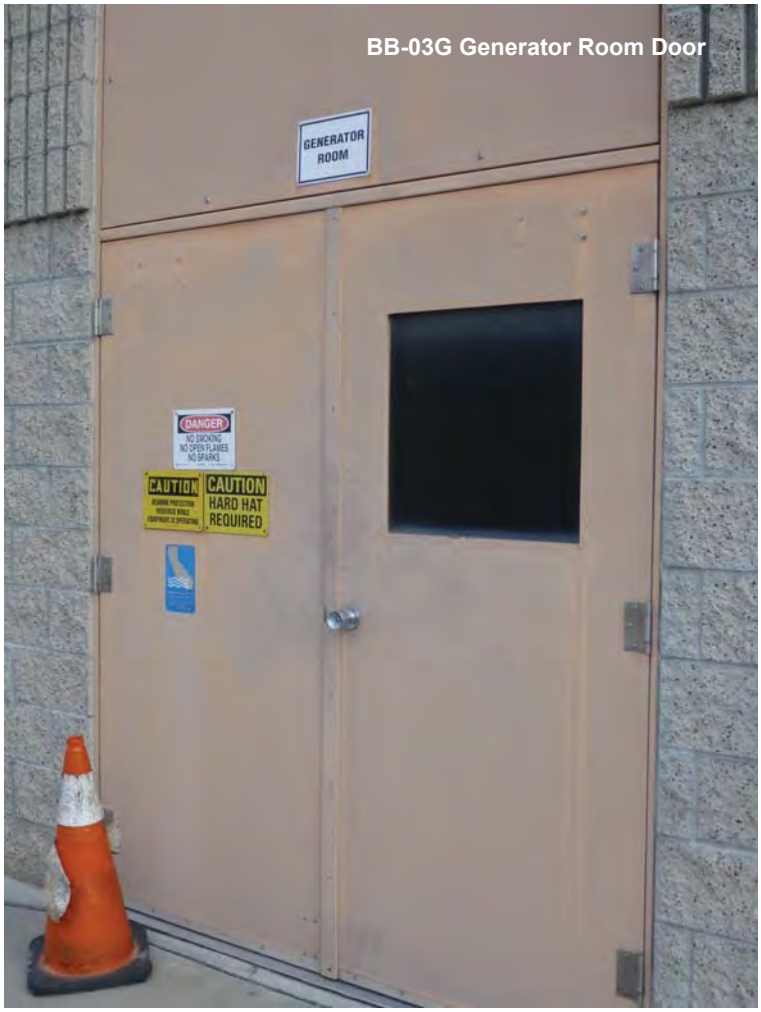
BB - E. Street LS

BB-01G Location Overall



BB-02G Door to Pumping Station Building





BB-03G Generator Room Door



BB-10M Pump1


BB-11M Pump Coating


BB-12M Pumps1-3


BB-15M Drive Shafts


BB-16M Pump Motors



BB-17M Pump Motor Nameplate



BB-18M Drive Shaft & Force Main



BB-20M Inlet Channel with Foul Air Duct



BB-21M Foul Air Duct Fm WWs



BB-22M Scrubber (not in service)



BB-25M Surge Relief Valve



BB-26M Discharge Header Split



BB-30M Seal Water System



BB-31M Seal Water Pump



BB-32M Seal Water Pump Motor Nameplate



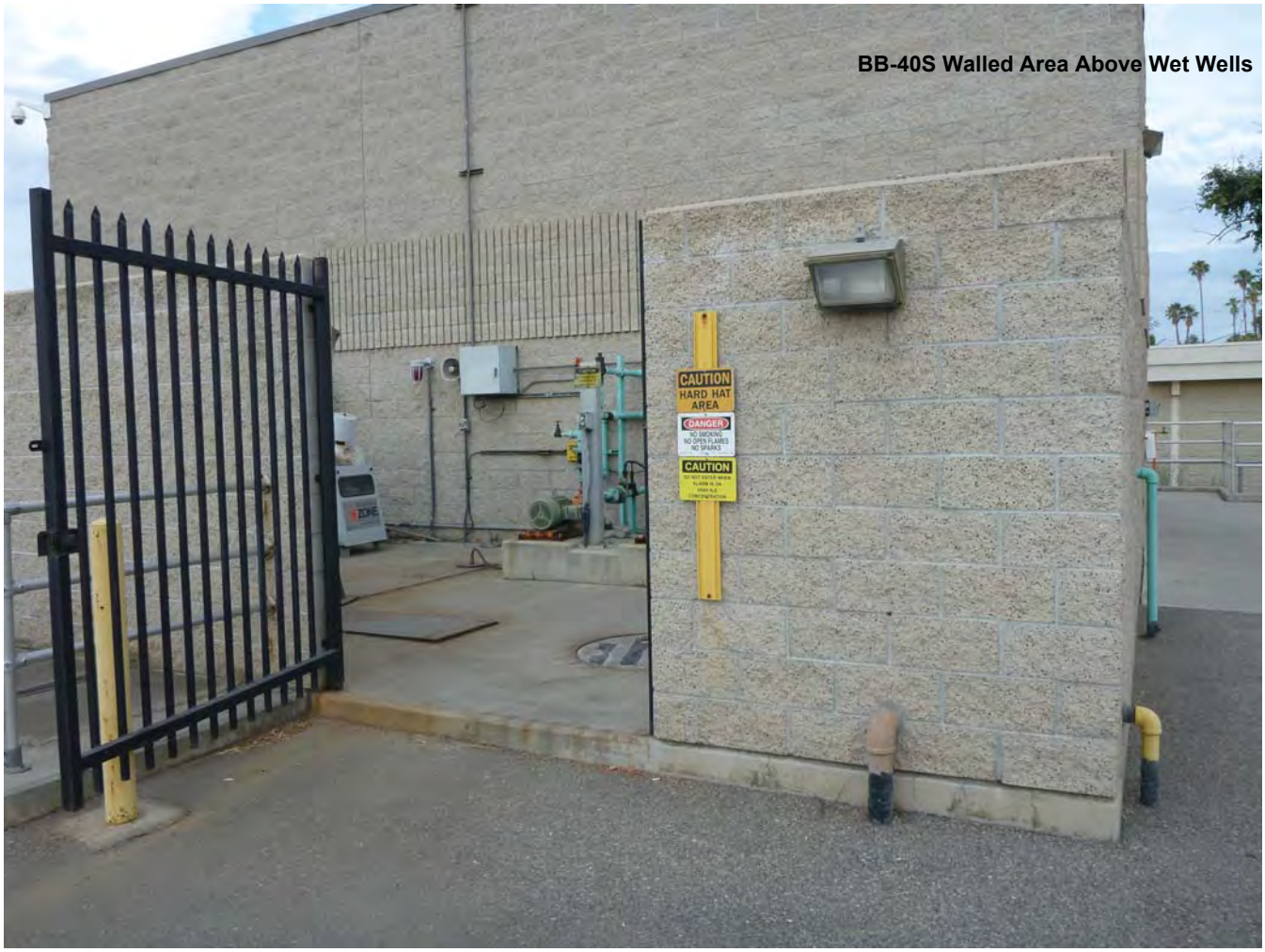
BB-35M Basement Sump Pumps



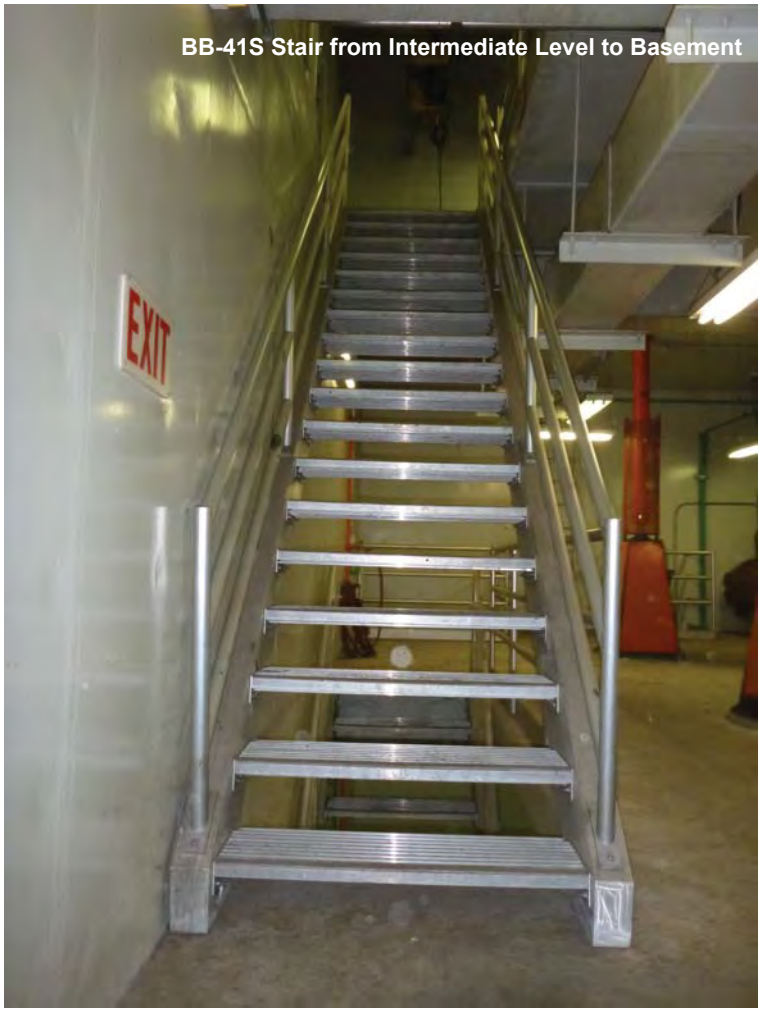
BB-36M Monorail Crane



BB-39M Vent Ducts



BB-40S Walled Area Above Wet Wells



BB-41S Stair from Intermediate Level to Basement



BB-42S Underground Diesel Tank



BB-43S North Wet Well (Dry)



BB-44S North Wet Well MH Entrance



BB-45S North MH Opening



BB-50E SCE Transformer



BB-51E Electrical Panels Main Floor



BB-52E MCC VE



BB-53E SCE Meter



BB-54E Auto Transformer Switch



BB-55E PLC-22 & Control Panel CP-E Cabinet



BB-56E PLC-22 Detail



BB-57E Bubbler Panel



BB-58E VFD1


BB-59E VFD2
2


BB-60E VFD3
3



BB-61E Engine Generator



BB-62E Generator Panel



BB-63E Genset Nameplate

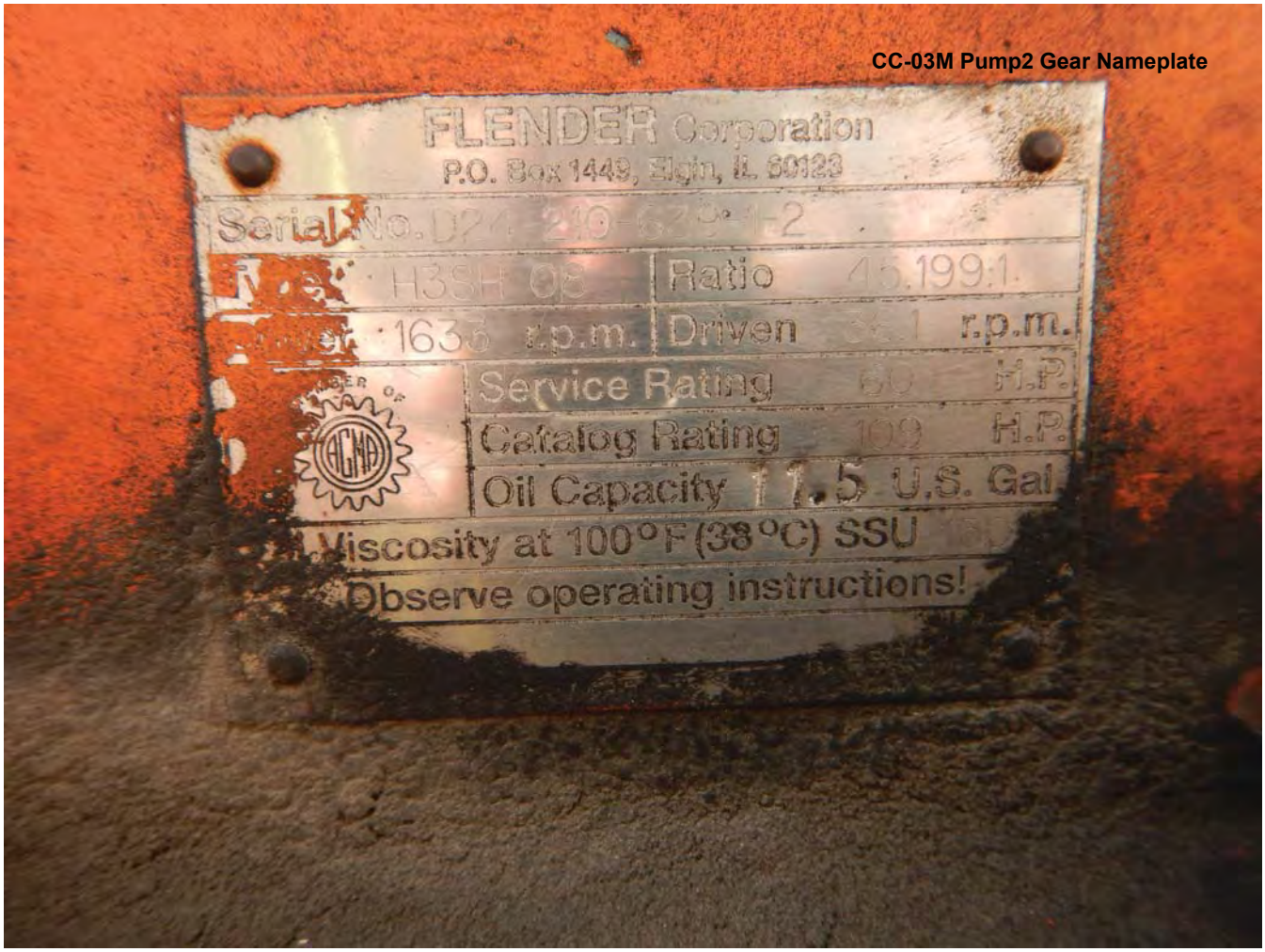


BB-64E Generator Nameplate

BB-65E Diesel Day Tank & Rupture Basin



CC - East Interceptor LS



CC-03M Pump2 Gear Nameplate



CC-05M Pump1 Screw


CC-06M Pump1 Closeup


CC-07M Pump1 Closeup2



CC-08M Pump2 Screw



CC-09M Pump2 Suction Zone & Gate


CC-10M Pump2 Closeup


CC-11M Pump2 Closeup2



CC-12M Pump2 Suction Debris



CC-13 Pump1 Inlet Gate Operator



CC-14M Pump Trough Tension Rod Fail



CC-15M Pump Inlet Gate



CC-16M Pump2 Screw & Trough



CC-17M Pump2 Screw Closeup



CC-20M Pump1 Motor Nameplate



CC-25M Pmp2 Motor Nameplate



CC-30M Pump1 Motor & Gear



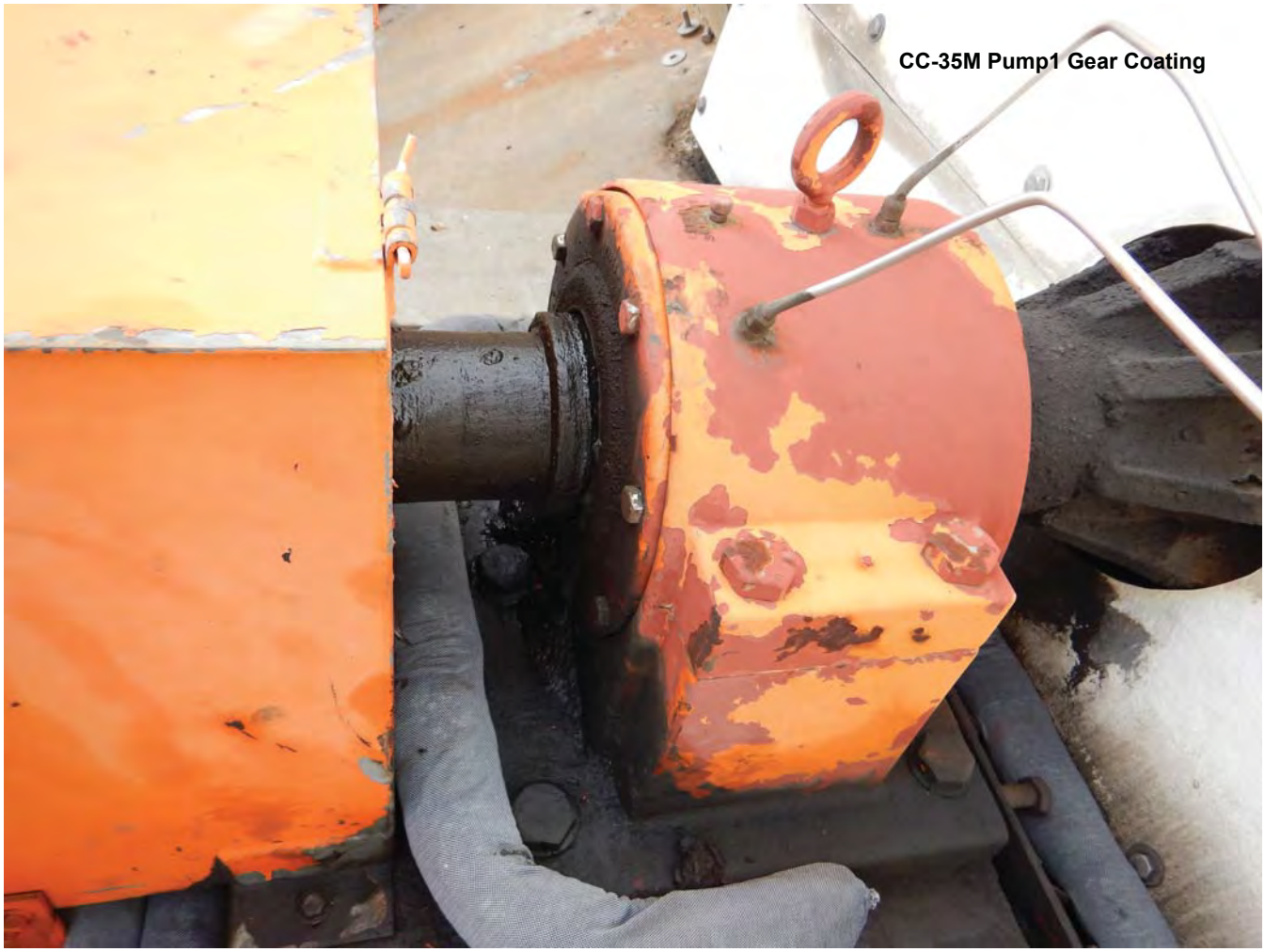
CC-31M Pump1 Gear Nameplate



CC-33M Pump3 Motor Nameplate



CC-34M Pump3 Gear Nameplate



CC-35M Pump1 Gear Coating



CC-36M Pump1 Gear Coating



CC-40S Inlet Box Concrete



CC-50E Pump2 Lube Pump Control Box

Appendix C PUMP CAPACITY AND RUN TIME

APPENDIX C

PUMP CAPACITY AND RUN TIME

San Bernardino Municipal Water Department

Lift Station Assessment

2019

LS #	Name	Motor hp	Use hp	WW Depth, ft	Pump Size, "	Estimated Disch Vel, ft/sec	Estimated gpm	Estimated cfs	Assumed efficiency	Max TDH, ft	Use TDH	Comment	High kwh/day per SCE bill info	Cont. hp	Assumed vent fan hp	Pump hp if constant	Pump run hrs/day
1	Carousel	2	1.9	12	3	8	**300**	0.668	65%	16.28	**15**	**Reported by V&A**	4.7	0.261	0.25	0.011	0.1
2	May Co.	10	7.5	12	4	6	**450**	1.003	70%	46.15	**48**	**Reported by V&A**	26.2	1.462	0.25	1.212	3.9
3	Colton	10	7.5	20	6	6.81	600	1.337	65%	32.13	30		31.5	1.758	0.4	1.358	4.3
4	Fairway	15	14.5	28	6	5	**1420**	3.164	80%	32.31	**32**	**Actual nameplate**	14.1	0.786	0.25	0.536	0.9
5	Airport	3	2.2	17	4	5.62	220	0.490	60%	23.72	20		8.8	0.492	0.25	0.242	2.6
6	Valley Truck	5	3.6	15	4	6.38	250	0.557	50%	28.50	25		6.7	0.375	0	0.375	2.5
7	Allen	5	4.2	19	4	5.62	220	0.490	50%	37.74	35		4.5	0.251	0	0.251	1.4
8	Pine	15	12	15	4	7.65	300	0.668	50%	79.22	75		57.5	3.213	0	3.213	6.4
9	City Hall	3	2.5	12	4	6.38	250	0.557	65%	25.73	25				0		
10	Meridian	30	22	23	6	6.81	600	1.337	45%	65.26	65		77.9	4.353	0	4.353	4.7
11	Macy	15	10	15	4	5.5	215	0.480	40%	73.46	70				0		
12	Riverwalk	7.5	5.5	15	3	9.08	200	0.446	35%	38.07	35	**Sel. Pt on Curve**	28.3	1.583	0	1.583	6.9
A	Arrowhead																
B	E Street																
C	East Intercep																

APPENDIX L

SIPHON MEASUREMENT STUDY

San Bernardino Municipal Water Department 2017 Sewer Master Plan Update

Siphon Measurement Study



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Date: March 2019

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V&A Project No. 17-0311

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1 Introduction

1.1 Scope and Purpose

V&A Consulting Engineers, Inc. (V&A) has completed siphon measurements within the San Bernardino Municipal Water Department (SBMWD). The measurements were performed on 9 siphons. Each siphon required two measurement locations, totaling 18 measurement sites.

The main purpose of performing the siphon measurements is to collect the following:

1. Site Information
2. General Structure Conditions
3. General Dimensions (Pipe Diameters Only)
4. Observe Hydraulic Conditions

2 Approach

2.1 Measurement Locations and Selection

The Siphon sites were selected by Stantec and approved by SBMWD. The siphon site locations are detailed in Table 2-1 and pictured in Figure 2-1. Additional site information (internal pipe diameters, photos, maps, etc.) can be found in Section 3. Each siphon consisted of one upstream and one downstream structure; and each structure consisted of inflow and outflow piping described according to flow direction. The diameter measurements presented herein were rounded to nominal pipe diameters. It is important to note that in cases where the channel was flowing with high velocity or the pipe was submerged, the measurements were made to best ability of the field crew.

Table 2-1 Siphon Site Locations

Siphon No.	Siphon Name	Cross Street	Obstacle
1	Mill Street	G Street	Lytle Creek Channel
2	Waterman Ave (Vanderbilt)	South of Orange Show Road	Santa Ana River
3	Perris Hill Park	North of 21st Street	Twin Creek Channel
4	"I" Street	North of Mill Street	Lytle Creek Channel
5	San Bernardino (E St West)	North of Hospitality Lane	Santa Ana River
6	Loma Linda (E St East)	North of Hospitality Lane	Santa Ana River
7	Zanga	Southwest of Cooley Street	Mission Channel
8	Santa Fe	Southwest of Cooley Street	Santa Ana River
9	Inland Center Mall Drive	Northeast of "G" Street	Lytle Creek Channel

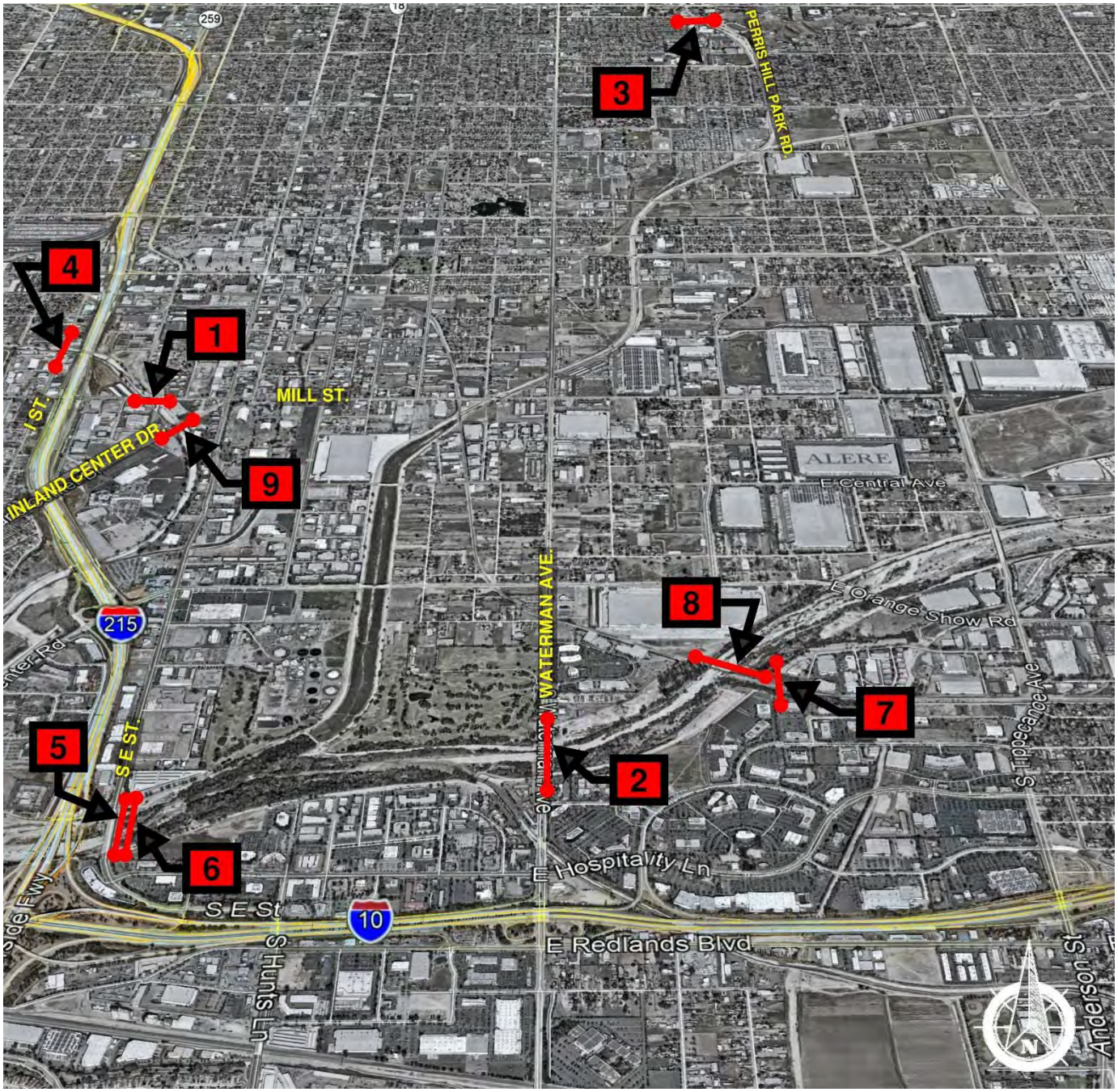


Figure 2-1 Siphon Site Locations

2.2 Confined Space Entry

A confined space, (Photo 2-1) is defined as any space that is large enough and so configured that a person can bodily enter and perform assigned work, has limited or restricted means for entry or exit, and is not designed for continuous employee occupancy. The atmosphere must be continuously monitored for sufficient concentrations of oxygen (19.5% to 23.5%), and the presence of hydrogen sulfide (H_2S) gas, carbon monoxide (CO) gas, and lower explosive limit (LEL) levels. A typical confined space entry crew has members with Occupational Safety and Health Administration (OSHA)-defined responsibilities of Entrant, Attendant, and Supervisor. The Entrant is the individual performing the work. He or she is equipped with the necessary personal protective equipment (PPE) needed to perform the job safely, including a personal four-gas monitor (Photo 2-2). The Attendant is responsible for maintaining contact with the Entrant, monitoring the atmosphere using another four-gas monitor, and maintaining entry records. The Supervisor is responsible for developing the safe work plan for the job at hand prior to entry and overseeing the confined space entry.



Photo 2-1. Example confined space entry setup



Photo 2-2. Typical personal four-gas monitor

3 Siphon Measurements

3.1 Mill Street – Lytle Creek Channel



Figure 3-1 Mill Street Satellite View

3.1.1 Mill Street – Upstream Structure

The upstream siphon structure is located on the west side of the Lytle Creek crossing on Mill Street as shown in Figure 3-1. The upstream structure has T-Lock lining throughout the structure, except for the bench. The concrete structure dimensions are 6-feet (west to east) by 5.5-feet (north to south). Pipe diameters of the inlet and outlet piping of the upstream structure were measured during the site visits and are shown in the flow diagram depicted in Figure 3-2. There is a large amount of exposed aggregate throughout the bench. The weir wall is brick with mortar lining. There is also corrosion on the manhole lid ring. Photos 3-1 through 3-10 depict the field conditions observed during the field measurement site visit.

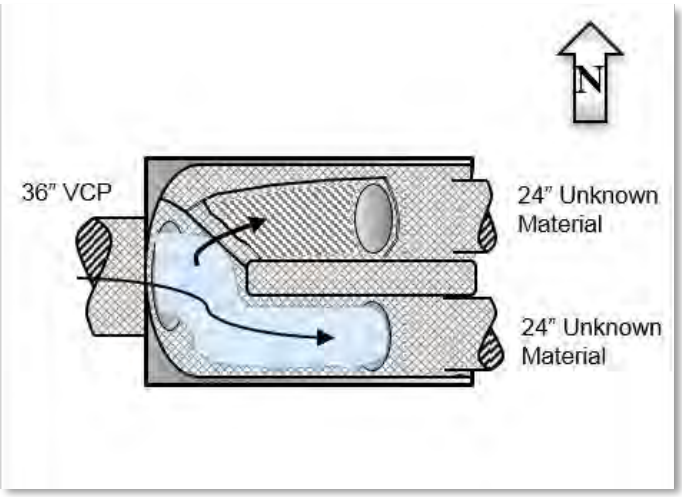


Figure 3-2 Mill Street Upstream Flow Diagram



Photo 3-1. Mill Street Upstream Site View



Photo 3-2. Mill Street Upstream Plan View



Photo 3-3. 24" Outflow Pipe



Photo 3-4. 36" VCP Inflow Pipe



Photo 3-5. 24" Overflow Outflow Pipe



Photo 3-6. 27" Tall Weir Wall



Photo 3-7. T-Lock Liner in Structure



Photo 3-8. Exposed Aggregate on bench



Photo 3-9. Corroded Manhole frame and chimney



Photo 3-10. Corroded Manhole frame and chimney

3.1.2 Mill Street – Downstream Structure

The downstream siphon structure is located on the east side of Lytle Creek crossing on Mill Street as shown in Figure 3-1. The downstream structure has T-Lock lining throughout the structure, except for the bench. The 24-inch line (unknown material) is corroded, specifically at the pipe crown as depicted in Photo 3-15. There are areas of exposed aggregate on the concrete bench (Photo 3-17). The concrete structure dimensions are 5-feet by 5-feet and pipe sizes and material are shown in Figure 3-3.

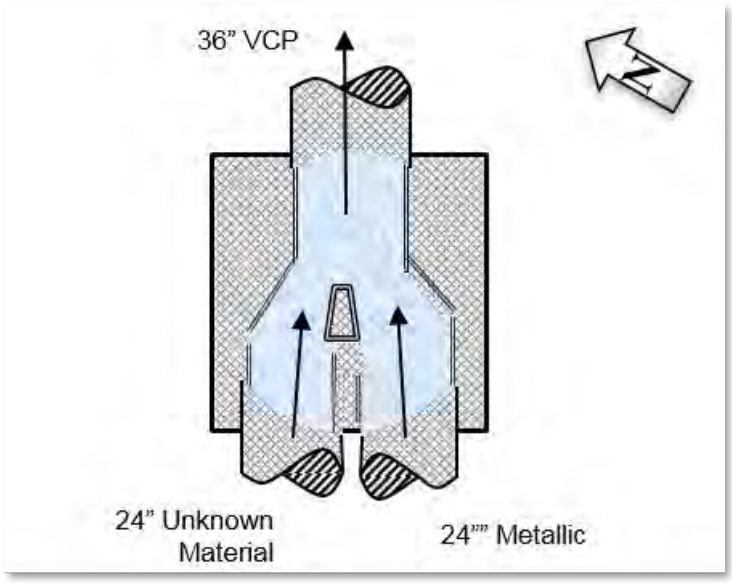


Figure 3-3 Mill Street Downstream Flow Diagram



Photo 3-11. Mill Street Downstrem Site View



Photo 3-12. Mill Street Downstream Plan View



Photo 3-13. 36" VCP Outflow Pipe



Photo 3-14. 24" Metallic Inflow Pipe



Photo 3-15. 24" Inflow Pipe



Photo 3-16. Corroded Pipe Crown



Photo 3-17. T-Lock Liner in Structure



Photo 3-18. Exposed Aggregate on Concrete Bench

3.2 Waterman Avenue – Santa Ana River Channel



Figure 3-4 Waterman Ave Satellite View

3.2.1 Waterman Ave – Upstream Structure

The upstream structure of the Waterman Avenue Siphon has a spray liner on all the walls and ceiling, with areas of delamination as shown in Photos 3-27 and 3-28. The bench is bare and heavily corroded with exposed aggregate in multiple locations (Photos 3-25 and 3-26). There is evidence of scouring within the channel. The 12-inch PVC Outflow pipe is filled with debris and has no flow. Heavy corrosion was observed at the manhole lid (Photos 3-29 and 3-30). The concrete structure dimensions are 3.5-feet (west to east) by 6-feet (north to south). Field measurements are provided in Figure 3-5.

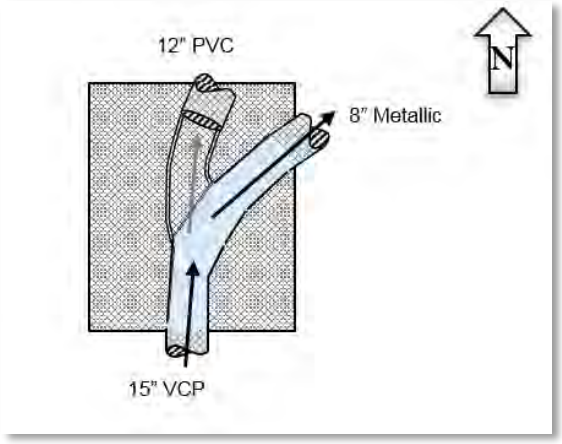


Figure 3-5 Waterman Ave Upstream Flow Diagram



Photo 3-19. Waterman Avenue Street View



Photo 3-20. Plan View



Photo 3-21. 8” Metallic Outflow Pipe



Photo 3-22. 15” VCP Inflow Pipe



Photo 3-23. 12” PVC Outflow Pipe



Photo 3-24. 12” VCP Outflow Pipe



Photo 3-25. Exposed Aggregate on Concrete Bench



Photo 3-26. Exposed Aggregate on Concrete Bench



Photo 3-27. Spray Liner on Walls and Chimney



Photo 3-28. Delaminated Liner



Photo 3-29. Heavy Corrosion at Manhole Frame



Photo 3-30. Heavy Corrosion at Manhole Frame

3.2.2 Waterman Ave – Downstream Structure

The downstream siphon structure at Waterman Avenue is located on the north side of the Santa Ana River Channel. The concrete structure has a potential for scouring based on observations during the site visit. There is a large amount of debris within the 12-inch inflow pipe as shown in Photo 3-35. The 8-inch inflow pipe is completely full, with 2 inches of water above the pipe crown as shown in Photo 3-34. The concrete structure is a 5-foot barrel and pipe sizes and material are shown in Figure 3-6.

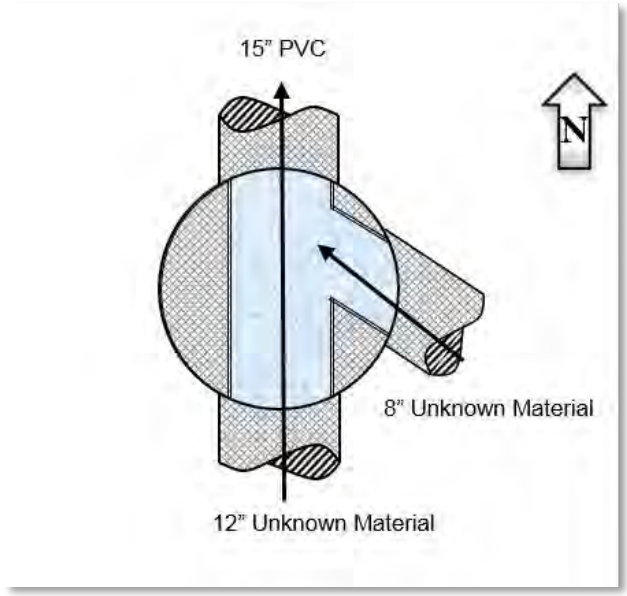


Figure 3-6 Waterman Ave Downstream Flow Diagram



Photo 3-31. Waterman Avenue Downstream Street View



Photo 3-32. Waterman Ave Downstream Plan View



Photo 3-33. 15” PVC Outflow Pipe



Photo 3-34. 8” Inflow Pipe



Photo 3-35. 12” Inflow Pipe (Filled with Debris)



Photo 3-36. 12” Inflow Pipe (Filled with Debris)

3.3 Perris Hill Park– Twin Creek Channel



Figure 3-7 Perris Hill Park Satellite View

3.3.1 Perris Hill Park – Upstream Structure

The upstream structure of the Perris Hill Park Siphon is a concrete structure with an observed potential for surcharge. The 8-inch outflow pipe is fully submerged as shown in Photo 3-39. The 10-inch pipe is plugged as shown in Photo 3-40. There is staining and exposed aggregate in multiple locations on the concrete walls as shown in Photo 3-42. The concrete structure dimensions are 4-feet (west to east) by 5- feet (north to south) and pipe sizes and material are shown in Figure 3-8.

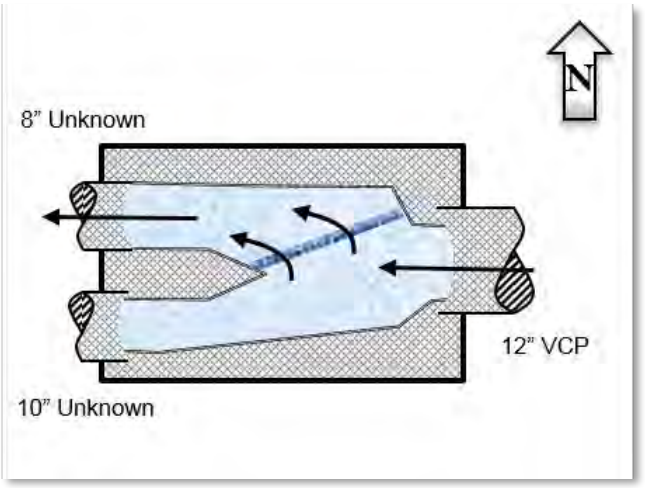


Figure 3-8 Perris Hill Park Upstream Flow Diagram



Photo 3-37. Street View



Photo 3-38. Plan View



Photo 3-39. 8" Outflow Pipe (Submerged)



Photo 3-40. 10"Outflow Pipe (Plugged)



Photo 3-41. 12" VCP Inflow Pipe



Photo 3-42. Minor Staining and Exposed Aggregate on Concrete Walls

3.3.2 Perris Hill Park – Downstream Structure

The downstream structure of the Perris Hill Park Siphon is a concrete structure measuring 4-feet (west to east) by 5-feet (north to south). The measured pipe diameters are shown in Figure 3-9. There is staining on the concrete walls and exposed aggregate on the bench (Photos 3-44 and 3-48). The 10-inch metallic inflow pipe has corrosion and is flowing nearly full as shown in Photo 3-46. The 8-inch metallic pipe is flowing completely full, with 0.5 inches of water above the pipe crown as shown in Photo 3-47.

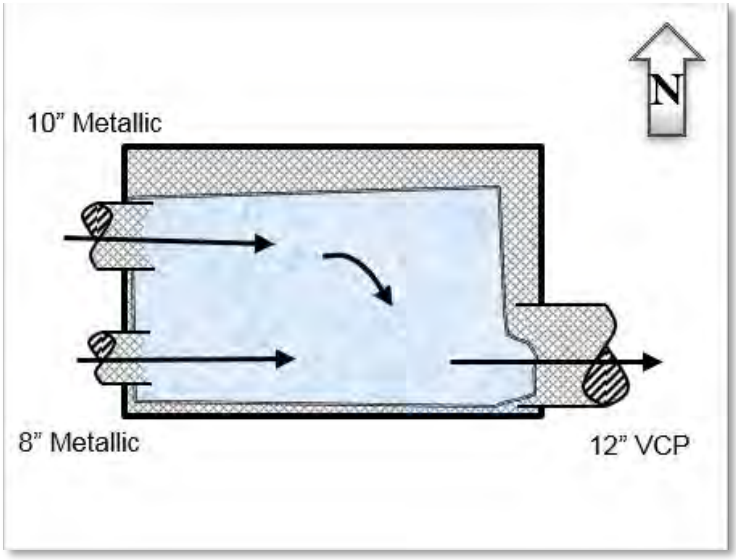


Figure 3-9 Perris Hill Park Downstream Flow Diagram



Photo 3-43. Street View (west of channel)



Photo 3-44. Plan View



Photo 3-45. 12” VCP Outflow Pipe



Photo 3-46. 10” Metallic Inflow Pipe



Photo 3-47. 8” Submerged Metallic Inflow Pipe



Photo 3-48. Staining on Concrete Walls

3.4 "I" Street – Lytle Creek Channel

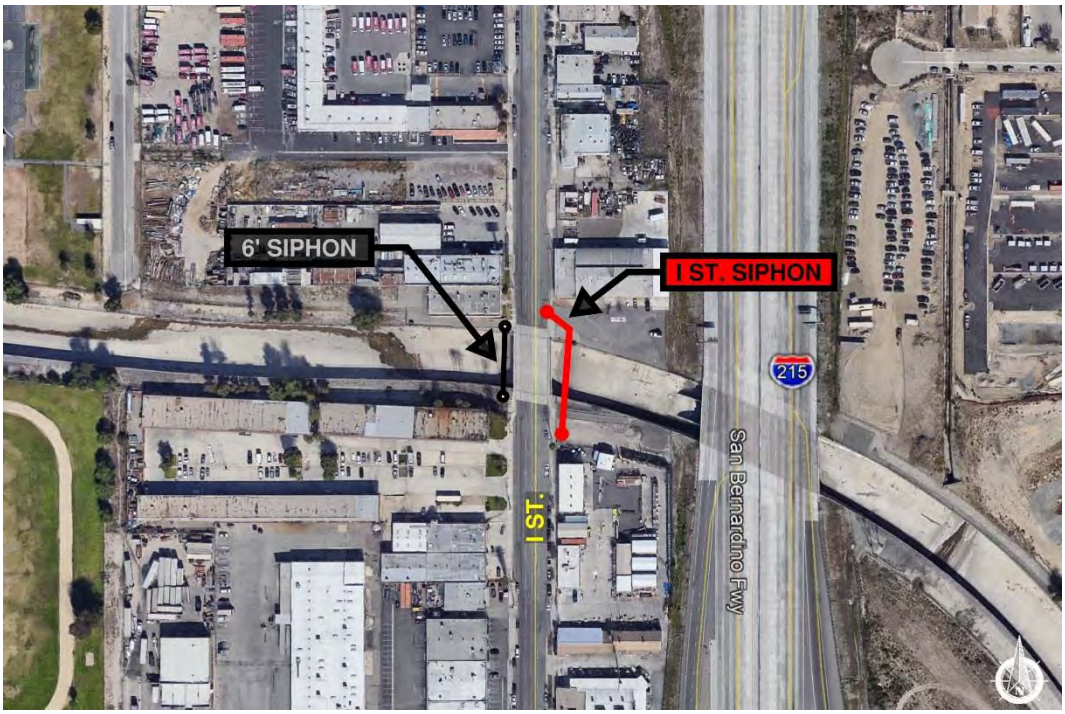


Figure 3-10 I Street Satellite View

3.4.1 "I" Street – Upstream Structure

The upstream structure of the "I" Street Siphon is T-Lock lined throughout the structure except the bench. The T-Lock liner is blistering at multiple locations (Photo 3-56), and there is exposed aggregate on the concrete bench (Photo 3-55). There is also evidence of erosion on the concrete bench and pipes. The 24-inch and 18-inch metallic pipes have minor corrosion as shown in Photo 3-51 and 3-52. The concrete structure dimensions are 5-feet (west to east) by 6-feet (north to south) and pipe sizes and material are shown in Figure 3-11.

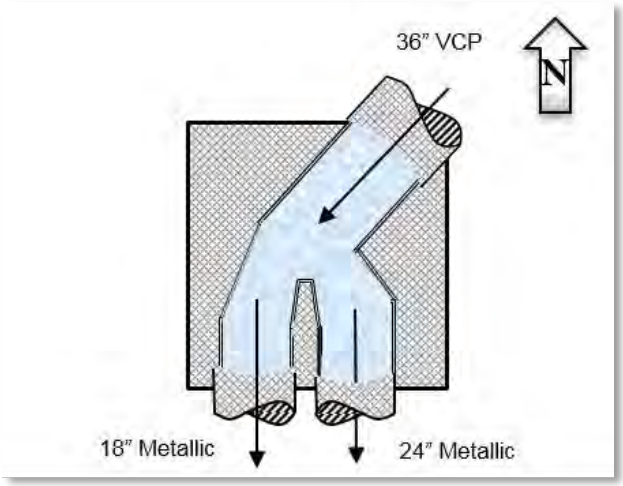


Figure 3-11 I Street Upstream Flow Diagram



Photo 3-49. Street View



Photo 3-50. Plan View



Photo 3-51. 24” Metallic Outflow Pipe



Photo 3-52. 18” Metallic Outflow Pipe



Photo 3-53. 36” VCP Inflow Pipe



Photo 3-54. Outflow PIpes



Photo 3-55. Exposed Aggregate on Concrete Bench



Photo 3-56. Blistering on T-Lock Liner

3.4.2 "I" Street – Downstream Structure

Similar to the upstream structure, the downstream structure of the "I" Street Siphon is T-Lock lined throughout the structure and eliminates at the bench. The T-Lock liner is blistering at multiple locations (Photo 3-64), and there is exposed aggregate on the concrete bench (Photo 3-63). There is minor corrosion on the 18-inch and 24-inch metallic inflow pipes (Photos 3-60 and 3-61), as well as the manhole lid (Photo 3-66). The concrete structure dimensions are 5-feet by 5-feet and pipe sizes and material are shown in Figure 3-12.

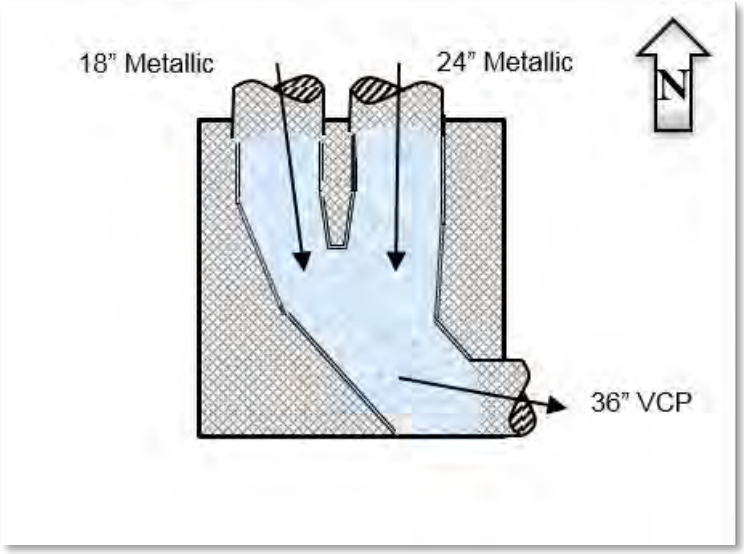


Figure 3-12 I Street Downstream Flow Diagram



Photo 3-57. Street View



Photo 3-58. Plan View



Photo 3-59. 36” VCP Outflow Pipe



Photo 3-60. 18” Metallic Inflow Pipe



Photo 3-61. 24” Metallic Inflow Pipe



Photo 3-62. Inflow PIpes



Photo 3-63. Exposed Aggregate on Concrete Bench



Photo 3-64. Blistering on T-Lock Liner



Photo 3-65. T-Lock Liner to Concrete Transition



Photo 3-66. Corrosion at Manhole Lid

3.5 San Bernardino Siphon– Santa Ana River



Figure 3-13 San Bernardino Satellite View

3.5.1 San Bernardino Siphon – Upstream Structure

The upstream structure of the San Bernardino Siphon is brick with a spray liner as shown in Photo 3-73. There is heavy exposed aggregate on the concrete bench with evidence of scouring in the channel (Photos 3-74 and 3-75). H_2S damage within the structure is also present. The spray liner has disbonded in some areas within the barrel as shown in Photos 3-76 and 3-77. The manhole lid ring and nearby standpipe are heavily corroded as shown in Photos 3-77 and 3-78. The brick structure is a 5-foot barrel and pipe sizes and material are shown in Figure 3-14.

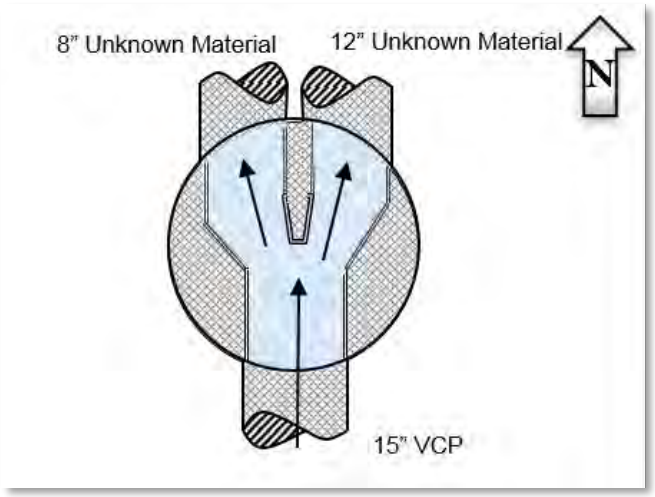


Figure 3-14 San Bernardino Upstream Flow Diagram



Photo 3-67. Street View



Photo 3-68. Plan View



Photo 3-69. 8” Outflow Pipe



Photo 3-70. 12” Outflow Pipe



Photo 3-71. 15” VCP Inflow Pipe



Photo 3-72. Outflow Pipes



Photo 3-73. Brick Wall and Spray Liner



Photo 3-74. Heavy Exposed Aggregate on Concrete Bench



Photo 3-75. Disbonded Liner



Photo 3-76. Disbonded Liner



Photo 3-77. Heavily Corroded Manhole Lid



Photo 3-78. Heavily Corroded Standpipe

3.5.2 San Bernardino Siphon – Downstream Structure

The downstream structure of the San Bernardino Siphon consists of a brick structure with a spray liner (Photo 3-84), terminating at the bench. The south side of the bench has exposed aggregate. There is debris/build up within the channel as shown in Photo 3-85. The brick structure is a 5-foot barrel and pipe sizes and material are shown in Figure 3-15.

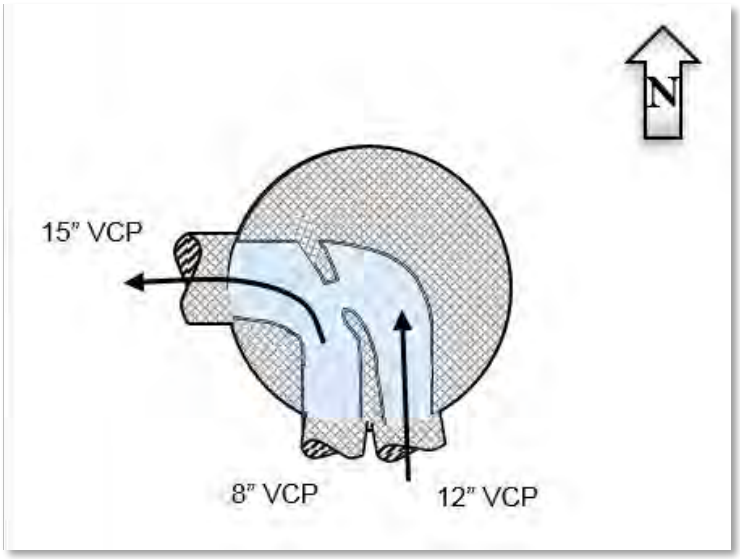


Figure 3-15 San Bernardino Downstream Flow Diagram



Photo 3-79. Street View



Photo 3-80. Plan View



Photo 3-81. 15” VCP Outflow Pipe



Photo 3-82. 12” VCP Inflow Pipe



Photo 3-83. 8” VCP Inflow Pipe



Photo 3-84. Spray Liner on Brick Walls



Photo 3-85. Debris/ Build Up in Channel



Photo 3-86. Liner to Manhole Chimney Transition

3.6 Loma Linda Siphon – Santa Ana River Channel



Figure 3-16 Loma Linda Satellite View

3.6.1 Loma Linda Siphon – Upstream Structure

The upstream structure of the Loma Linda Siphon is concrete box with dual compartments. The primary upper compartment has a spray applied liner as shown in Photo 3-88. The secondary lower compartment has T-Lock lining on the walls that terminates at the bench. The three secondary manhole lids inside the structure had been previously removed and set aside. Each of the secondary manholes and manhole lids are severely corroded. Both inflow pipe and first outflow pipes were completely submerged, and diameters were not able to be measured (Photos 3-90 and 3-91). There is exposed aggregate on the concrete benches with evidence of scouring between each outflow pipe (Photos 3-92 and 3-93). The second (16”) and third (20”) outflow pipes have an exposed metallic portion with what appears to have been a hinged lid. Both outflowing pipes metallic portions are severely corroded. The third outflow pipe (20”) is filled with debris and has very little flow (Photo 3-93). H_2S damage within the structure is also evident. The structure is a 6-foot by 8-foot box and pipe sizes and material are shown in Figure 3-17.

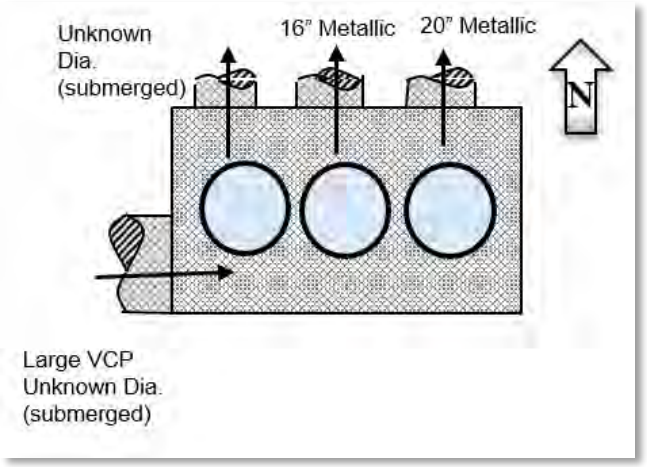


Figure 3-17 Loma Linda Upstream Flow Diagram



Photo 3-87. Street View



Photo 3-88. Plan View



Photo 3-89. Secondary Access Manhole to Unknown Diameter Inflow and Outflow Pipes



Photo 3-90. Unknown Diameter Inflow Pipe



Photo 3-91. Unknown Diameter Outflow Pipe



Photo 3-92. 16” Outflow Pipe



Photo 3-93. 20” Outflow Pipe



Photo 3-94. Heavy Corrosion on 20” Outlfow Pipe Secondary Access Manhole



Photo 3-95. Heavy Corrosion on 16” Outflow Pipe Secondary Access Manhole



Photo 3-96. Heavy Corrosion on Unknown Diameter Outflow and Inflow Pipe Secondary Access Manhole

3.6.2 Loma Linda Siphon – Downstream Structure

The downstream structure of the Loma Linda Siphon is T-Lock lined throughout the structure and eliminates at the bench (Photo 3-102). The T-Lock liner is damaged at the manhole lid ring as shown in Photos 3-105 and 3-106). The weir wall is brick with mortar lining (Photos 3-103 and 3-104). There are locations of exposed aggregate within the structure. The concrete structure dimensions are 9-feet (west to east) by 5-feet (north to south) and pipe sizes and material are shown in Figure 3-18.

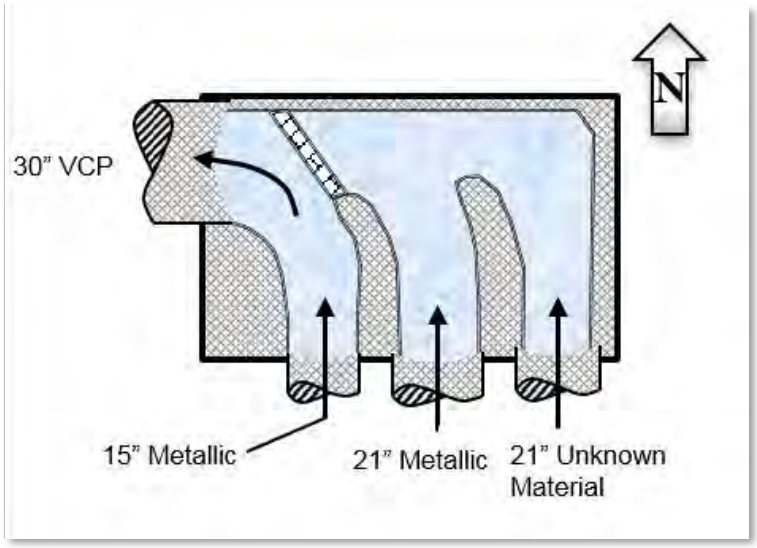


Figure 3-18 Loma Linda Downstream Flow Diagram



Photo 3-97. Street View



Photo 3-98. Plan View



Photo 3-99. 30" VCP Outflow Pipe



Photo 3-100. 15" Metallic Inflow Pipe



Photo 3-101. 21" Submerged Inflow Pipes



Photo 3-102. T-Lock Liner in Concrete Structure



Photo 3-103. Exposed Aggregate in Concrete Structure



Photo 3-104. Brick Weir Wall



Photo 3-105. Corrosion on Manhole Lid



Photo 3-106. Liner to Manhole Lid Transition

3.7 Zanga – Mission Channel



Figure 3-19 Zanga Satellite View

3.7.1 Zanga – Upstream Structure

The upstream structure of the Zanga Siphon is a 4-foot diameter concrete structure located in the shrubs in the northwest corner of the property behind parking spaces. No exposed aggregate was noted on the walls. There was debris, dirt, and roots on the bench. The metal ladder rungs are corroded as shown in Photo 3-108. Pipe sizes and material are shown in Figure 3-20.

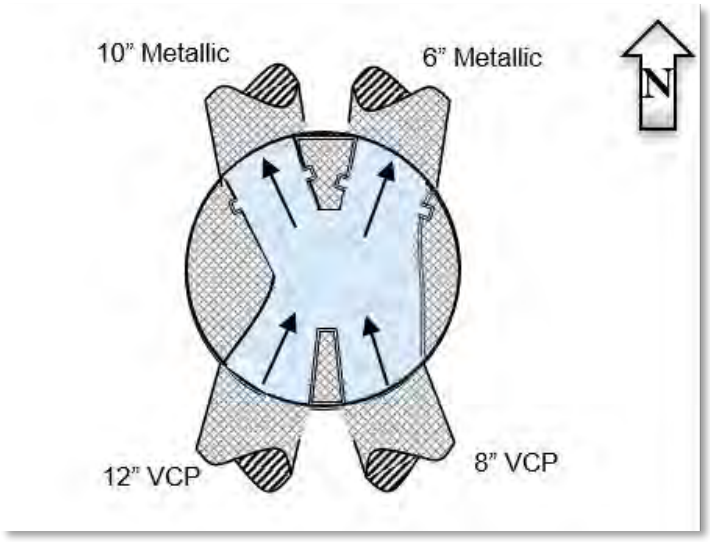


Figure 3-20 Zanga Upstream Flow Diagram



Photo 3-107. Street View



Photo 3-108. Plan View



Photo 3-109. 10"Metallic Outflow Pipe to Siphon



Photo 3-110. 6" Metallic Outflow Pipe to Siphon



Photo 3-111. 8” VCP Inflow Pipe



Photo 3-112. 12” VCP Inflow Pipe

3.7.2 Zanga – Downstream Structure

The downstream structure of the Zanga Siphon is a concrete structure with some exposed aggregate in various locations (Photo 3-120). The rungs are completely corroded (Photo 3-123). There are two pieces of horizontal reinforcing steel that are also corroded, although not exposed as shown in Photos 3-121 and 3-122. The concrete structure is a 5-foot barrel and pipe sizes, material, and elevations are shown in Figure 3-21.

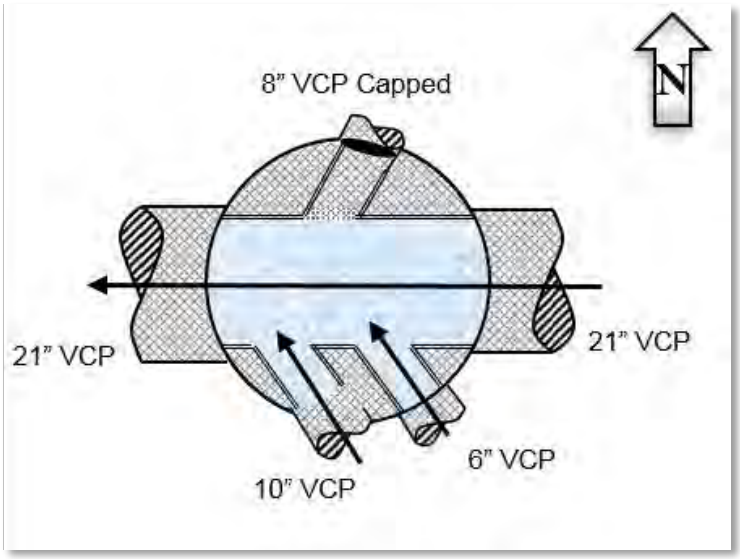


Figure 3-21 Zanga Downstream Flow Diagram



Photo 3-113. Street View



Photo 3-114. Plan View



Photo 3-115. 21” VCP Outflow Pipe



Photo 3-116. 21” VCP Inflow Pipe



Photo 3-117. 8” VCP Lateral



Photo 3-118. 6” VCP Lateral



Photo 3-119. 10” VCP Lateral



Photo 3-120. Exposed Aggregate in Concrete Structure



Photo 3-121. Corroded Horizontal Steel



Photo 3-122. Corroded Horizontal Steel



Photo 3-123. Corroded Rungs

3.8 Santa Fe – Santa Ana River



Figure 3-22 Santa Fe Satellite View

3.8.1 Santa Fe – Upstream Structure

The upstream structure of the Santa Fe Siphon is a concrete structure with moderate to heavy exposed aggregate on all walls (Photos 3-131 to 3-133). The 8-inch VCP Outflow Line has a flap gate mount surrounding the pipe opening, however the flat gate itself has broken off (Photo 3-126). The mount around the pipe is still intact but is heavily corroded, causing the flow into the pipe to be restricted. The flap gate on the 20-inch VCP pipe is intact but heavily corroded as well as shown in Photo 3-130. The 12-inch VCP pipe has a flap gate mount with no flap gate attached as shown in Photo 3-129. The 20-inch and 12-inch pipes have no flow and are completely dry. The rungs in the structure are moderately corroded as shown in Photo 3-132. The concrete structure dimensions are 7-feet by 7-feet and pipe sizes and material are shown in Figure 3-23.

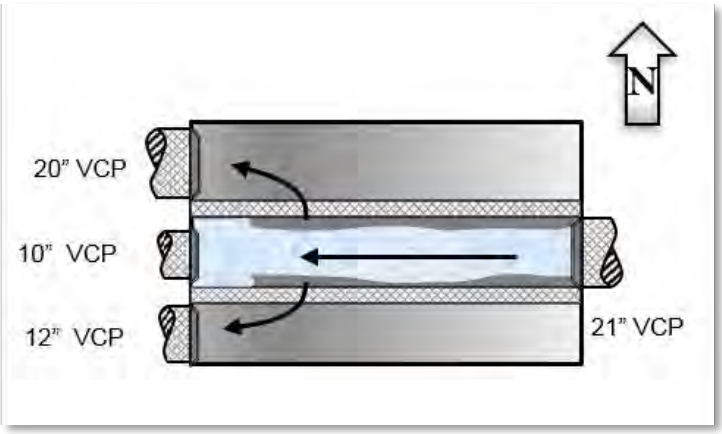


Figure 3-23 Santa Fe Upstream Flow Diagram



Photo 3-124. Street View



Photo 3-125. Plan View



Photo 3-126. 8” VCP Outflow Pipe



Photo 3-127. 21” VCP Inflow Pipe



Photo 3-128. 20” VCP Pipe with Metallic Fitting



Photo 3-129. 12” VCP Pipe with Metallic Fitting



Photo 3-130. Corroded Flap Gate



Photo 3-131. Exposed Aggregate in Concrete Structure



Photo 3-132. Corroded Rungs



Photo 3-133. Exposed Aggregate at Manhole Lid Rings

3.8.2 Santa Fe – Downstream Structure

The downstream structure of the Santa Fe Siphon is a concrete structure. There is moderate exposed aggregate at multiple locations throughout the structure (Photo 3-141). The manhole lid rings have corrosion while the rungs are completely corroded through (Photos 3-140, 3-142 and 3-143). The concrete structure dimensions are 7.5-feet (west to east) by 7-feet (north to south). Pipe sizes and material are shown in Figure 3-24.

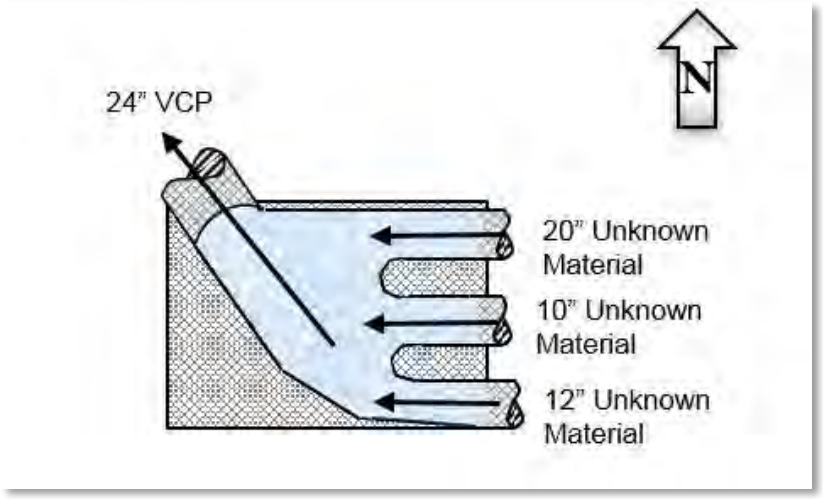


Figure 3-24 Santa Fe Downstream Flow Diagram



Photo 3-134. Street View



Photo 3-135. Plan View



Photo 3-136. 24" VCP Outflow Pipe



Photo 3-137. 20" Inflow Pipe



Photo 3-138. 10” Inflow PIpe



Photo 3-139. 12” Inflow PIpe



Photo 3-140. Corroded Rungs



Photo 3-141. Minor Exposed Aggregate in Concrete Structure



Photo 3-142. Corroded Manhole Lid Rings



Photo 3-143. Corroded Manhole Lid Rings

3.9 Inland Center Mall – Santa Ana River Channel



Figure 3-25 Inland Center Mall Satellite View

3.9.1 Inland Center Mall – Upstream Structure

The upstream structure of the Inland Center Mall Siphon is a brick structure. The 10-inch outflow pipe to siphon was completely submerged. The 18-inch outflow pipe material began too far back behind the brick and mortar wall to see clearly. The siphon was filled with debris and very little flow observed. The 18-inch VCP inflow pipe appeared to be in good condition. Evidence of surcharge was on the bench, the concrete bench appeared to be in good condition. The brick structure is a 4-foot barrel and pipe sizes and material are shown in Figure 3-26.

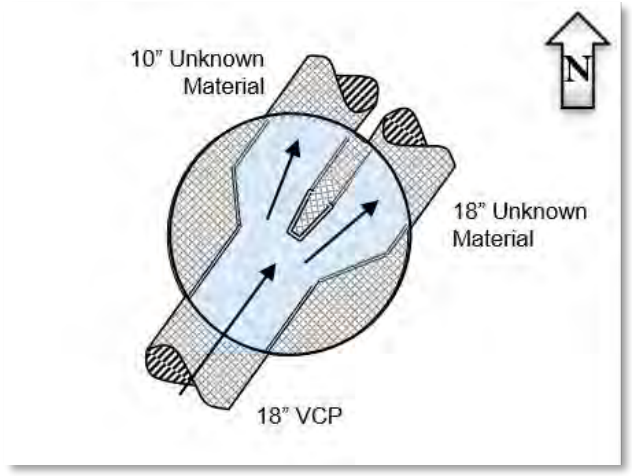


Figure 3-26 Inland Center Mall Upstream Flow Diagram

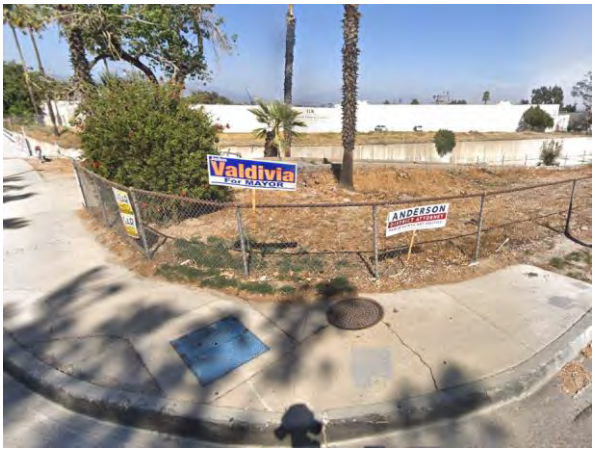


Photo 3-144. Street View



Photo 3-145. Plan View



Photo 3-146. 10” Outflow Pipe to Siphon



Photo 3-147. 18” Outflow Pipe to Siphon



Photo 3-148. 18” VCP Inflow Pipe

3.9.2 Inland Center Mall – Downstream Structure

The downstream structure of the Inland Center Mall Siphon is a brick and mortar structure as shown in Photo 3-150. The 18-inch metallic inflow and 10-inch metallic outflow pipes both have corrosion. Both inflow siphon pipes are full indicating a degree of blockage. The mortar bench is in good condition. The brick structure is a 4-foot barrel and pipe sizes and material are shown in Figure 3-27.

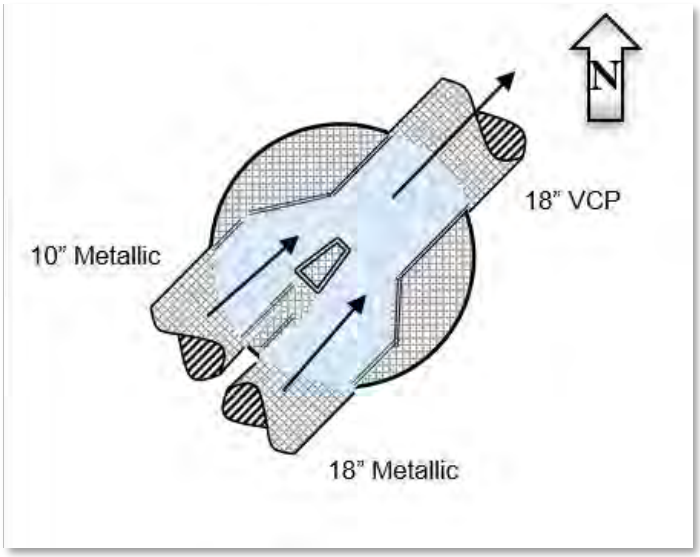


Figure 3-27 Inland Center Mall Downstream Flow Diagram



Photo 3-149. Street View



Photo 3-150. Plan View



Photo 3-151. 18” VCP Outflow Pipe



Photo 3-152. 18” Metallic Inflow Pipe from Siphon



Photo 3-153. 10” Metallic Inflow Pipe from Siphon

V&A Project No. 17-0311



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Suite C
San Diego, CA 92127
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510.903.6601, Fax

APPENDIX M

DETAILED MAINTENANCE HOLE INSPECTIONS

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0120001

Location: Palm AVE and Little league Dr

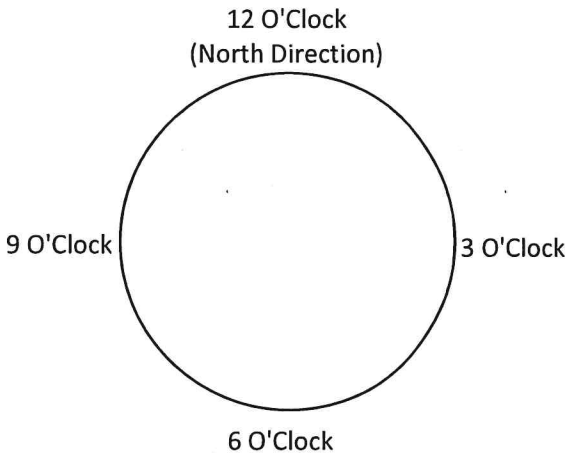
Downstream Manhole Number: 0120006

Upstream Manhole Number: 0116008

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	1752		good		fast
Outlet 2							
Inlet 1	24"	Clay	1751		good		fast
Inlet 2	24"	Clay	1791		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: **Y / N** Is the cover misaligned: **Y / N**

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1751

Depth to channel invert (outlet): 1752

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

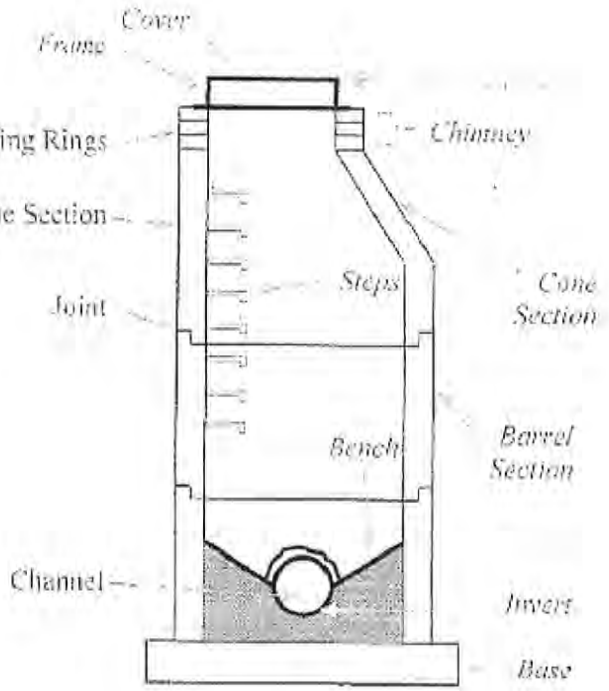
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0120001-1 9028

Vicinity Photo File 2: 0120001-3 9026

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0120001-2 9027

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/1/19

Manhole ID: 0220059

Location: middle curve of Bailey St.

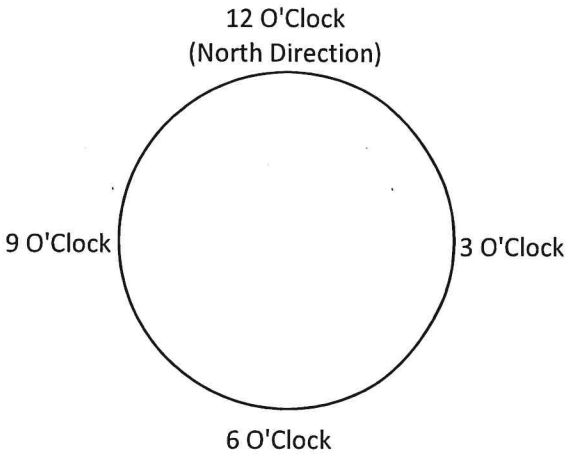
Downstream Manhole Number: 0220060

Upstream Manhole Number: 0220058

Surrounding area (Circle): Pavement, Grass, (Dirt) Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: low sulfur

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	Clay	15.60		fair	N	fair
Outlet 2							
Inlet 1	24"	Clay	15.63		fair	N	fair
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: YES Odor Control Insert: Y / (N)

Holes in cover: 6 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:
Cracked hole on outside edge of cover.

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 15.60

Depth to channel invert (outlet): 15.63

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: YES

Grease or solids in channel: YES

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? **Y / N** If yes, depth below surface: _____

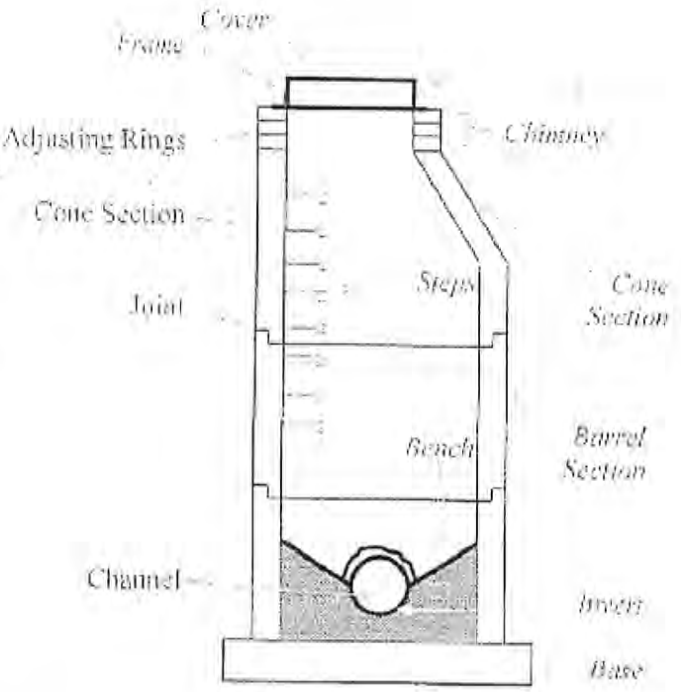
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): YES

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 022055-1 (7138) Interior Photo File 1: 022055-2 (7137)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/1/19

Manhole ID: 0230041

Location: intersection at W College / Grand ave.

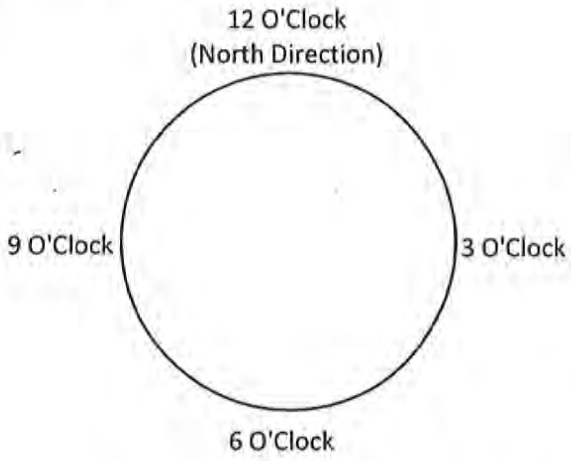
Downstream Manhole Number: 0230039

Upstream Manhole Number: 0230047

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	clay	7.77		good	N	good
Outlet 2							
Inlet 1	12"	clay	7.60		good	N	good
Inlet 2	8"		7.50		good	N	good
Inlet 3	8"		7.53		good	N	good

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: No Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.60

Depth to channel invert (outlet): 7.77

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / N If yes, depth below surface: NO

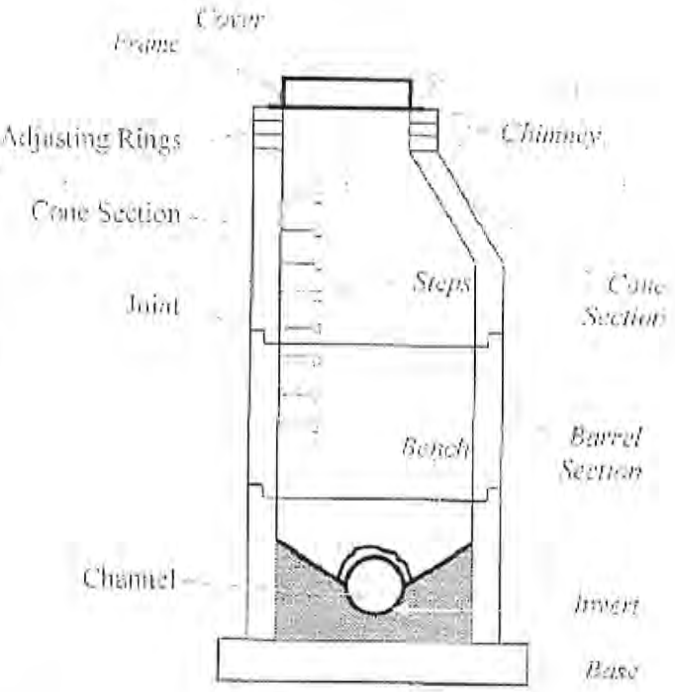
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 023004-1 (7142)

Vicinity Photo File 2: _____

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 023004-2 (7141)

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/1/19

Manhole ID: 0230132

Location: middle curve at Christine / christopher.

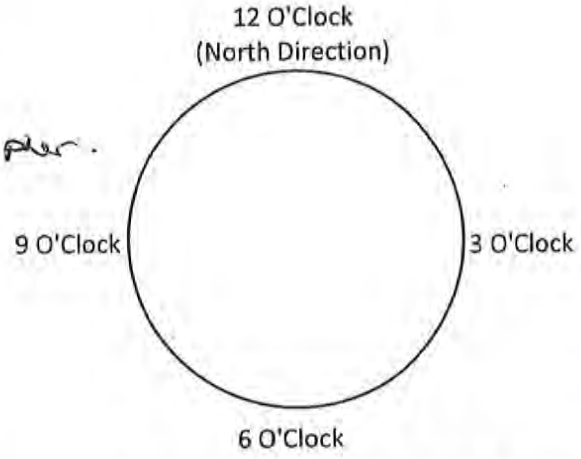
Downstream Manhole Number: 0230131

Upstream Manhole Number: 0230153

Surrounding area (Circle): ~~Pavement~~, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	3"	Pvc	6.22		fair	N	good
Outlet 2							
Inlet 1	3"	Pvc	6.13		fair	N	good
Inlet 2	3"	Pvc	6.14		fair	N	good!
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: No Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6.13

Depth to channel invert (outlet): 6.22

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? (Y) / N If yes, depth below surface: 5.0

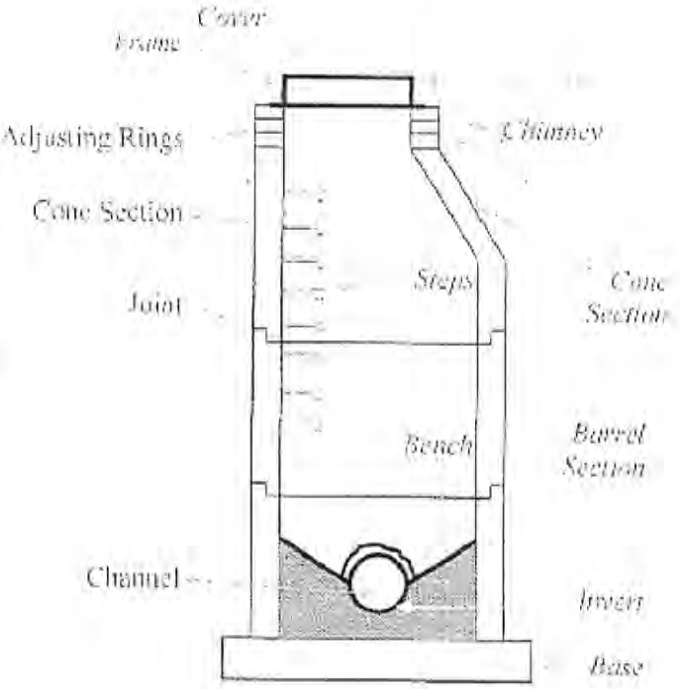
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0230132-1 (7140) Interior Photo File 1: 0230132-2 (7139)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0240096

Location: 250± west of northstar st

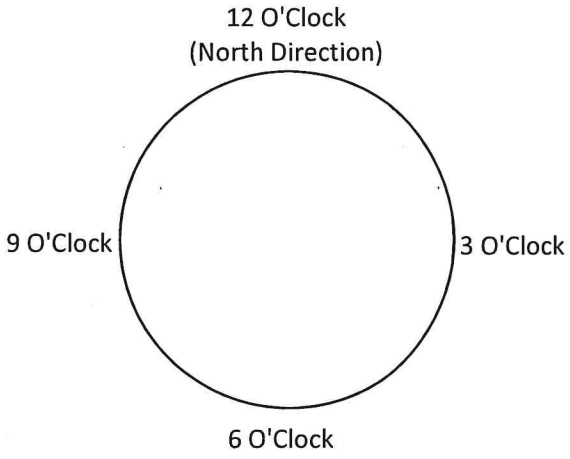
Downstream Manhole Number: 0240097

Upstream Manhole Number: 0240095

Surrounding area (Circle): Pavement, Grass, (Dirt), Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	11 41		Good		fast
Outlet 2							
Inlet 1	10"	clay	11 20		Good		fast
Inlet 2	10"	clay	11 32		Good		fast
Inlet 3	10"	clay	11 23		Good		slow

Cover Observations:

Cover Diameter: 2x2 Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 32

Depth to channel invert (outlet): 11 41

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

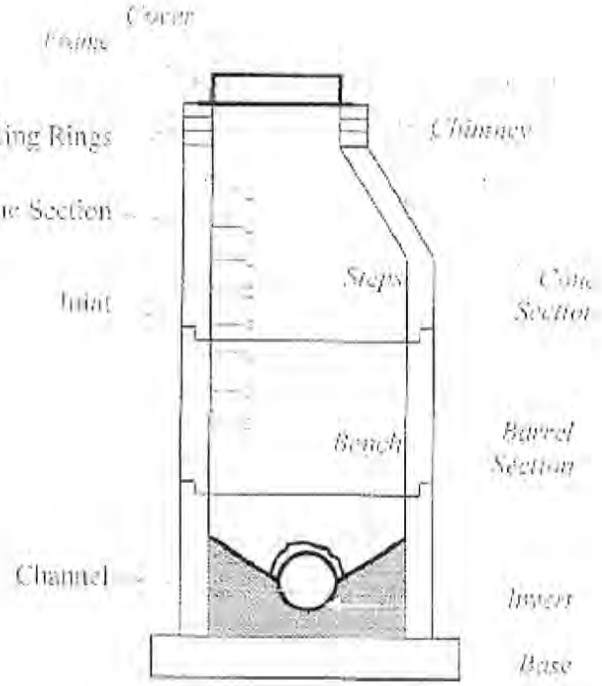
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0240096-1 7334

Vicinity Photo File 2: _____

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0240096-2 7333

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0250008

Location: 48th st and Little mountain DR

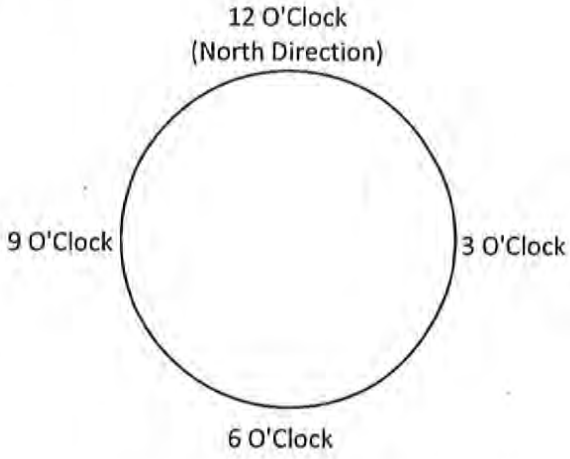
Downstream Manhole Number: 0250153

Upstream Manhole Number: 0250012

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	clay	725		Good		fast
Outlet 2							
Inlet 1	6"	clay	706		Good		fast
Inlet 2	8"	clay	699		Good		NONE
Inlet 3	12"	clay	709		Good		fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 709

Depth to channel invert (outlet): 725

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

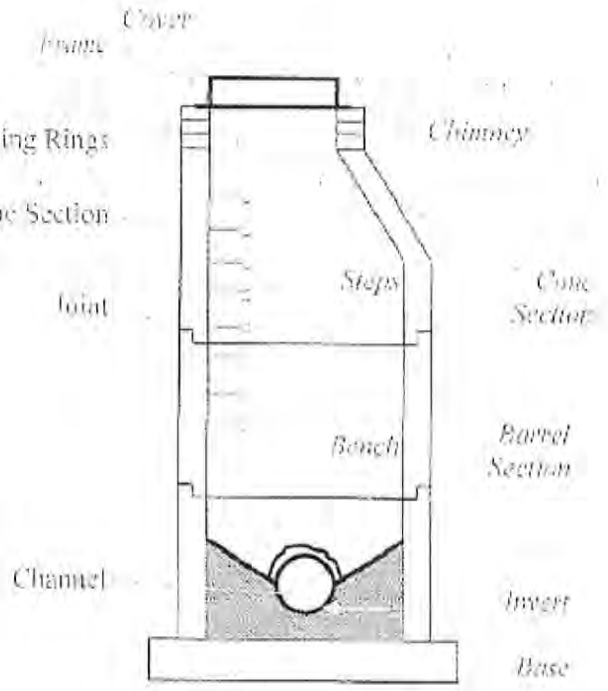
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0250008-1 7329

Interior Photo File 1: 0250008-2 7328

Vicinity Photo File 2: _____

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0250041

Location: North Park Blvd and little mountain

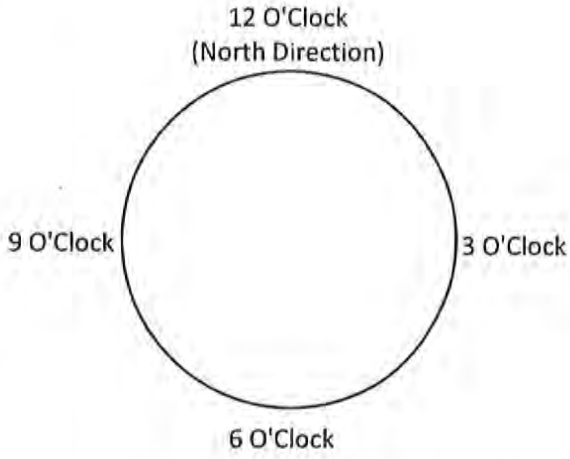
Downstream Manhole Number: 0250042

Upstream Manhole Number: 0250043

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	9 87		Good		fast
Outlet 2							
Inlet 1	19"	clay	9 59		Good		fast
Inlet 2	18"	clay	9 52		Good		obstructed
Inlet 3							

Cover Observations:

Cover Diameter: 29" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 9'5"

Depth to channel invert (outlet): 9'8"

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick) precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: YES

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

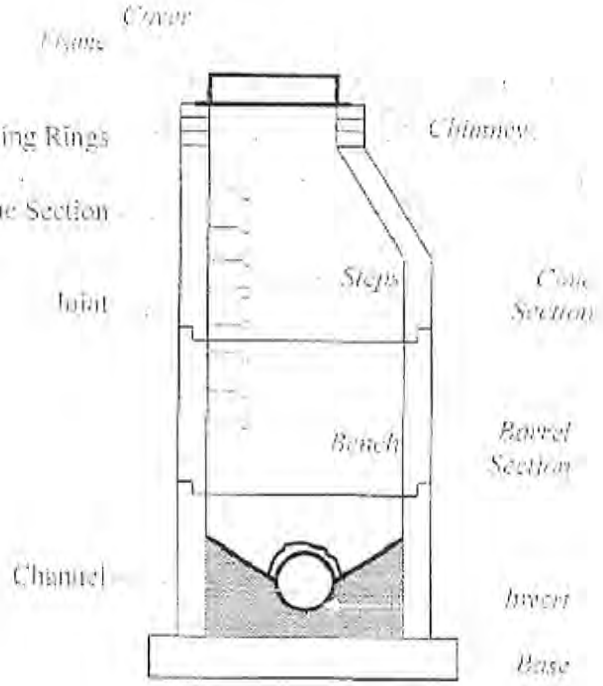
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0250041-1 7332

Vicinity Photo File 2: 0250041-3 7330

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0250041-2 7331

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0330074

Location: College AVE and Varsity AVE

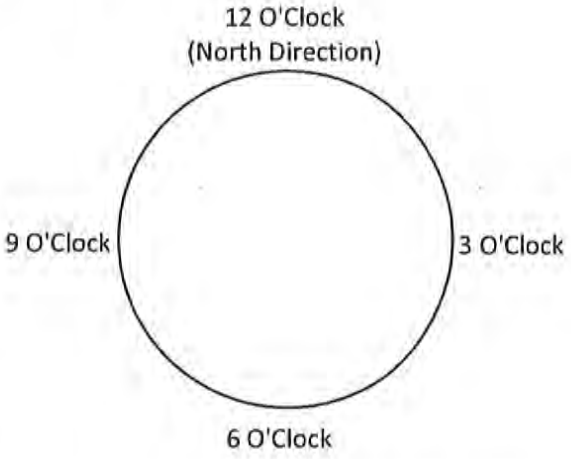
Downstream Manhole Number: 0330087

Upstream Manhole Number: 0330073

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	Clay	1133		Good		fast
Outlet 2							
Inlet 1	24"	clay	1124		Good		fast
Inlet 2	10"	clay	1032		Good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 24

Depth to channel invert (outlet): 11 33

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

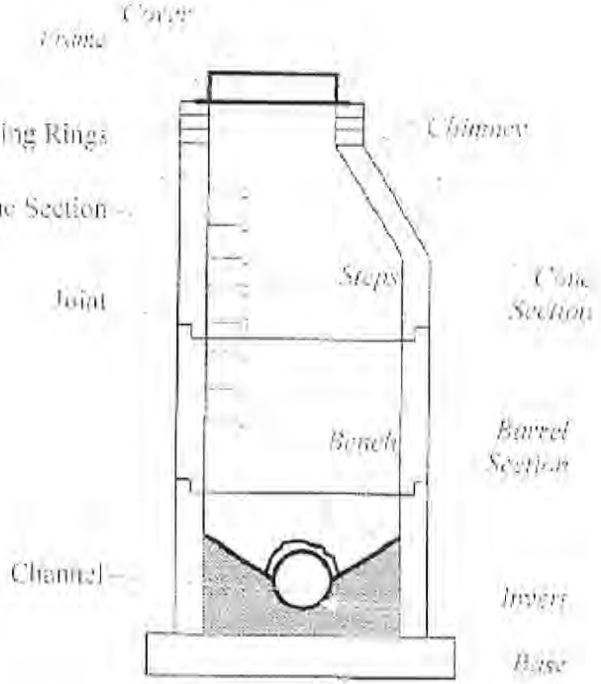
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0330074-1 7337

Vicinity Photo File 2: 0330074-3 7335

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0330074-2 7336

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0340104

Location: Knuckle Morgan RD

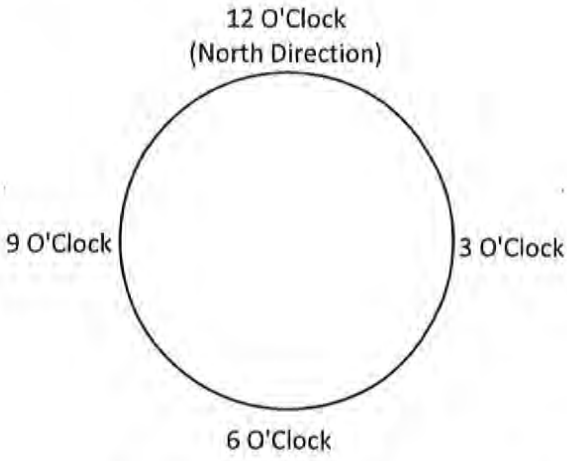
Downstream Manhole Number: 0340105

Upstream Manhole Number: 0340101

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	881		Good		fast
Outlet 2							
Inlet 1	8"	clay	736		Good		slow
Inlet 2	24"	clay	875		Good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8'5

Depth to channel invert (outlet): 8'8"

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

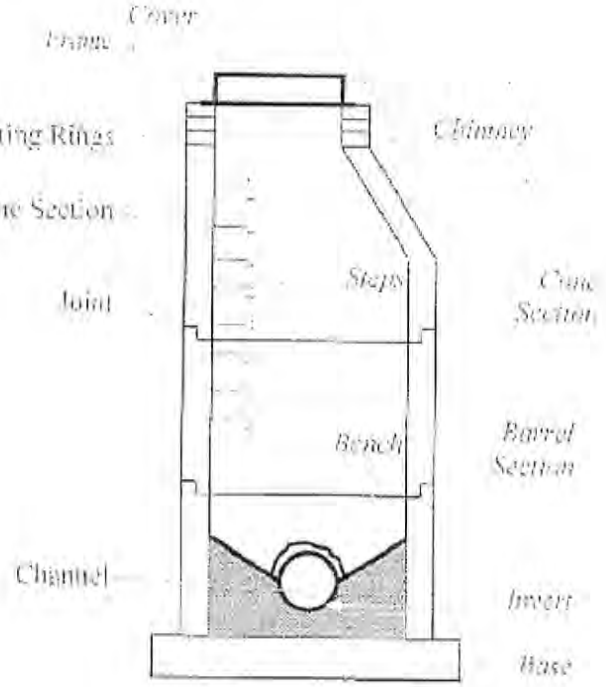
Exposed aggregate: Yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0340104-1 7342

Vicinity Photo File 2: 0340104-3 7340

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0340104-2 7341

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/1/19

Manhole ID: 0340105

Location: Intersection at Sheridan / Little Mt. Dr.

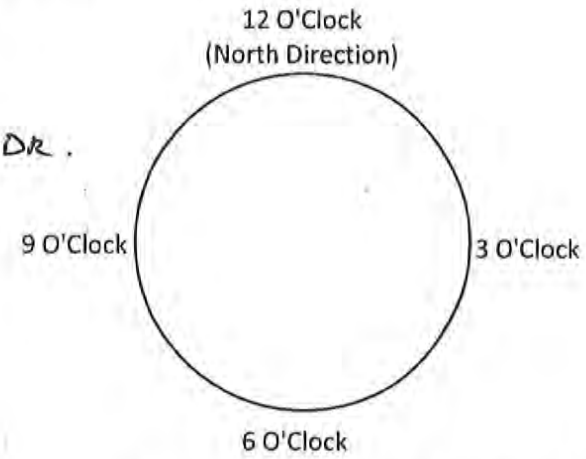
Downstream Manhole Number: 0340107

Upstream Manhole Number: 0340104

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	9.02		fair	N	good
Outlet 2							
Inlet 1	10"	clay	8.18		fair	N	good
Inlet 2	30"	clay	8.32		fair	N	good
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8.82

Depth to channel invert (outlet): 9.02

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: ~~NO~~

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? **Y / N** If yes, depth below surface: NO

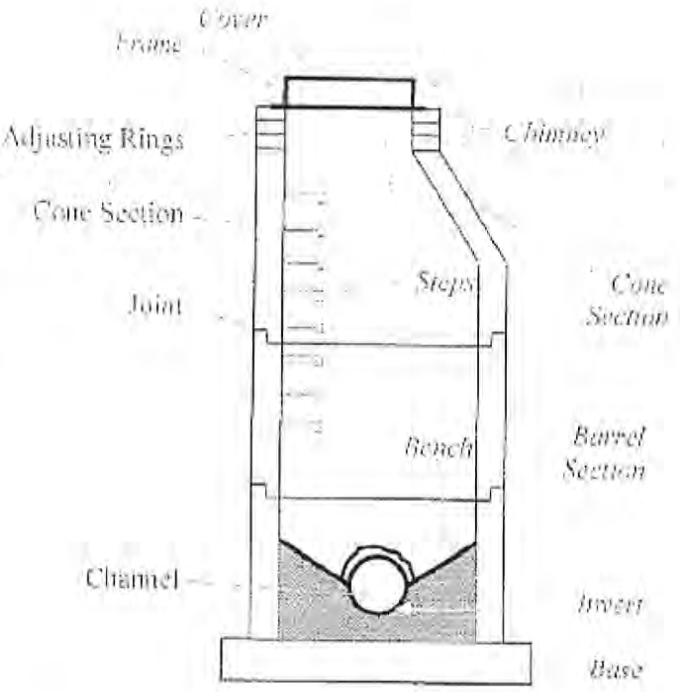
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0340105-1 (7144) Interior Photo File 1: 0340105-2 (7143)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0340111

Location: Kendall DR and little mountain DR

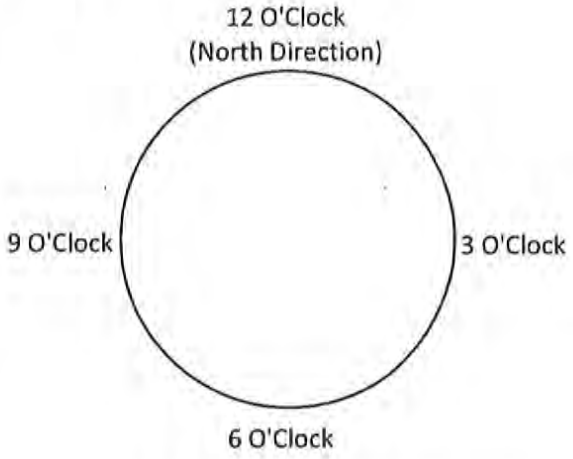
Downstream Manhole Number: 0350115

Upstream Manhole Number: 0340115

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	13 13		Good		fast
Outlet 2							
Inlet 1	18"	clay	12 98		Good		fast
Inlet 2	8"	clay	11 16		Good		fast
Inlet 3	8"	clay	87 2		Good	Yes	fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 12'8"

Depth to channel invert (outlet): 13'13"

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: Yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

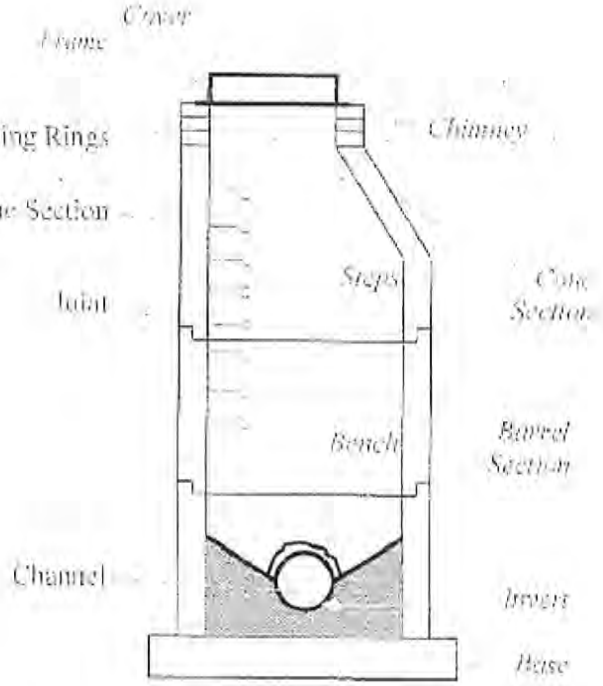
Exposed aggregate: Yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): Yes

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0340111-1 7339

Interior Photo File 1: 0340111-2 7338

Vicinity Photo File 2: _____

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0350087

Location: 40th st and H St

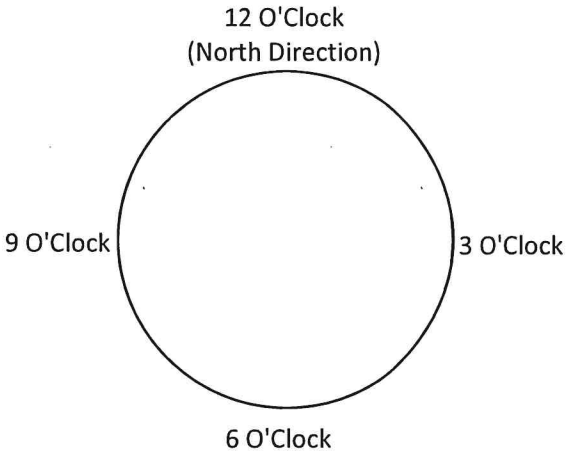
Downstream Manhole Number: 0350096

Upstream Manhole Number: 0350095

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	17.25		Good		Fast
Outlet 2							
Inlet 1	12"	clay	15.45		Good		
Inlet 2	24"	clay	17.20		Good		
Inlet 3	10"	clay	15.46		Good		

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 17 20

Depth to channel invert (outlet): 17 25

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

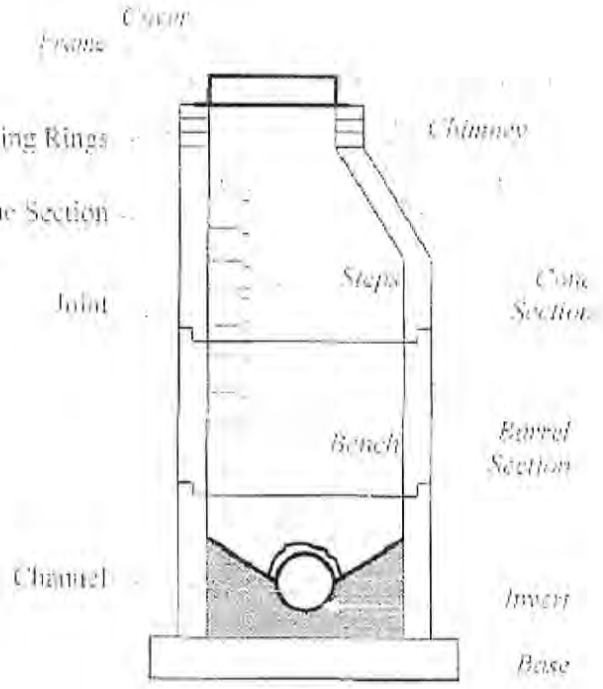
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0350087-1 7318

Vicinity Photo File 2: 0350087-3 7315

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0350087-2 7317

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0350095

Location: 40th st and Fst st

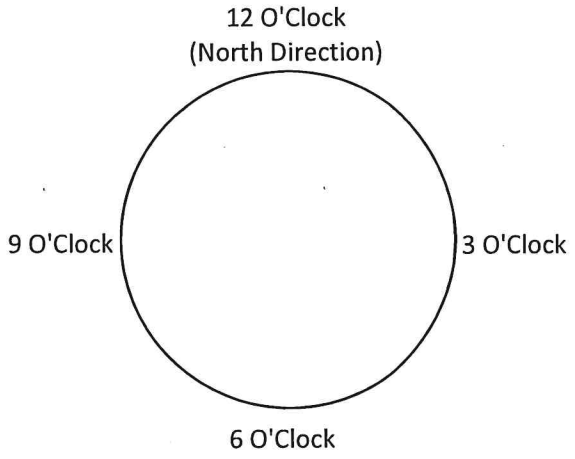
Downstream Manhole Number: 0350087

Upstream Manhole Number: 0350094

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	11.05		Good		Fast
Outlet 2							
Inlet 1	24"	clay	11.00		Good		Fast
Inlet 2	12"	Clay	10.25		Good		Good
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11.00

Depth to channel invert (outlet): 11.05

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

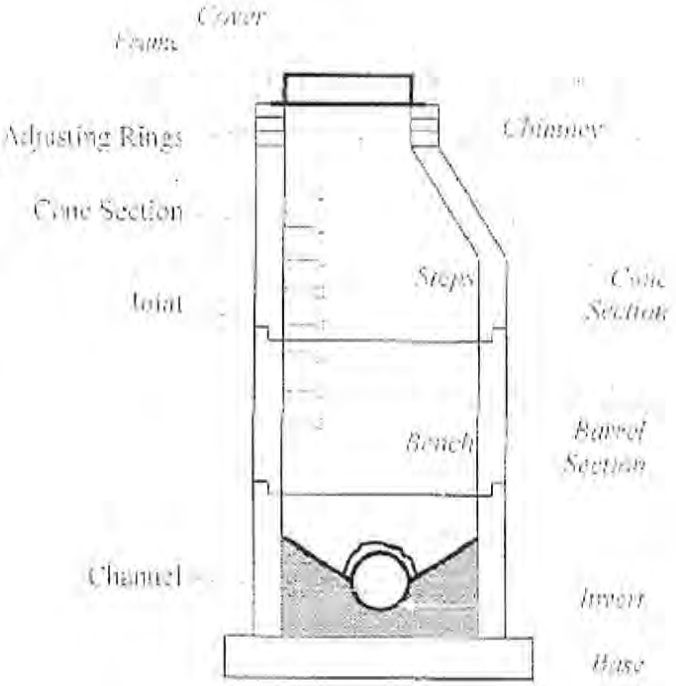
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0350095-1 7321

Vicinity Photo File 2: 0350095-3 7319

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0350095-2 7320

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 03600040

Location: 40th st and 1st Ave

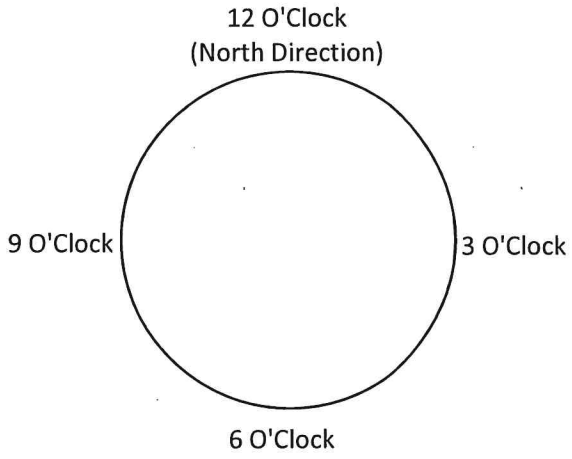
Downstream Manhole Number: 03600039

Upstream Manhole Number: 03600042

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	Clay	1170		Good		fast
Outlet 2							
Inlet 1	30"	clay	1183		Good		fast
Inlet 2	12"	clay	998		Good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 83

Depth to channel invert (outlet): 11 70

Estimated Inside Diameter of Chimney: 24'

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

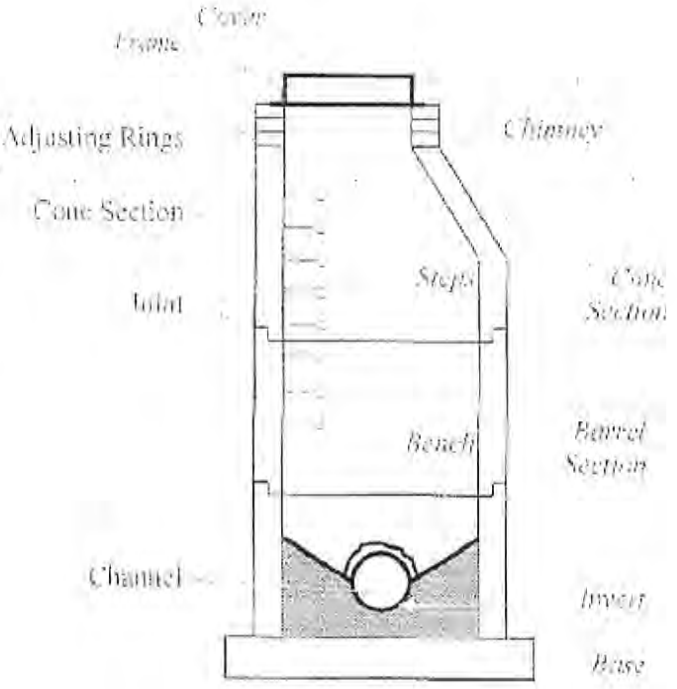
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 03600 40 - 1 7324

Vicinity Photo File 2: 03600 40 - 3 7322

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 03600 40 - 2 7323

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 03600128

Location: Lorraine Dr and W. 40th St

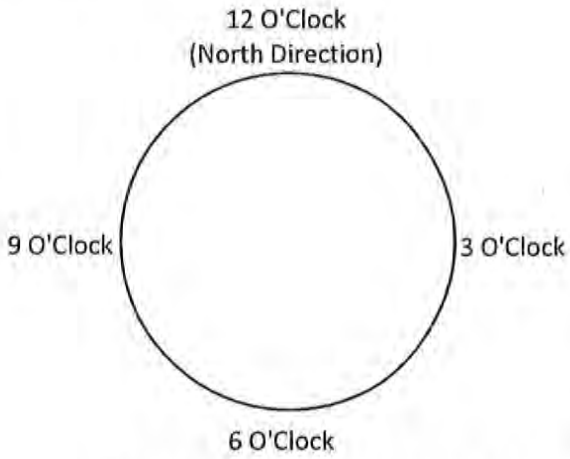
Downstream Manhole Number: 03600129

Upstream Manhole Number: 03600130

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	709		Good		fast
Outlet 2							
Inlet 1	24"	clay	717		Good		fast
Inlet 2	12"	clay	607		Good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.17

Depth to channel invert (outlet): 7.69

Estimated Inside Diameter of Chimney: 24"

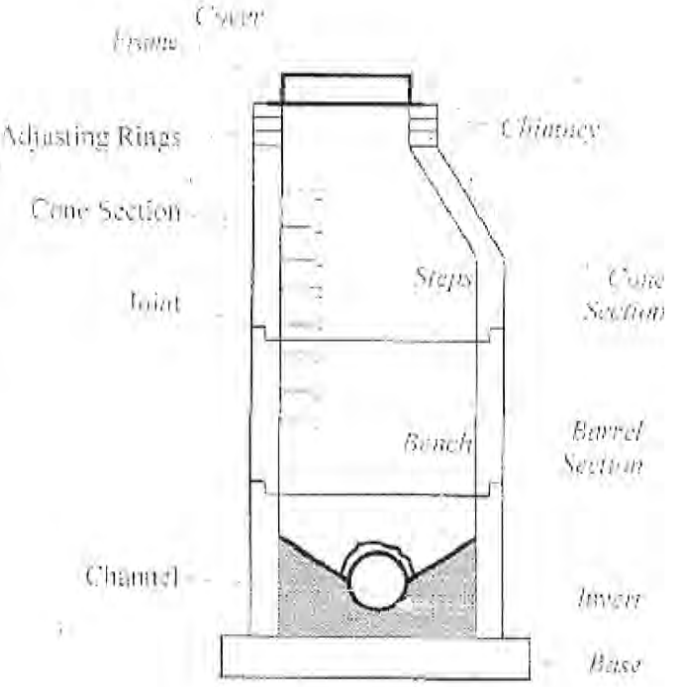
Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____



Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO

Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0360128-1 7327

Vicinity Photo File 2: 0360128-3 7325

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0360128-2 7326

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/1/19

Manhole ID: 0430020

Location: intersection at Blake St. / Macy St.

Downstream Manhole Number: 0430019

Upstream Manhole Number: 043 0021

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: Sulfur

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	10.03		fair	N	fair
Outlet 2	8"	Clay	7.80		fair	Y	Dry
Inlet 1	24"	Clay	10.03		fair	N	fair
Inlet 2	8"	Clay	9.13		fair	N	good
Inlet 3	8"	Clay	7.80		fair	Y	Dry

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: No Odor Control Insert: Y (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 10.03

Depth to channel invert (outlet): 10.03

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: YES

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

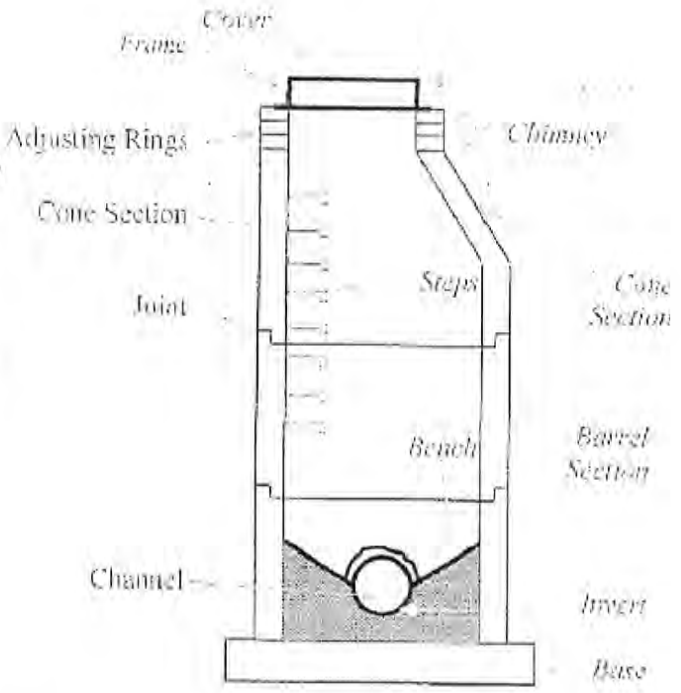
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0430020 - 1 (7146)

Vicinity Photo File 2: _____

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0430020 - 2 (7145)

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/1/19

Manhole ID: 0430044

Location: Intersection at Porter St. / California St.

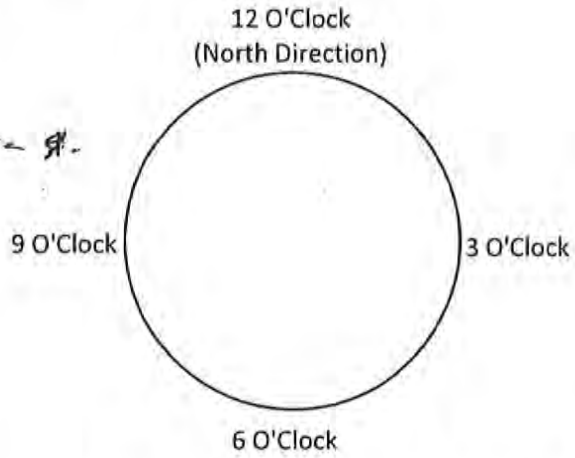
Downstream Manhole Number: NEW MH

Upstream Manhole Number: 0430045

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: heavy Sulfur

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	Clay	6.80		fair	N	good
Outlet 2							
Inlet 1	24"	Clay	6.80		fair	N	good
Inlet 2	30"	PVC	5.94		fair	N	Pool.
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: YES Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): Co.30

Depth to channel invert (outlet): Co.30

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: YES

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

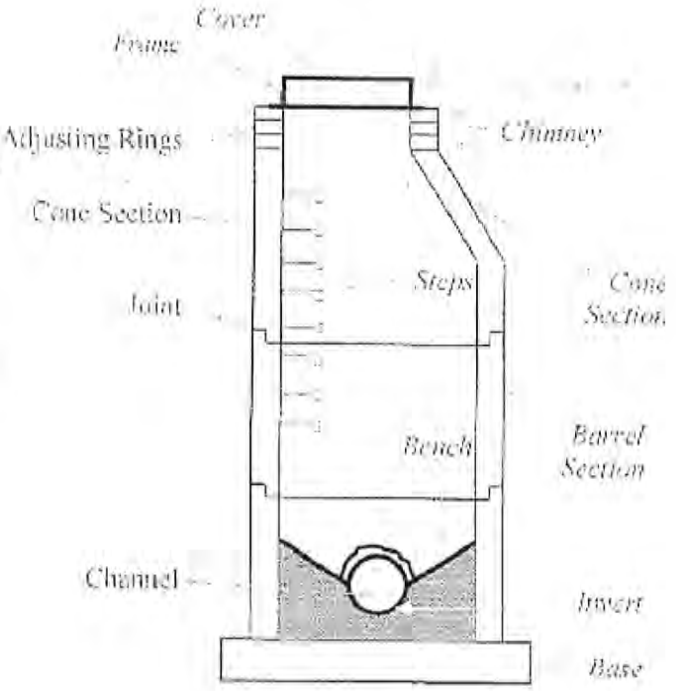
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): YES



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0430044-1 (7198) Interior Photo File 1: 0430044-2 (7197)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

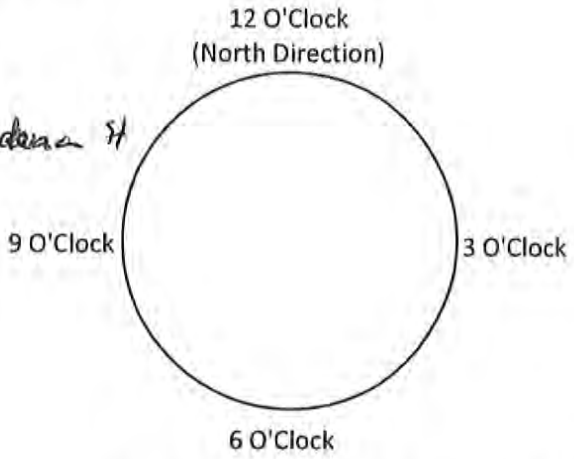
Inspection Date: 7/1/19

Manhole ID: 0440014

Location: by bridge, at intersection at 27th / Gardena St

Downstream Manhole Number: No M.H I.D Found

Upstream Manhole Number: 0440015



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

General Observations:

Odors: Strong Sulfur

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	Clay	6.55		fair	N	good
Outlet 2							
Inlet 1	15"	clay	6.55		fair	N	good
Inlet 2	8"	PVC	6.33		fair	N	good
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: YES Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6.55

Depth to channel invert (outlet): 6.55

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: Yes

Grease or solids in channel: Yes

Grease or solids on step: No

Grease or solids on barrel: Yes

Water Marks? Y / N If yes, depth below surface: 5.0'

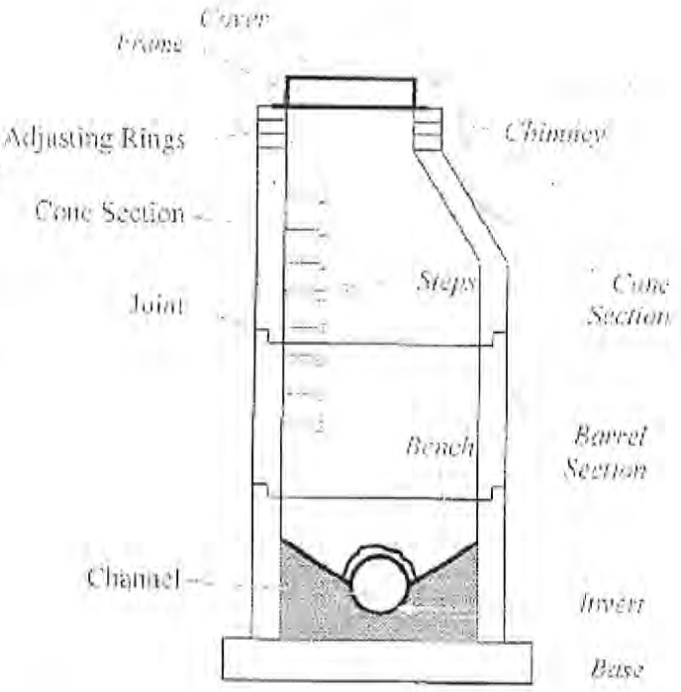
Exposed aggregate: Yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): No

Obstructions (roots, debris, etc): No



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 04400014-1 (7149) Interior Photo File 1: 04400014-2 (7150)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/1/19

Manhole ID: 0440192

Location: Intersection at Porter St. and Cranberry St.

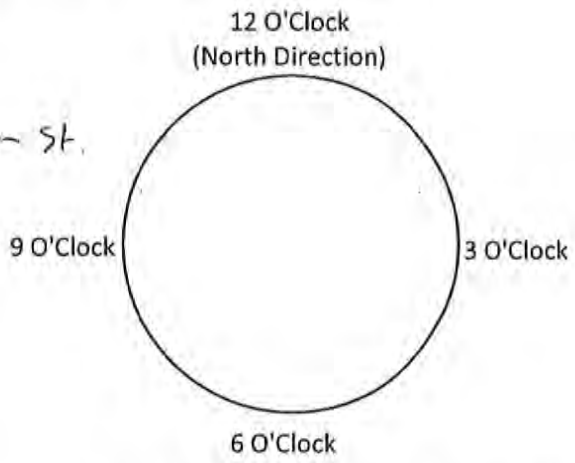
Downstream Manhole Number: 0440014

Upstream Manhole Number: 0440025

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: Strong Sulfur

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"		7.90		fair	N	fair
Outlet 2							
Inlet 1	8"		7.35		fair	N	fair
Inlet 2	8"		7.84		fair	N	poor
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: YES Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:
lid covered in A.C.

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.90

Depth to channel invert (outlet): 7.35

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: YES

Grease or solids in channel: YES

Grease or solids on step: YES

Grease or solids on barrel: NO

Water Marks? **Y / N** If yes, depth below surface: _____

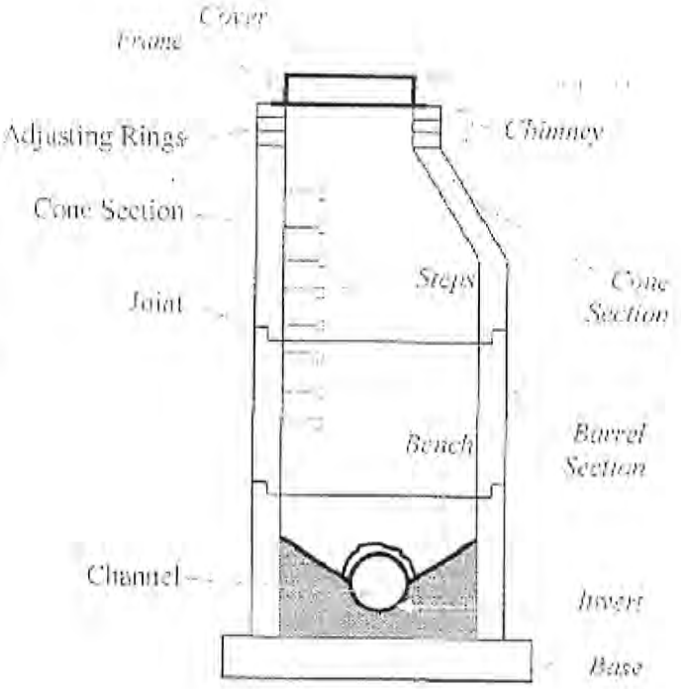
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0440192-1 (7152) Interior Photo File 1: 0440192-2 (7151)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0450208

Location: N. H st and W. 30th st

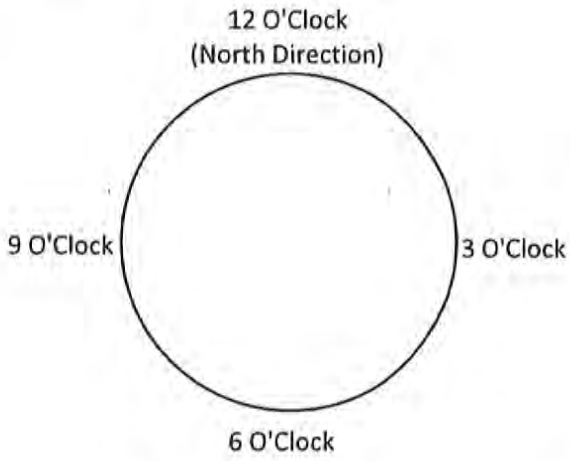
Downstream Manhole Number: 0450195

Upstream Manhole Number: 0450175

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	579		good		fast
Outlet 2							
Inlet 1	15"	clay	578		good		slow
Inlet 2	15"	clay	578		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 5'8"

Depth to channel invert (outlet): 5'9"

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick) precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: YES

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

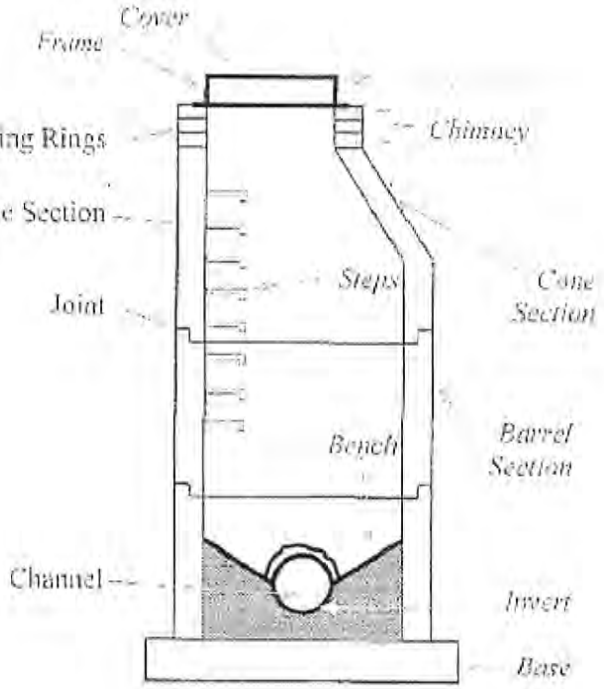
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0450208-1 9031

Vicinity Photo File 2: 0450208-3 9029

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0450208-2 9030

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 0450277

Location: c/G of 27th at 14

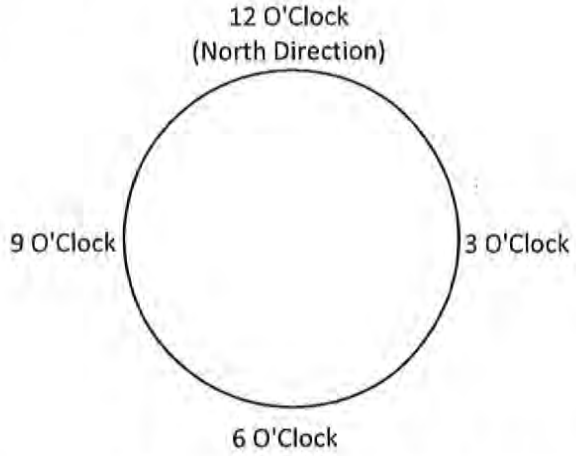
Downstream Manhole Number: 0450271

Upstream Manhole Number: 0450277

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: Concrete c/G

Cover below adjacent grade or subject to ponding: (Y) / N

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"		6.77		good	N	good
Outlet 2							
Inlet 1	12"		6.73		Good	N	good
Inlet 2	10"		6.21		Good	N	fair
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: No Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6.73

Depth to channel invert (outlet): 6.77

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: YES

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

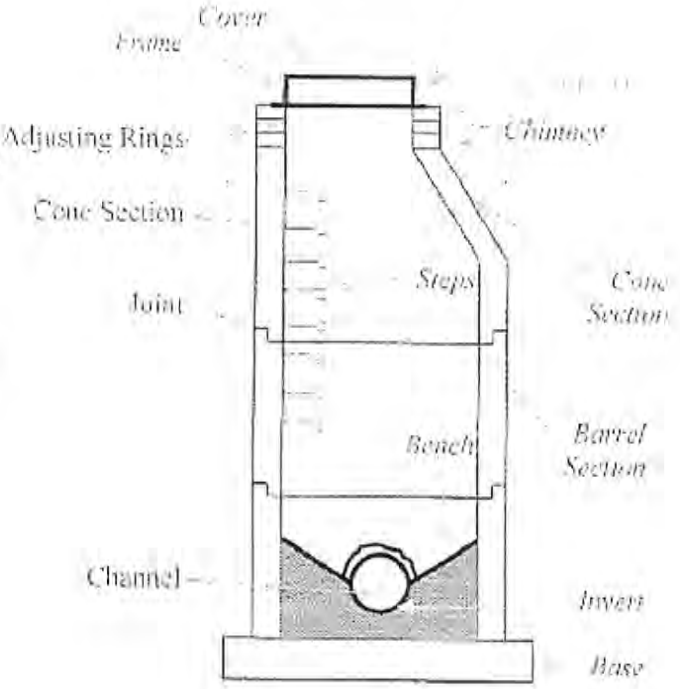
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0450272-1 (7158) Interior Photo File 1: 0450272-2 (7157)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/15

Manhole ID: 0450273

Location: Intersection of 27th and Hyt.

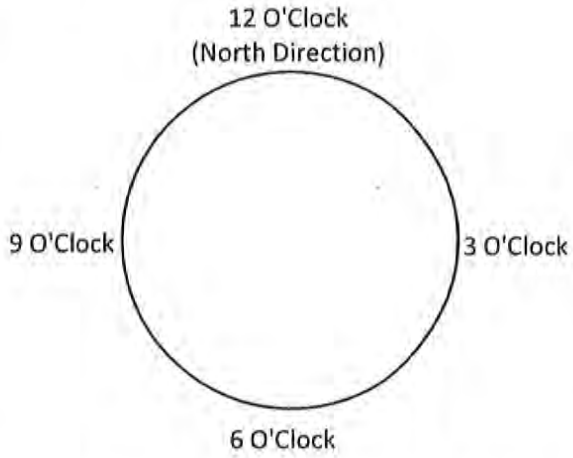
Downstream Manhole Number: 0450190

Upstream Manhole Number: 0450271

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"		8.50		good	N	good
Outlet 2							
Inlet 1	24"		8.45		good	N	good
Inlet 2	12"		7.70		good	N	good
Inlet 3							

Cover Observations:

Cover Diameter: 29" Rust on Cover or Frame: No Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 3.45

Depth to channel invert (outlet): 2.50

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

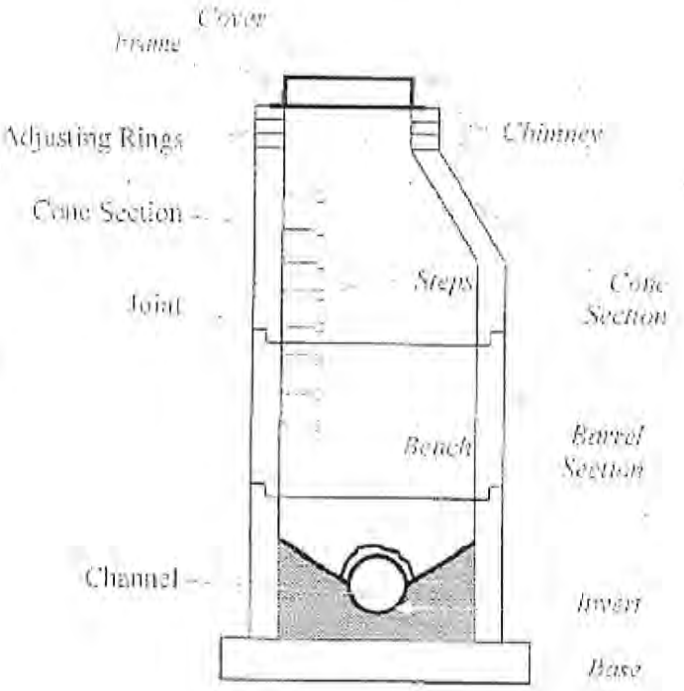
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:
/

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0450273 -1 (7160) Interior Photo File 1: 0450273-2 (7159)

Vicinity Photo File 2: / Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0460007

Location: 30th St and Mountain View AVE

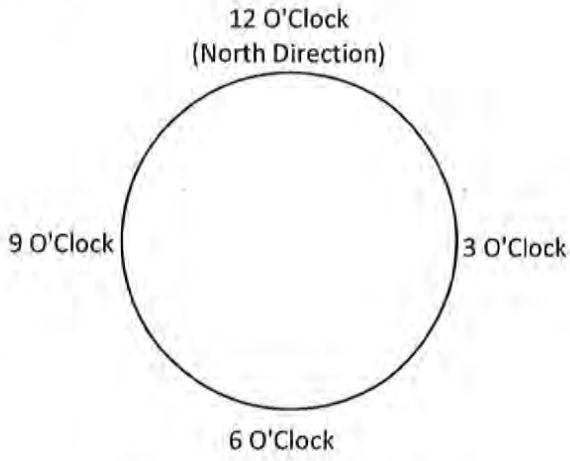
Downstream Manhole Number: 04602260

Upstream Manhole Number: 04602232

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	1145		Good		fast
Outlet 2							
Inlet 1	8"	clay	1106		Good		fast
Inlet 2	24"	clay	1140		Good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11.40

Depth to channel invert (outlet): 11.45

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick) precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

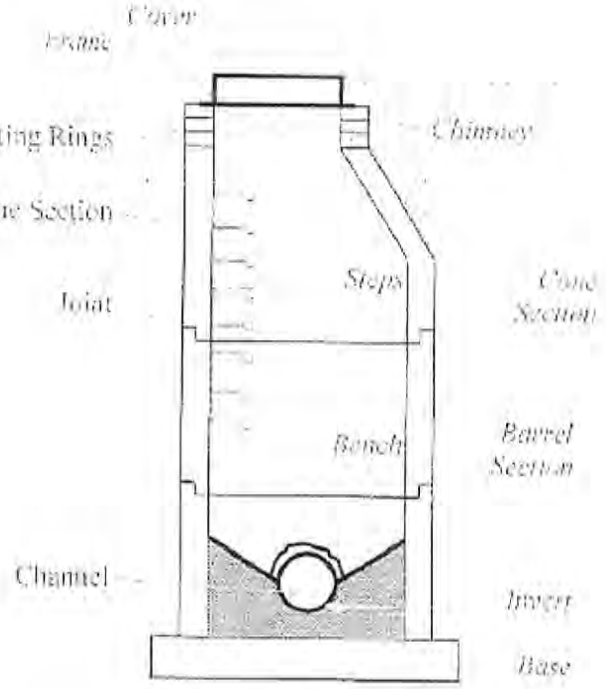
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0460007-1 7345

Interior Photo File 1: 0460007-2 7344

Vicinity Photo File 2: 0460007-3 7343

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 04600620

Location: 28th St and G St

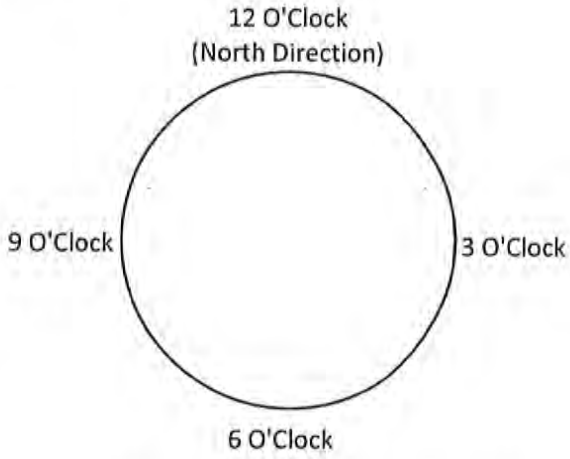
Downstream Manhole Number: 046058

Upstream Manhole Number: 046067

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	704		good		fast
Outlet 2							
Inlet 1	8"	clay	6.08		good		fast
Inlet 2	18"	clay	7.00		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.00

Depth to channel invert (outlet): 7.04

Estimated Inside Diameter of Chimney: 241

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

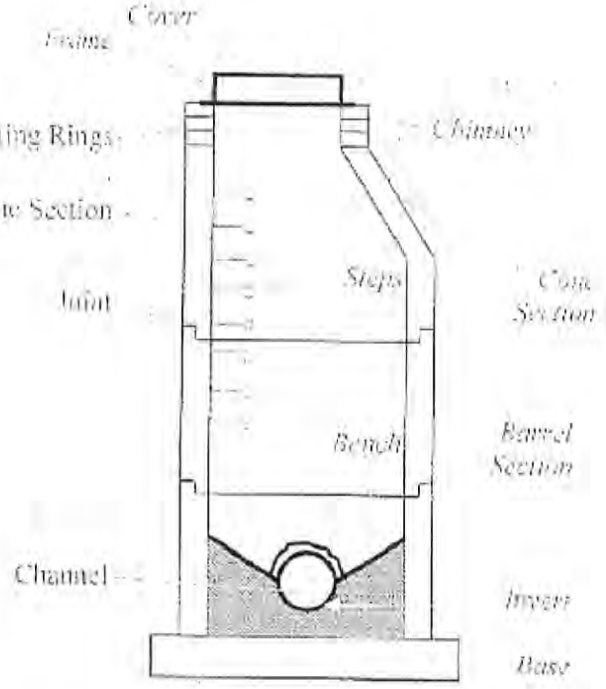
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 09600060-1 7355

Vicinity Photo File 2: 09600060-3 7356

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 09600060-2 7354

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 0460178

Location: 28th st and mountain view

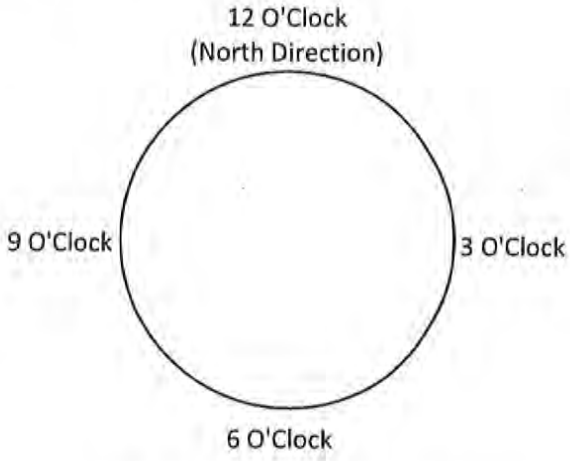
Downstream Manhole Number: 0460176

Upstream Manhole Number: 0460250

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	8 12	yes	good		fast
Outlet 2							
Inlet 1	8"	clay	10 90	yes	good		slow
Inlet 2	24"	clay	8 18	yes	good		fast
Inlet 3	8"	clay	10 24	yes	good	Yes	Dry

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8 18

Depth to channel invert (outlet): 8 12

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

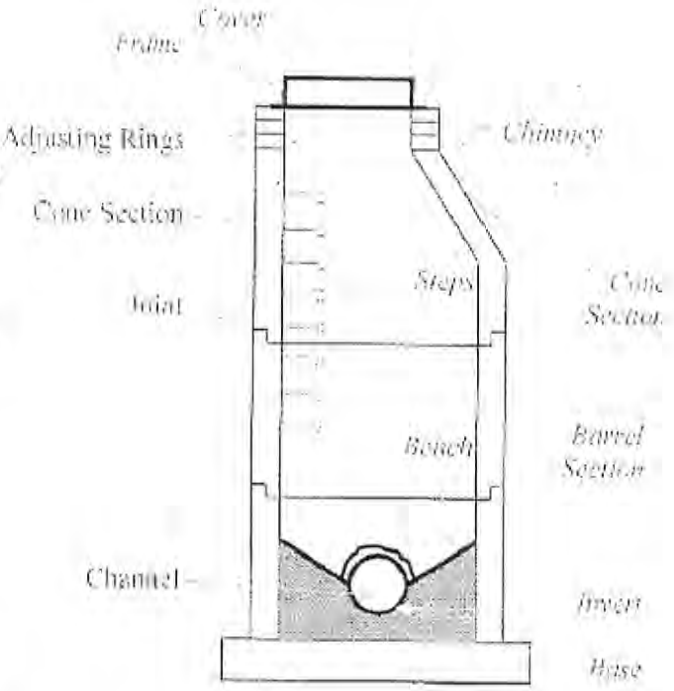
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): good

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0460178 -1 7351

Vicinity Photo File 2: 0460178 -3 7349

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0460178 -2 7350

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-12-19

Manhole ID: 04602226

Location: 30th st and Mountain view

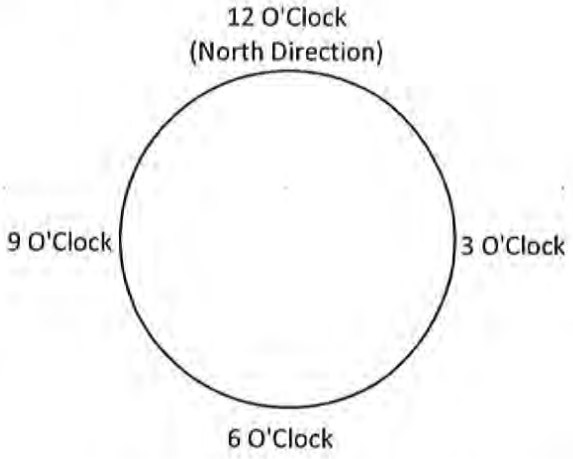
Downstream Manhole Number: 04600233

Upstream Manhole Number: 04600231

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	Plastic	1360		Good		fast
Outlet 2							
Inlet 1	10"	clay	1176		Good		fast
Inlet 2	30"	clay	1334		Good		fast
Inlet 3	10"	clay	1282		Good		fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1334

Depth to channel invert (outlet): 1360

Estimated Inside Diameter of Chimney: 24'

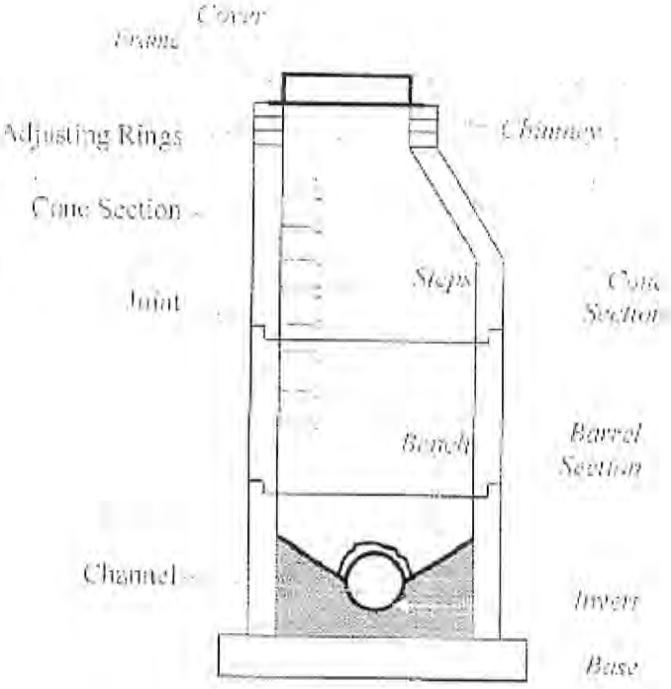
Estimated Inside Diameter of Barrel: 91

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____



Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO

Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0460226-1 7348

Vicinity Photo File 2: 0460226-3 7346

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0460226-2 7347

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0480139

Location: Mountain Ave and E. Lynwood Dr

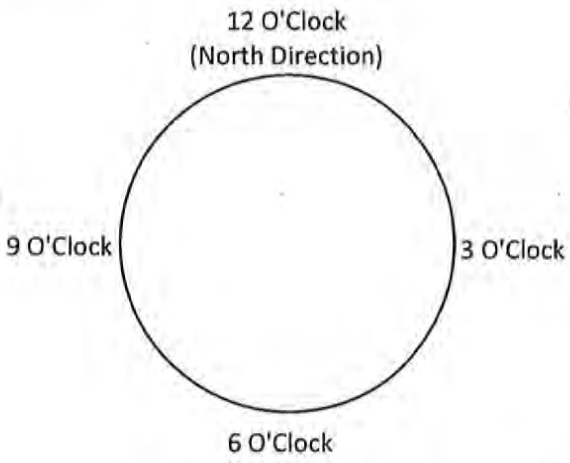
Downstream Manhole Number: 0480146

Upstream Manhole Number: 0480160

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	clay	863		good		fast
Outlet 2							
Inlet 1	10"	clay	855		good		fast
Inlet 2	8"	clay	822		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 855

Depth to channel invert (outlet): 863

Estimated Inside Diameter of Chimney: 291'

Estimated Inside Diameter of Barrel: 91

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

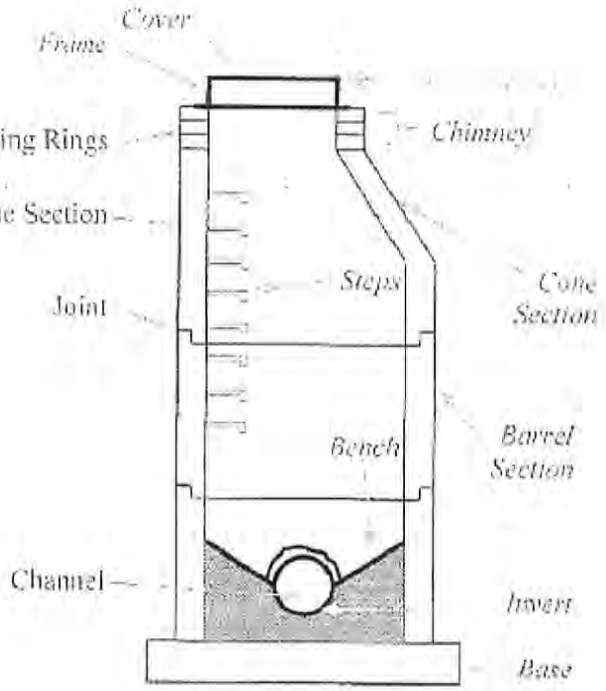
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0480139 - 1 9034

Vicinity Photo File 2: 0480139 - 3 9032

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0480139 - 2 9033

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0490021

Location: Del Rosa Ave and Romalo St

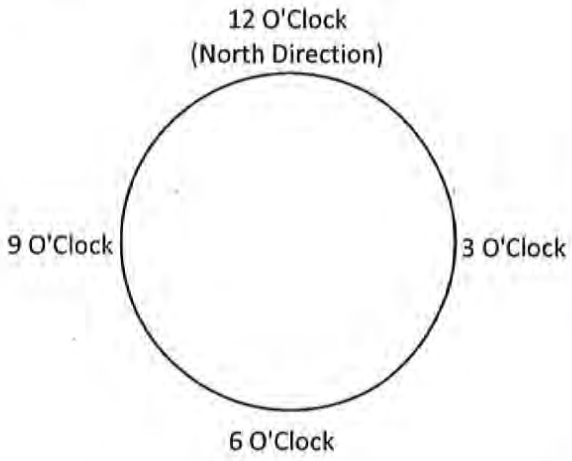
Downstream Manhole Number: 0490023

Upstream Manhole Number: 0490022

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	1215		good		fast
Outlet 2							
Inlet 1	15"	clay	745		good	Yes	NONE
Inlet 2	24"	clay	1215		good		fast
Inlet 3	15"	clay	795		good	Yes	fast
	15"	clay	597		good	Yes	NONE
	12"	clay	1182		good		fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 12 15

Depth to channel invert (outlet): 12 15

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, (Corroded), (Missing Steps), Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? (Y) / N If yes, depth below surface: 11 ft

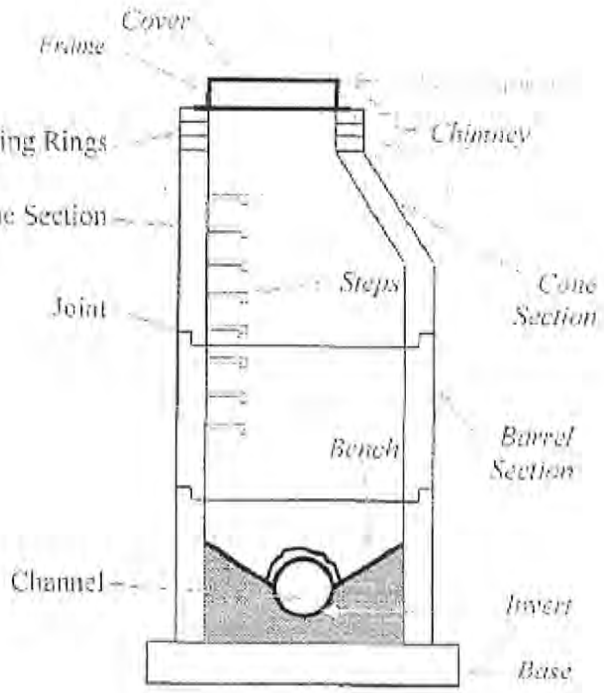
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0490021-1 9037

Vicinity Photo File 2: 0490021-3 9035

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0490021-2 9036

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 2552070

Location: East of intersection at 11th / Harris

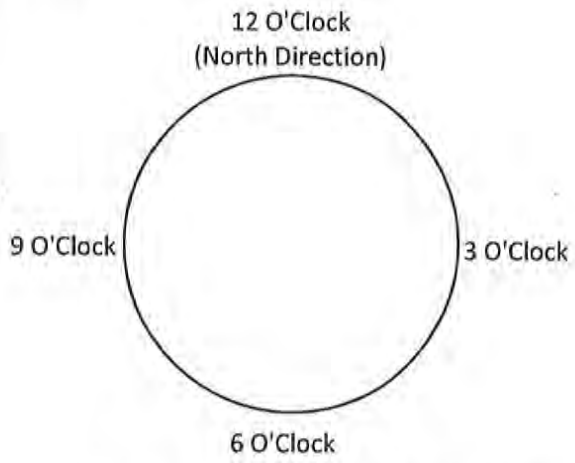
Downstream Manhole Number: 0550080

Upstream Manhole Number: 0550078

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	clay	8.35		good	N	good
Outlet 2							
Inlet 1	10"	clay	8.00		good	N.O	good
Inlet 2	15"	clay	8.30		good	NO	good
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: YES Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8.30

Depth to channel invert (outlet): 8.35

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? (Y) / N If yes, material: Iron

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: ~~YES~~ NO

Grease or solids in channel: No

Grease or solids on step: No

Grease or solids on barrel: No

Water Marks? Y / (N) If yes, depth below surface: _____

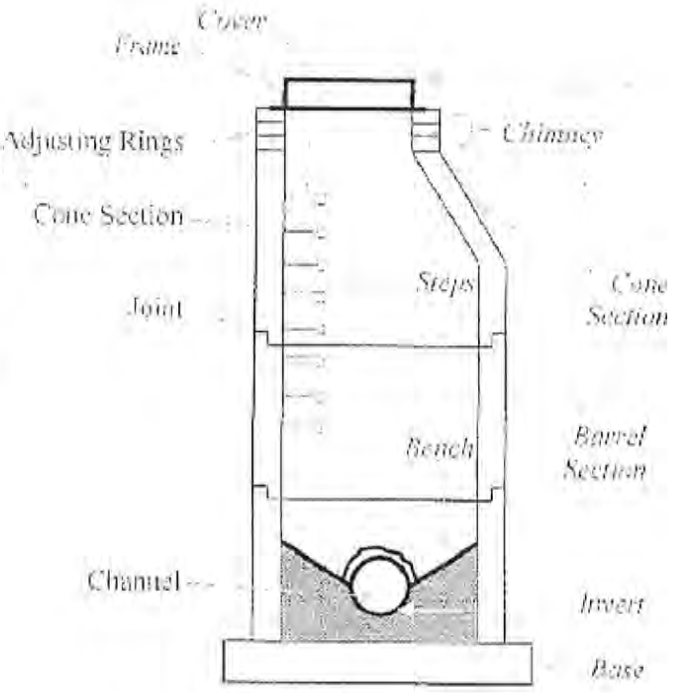
Exposed aggregate: No

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): _____

Obstructions (roots, debris, etc): _____



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0550070 -1 (7154)

Interior Photo File 1: 0550070 - 2 (7154)

Vicinity Photo File 2: _____

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 0550104

Location: intersection of Evans / 1st

Downstream Manhole Number: 0550103

Upstream Manhole Number: 0550130

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: none

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	clay	5.55		good	N	good
Outlet 2							
Inlet 1	10"	clay	5.47		fair	N	good
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 29" Rust on Cover or Frame: no Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 5.47

Depth to channel invert (outlet): 5.55

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / N If yes, material: METAL

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: YES

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / N If yes, depth below surface: _____

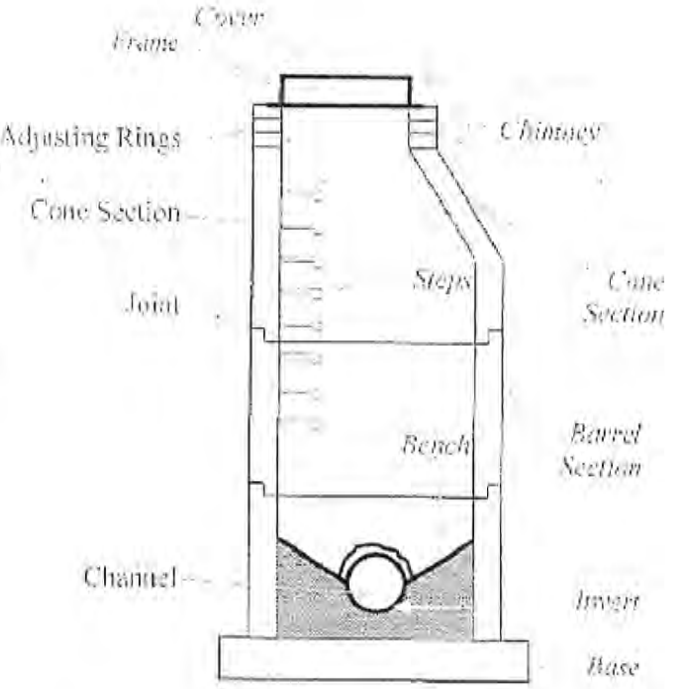
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0550104-1 (7156) Interior Photo File 1: 0550104-2 (7155)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0550220

Location: Massachusetts AVE and 116th st

Downstream Manhole Number: 0550221

Upstream Manhole Number: 0550191

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	clay	704		good		Fast
Outlet 2							
Inlet 1	10"	clay	685		good		fast
Inlet 2	10"	clay	25		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6.85

Depth to channel invert (outlet): 7.04

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): (Good) Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

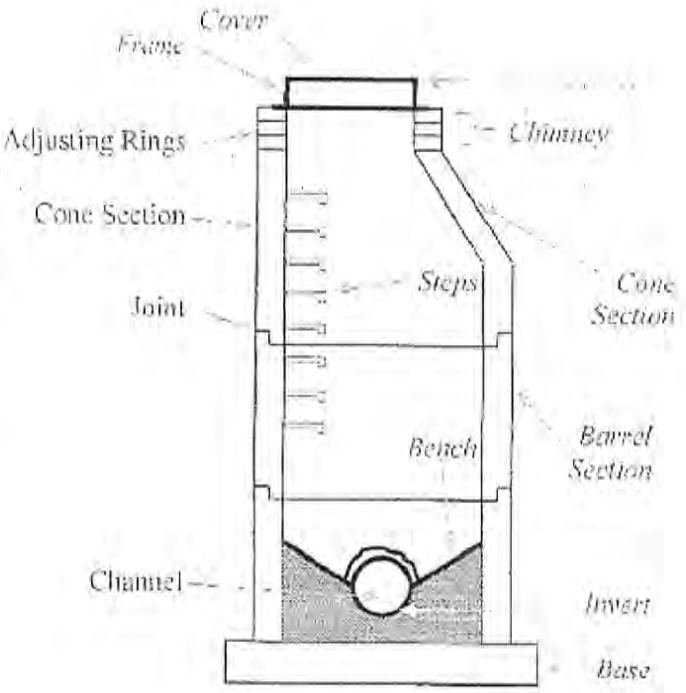
Exposed aggregate: _____

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0550220 - 1 7359

Vicinity Photo File 2: 0550220 - 3 7357

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0550220 - 2 7358

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0560039

Location: 30'± E. of N. G st on W. 13th st

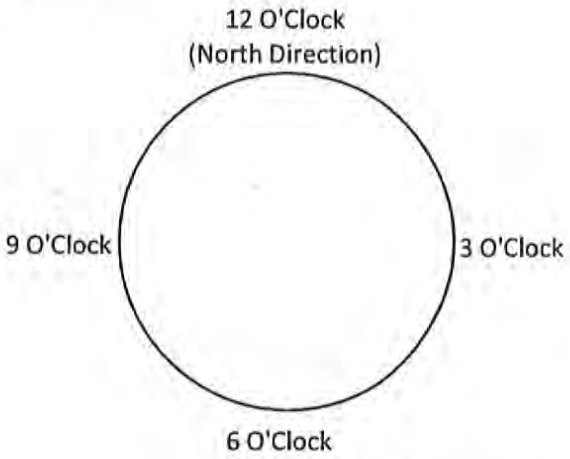
Downstream Manhole Number: 0560038

Upstream Manhole Number: 0560049

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: no

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	705		good		fast
Outlet 2							
Inlet 1	15"	clay	709		good		fast
Inlet 2	24"	clay	709		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.01

Depth to channel invert (outlet): 7.05

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / N If yes, depth below surface: 6ft

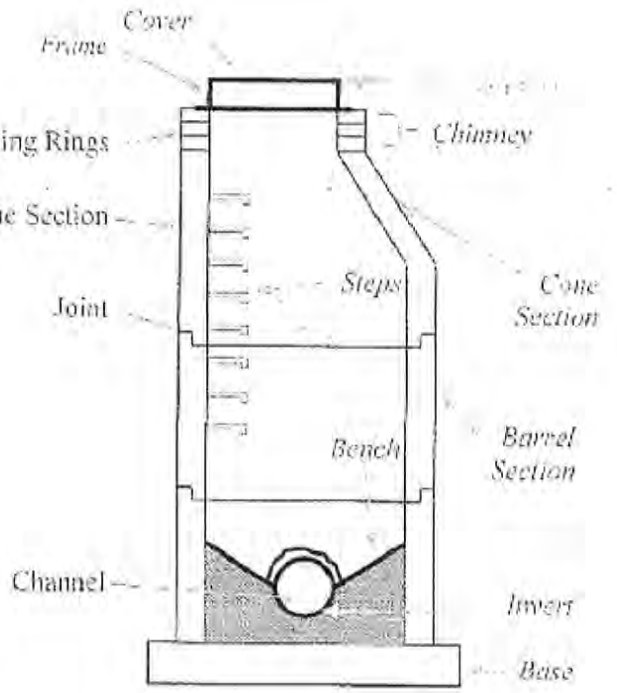
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): yes

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0560039-1 7365 Interior Photo File 1: 0560039-2 7364

Vicinity Photo File 2: 0560039-3 7363 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0560047

Location: N. G St and W. 13th St

Downstream Manhole Number: 0560039

Upstream Manhole Number: 0560040

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	Clay	6'6"		good		fast
Outlet 2							
Inlet 1	15"	clay	6'6"		good		fast
Inlet 2	8"	Clay	5'2"		good	Yes	fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6'60

Depth to channel invert (outlet): 6'60

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): poor

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? (Y) / N If yes, depth below surface: _____

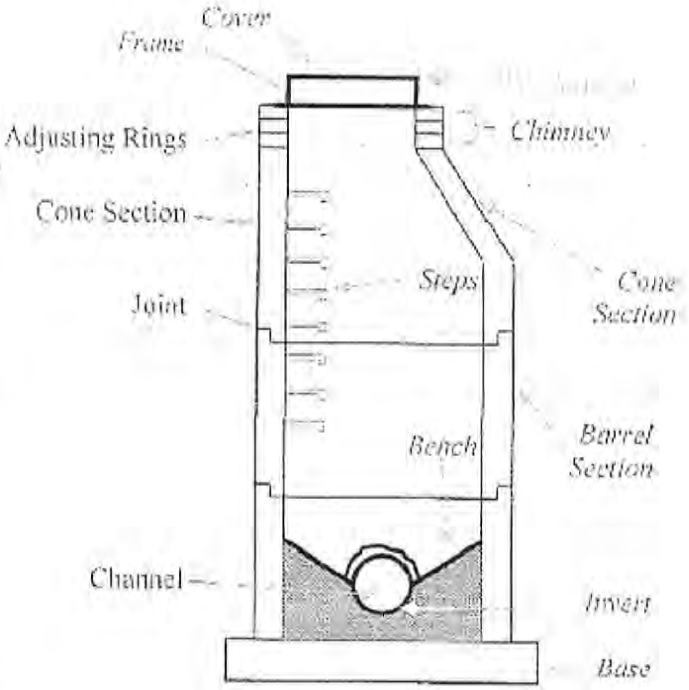
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0560047 - 1 7362

Interior Photo File 1: 0560047-2 7361

Vicinity Photo File 2: 0560047-3 7360

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0560138

Location: N. ARROWhead AVE and W. 13th St

Downstream Manhole Number: 0560130

Upstream Manhole Number: 0560142

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	Clay	496		poor		fast
Outlet 2							
Inlet 1	8"	Clay	471		fair		slow
Inlet 2	10"	Clay	493		fair		fast
Inlet 3	8"	Clay	495		fair		slow

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 4.93

Depth to channel invert (outlet): 4.96

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? (Y) / N If yes, depth below surface: 4.50'

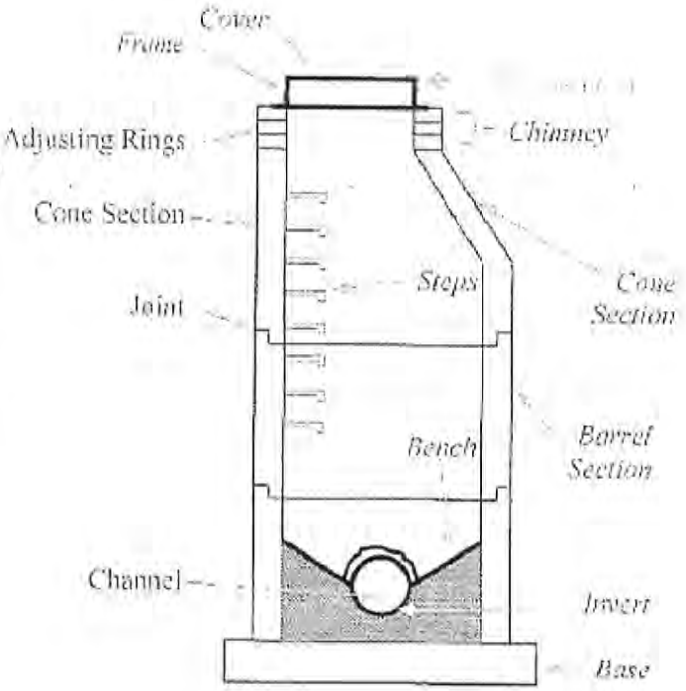
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0560138-1 7368

Interior Photo File 1: 0560138-2 7367

Vicinity Photo File 2: 0560138-3 7366

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-11-19

Manhole ID: 05600236

Location: N. Mountain View Ave and W. 16th St

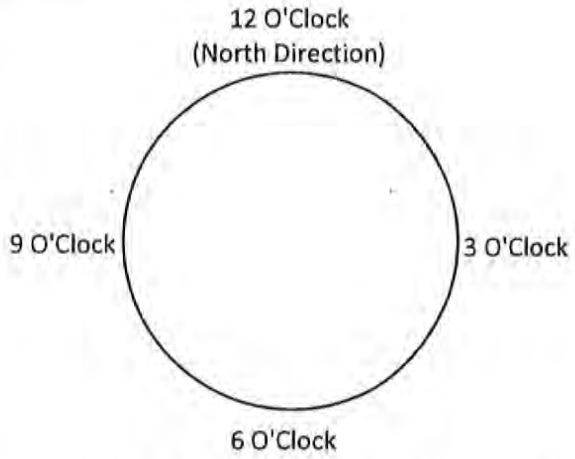
Downstream Manhole Number: 05600240

Upstream Manhole Number: 05600239

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: no

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	clay	778		good		fast
Outlet 2							
Inlet 1	36"	clay	768		poor		fast
Inlet 2	12"	clay	659		poor		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: no Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.68

Depth to channel invert (outlet): 7.78

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 91

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

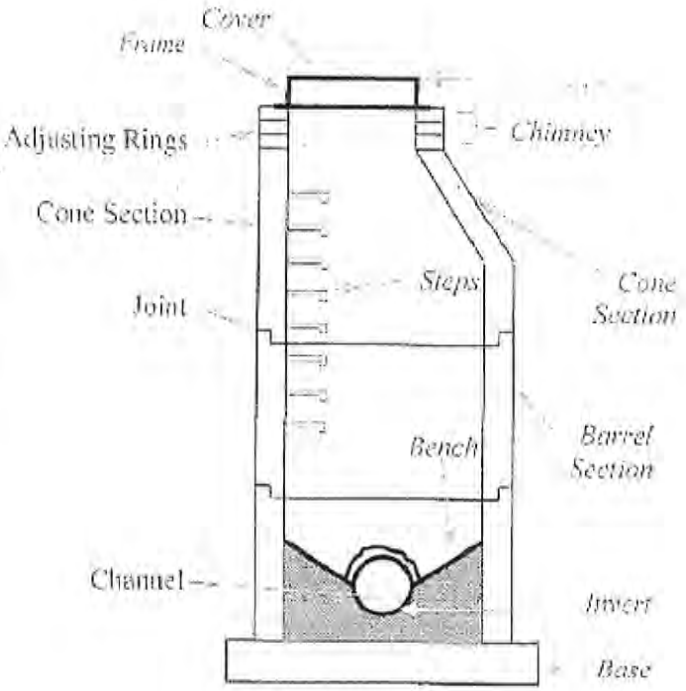
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0560236-1 7371

Interior Photo File 1: 0560236-2 7370

Vicinity Photo File 2: 0560236-3 7369

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0570024

Location: N. Waterman AVE and E. 11th st

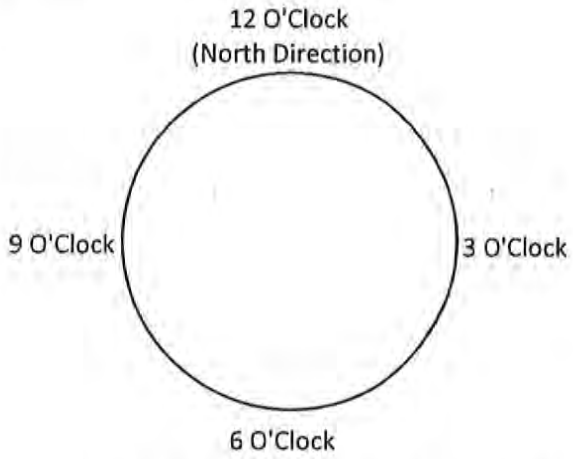
Downstream Manhole Number: 0570025

Upstream Manhole Number: 0570026

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	1345		good		fast
Outlet 2							
Inlet 1	24"	clay	1340		good		fast
Inlet 2	15"	clay	1001		good	Yes	fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 5 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 13 40

Depth to channel invert (outlet): 13 45

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? (Y) / N If yes, depth below surface: 12+

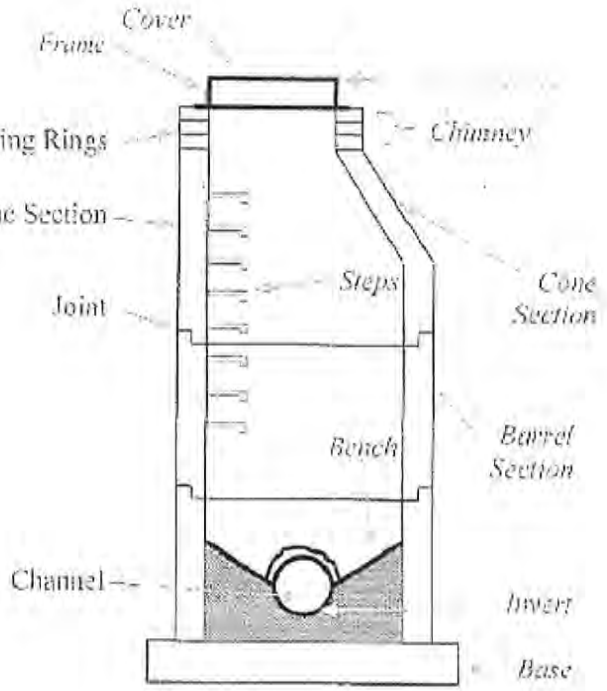
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): yes

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0570024-1 7377

Vicinity Photo File 2: 0570024-3 7375

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0570024-2 7376

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0570200

Location: Crestview Ave and E. 18th St

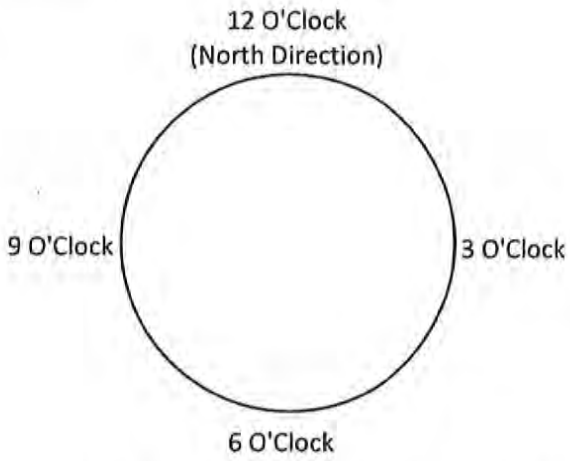
Downstream Manhole Number: 0570199

Upstream Manhole Number: 057020

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	clay	9 15		good		fast
Outlet 2							
Inlet 1	10"	clay	8 74		good		fast
Inlet 2	8"	clay	5 30		good	Yes	NONE
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8'4

Depth to channel invert (outlet): 9'5

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

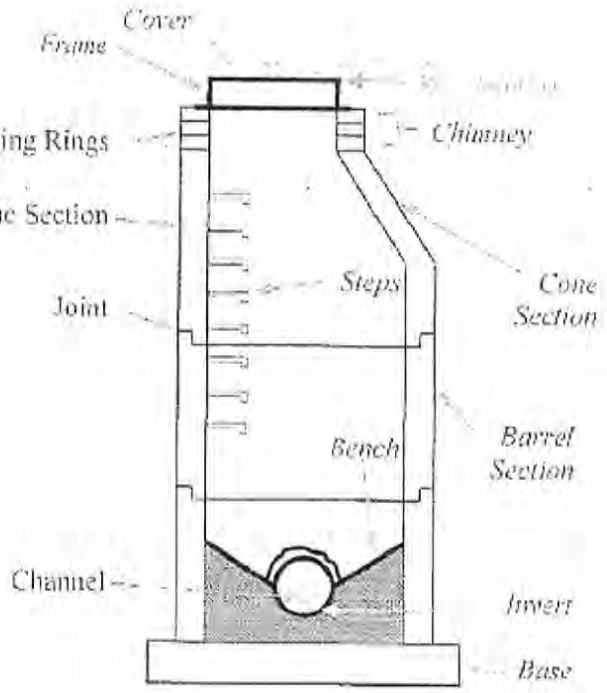
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0570200-1 7374

Vicinity Photo File 2: 0570200-3 7372

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0570200-2 7373

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 06050124

Location: intersection at 7th / Harris st.

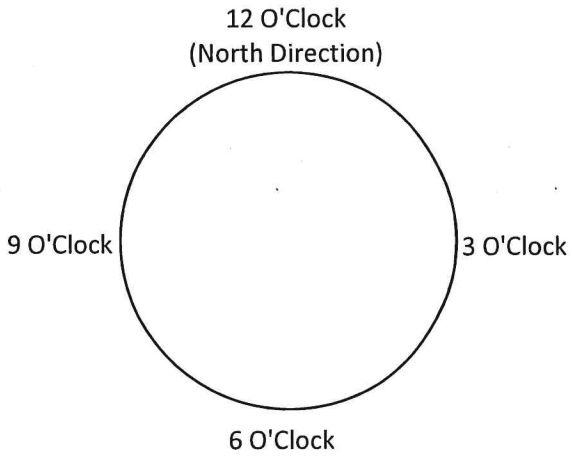
Downstream Manhole Number: 06050123

Upstream Manhole Number: 06050139

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	13.21		good	N	good
Outlet 2	12"	↓	8.20		↓	Y	↓
Inlet 1	18"	↓	12.91		↓	N	↓
Inlet 2	10"	↓	11.70		↓	N	↓
Inlet 3	12"		8.20		↓	Y	↓

Cover Observations:

Cover Diameter: 24 Rust on Cover or Frame: No Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 12.51

Depth to channel invert (outlet): 13.21

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / N If yes, material: Metal

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: No

Grease or solids in channel: No

Grease or solids on step: No

Grease or solids on barrel: No

Water Marks? Y / N If yes, depth below surface: No

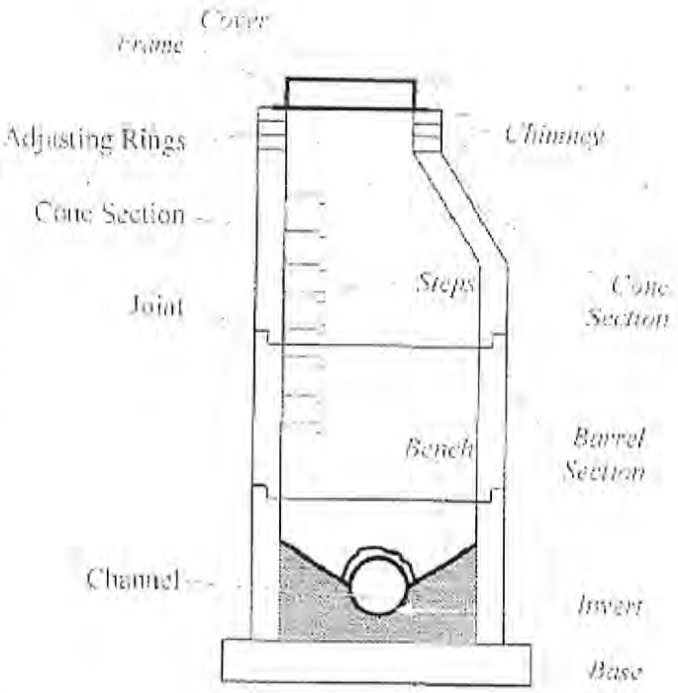
Exposed aggregate: No

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): No

Obstructions (roots, debris, etc): No



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06050129-1 (7102) Interior Photo File 1: 06050129-2 (7101)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 0650139

Location: N. of intersection of 7th / Harris St.

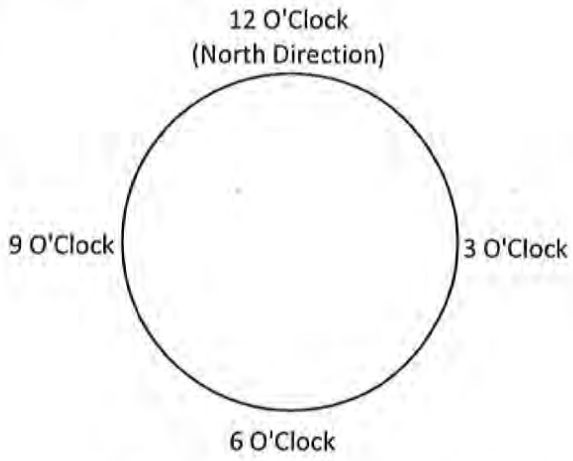
Downstream Manhole Number: 0650129

Upstream Manhole Number: 0650138

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	12.93		good	N	
Outlet 2		↓			↓		
Inlet 1	18"		12.45			N	fast
Inlet 2		↓	12.91		↓	N	
Inlet 3	18"		8.65			Y	Dry

Cover Observations:

Cover Diameter: 24 Rust on Cover or Frame: No Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 12.93

Depth to channel invert (outlet): 12.95

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, (Poor), Corroded, Missing Steps, Other: _____

Grease or solids on bench: No

Grease or solids in channel: N/A

Grease or solids on step: No

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

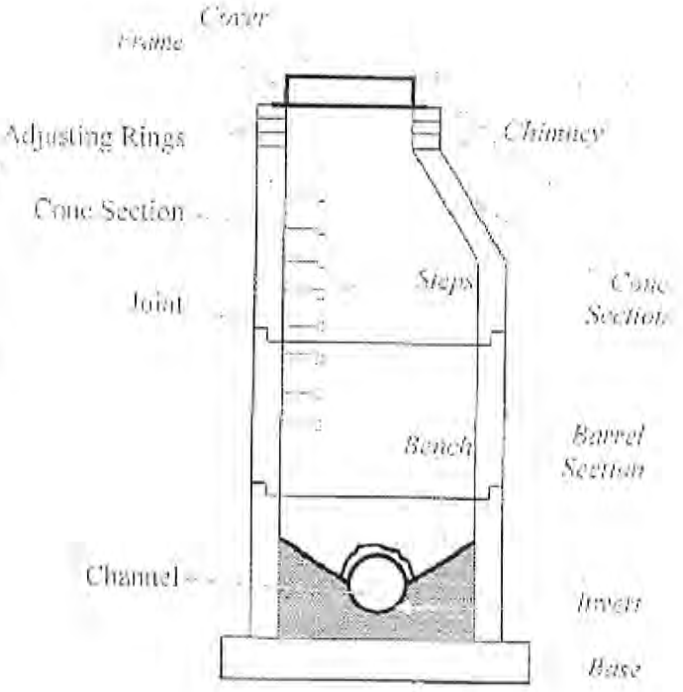
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 20250159-1 (7164)

Vicinity Photo File 2: _____

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 20250135-2 (7163)

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 0650140

Location: intersection of 8th / Harris

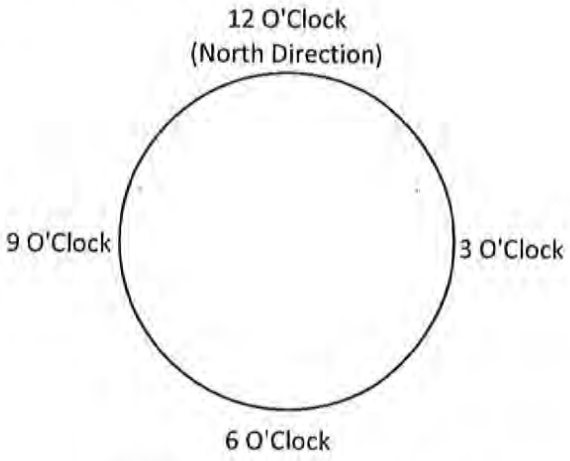
Downstream Manhole Number: 0650138

Upstream Manhole Number: 0650130

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"		8.99			N	
Outlet 2							
Inlet 1	18"		8.92			N	
Inlet 2	10"		7.98			N	
Inlet 3	6"		6.75			Y	

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: No Odor Control Insert: Y (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y (N) Is the cover misaligned: Y (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 3.91

Depth to channel invert (outlet): 3.99

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? (Y) / N If yes, material: metal

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: YES

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

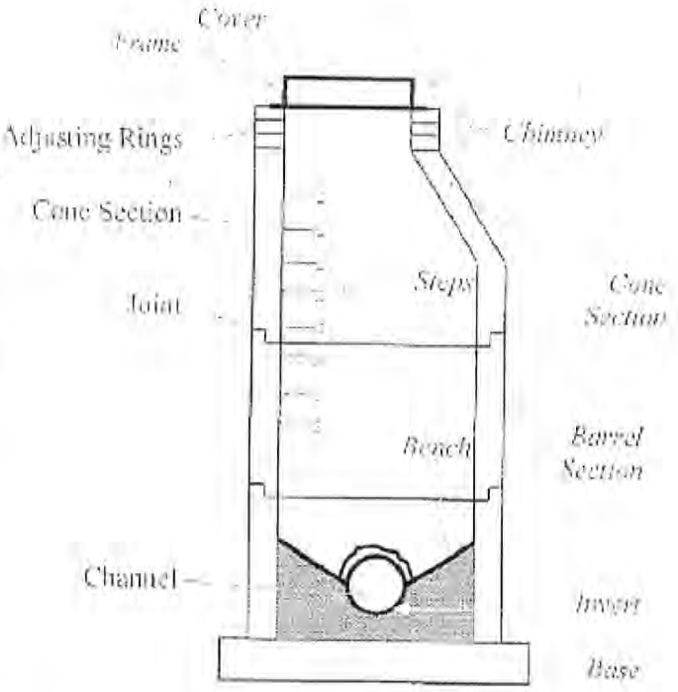
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 20250140 -1 (7165)

Interior Photo File 1: 20250140 -2 (7165)

Vicinity Photo File 2: _____

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

EXHIBIT

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 0650157

Location: intersection at 2nd / Davidson ave.

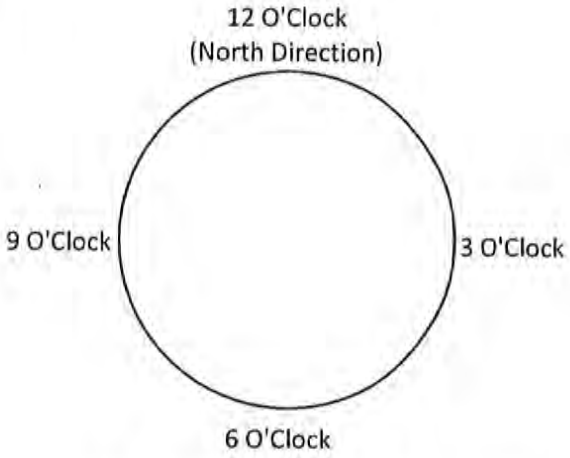
Downstream Manhole Number: 0650110

Upstream Manhole Number: 0650132

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"	clay	5.97		Poor	N	
Outlet 2							
Inlet 1	8"	clay	5.94		Poor	N	slow
Inlet 2	8"	clay	5.65		Poor	N	very slow
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 5.97

Depth to channel invert (outlet): 5.94

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? (Y) / N If yes, material: rebar

Condition of Steps (circle): Good, (Poor), Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: YES

Grease or solids on step: NO

Grease or solids on barrel: YES

Water Marks? Y / (N) If yes, depth below surface: _____

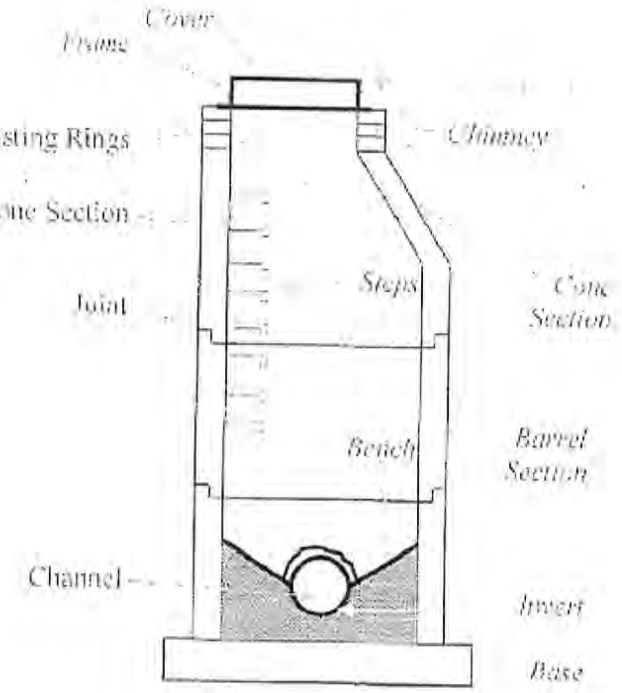
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0650157-1

Vicinity Photo File 2: _____

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0650157-2

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0650175

Location: N. 6 st and W. 7th st

Downstream Manhole Number: 0650060

Upstream Manhole Number: 0650174

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	10 46		good		fast
Outlet 2							
Inlet 1	24"	clay	10 25		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 10 25

Depth to channel invert (outlet): 10 46

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, ~~precast concrete~~, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

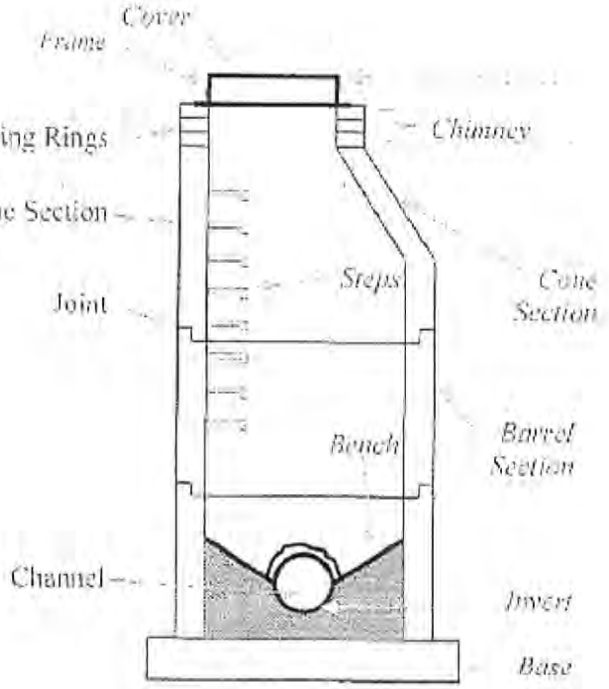
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0650175 - 1 7387

Vicinity Photo File 2: 0650175 - 3 7385

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0650175 - 2 7386

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7/2/19

Manhole ID: 0650204

Location: intersection at W 10th / N I St.

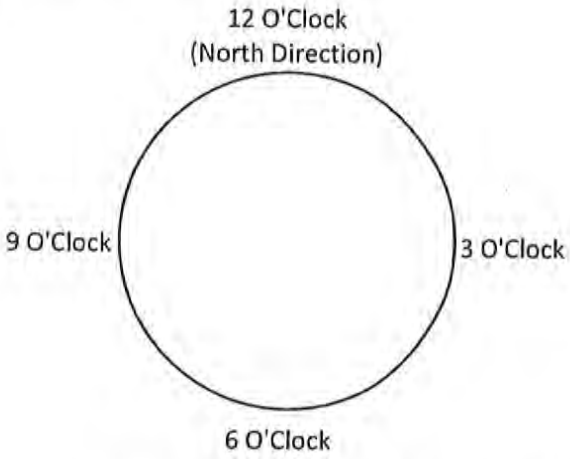
Downstream Manhole Number: 0650211

Upstream Manhole Number: 0650206

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	Clay	8.09				
Outlet 2	18"	PVC	7.78				None
Inlet 1	18"	clay	7.93				fast
Inlet 2	10"	clay	7.43				Back flow
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: No Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.93

Depth to channel invert (outlet): 8.03

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: metal

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: YES

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

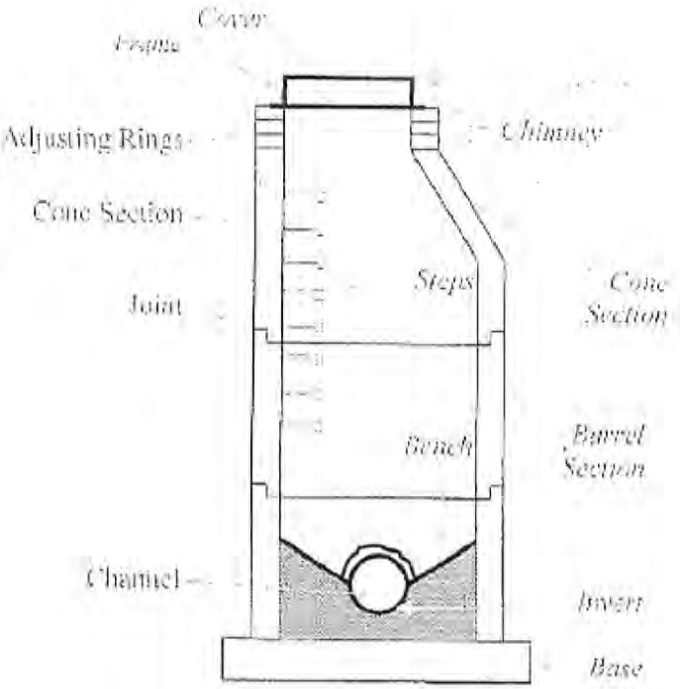
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0650204 - 1 (7168) Interior Photo File 1: 0650204 - 2 (7167)

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0660127

Location: 50± S. of W. Court St on N. E St

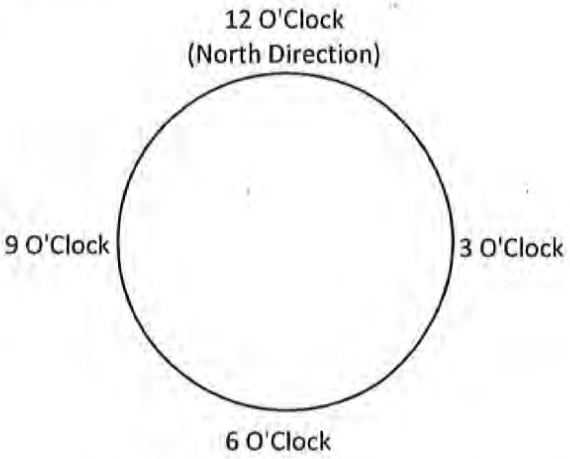
Downstream Manhole Number: 0660128

Upstream Manhole Number: 0660126

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: Conc

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"	clay	8 38		good		fast
Outlet 2							
Inlet 1	8"	clay	8 31		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8 37

Depth to channel invert (outlet): 8 38

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): (brick) precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

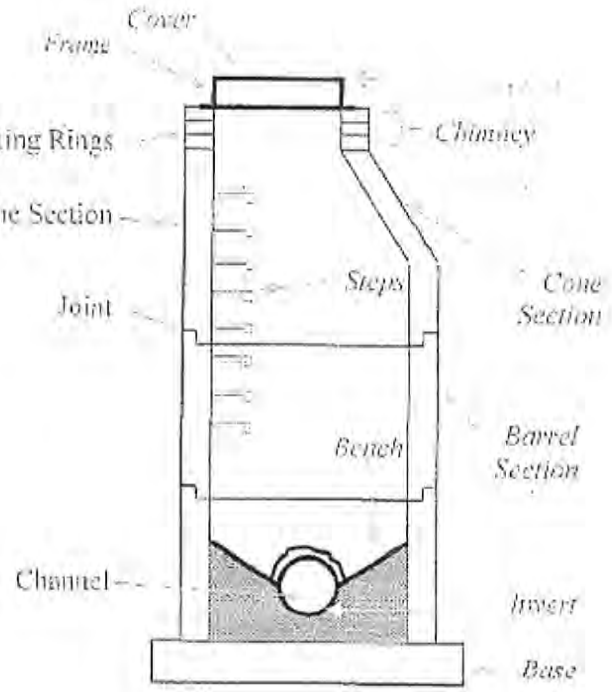
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06060127 - 1 7408

Vicinity Photo File 2: 06060127 - 3 7406

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06060127 - 2 7407

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0660157

Location: N. D St and W. 3RD St

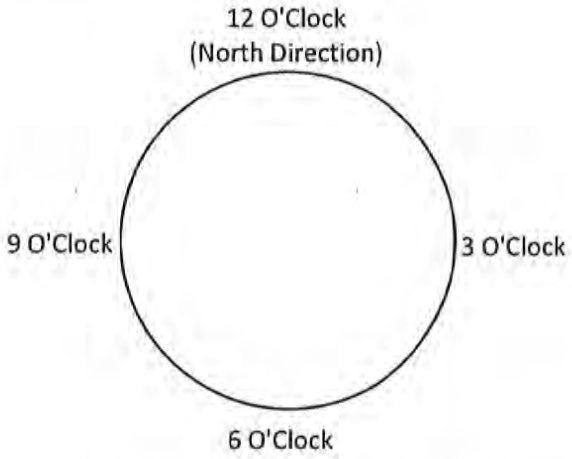
Downstream Manhole Number: N/A

Upstream Manhole Number: N/A

Surrounding area (Circle): ~~Pavement~~, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Cleanout

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1							
Outlet 2							
Inlet 1							
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): _____

Depth to channel invert (outlet): _____

Estimated Inside Diameter of Chimney: _____

Estimated Inside Diameter of Barrel: _____

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry):_____

Steps Present? **Y / N** If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: _____

Grease or solids in channel: _____

Grease or solids on step: _____

Grease or solids on barrel: _____

Water Marks? **Y / N** If yes, depth below surface: _____

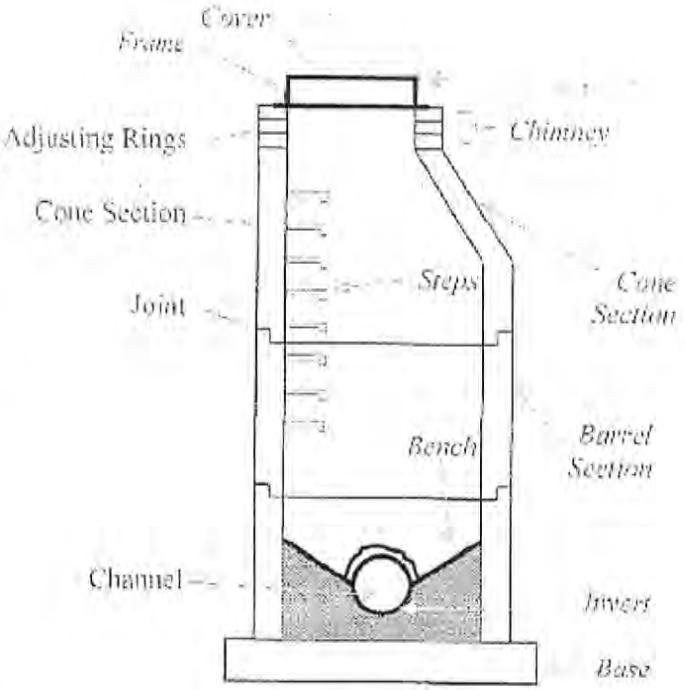
Exposed aggregate: _____

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): _____

Open cracks (orientation - horizontal, vertical, diagonal): _____

Obstructions (roots, debris, etc): _____



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06600157 - 1 7405 Interior Photo File 1: 06600157-2 7404

Vicinity Photo File 2: 06600157-3 7403 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 01600174

Location: 55± S. of W. 3RD St on N. ARROWHEAD AVE

Downstream Manhole Number: 01600189

Upstream Manhole Number: 01600224

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	clay	706		good		fast
Outlet 2							
Inlet 1	12"	clay	684		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6.84

Depth to channel invert (outlet): 7.06

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

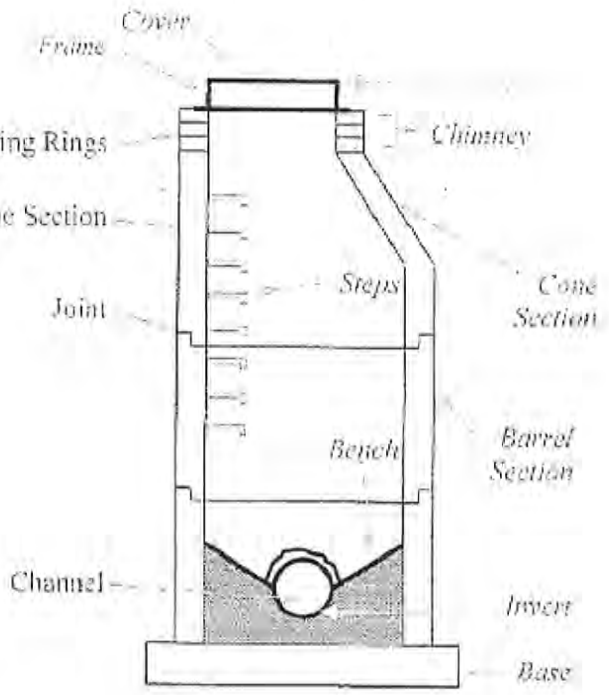
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0660174-1 7402

Vicinity Photo File 2: 0660174-3 7400

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0660174-2 7401

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 06600189

Location: 55' ± S. of W. 3RD St on N. ARRowhead Ave

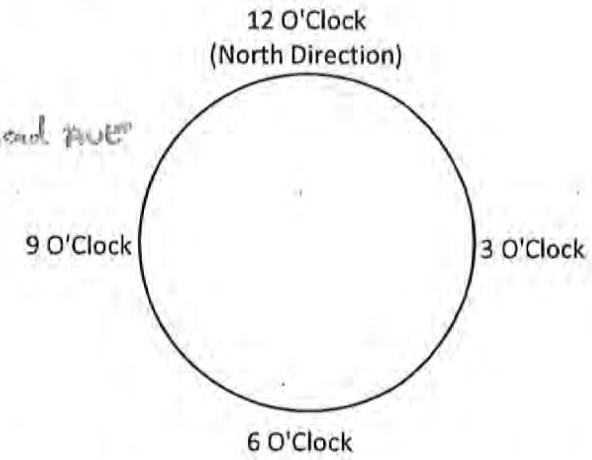
Downstream Manhole Number: 06600190

Upstream Manhole Number: 06600174

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	1501		good		flow
Outlet 2							
Inlet 1	12"	conc	728		good	Yes	wave
Inlet 2	18"	clay	1505		good		slow
Inlet 3	29"	clay	1410		good	Yes	fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 14.10

Depth to channel invert (outlet): 15.02

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

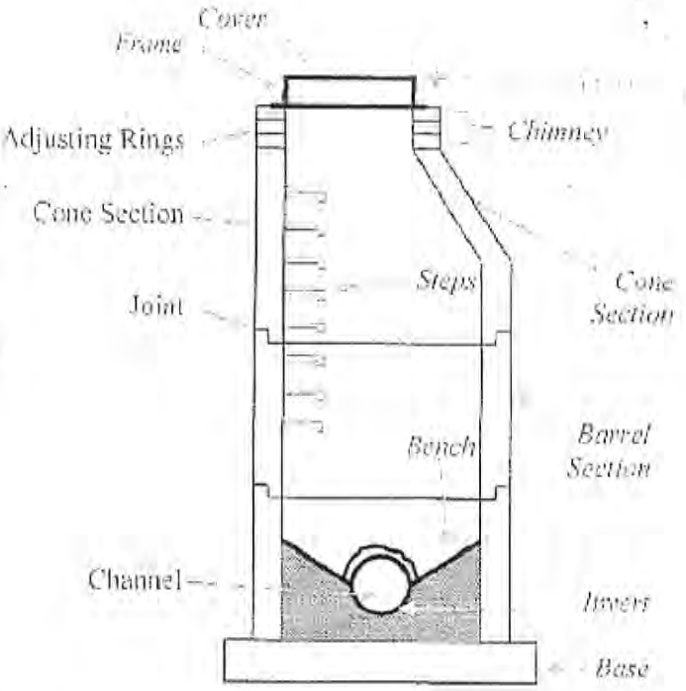
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06060189-1 7399

Vicinity Photo File 2: 06060189-3 7397

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06060189-2 7398

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 06660190

Location: 235± S. of W. 3RD St on N. Arrowhead AVE

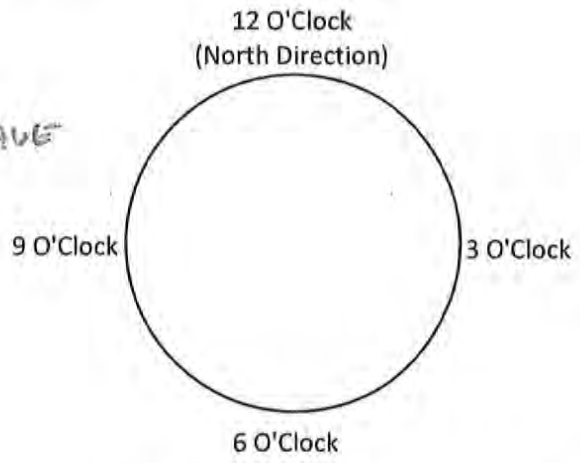
Downstream Manhole Number: 06660195

Upstream Manhole Number: 06660189

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	1223		good		fast
Outlet 2							
Inlet 1	24"	clay	1222		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 12 22

Depth to channel invert (outlet): 12 23

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

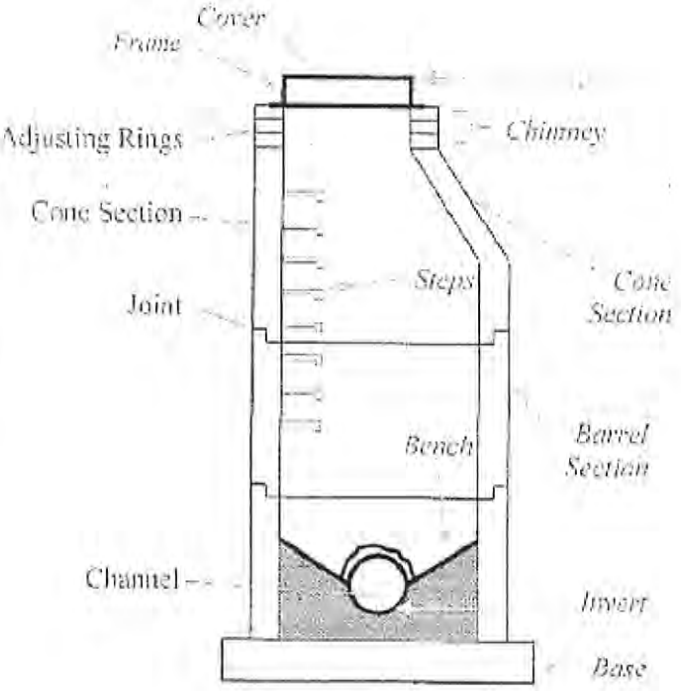
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0660190 - 1 7396

Vicinity Photo File 2: 0660190 - 3 7394

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0660190 - 2 7395

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

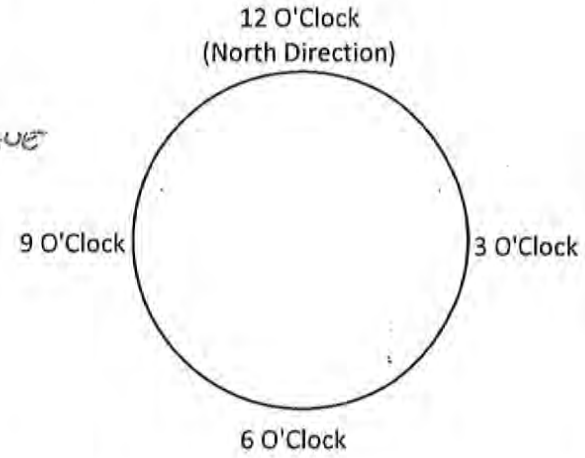
Inspection Date: 7-17-19

Manhole ID: 06660194

Location: 115± N. of W. 2nd St on N. Arrowhead AVE

Downstream Manhole Number: 06660198

Upstream Manhole Number: 06660197



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	852		good		fast
Outlet 2							
Inlet 1	24"	clay	845		good		fast
Inlet 2	24"	clay	840		good		slow
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8 45

Depth to channel invert (outlet): 8 52

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

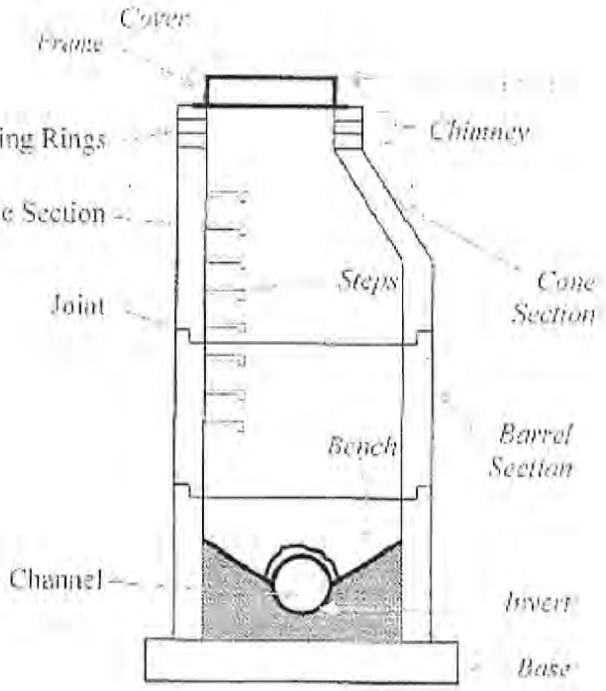
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06600194-1 7393

Vicinity Photo File 2: 06600194-3 7391

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06600194-2 7392

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 06l60197

Location: 115 ± N. of W. 2nd St on N. Arrowhead Ave

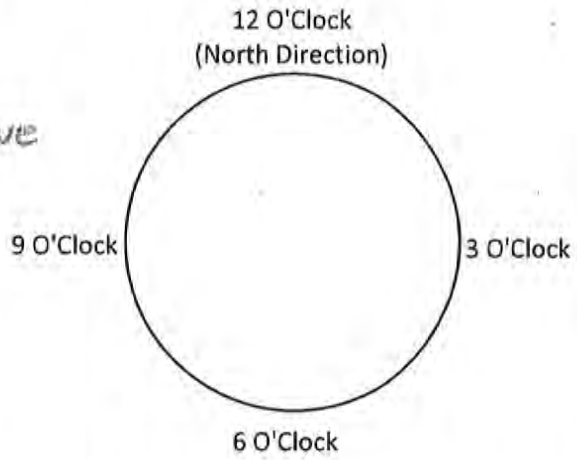
Downstream Manhole Number: 06l60194

Upstream Manhole Number: 06l60195

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	775		good		fast
Outlet 2							
Inlet 1	24"	clay	779		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 779

Depth to channel invert (outlet): 775

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

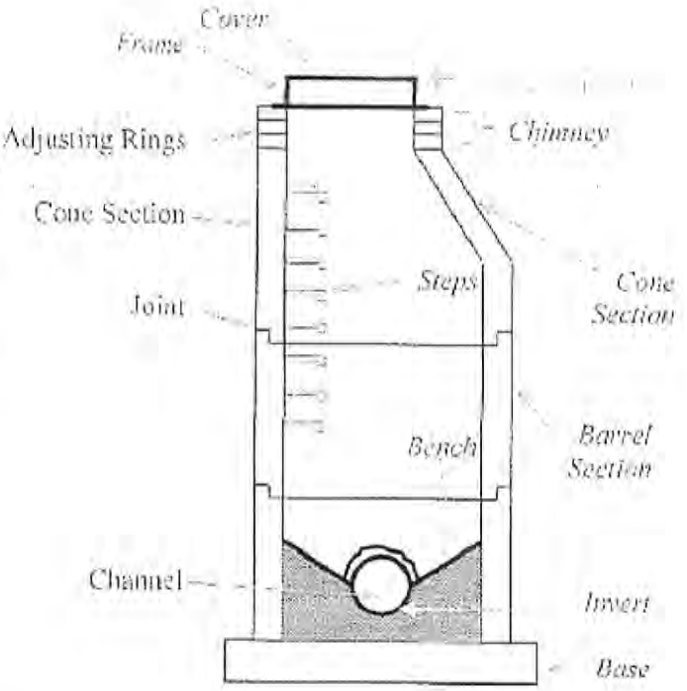
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06060197-1 7390

Vicinity Photo File 2: 06060197-3 7388

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06060197-2 7389

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 06600211

Location: 135± S. of W. 7th St on N. Arrowhead AVE

Downstream Manhole Number: 06600228

Upstream Manhole Number: 06600209

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	Clay	1173		Good		fast
Outlet 2							
Inlet 1	36"	clay	1186		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 86

Depth to channel invert (outlet): 11 73

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

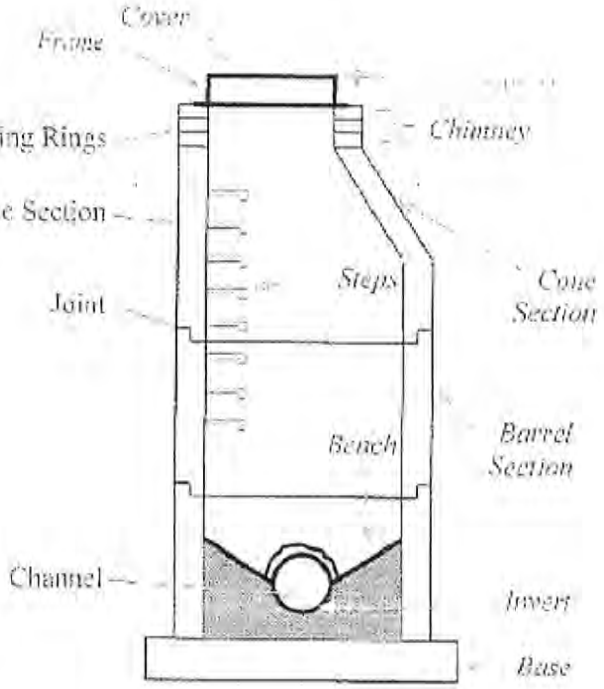
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): yes

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0660211-1 9020

Vicinity Photo File 2: 0660211-3 9017

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0660211-2 9019

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 06660215

Location: N. Mountain View and W. 9th St

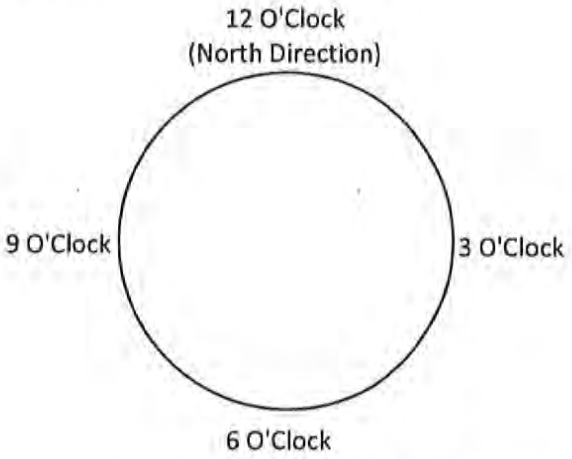
Downstream Manhole Number: 06660288

Upstream Manhole Number: 06660286

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	822	Yes	good		fast
Outlet 2							
Inlet 1	8"	clay	lo 35	Yes	good		slow
Inlet 2	30"	clay	826	Yes	good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8 26

Depth to channel invert (outlet): 8 22

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

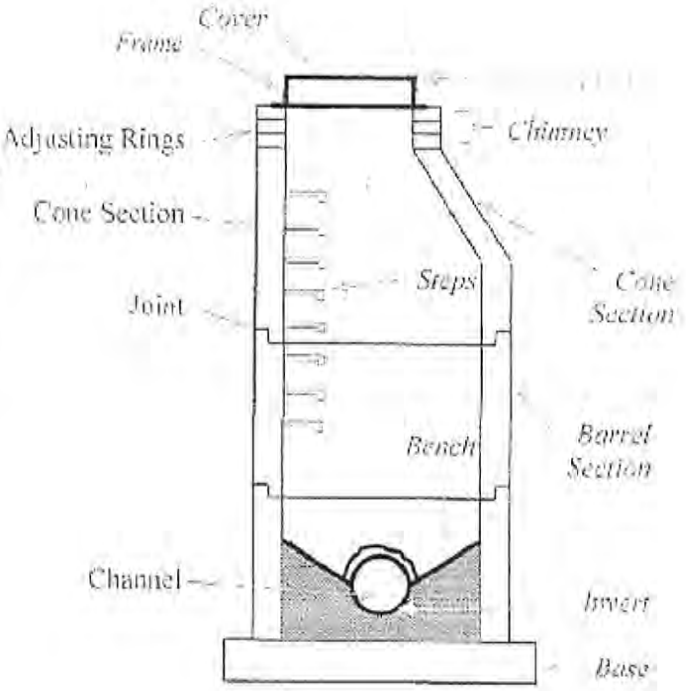
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0660215-1 9013

Vicinity Photo File 2: 0660215-3 9010

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0660215-2 9012

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 06660231

Location: 40' ± S. of W. 9th St on N. Arrowhead AVE

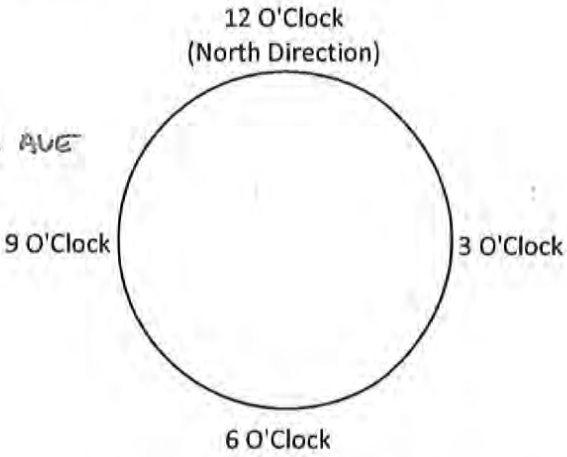
Downstream Manhole Number: 06660230

Upstream Manhole Number: 06660232

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	clay	1484		good		fast
Outlet 2							
Inlet 1	30"	clay	1150		good	Yes	fast
Inlet 2	24"	clay	1920		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1150

Depth to channel invert (outlet): 1484

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 91

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, (Corroded), (Missing Steps), Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

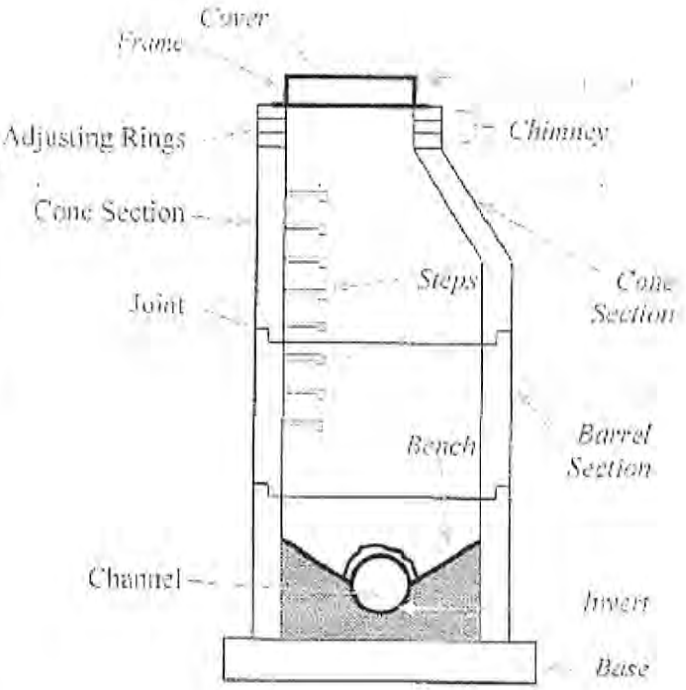
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06600231-1 9016

Vicinity Photo File 2: 06600231-3 9014

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06600231-2 9015

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 06060253

Location: 65± S. of N. Mountain View and W. 3RD St

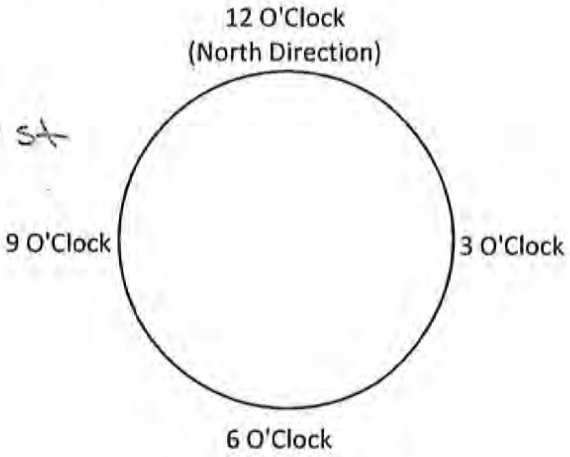
Downstream Manhole Number: 06060203

Upstream Manhole Number: 06060255

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	Plastic	6 40		good		fast
Outlet 2							
Inlet 1	8"	Plastic	580		good		fast
Inlet 2	8"	plastic	503		good	Yes	fast
Inlet 3	18"	Plastic	6 90		good		fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6 40

Depth to channel invert (outlet): 6 40

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): Good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

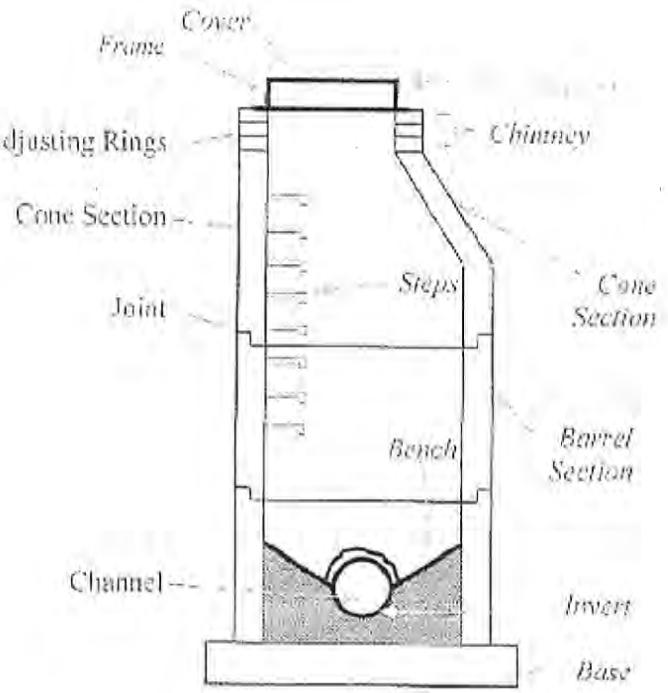
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06600253-1 9024

Vicinity Photo File 2: 06600253-3 9021

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06600253-2 9023

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 06l60291

Location: N. Mountain View AVE and W. 7th St

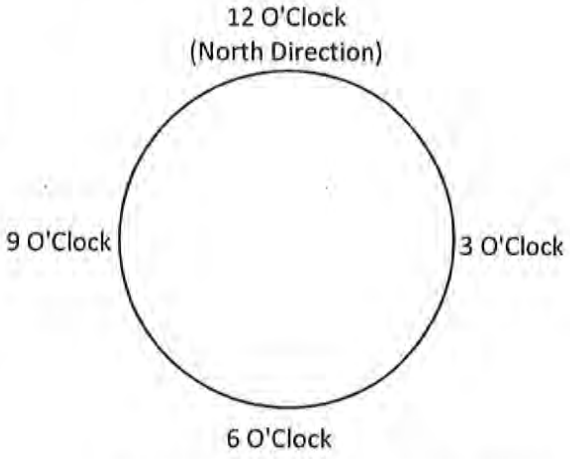
Downstream Manhole Number: 06l60292

Upstream Manhole Number: 06l60212

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	clay	936		Good		fast
Outlet 2							
Inlet 1	30"	clay	884		Good		fast
Inlet 2	30"	clay	890		Good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8 84

Depth to channel invert (outlet): 9 36

Estimated Inside Diameter of Chimney: 24"

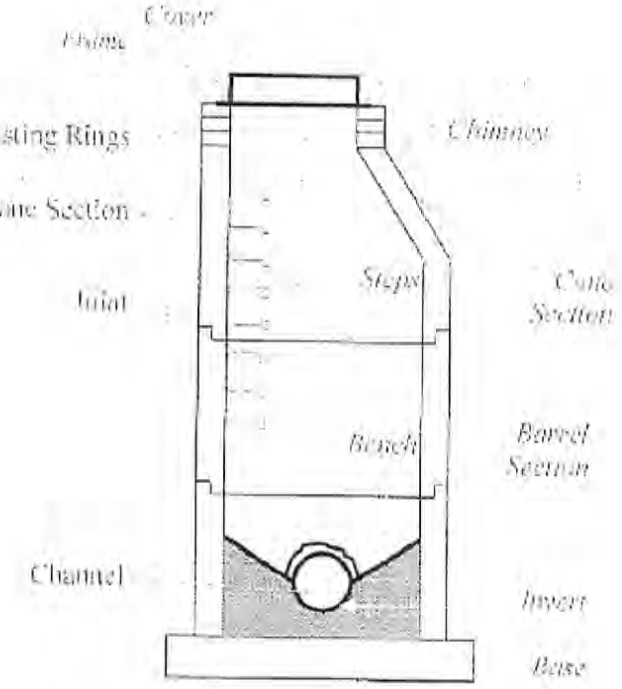
Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____



Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO

Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0660291-1 7382

Vicinity Photo File 2: 0660291-3 7383

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0660291-2 7381

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 0660299

Location: 350' ± W. of N. Sierra Way on W. 9th St

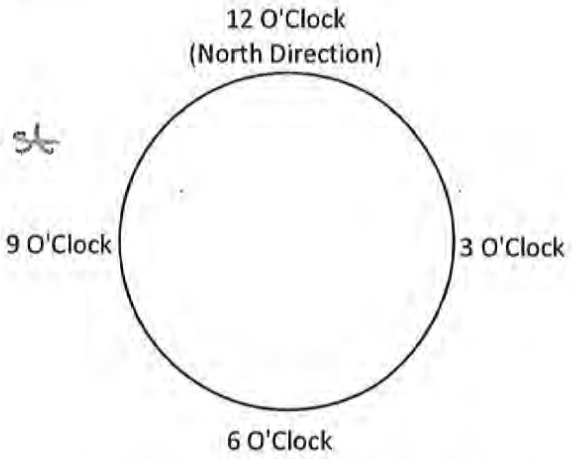
Downstream Manhole Number: 0660240

Upstream Manhole Number: 0660298

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	10 20	yes	good		fast
Outlet 2							
Inlet 1	24"	clay	10 12	yes	good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 10 12

Depth to channel invert (outlet): 10 20

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

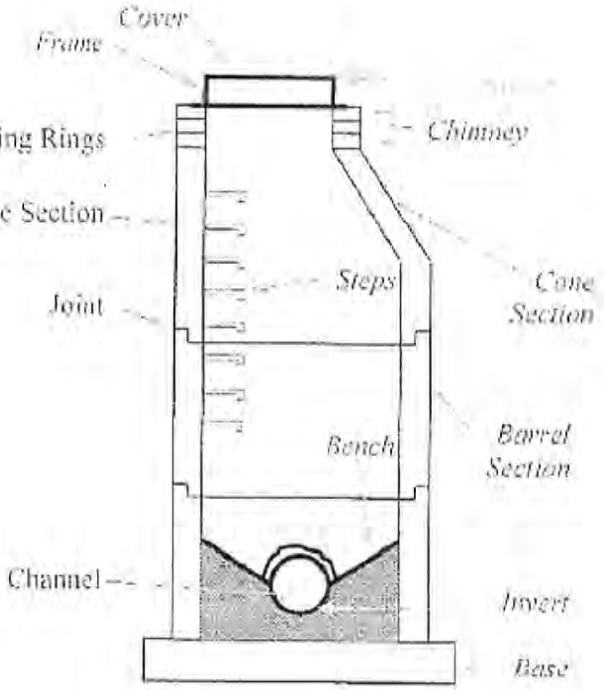
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06660299 - 1 9009

Vicinity Photo File 2: 06660299 - 3 9006

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06660299 - 2 9008

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-16-19

Manhole ID: 01660327

Location: 20'± S. of E. 10th st on N. Sierra way

Downstream Manhole Number: 01660295

Upstream Manhole Number: 01660328

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	1321		good		fast
Outlet 2							
Inlet 1	10"	clay	1062		good	Yes	fast
Inlet 2	18"	clay	1309		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 29" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1309

Depth to channel invert (outlet): 1321

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 9'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

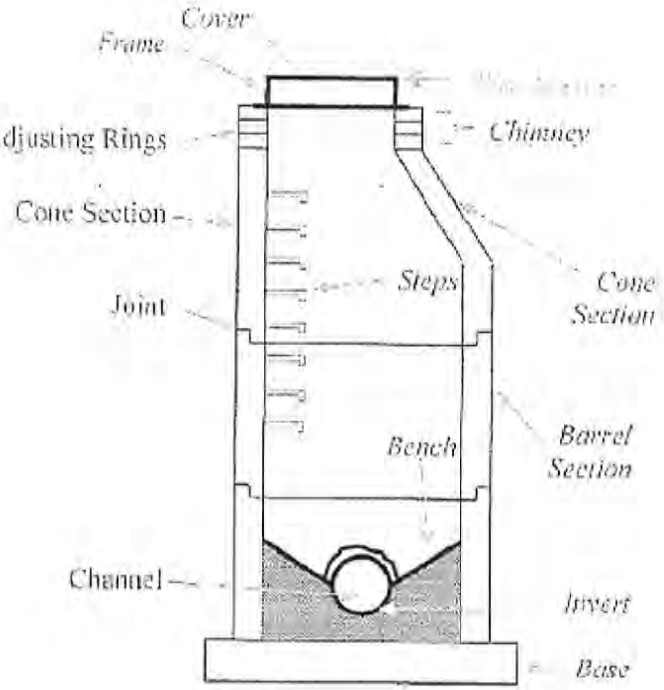
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 06060327-1 7380

Vicinity Photo File 2: 06060327-3 7378

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 06060327-2 7379

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 0670079

Location: Intersection @ N. Waterman Ave / E 6th St.

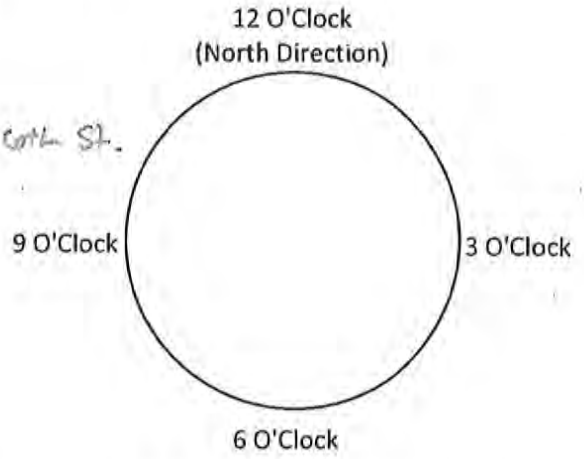
Downstream Manhole Number: 0670108

Upstream Manhole Number: 0670074

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	48"	CONC.	N/A		good		fast
Outlet 2							
Inlet 1	18"	CONC	N/A		good	Yes	none
Inlet 2	30"	CONC	N/A		good		fast
Inlet 3	36"	CONC	N/A		good		fast

Cover Observations:

Cover Diameter: 2x4 Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 0 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): N/A

Depth to channel invert (outlet): N/A

Estimated Inside Diameter of Chimney: 2x4

Estimated Inside Diameter of Barrel: 1.5x6

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

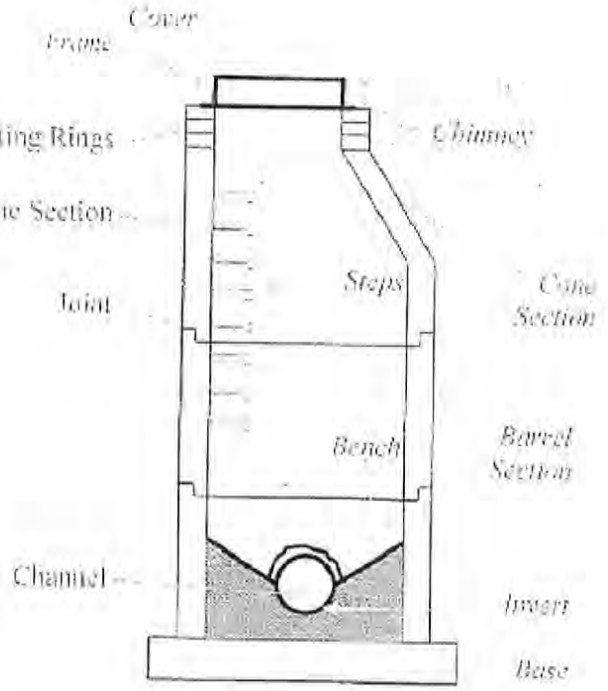
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0670079-1 7517

Vicinity Photo File 2: 0670079-3 7515

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0670079-2 7516

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0720016

Location: 65± S. of W. Cardamon St on Meridian AVE

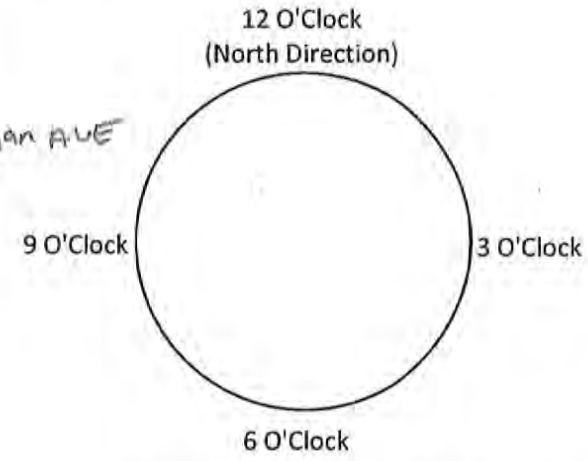
Downstream Manhole Number: MH NO #

Upstream Manhole Number: 0720049

Surrounding area (Circle): Pavement, Grass, (Dirt)
Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"	Clay	706		good		fast
Outlet 2							
Inlet 1	6"	clay	685		good		fast
Inlet 2	8"	clay	702		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: yes Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 702

Depth to channel invert (outlet): 706

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

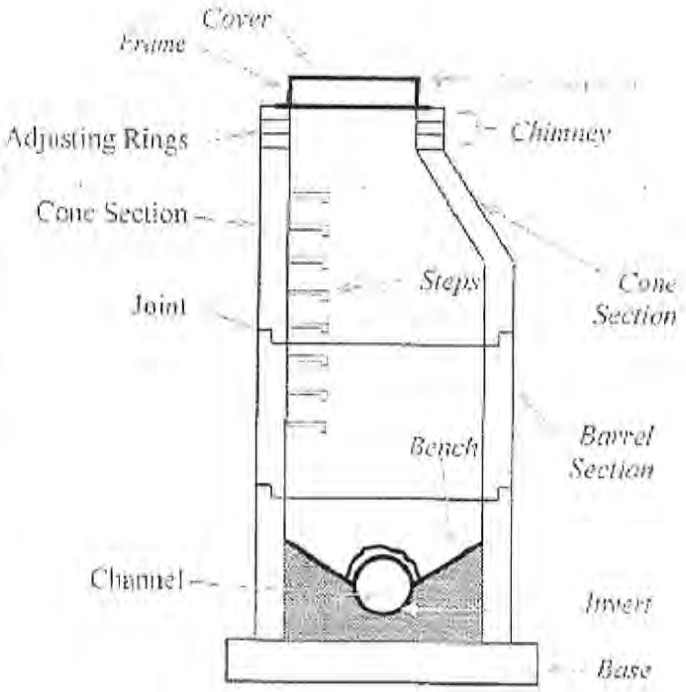
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 07200|6-1 7913 Interior Photo File 1: 07200|6-2 7912

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0720051

Location: S. Meridian AVE and Mill St

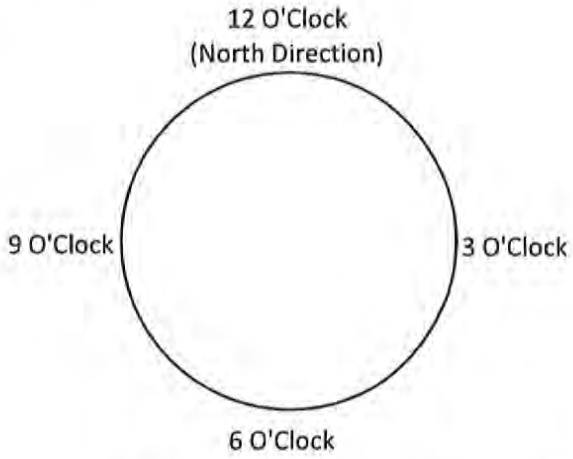
Downstream Manhole Number: 0720181

Upstream Manhole Number: 0720200

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"	CONC	774		good		fast
Outlet 2							
Inlet 1	8"	CONC	770		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 770

Depth to channel invert (outlet): 776

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

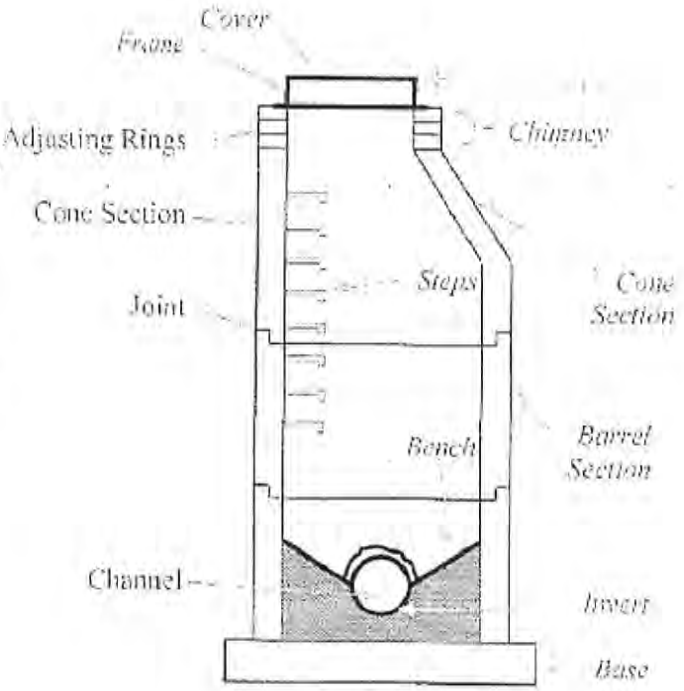
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0720051 - 1 7411

Vicinity Photo File 2: 0720051 - 3 7409

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0720051-2 7410

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0730050

Location: 120 ± S. of Isabella Dr on Macy St

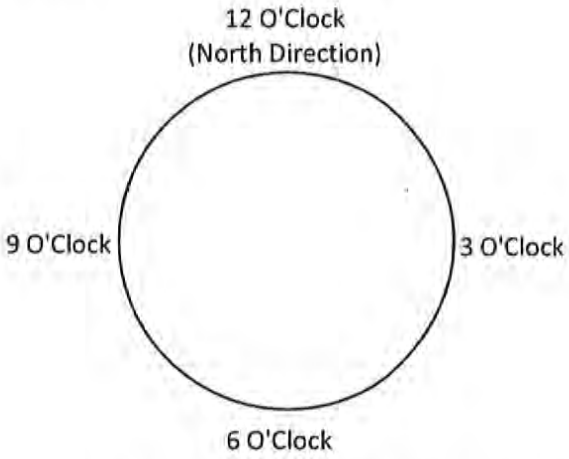
Downstream Manhole Number: 0730051

Upstream Manhole Number: 0730049

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"	PVC	710		good		fast
Outlet 2							
Inlet 1	8"	PVC	695		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6 95

Depth to channel invert (outlet): 7 10

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

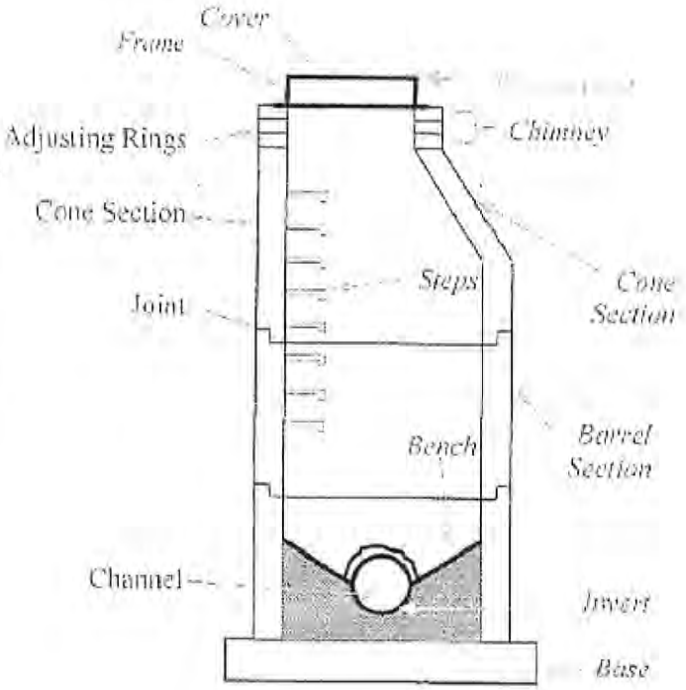
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0730050 -1 7416

Vicinity Photo File 2: 0730050 - 3 7414

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0730050 - 2 7415

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0730052

Location: 430± S. of Huff st on Macy st

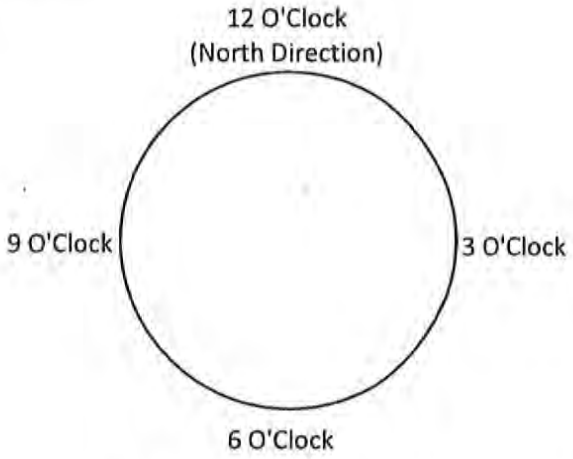
Downstream Manhole Number: 0730071

Upstream Manhole Number: Dpt NO M.H #±

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"	PVC	8.98	yes	poor		slow
Outlet 2							
Inlet 1	6"	PVC	5.80	yes	good	yes	
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: yes Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 5 80

Depth to channel invert (outlet): 8 08

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: yes

Water Marks? (Y) / N If yes, depth below surface: 5 ft

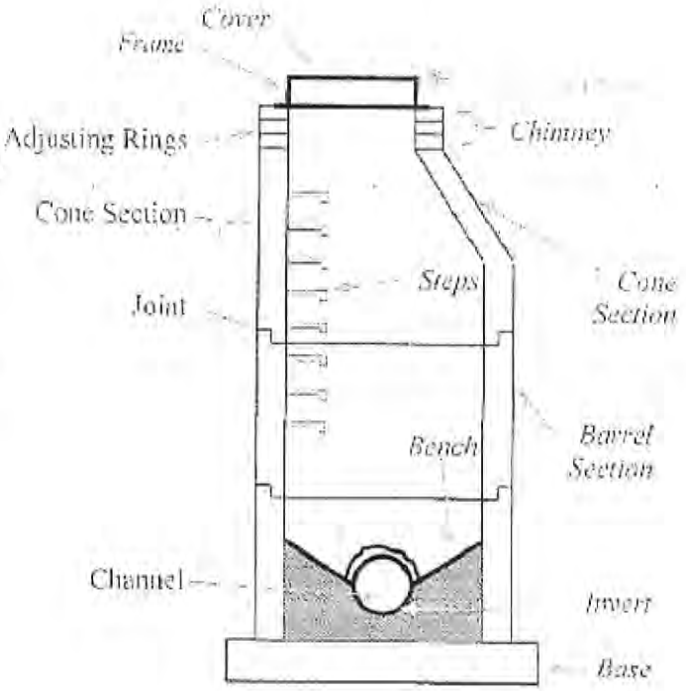
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0730052 - 1 7419

Vicinity Photo File 2: 0730052 - 3 7417

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0730052 - 2 7418

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0730171

Location: N. Rancho AVE and W. Rialto AVE

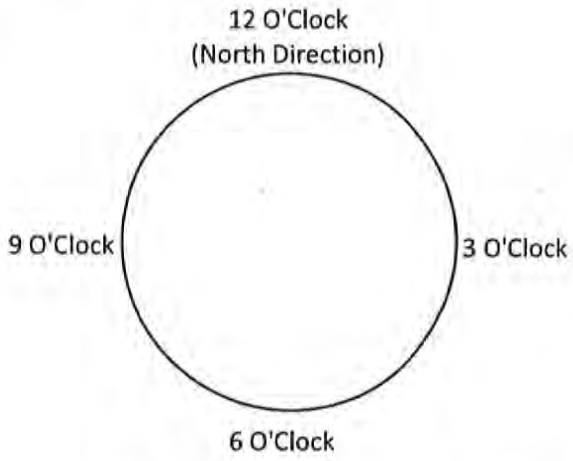
Downstream Manhole Number: 0730185

Upstream Manhole Number: 0730184

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	clay	875		good		fast
Outlet 2							
Inlet 1	10"	clay	845		good		fast
Inlet 2	10"	clay	841		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8 45

Depth to channel invert (outlet): 875

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

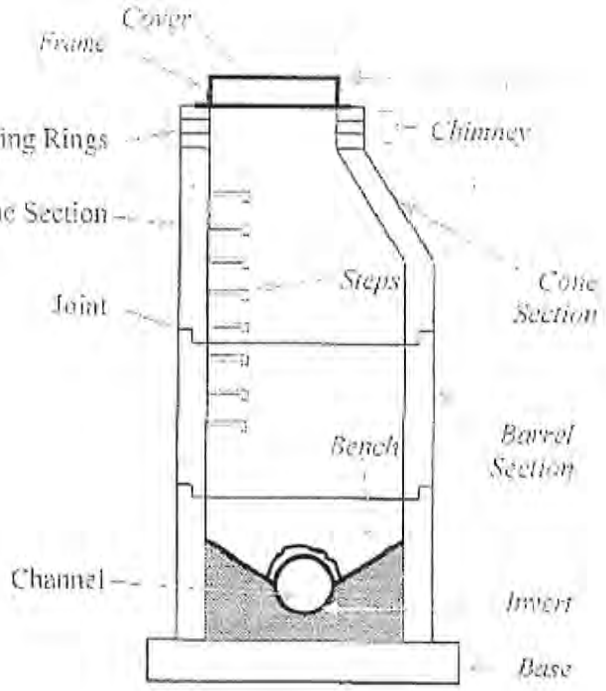
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0730171-1 7422

Vicinity Photo File 2: 0730171-3 7420

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0730171-2 7421

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0740016

Location: Pennsylvania AVE and mill st

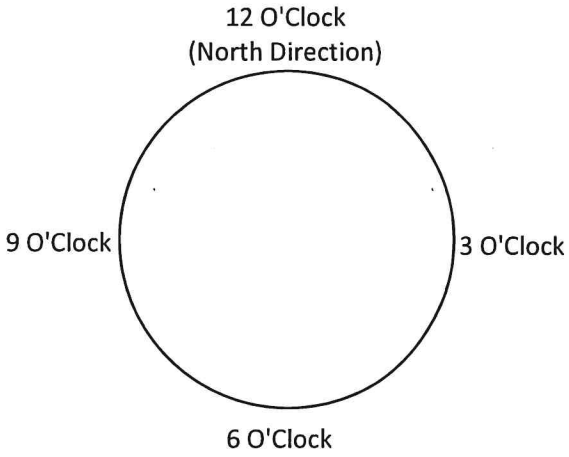
Downstream Manhole Number: 0740015

Upstream Manhole Number: 0740018

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	clay	7 4/6		good		fast
Outlet 2							
Inlet 1	12"	clay	7 11/12		good		fast
Inlet 2	12"	clay	7 2/6		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7'7"

Depth to channel invert (outlet): 7'9"

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

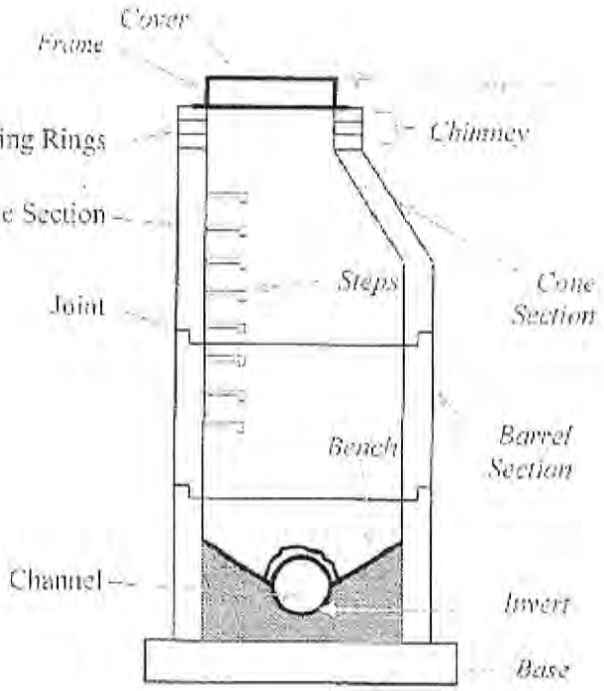
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): Horizontal (Bench)

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0740016-1 7425 Interior Photo File 1: 0740016-2 7424

Vicinity Photo File 2: 0740016-3 7423 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0750132

Location: S. 1st and W. Mill St

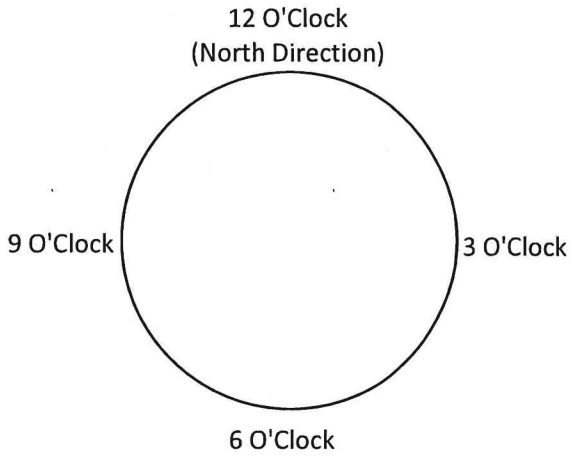
Downstream Manhole Number: 0760013

Upstream Manhole Number: 0750100

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	1419		good		fast
Outlet 2							
Inlet 1	24"	clay	1425		good		fast
Inlet 2	30"	clay	1413		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 29" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 10 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 14.05

Depth to channel invert (outlet): 14.19

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

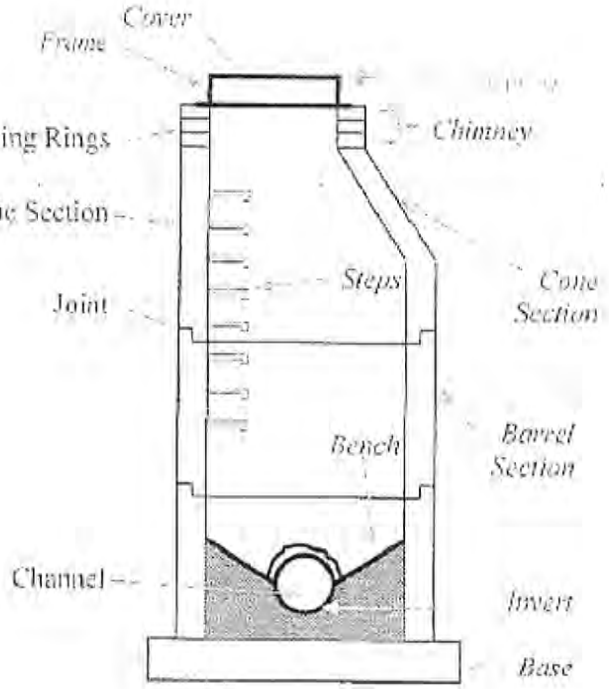
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0750132-1 7428

Vicinity Photo File 2: 0750132-3 7426

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0750132-2 7427

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0750134

Location: 548± N. oak st on S. 1st

Downstream Manhole Number: 0750133

Upstream Manhole Number: 0750186

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	clay	1532		good		fast
Outlet 2							
Inlet 1	18"	steel	1522		good		fast
Inlet 2	18"	steel	1506		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: (2) 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 15 22

Depth to channel invert (outlet): 15 32

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 5x5

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

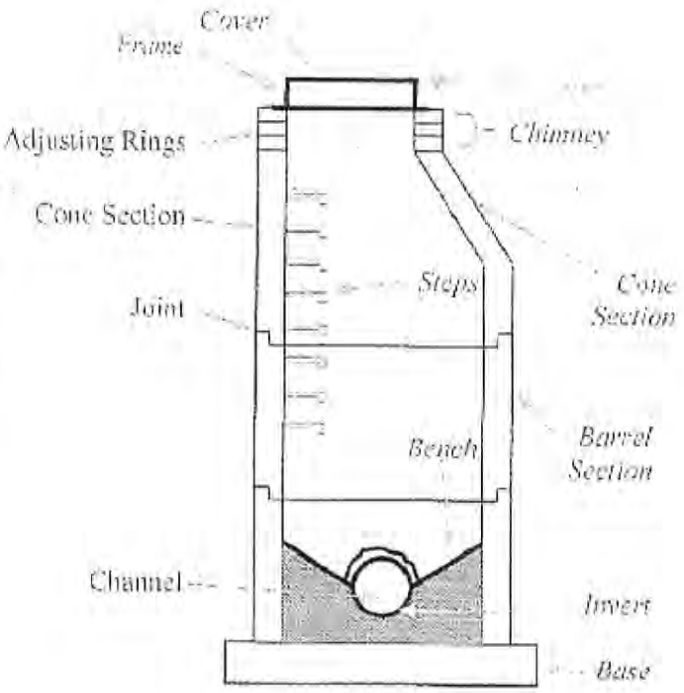
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): yes

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0750134-1 7431

Interior Photo File 1: 0750134-2 7430

Vicinity Photo File 2: 0750134-3 7429

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0750183

Location: S. 1st and W. Congress St

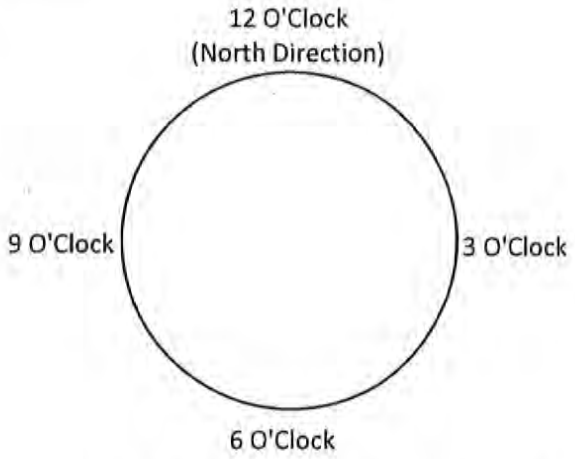
Downstream Manhole Number: 0750184

Upstream Manhole Number: 0750182

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	1133		good		fast
Outlet 2							
Inlet 1	10"	PVC	945		fair	yes	fast
Inlet 2	30"	clay	1124		good		fast
Inlet 3	10"	PVC	945		good	yes	

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 24

Depth to channel invert (outlet): 11 33

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

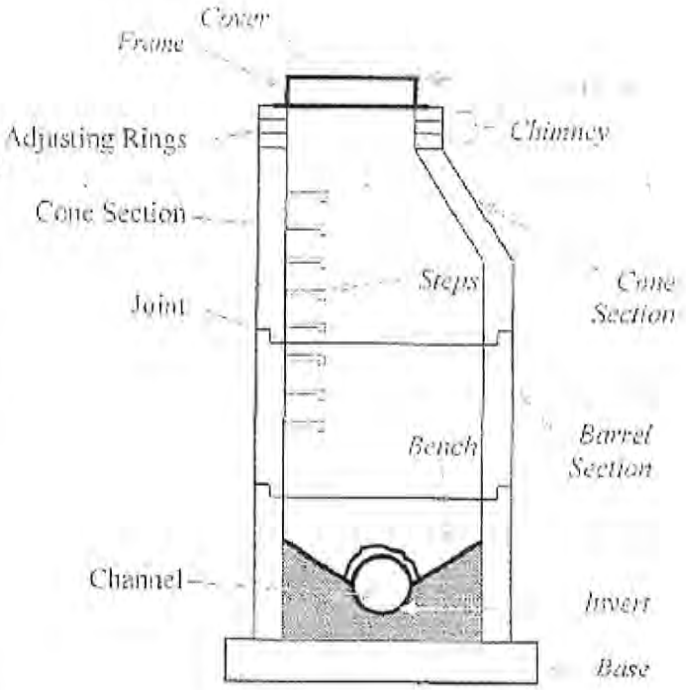
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0750183-1 7438 Interior Photo File 1: 0750183-2 7437

Vicinity Photo File 2: 0750183-3 7435 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0750186

Location: 765'± N. OAK St on S. 1 St

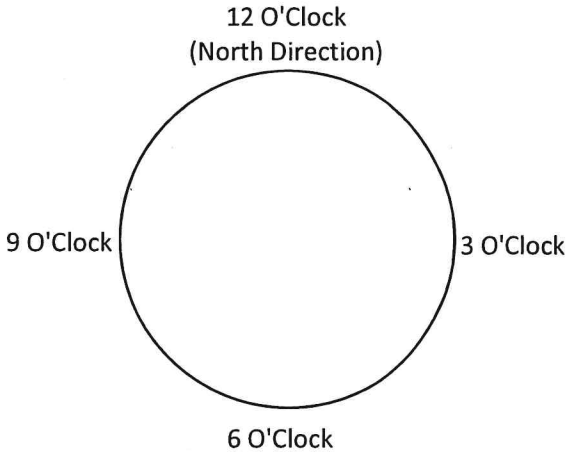
Downstream Manhole Number: 0750134

Upstream Manhole Number: 0750185

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	Steel	1181		good		fast
Outlet 2	24"	Steel	N/A		good		fast
Inlet 1	30"	Clay	1153		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1153

Depth to channel invert (outlet): 1181

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 5X5

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

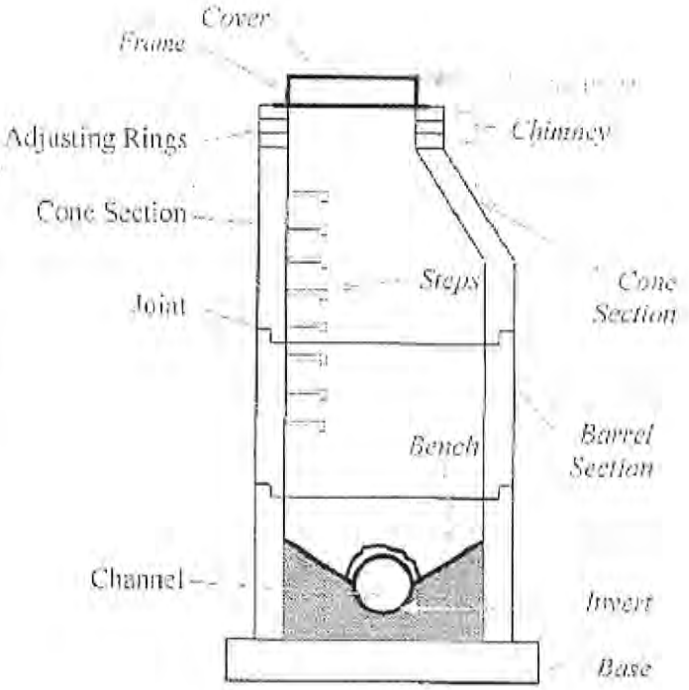
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 07501B6 -1 7434

Vicinity Photo File 2: 07501B6 - 3 7432

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 07501B6-2 7433

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0750215

Location: W. Rialto AVE and N. I St

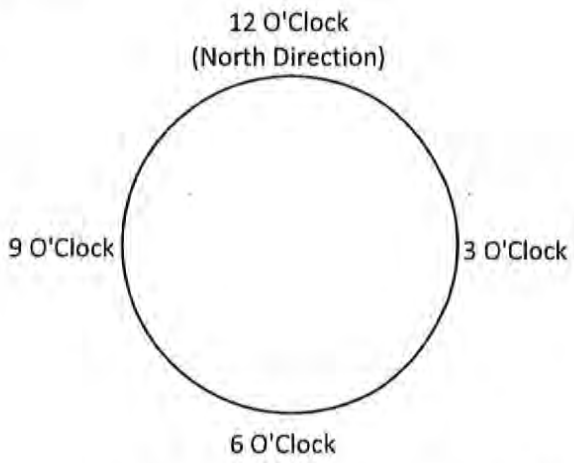
Downstream Manhole Number: 0750129

Upstream Manhole Number: 0750217

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	N/A	N/A	8 30		N/A		backed up
Outlet 2							
Inlet 1	18"	clay	8 10		fair		backed up
Inlet 2	10"	PVC	6 50		fair	yes	slow
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6.50

Depth to channel invert (outlet): 8.20

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): ~~brick~~, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: yes

Grease or solids on barrel: yes

Water Marks? (Y) / N If yes, depth below surface: 6 ft

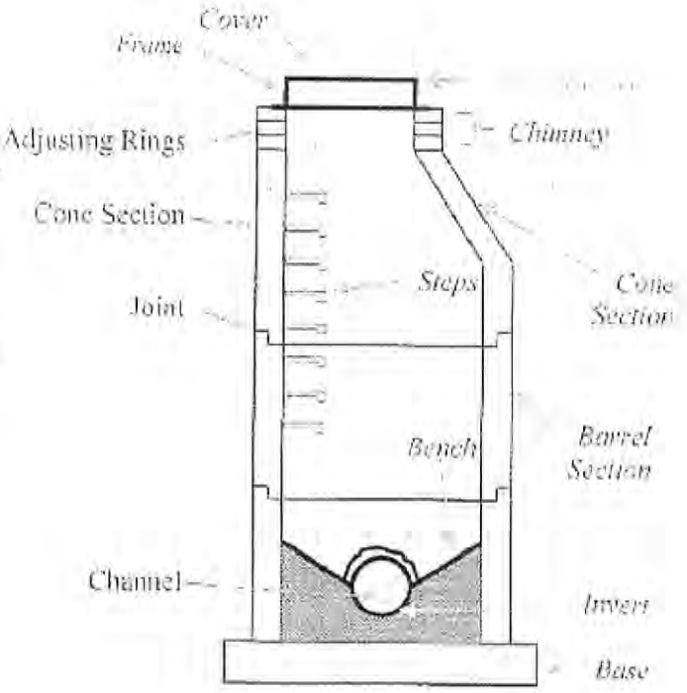
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0750215-1 7441 Interior Photo File 1: 0750215-2 7446

Vicinity Photo File 2: 0750215-3 7439 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0760025

Location: Inland Center Dr and S. Adell St.

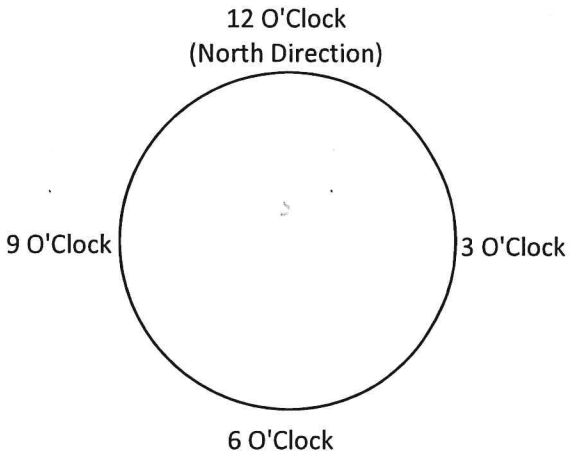
Downstream Manhole Number: 0760029

Upstream Manhole Number: 0750245

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	clay	715		fair		fast
Outlet 2							
Inlet 1	6"	clay	583		poor	Yes	none
Inlet 2	10"	clay	719		fair		fast
Inlet 3	10"	clay	718		fair		slow

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.9

Depth to channel invert (outlet): 7.5

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick) precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? (Y) / N If yes, depth below surface: 5'

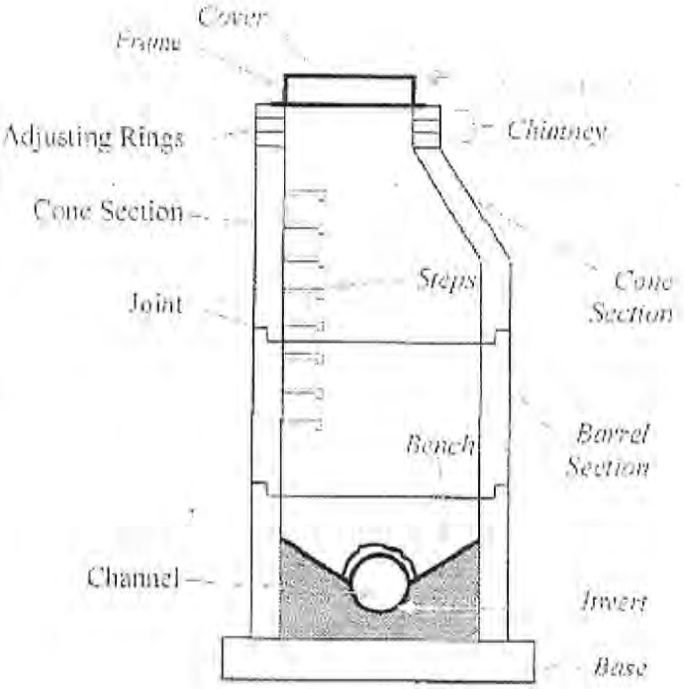
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 07600025 - 1 7453

Vicinity Photo File 2: 07600025 - 3 7451

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 07600025 - 2 7452

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 07600996

Location: S. Est and Athol St

Downstream Manhole Number: 07600994

Upstream Manhole Number: 07600991

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	clay	955		good		fast
Outlet 2							
Inlet 1	60"	clay	994		fair	Yes	NONE
Inlet 2	36"	clay	920		good		fast
Inlet 3	36"	clay	954		good		slow

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 9'20"

Depth to channel invert (outlet): 9'5"

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4x4

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

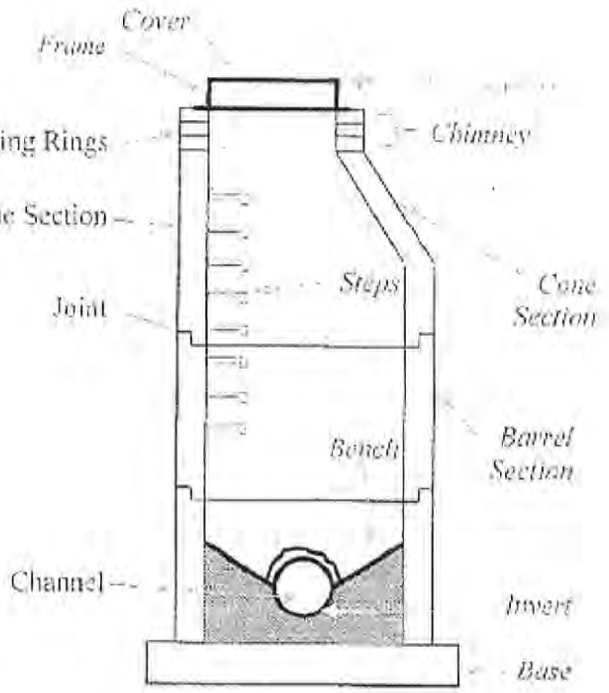
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 07600960-1 7456

Vicinity Photo File 2: 07600960-3 7454

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 07600960-2 7455

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 07600098

Location: 340' ± S. of W. 2nd St on N. EST

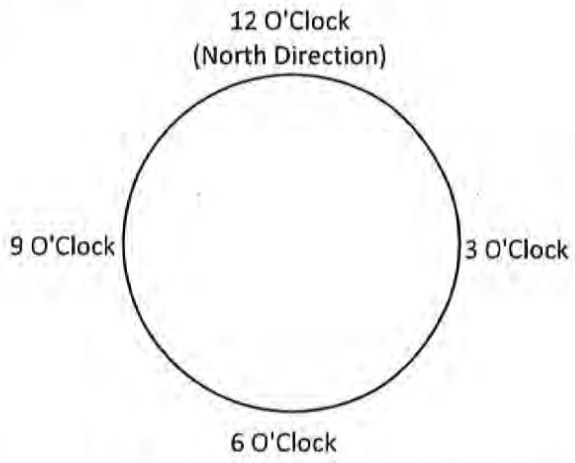
Downstream Manhole Number: 07600088

Upstream Manhole Number: 06600131

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	clay	48"		good		fast
Outlet 2							
Inlet 1	10"	clay	48"		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 480

Depth to channel invert (outlet): 483

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

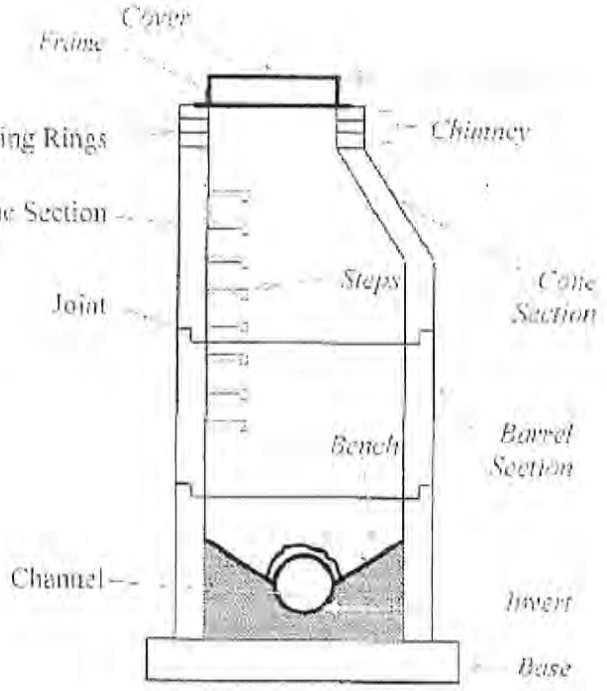
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): Horizontal

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760098 - 1 7459

Vicinity Photo File 2: 0760098 - 3 7457

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0760098 - 2 7458

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0760110

Location: S. Stoddard Ave and Athol St

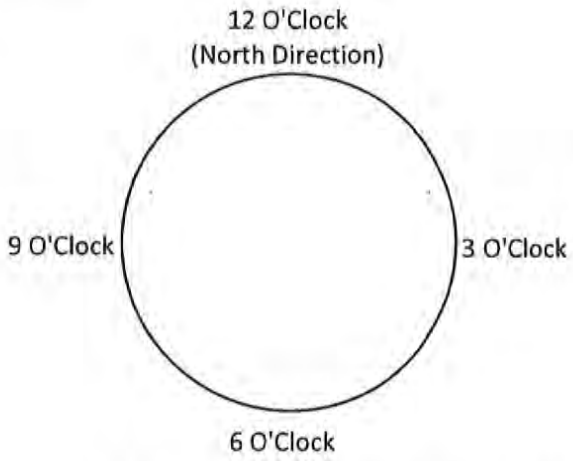
Downstream Manhole Number: 0760096

Upstream Manhole Number: 1ST W/ NO M.H. I.D.

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	Clay	5.10		good		slow
Outlet 2							
Inlet 1	30"	clay	5.03		good		slow
Inlet 2	18"	clay	5.00		good		slow
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 5 oc

Depth to channel invert (outlet): 5 10

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

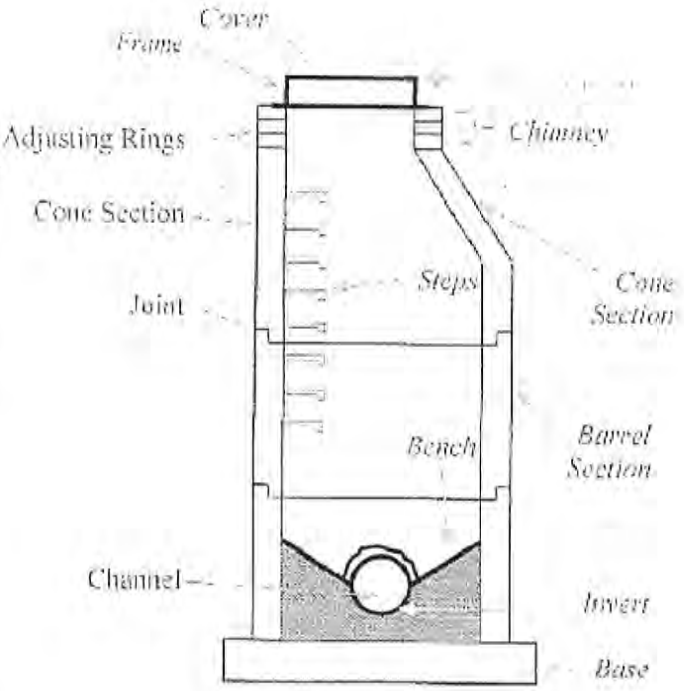
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760110 -1 7450

Vicinity Photo File 2: 0760110-3 7448

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0760110-2 7449

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0760120

Location: SD St and W. Rialto AVE

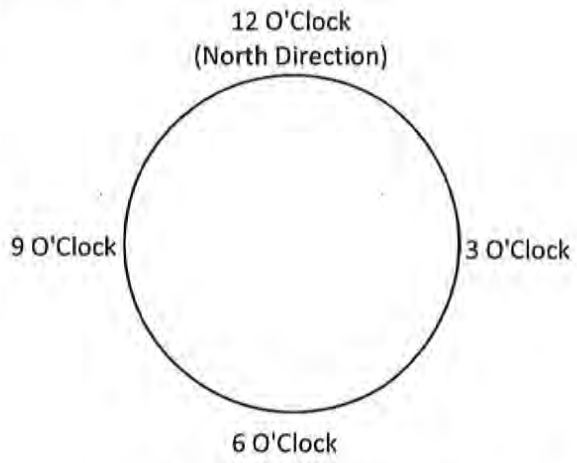
Downstream Manhole Number: 0760121

Upstream Manhole Number: 0760122

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	Clay	1592		good		fast
Outlet 2							
Inlet 1	10"	clay	1639		good	Yes	fast
Inlet 2	36"	clay	1580		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 15 80

Depth to channel invert (outlet): 15 92

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): poor

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

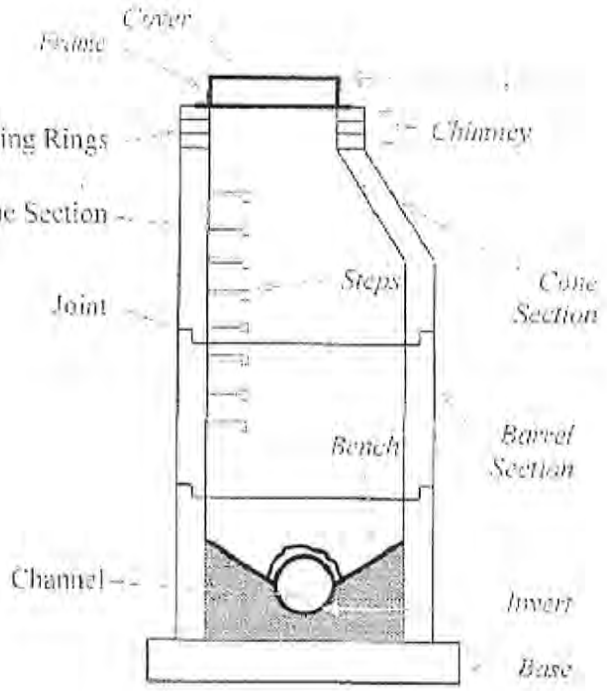
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760120 - 1 7462

Vicinity Photo File 2: 0760120 - 3 7460

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0760120 - 2 7461

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0760141

Location: S. Arrowhead AVE and Athol St

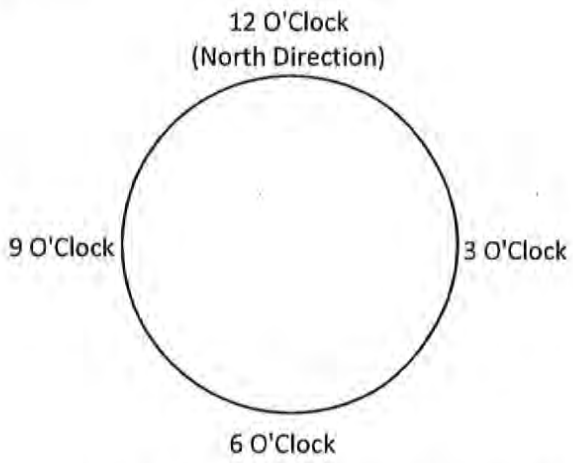
Downstream Manhole Number: 0760143

Upstream Manhole Number: 0760142

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	clay	320		fair		Slow
Outlet 2							
Inlet 1	15"	clay	255		fair	Yes	Slow
Inlet 2	15"	clay	320		closed		Slow
Inlet 3	15"	clay	245		fair	Yes	None

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 7 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 3 20

Depth to channel invert (outlet): 3 20

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 3'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

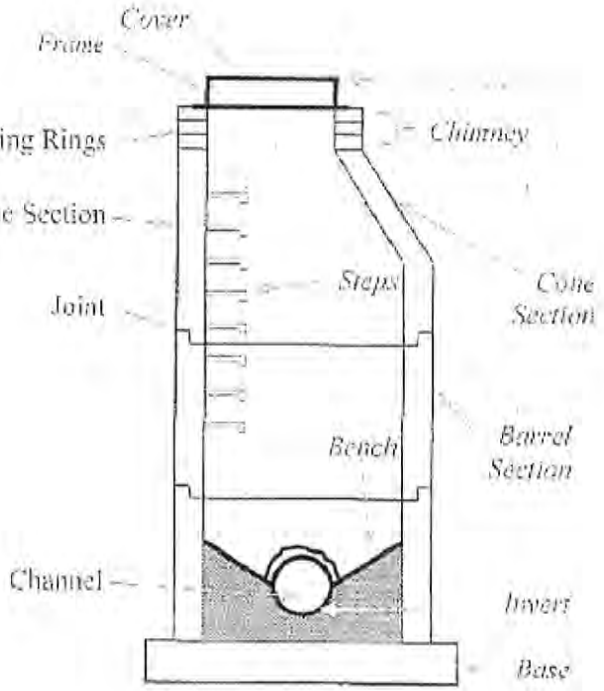
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760141-1 7497 Interior Photo File 1: 0760141-2 7496

Vicinity Photo File 2: 0760141-3 7495 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

#5

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0760145

Location: Arrowhead AVE and W mill st

Downstream Manhole Number: 0760170

Upstream Manhole Number: 0760252

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

check size

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	clay	409		good		obstructed
Outlet 2							
Inlet 1	12"	clay	373		poor		slow
Inlet 2	8"	clay	307		good	Yes	fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 373

Depth to channel invert (outlet): 409

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 4

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

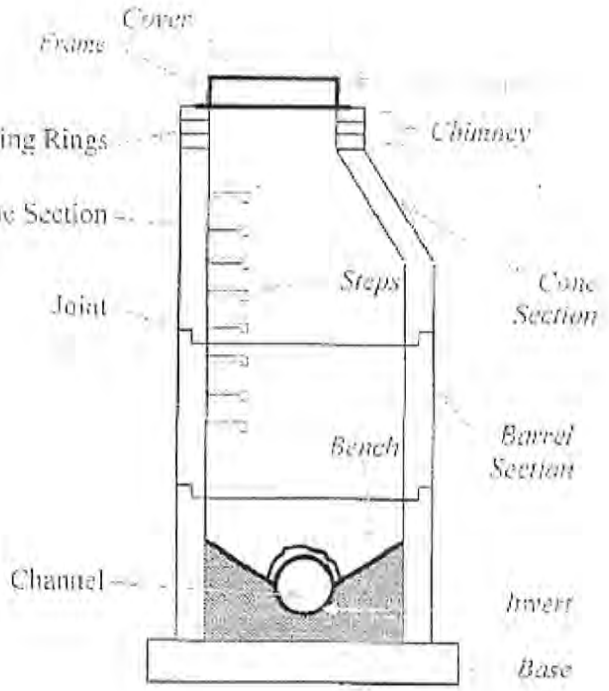
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): Vertical

Obstructions (roots, debris, etc): _____



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760145-1 7467 Interior Photo File 1: _____

Vicinity Photo File 2: _____ Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 07601161

Location: 52' ± S. of W Mill St on Arrowhead AVE

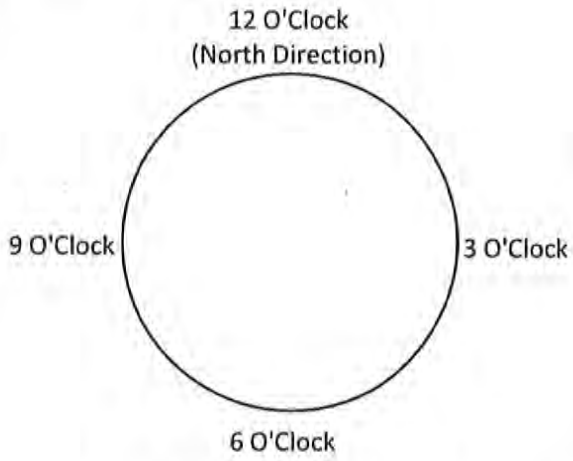
Downstream Manhole Number: 07601160

Upstream Manhole Number: 07600147

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: (Y) / N



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36''	Clay	1990		good		fast
Outlet 2							
Inlet 1	N/A	N/A	N/A		N/A	Yes	fast
Inlet 2	36''	clay	1990		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24'' Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1990

Depth to channel invert (outlet): 1990

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

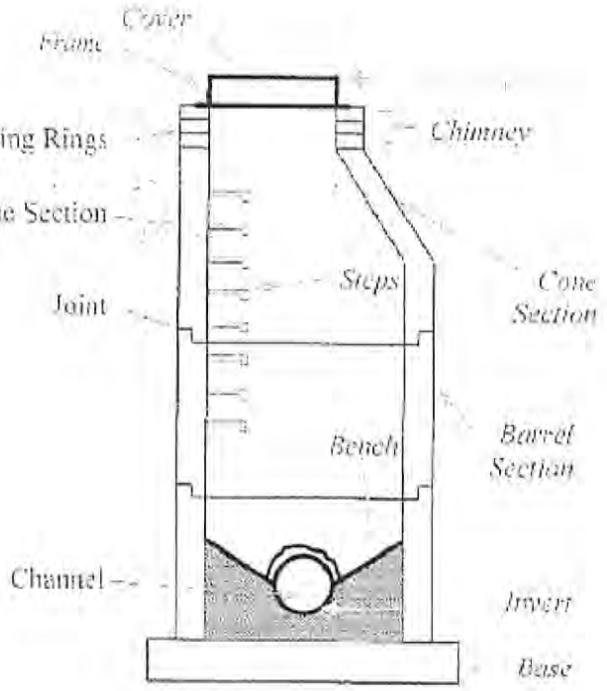
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760161-1 7465

Vicinity Photo File 2: 0760161-3 7463

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0760161-2 7464

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

F

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0760170

Location: Arrowhead Ave and W mill St

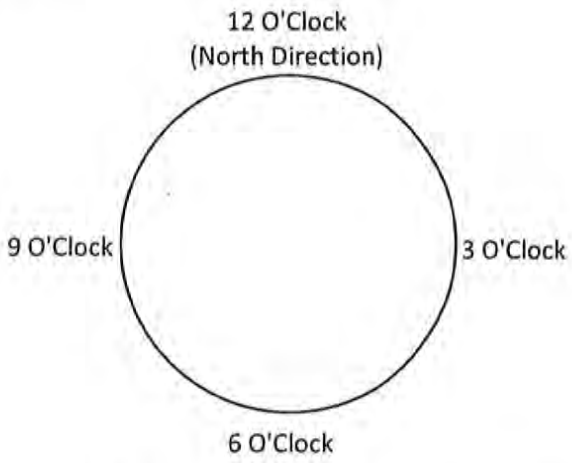
Downstream Manhole Number: 0760177

Upstream Manhole Number: 0760171

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

check size

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	1322		good		fast
Outlet 2							
Inlet 1	10"	clay	1170		N/A		none
Inlet 2	30"	clay	1320		good		fast
Inlet 3	12"	clay	487		good	Yes	none
	12"	clay	1213		fair		fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1322

Depth to channel invert (outlet): 1322

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y /(N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y /(N) If yes, depth below surface: _____

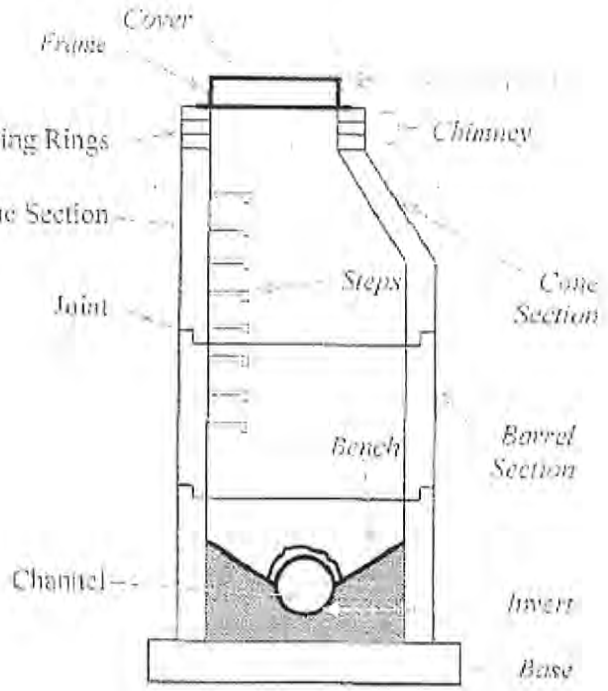
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760170 - 7466

Interior Photo File 1: _____

Vicinity Photo File 2: _____

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-17-19

Manhole ID: 0760184

Location: 158' ± S. of Hilda St on S. Arrowhead AVE

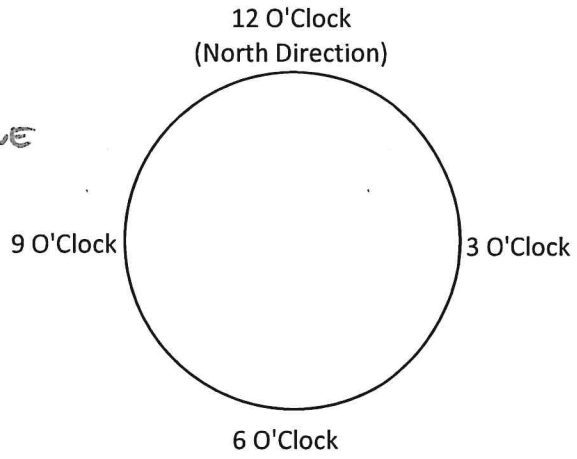
Downstream Manhole Number: 0760182

Upstream Manhole Number: 0760180

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	36"	clay	.949		good		fast
Outlet 2							
Inlet 1	4"	clay	5.40		good	Yes	fast
Inlet 2	10"	clay	8.69		good		fast
Inlet 3	15"	clay	5.62		good	yes	none
	36"	clay	9.35		good		fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 9.25

Depth to channel invert (outlet): 9.99

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

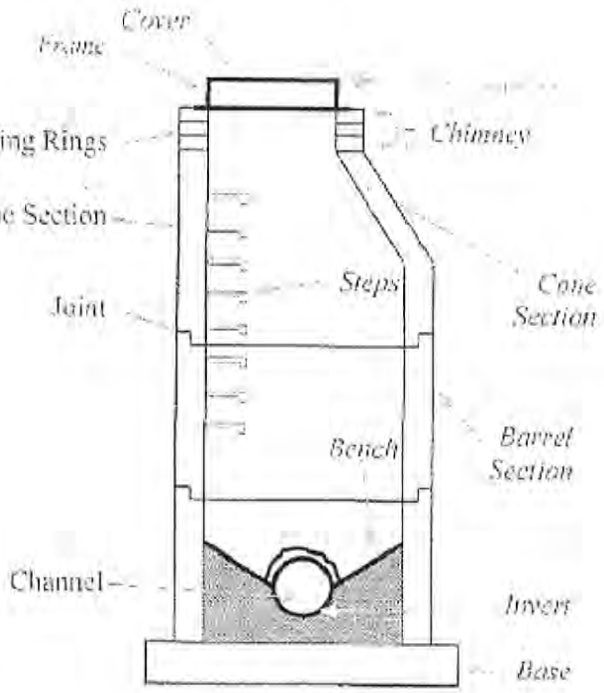
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0760184 - 1 7494

Vicinity Photo File 2: 0760184 - 3 7492

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0760184 - 2 7493

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 07700416

Location: Waterman AVE and E Central AVE

Downstream Manhole Number: 07700041

Upstream Manhole Number: 07700043

Surrounding area (Circle): ~~Pavement~~, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	clay	1230		good		fast
Outlet 2							
Inlet 1	15"	clay	1223		good		fast
Inlet 2	8"	clay	1166		good		obstructed
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 12 23

Depth to channel invert (outlet): 12 30

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

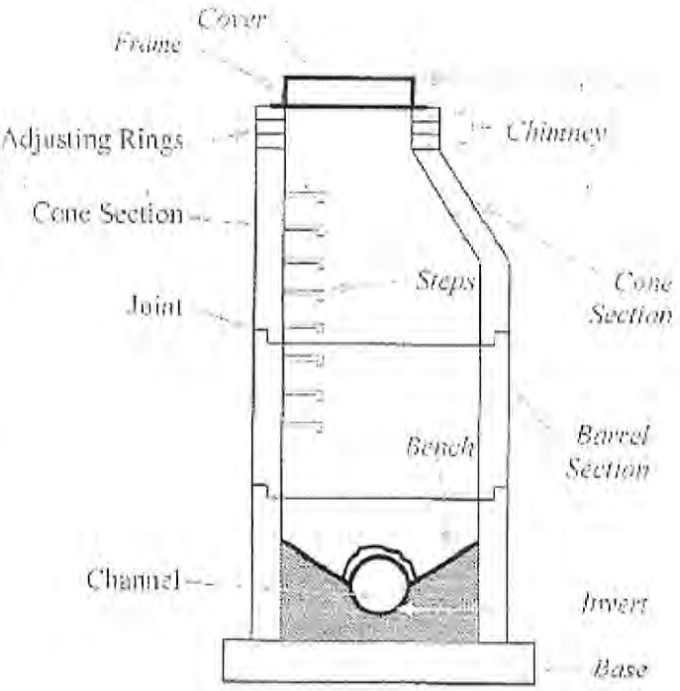
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0770046 - 1 7470

Vicinity Photo File 2: 0770046 - 3 7468

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0770046 - 2 7469

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0770106

Location: 915' ± South of Rialto Ave. on Waterman

Downstream Manhole Number: 0770107

Upstream Manhole Number: 0770109

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: WO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	60"	N/A	N/A		good		fast
Outlet 2							
Inlet 1	20"	N/A	N/A		good		fast
Inlet 2	12"	N/A	N/A		good		NONE
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): N/A

Depth to channel invert (outlet): N/A

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 5X8

Structure material (Circle): brick, precast concrete, block masonry, (cast-in-place concrete) coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): (Good), Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

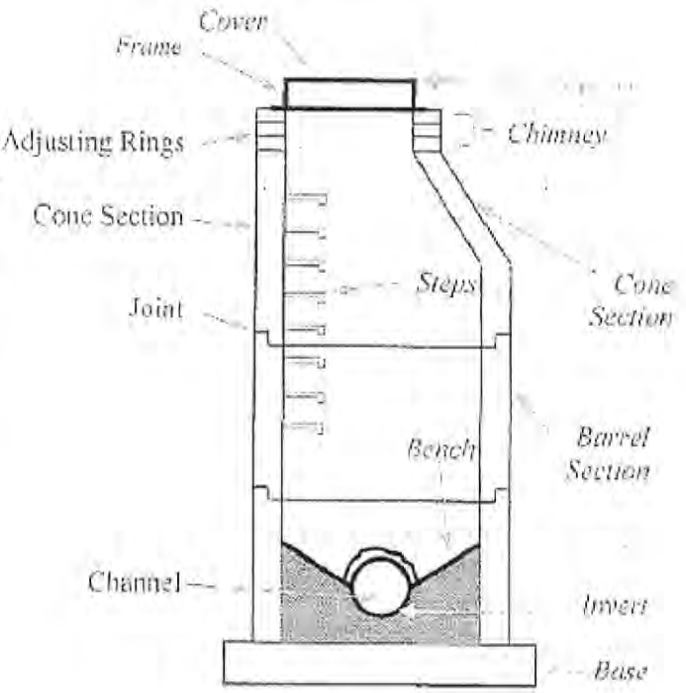
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0770106-1 7476

Vicinity Photo File 2: 0770106-3 7474

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0770106-2 7475

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0770152

Location: waterman AVE and E mill St

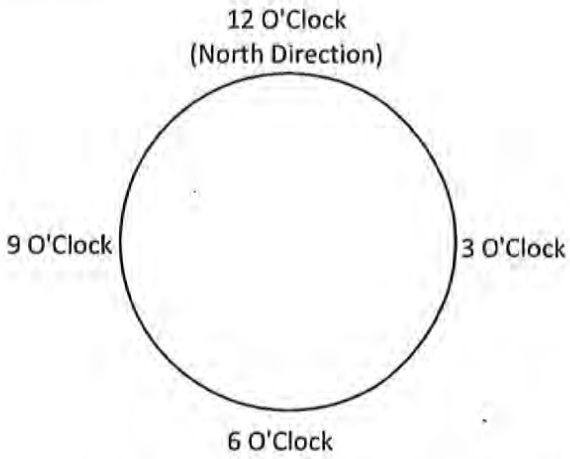
Downstream Manhole Number: 0770151

Upstream Manhole Number: 0770161

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	100"	CONC	11.25		good		fast
Outlet 2							
Inlet 1	15"	clay	5.79		good	Yes	NONE
Inlet 2	60"	CONC	11.20		good		fast
Inlet 3	15"	clay	7.90		good	Yes	fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 20

Depth to channel invert (outlet): 11 26

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 5X5

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

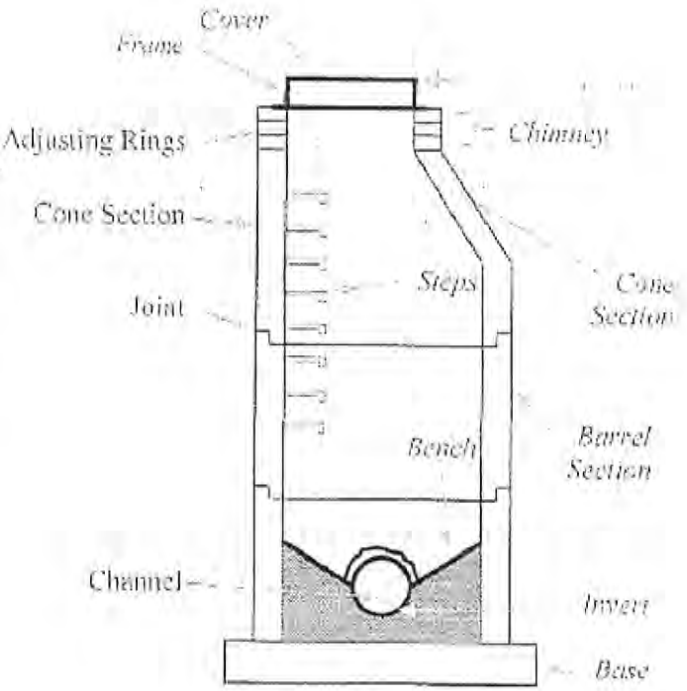
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0770152 - 1 7473

Vicinity Photo File 2: 0770152 - 3 7471

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0770152 - 2 7472

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 07800163

Location: 35ft North of E. Harry Sheppard Blvd.

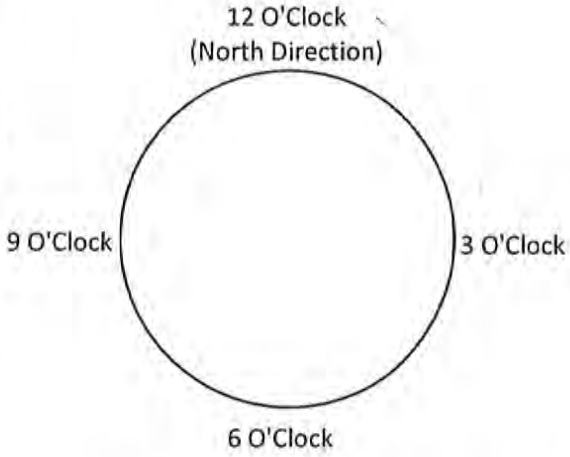
Downstream Manhole Number: 0780032

Upstream Manhole Number: 0780031

Surrounding area (Circle): Pavement, Grass, (Dirt)
Field, Trees, Gravel, Other: conc

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	clay	10 03		good		fast
Outlet 2							
Inlet 1	8"	clay			good		fast
Inlet 2	12"	clay	10 03		good		NONE
Inlet 3	8"	clay	10 00		good		NONE

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 10 63

Depth to channel invert (outlet): 10 63

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

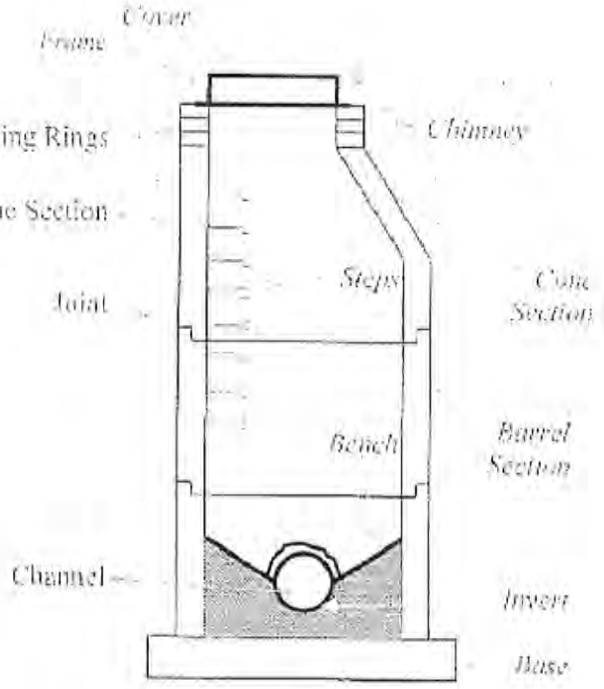
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): _____



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 07800163 -1 7521 Interior Photo File 1: 07800163-2 7519

Vicinity Photo File 2: 07800163-3 7523 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0850038

Location: 177 ft E South of Scenic Dr. / Knoll dr.

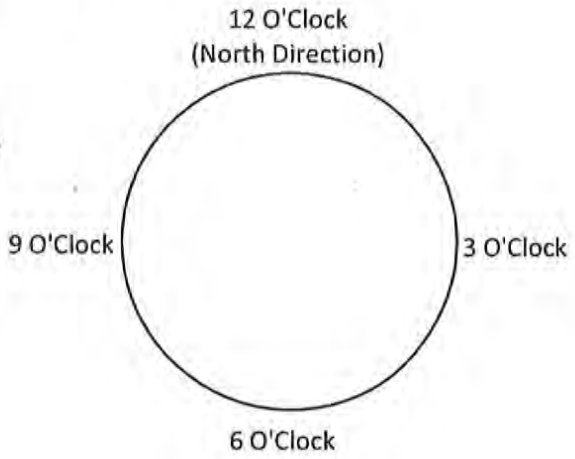
Downstream Manhole Number: 0850037

Upstream Manhole Number: 0850007

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: (N)

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	clay	346		good		NONE
Outlet 2							
Inlet 1	4"	PVC	349		good		NONE
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 3.49

Depth to channel invert (outlet): 3.66

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 9'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

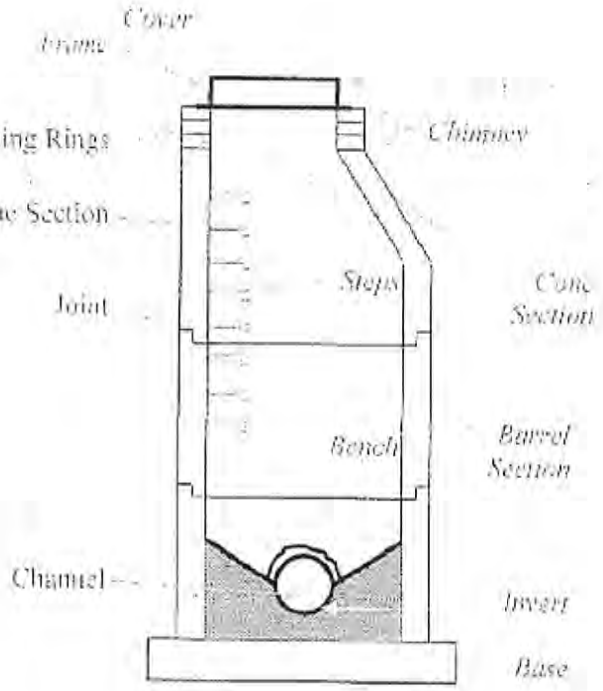
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0850038-1 7503

Vicinity Photo File 2: 0850038-3 7501

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0850038-2 7502

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0860040

Location: 172 ft ± South of W. Chandler / S E St.

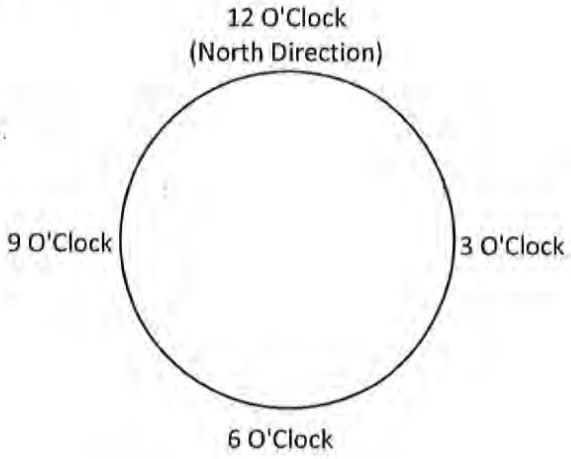
Downstream Manhole Number: 0860148

Upstream Manhole Number: 0860283

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	1315		good		fast
Outlet 2							
Inlet 1	10"	Clay	1260		poor		slow
Inlet 2	30"	clay	1310		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24 Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 0 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1266

Depth to channel invert (outlet): 1315

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 51

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

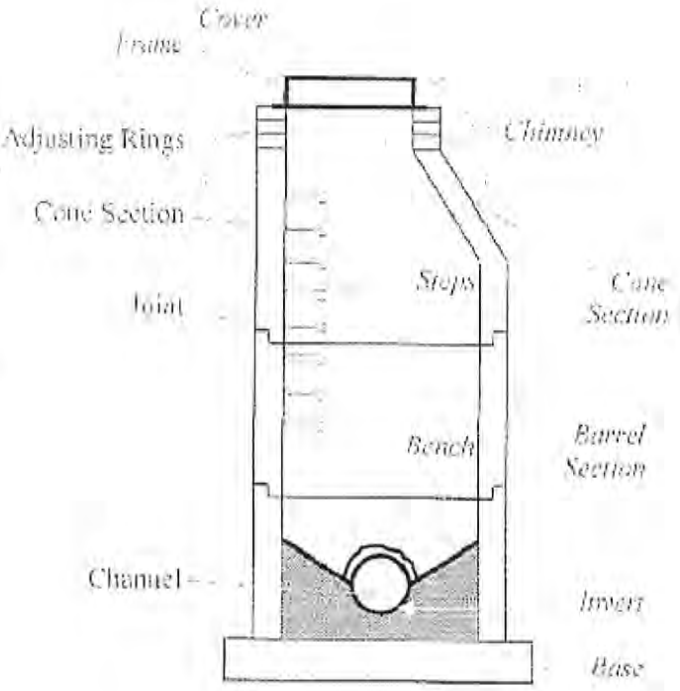
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 08600040-1 7500

Vicinity Photo File 2: 08600040-2 7498

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 08600040-2 7499

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0870017

Location: S. Amos AVE and E. Dumas St

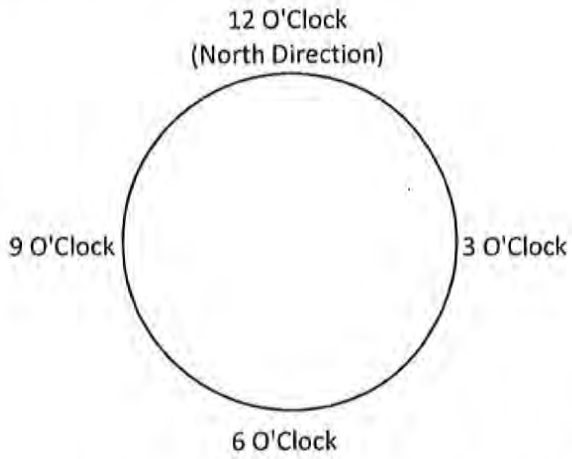
Downstream Manhole Number: 0870013

Upstream Manhole Number: 0870030

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	Clay	7.60		good		fast
Outlet 2							
Inlet 1	8"	clay	6.10		good	yes	slow
Inlet 2	24"	clay	7.11		good		fast
Inlet 3	10"	P.VC	7.20		good		slow

Cover Observations:

Cover Diameter: 30" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 7.11

Depth to channel invert (outlet): 7.60

Estimated Inside Diameter of Chimney: 30"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / N If yes, depth below surface: _____

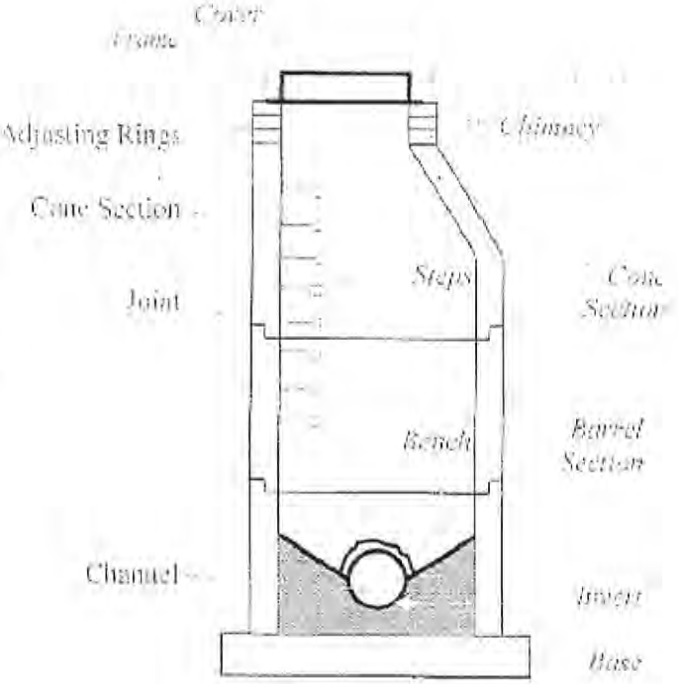
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0870017-1 7482

Vicinity Photo File 2: 0870017-3 7480

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0870017-2 7481

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0870019

Location: 45' ± S. of E. Ennis St on S. Amos St.

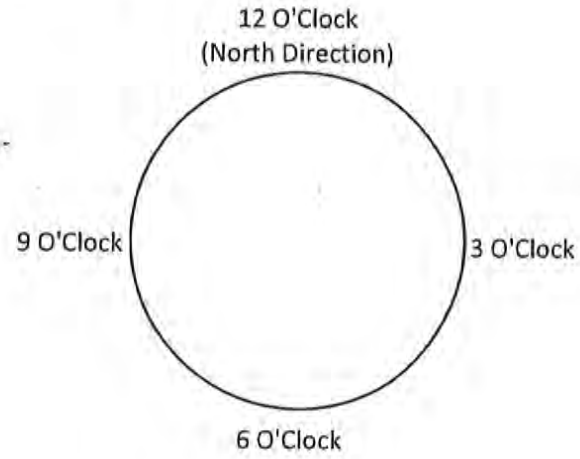
Downstream Manhole Number: 0870015

Upstream Manhole Number: 2 pt M.H NO #

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	60"	CONC	12 oc		good		fast
Outlet 2							
Inlet 1	8"	clay	7 35		fair	yes	NONE
Inlet 2	100"	CONC	12 oc		good		fast
Inlet 3	8"	clay	7 60		fair	yes	NONE

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 12"

Depth to channel invert (outlet): 12"

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 5'5

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

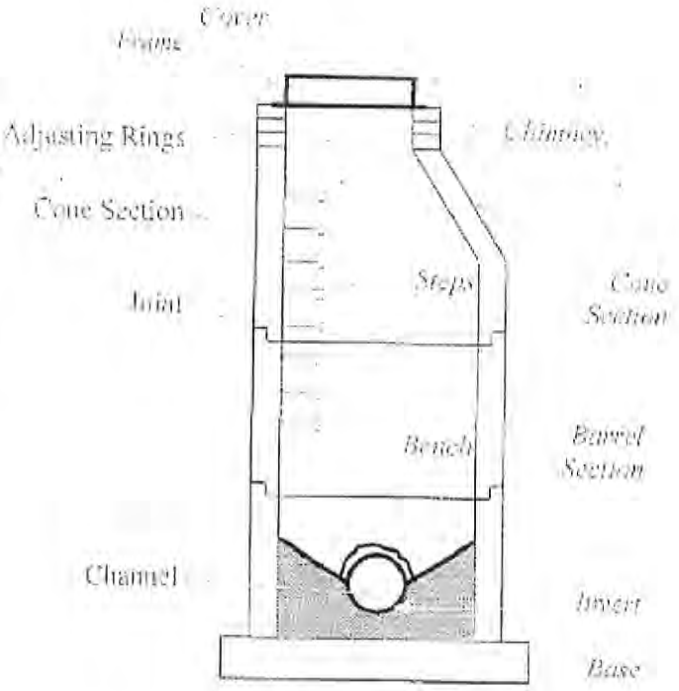
Exposed aggregate: YES

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0870019-1 7485

Vicinity Photo File 2: 0870019-3 7483

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0870019-2 7484

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0870020

Location: 251± ft. North of E Ennis st / S. Linda st.

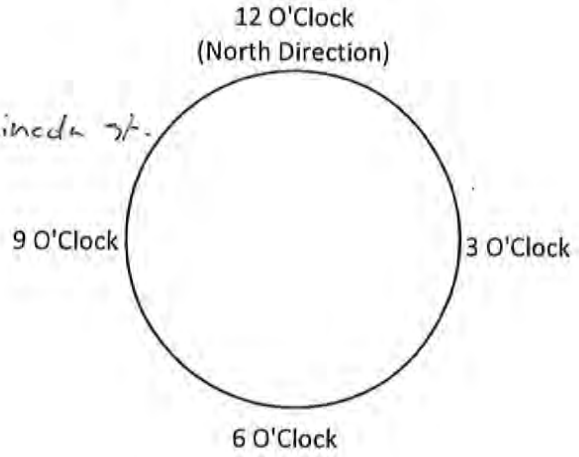
Downstream Manhole Number: 0870018

Upstream Manhole Number: 0870057

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	60"	conc	1082		good		fast
Outlet 2							
Inlet 1	8"	clay	1086		good	yes	slow
Inlet 2	60"	conc	1076		good		fast
Inlet 3	15"	clay	1076		good	yes	none

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 1076

Depth to channel invert (outlet): 1082

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 5X5

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: yes

Grease or solids on barrel: NO

Water Marks? (Y) / N If yes, depth below surface: 7'

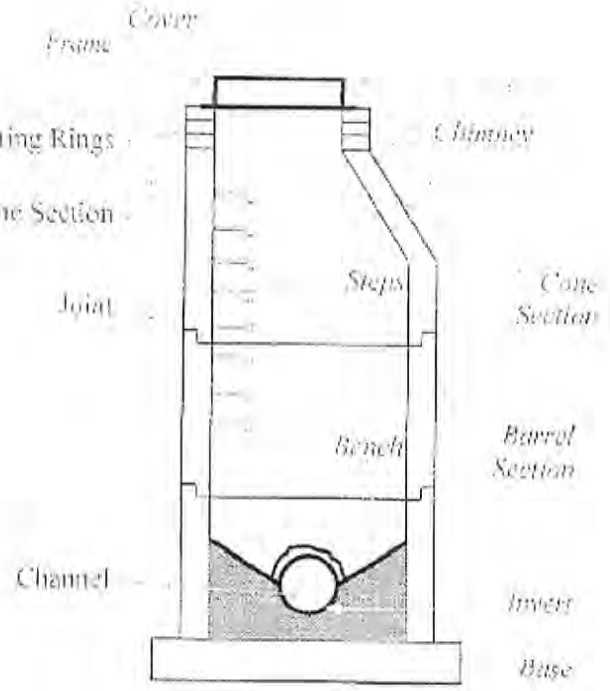
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 08700020 -1 7488

Vicinity Photo File 2: 08700020-3 7486

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 08700020-2 7487

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 08700030

Location: @ Intersection of E. Dumas St. & S. Waterman St.

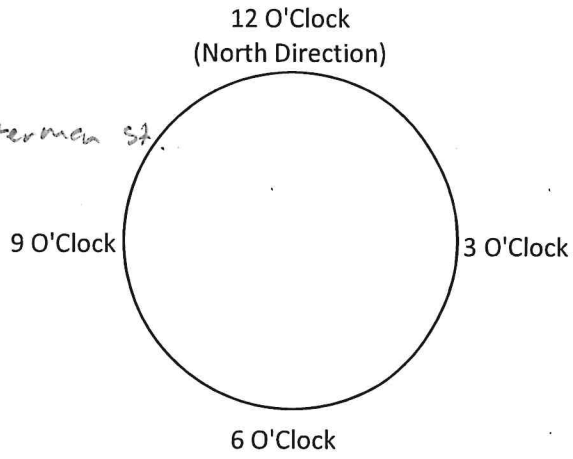
Downstream Manhole Number: 08702017

Upstream Manhole Number: 08700029

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	11 24		good		fast
Outlet 2							
Inlet 1	30"	clay	11 30		good		fast
Inlet 2	15"	clay	10 90		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 30

Depth to channel invert (outlet): 11 24

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 5'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): poor

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

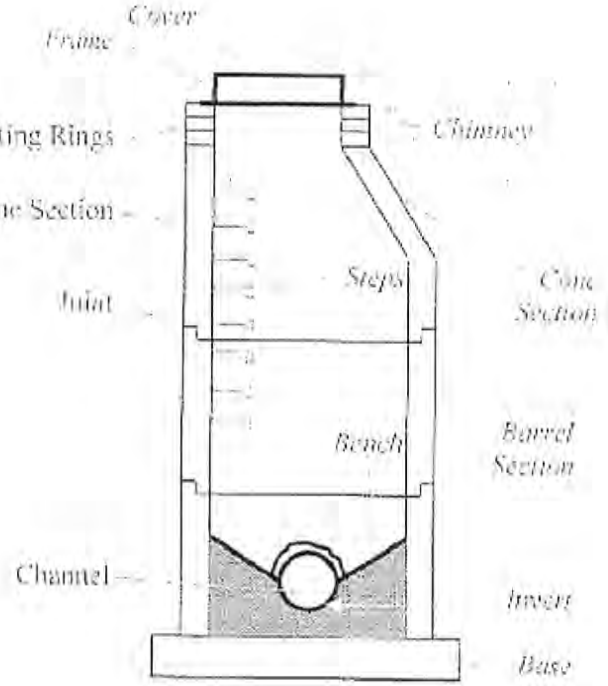
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0870030-1 7494

Vicinity Photo File 2: 0870030-3 7492

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0870030-2 7493

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0870037

Location: In Southern c/w @ S. Washington / Orange Show Rd.

Downstream Manhole Number: 0870038

Upstream Manhole Number: EPT W/ NO M.H. I.D.

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	8"	plastic	475		fair		none
Outlet 2							
Inlet 1	6"	clay	473		good		none
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 973

Depth to channel invert (outlet): 975

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 91

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): poor

Steps Present? Y /(N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y /(N) If yes, depth below surface: _____

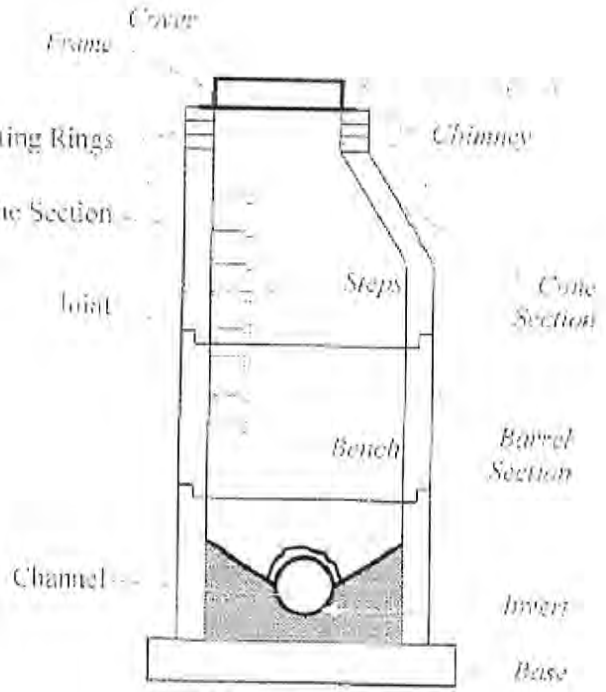
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0870037-1 7491

Vicinity Photo File 2: 0870037-3 7489

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0870037-2 7490

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0870084

Location: 440± N. of E. Vanderbilt Way on Waterman Ave

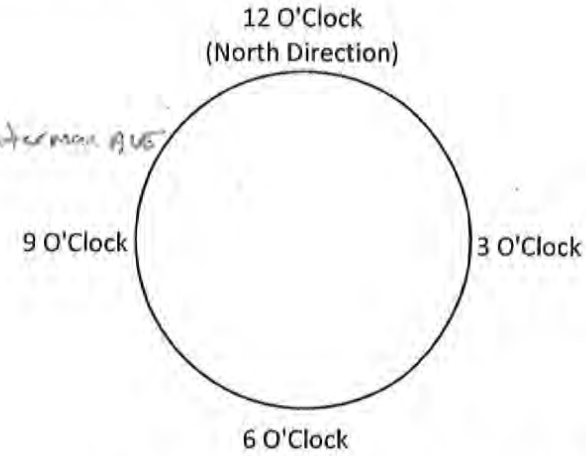
Downstream Manhole Number: 0870083

Upstream Manhole Number: 0870079

Surrounding area (Circle): Pavement, (Grass), Dirt, Field, Trees, Gravel, Other: concrete

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: (Y) / N Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	PVC	6.27		good		NONE
Outlet 2	8"	clay	6.25		good		fast
Inlet 1	12"	clay	6.55		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 21 24" Rust on Cover or Frame: yes Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 6.55

Depth to channel invert (outlet): 6.75

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4x8

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): fair

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

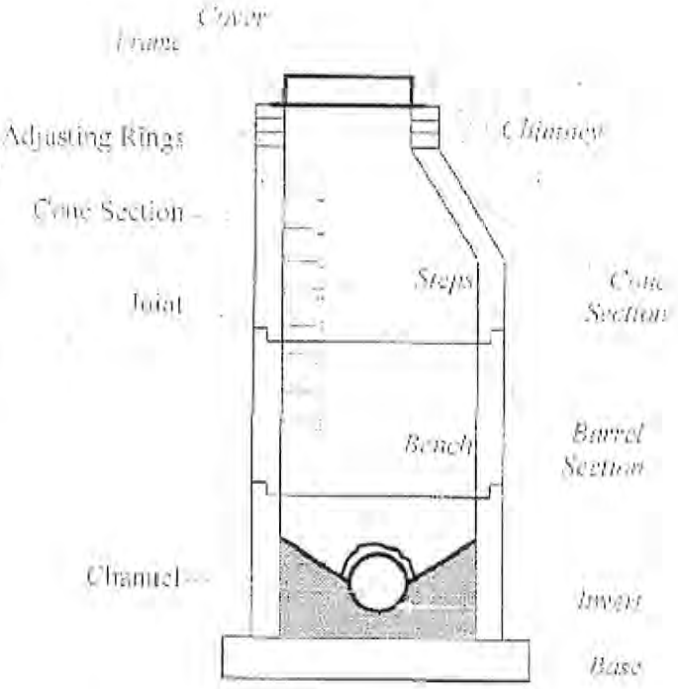
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): fair

Exposed rebar (rust): yes

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0870084 -1 7479 Interior Photo File 1: 0870084-2 7478

Vicinity Photo File 2: 0870084-3 7477 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

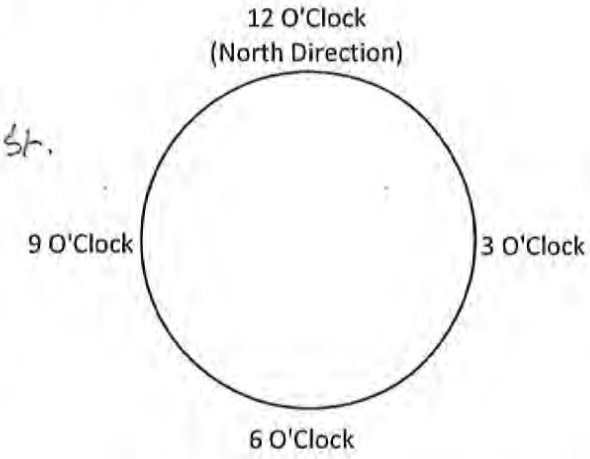
Inspection Date: 7-18-19

Manhole ID: 0870095

Location: 131 ft S. of ℄ S. Gratiwina / E. Duma St.

Downstream Manhole Number: 0870029

Upstream Manhole Number: 08700950



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

Surrounding area (Circle): Pavement, Grass, (Dirt,)
Field, Trees, Gravel, Other: concrete

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

General Observations:

Odors: yes

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	clay	948		good		fast
Outlet 2							
Inlet 1	8"	clay	773		good	yes	slow
Inlet 2	8"	clay	988		good		none
Inlet 3	30"	clay	945		good		fast

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: yes Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 9.95

Depth to channel invert (outlet): 9.98

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 5'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: yes

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

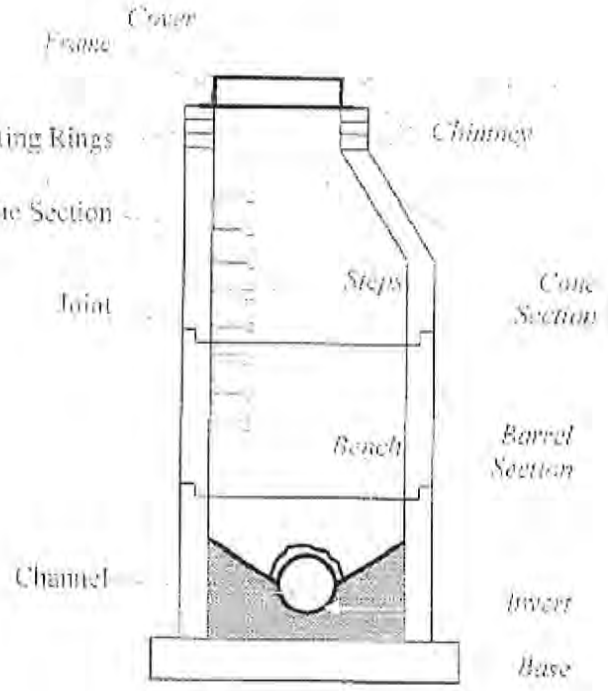
Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0870095 - 1 7497

Vicinity Photo File 2: 0870095-3 7495

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0870095-2 7496

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0880027

Location: 815ft± West of BC of Harvard St.

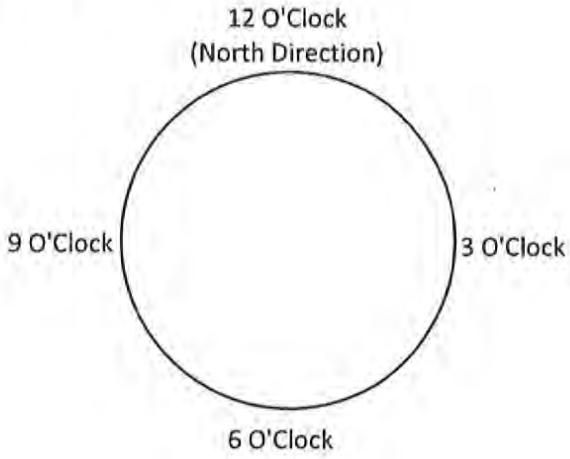
Downstream Manhole Number: 0880029

Upstream Manhole Number: 0880028

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	15"	clay	1080		good		fast
Outlet 2							
Inlet 1	8"	clay	1028		good		slow
Inlet 2	15"	clay	1080		good		fast
Inlet 3	8"	clay	1034		good		slow

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 10 80

Depth to channel invert (outlet): 10 80

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

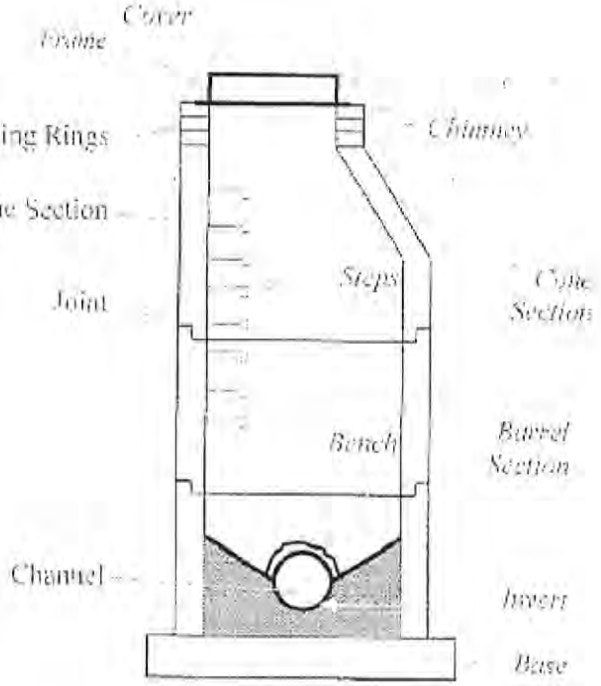
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0880027-1 7509 Interior Photo File 1: 0880027-2 7508

Vicinity Photo File 2: 0880027-3 7507 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-18-19

Manhole ID: 0880094

Location: E end of Intersection @ S Tippecanoe / E Douglas - SL.

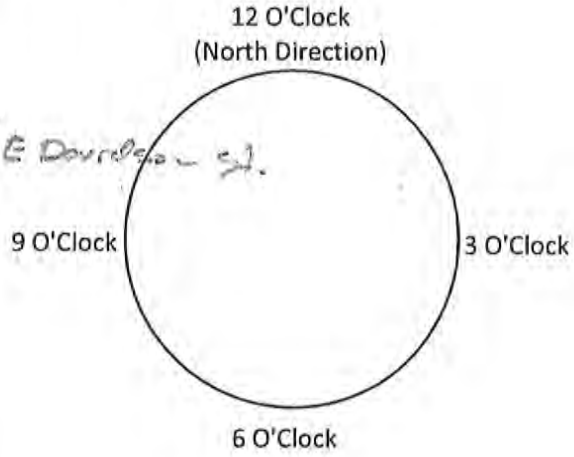
Downstream Manhole Number: 0880093

Upstream Manhole Number: 0880034

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	clay	890		good		fast
Outlet 2							
Inlet 1	8"	P.V.C	855		good		fast
Inlet 2	12"	clay	890		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 8 90

Depth to channel invert (outlet): 8 90

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

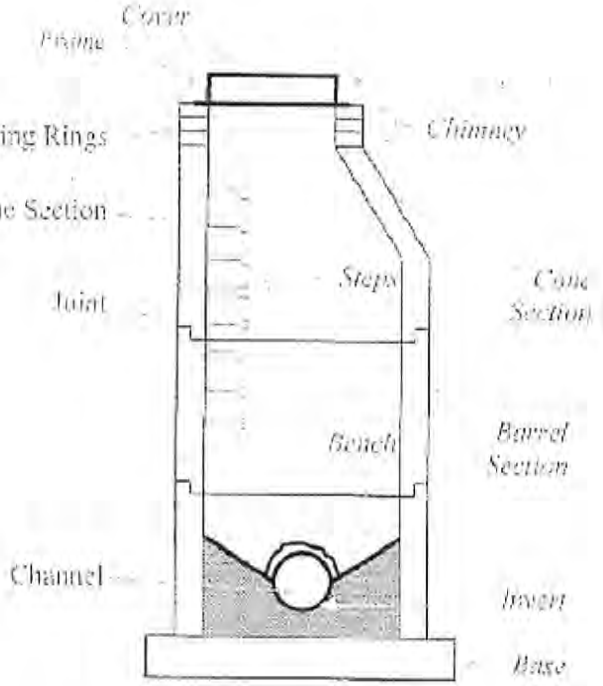
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0880044 -1 7512

Vicinity Photo File 2: 0880044 -3 7510

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0880044-2 7511

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

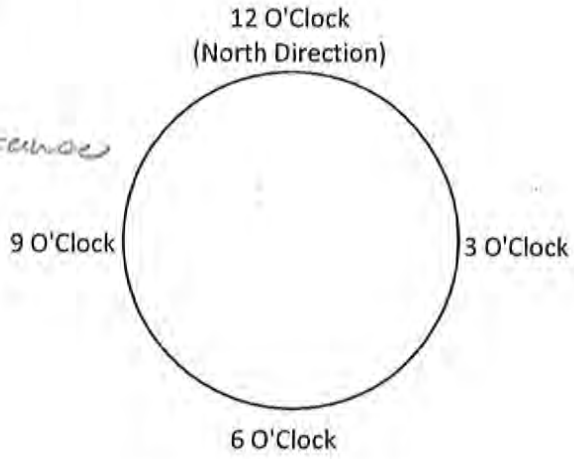
Inspection Date: 7-18-19

Manhole ID: 0880093

Location: Intersection @ E Cooley Ave. / S Tippecanoe

Downstream Manhole Number: 0880098

Upstream Manhole Number: 0880090



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

Surrounding area (Circle): (Pavement) Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

General Observations:

Odors: N()

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	PVC	1390		good		fast
Outlet 2	10"	Clay	1359		good		fast
Inlet 1	10"	clay	1393		good		fast
Inlet 2							
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 13 43

Depth to channel invert (outlet): 13 59

Estimated Inside Diameter of Chimney: 24'

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

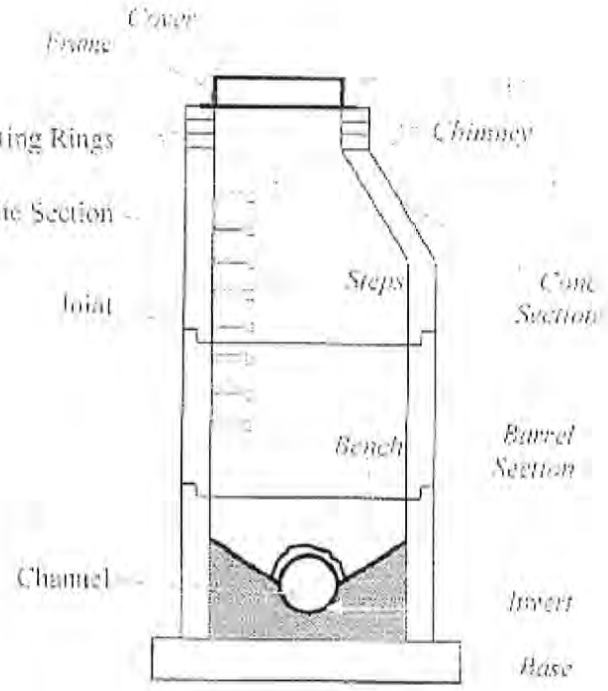
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0880093-1 7506

Vicinity Photo File 2: 0880093 - 3 7504

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0880093 - 2 7505

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 0890001

Location: Intersection @ W. San Bernardino Ave. / S. Mountain View

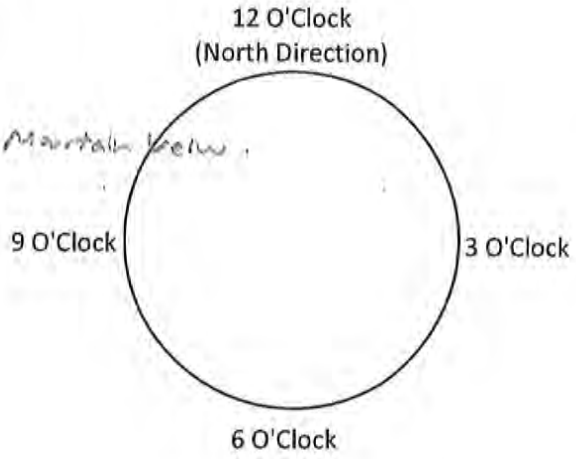
Downstream Manhole Number: 0890010

Upstream Manhole Number: 0890002

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	12"	Clay	1620		good		backed up
Outlet 2							
Inlet 1	12"	Clay	1616		good		backed up
Inlet 2	8"	Clay	1556		good		none
Inlet 3	10"	Clay	1591		good		none

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 16 16

Depth to channel invert (outlet): 16 20

Estimated Inside Diameter of Chimney: 29"

Estimated Inside Diameter of Barrel: 41

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? (Y) / N If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

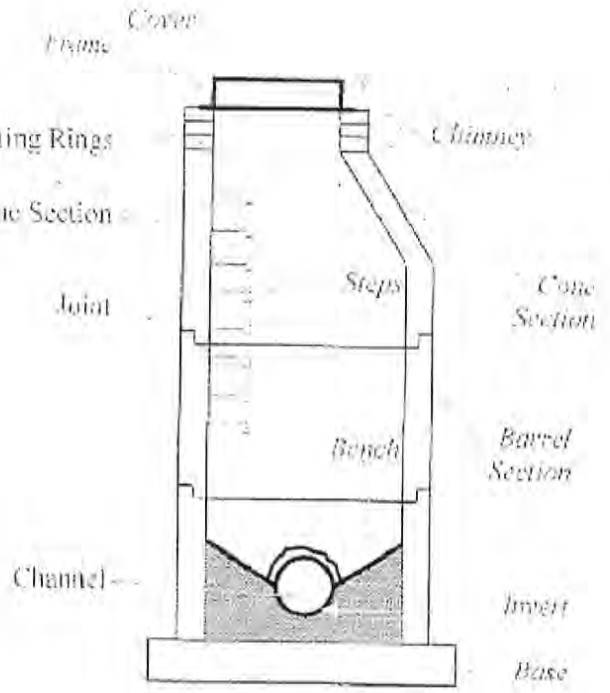
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 089000l -1 7526

Vicinity Photo File 2: 089000l -3 7524

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 089000l - 2 7525

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 0960027

Location: In Stripe Zone @ S. E St. / Hunts Ln.

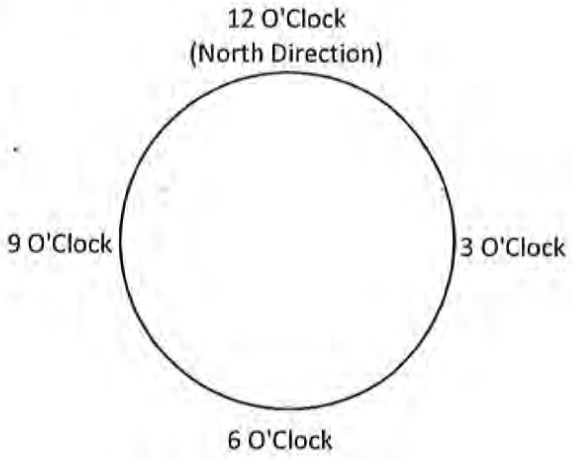
Downstream Manhole Number: 0960025

Upstream Manhole Number: 0960028

Surrounding area (Circle): (Pavement), Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	21"	clay	985		good		fast
Outlet 2							
Inlet 1	18"	clay	974		good		fast
Inlet 2	12"	clay	948		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 9 74

Depth to channel invert (outlet): 9 85

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): _____

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

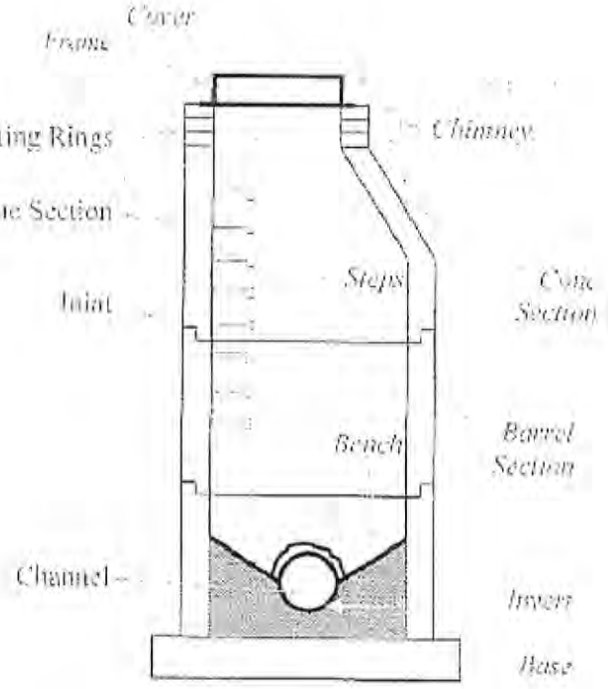
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): good

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 09600027-1 7533 Interior Photo File 1: 09600027-2 7532

Vicinity Photo File 2: 09600027-3 7531 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 0960081

Location: Intersection @ E. Airport Dr / Commerce condo entry

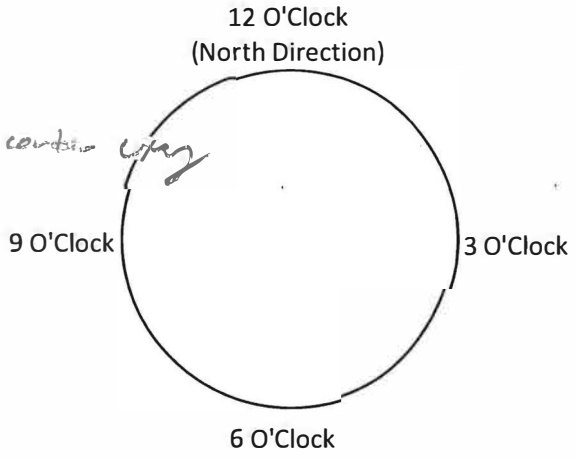
Downstream Manhole Number: 0960082

Upstream Manhole Number: 0960119

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	10"	clay	504		good		fast
Outlet 2							
Inlet 1	8"	clay	493		good		WAVE
Inlet 2	6"	clay	500		good		fast
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 5.00

Depth to channel invert (outlet): 5.04

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____



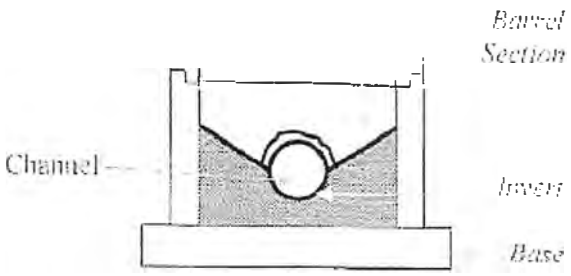
Grease or solids on bench: NO

Grease or solids in channel: e

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____



Exposed aggregate: yes

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO

Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 09600A1 - 1 7529 Interior Photo File 1: 09600A1 - 2 7528

Vicinity Photo File 2: 09600A1 - 3 7530 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 0970050

Location: Interstate 10 @ W. Redlands Blvd. / Alabama

Downstream Manhole Number: 0960112

Upstream Manhole Number: 0970052

Surrounding area (Circle): ~~Pavement~~, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)

12 O'Clock (North Direction)

9 O'Clock 3 O'Clock

6 O'Clock

Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	18"	P.V.C	1041		good		fast
Outlet 2							
Inlet 1	8"	P.V.C	993		good		NONE
Inlet 2	18"	P.VC	1053		good		fast
Inlet 3	18"	P.VC	1055		good		NONE

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 10 53

Depth to channel invert (outlet): 10 61

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: yes

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

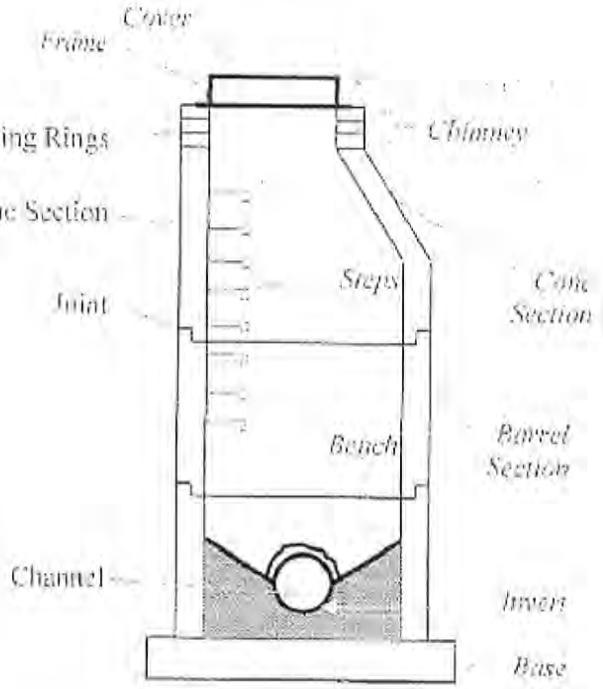
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0970050 - 1 7541

Vicinity Photo File 2: 0970050 - 2 7538

Vicinity Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 1: 0970050 - 2 7539

Interior Photo File 2: _____

Interior Photo File 3: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 0970051

Location: Intersection of (N. Rockhills Blvd. / Clubway)

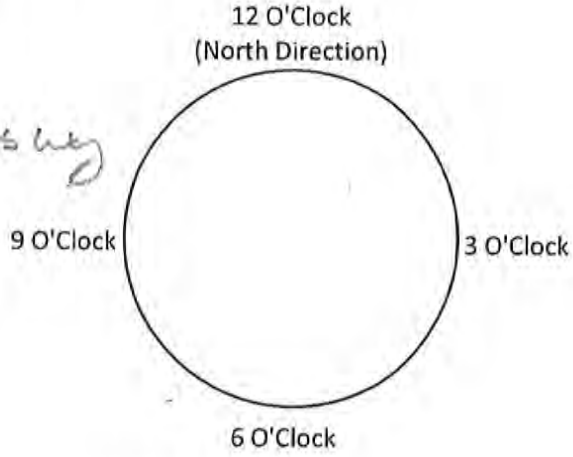
Downstream Manhole Number: 0960091

Upstream Manhole Number: 0970093

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: _____

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	30"	Clay	1055		good		fast
Outlet 2							
Inlet 1	30"	Clay	1055		good		fast
Inlet 2	8"	P.V.C	798		good	yes	NONE
Inlet 3							

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 2 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 10.55

Depth to channel invert (outlet): 10.55

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 4'

Structure material (Circle): brick, (precast concrete), block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

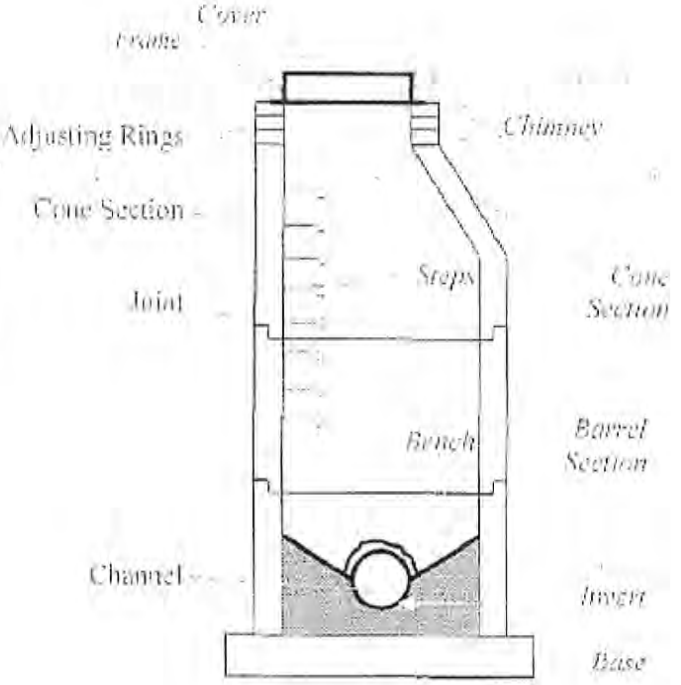
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): NO



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 0970051-1 7536

Interior Photo File 1: 0970051-2 7535

Vicinity Photo File 2: 0970051-3 7537

Interior Photo File 2: _____

Vicinity Photo File 3: _____

Interior Photo File 3: _____

Vicinity Photo File 4: _____

Interior Photo File 4: _____

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Maintenance Hole Visual Inspection Form

Location and General Observations:

Inspection Date: 7-19-19

Manhole ID: 0970191

Location: 130ft ± North of end of street (Artesia St.)

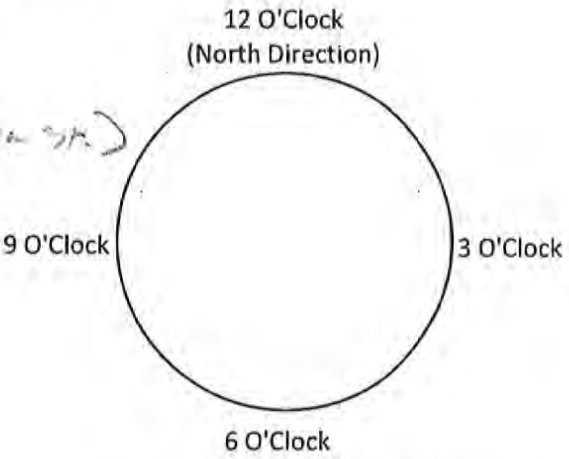
Downstream Manhole Number: N/A

Upstream Manhole Number: 0970192

Surrounding area (Circle): Pavement, Grass, Dirt, Field, Trees, Gravel, Other: _____

Cover below adjacent grade or subject to ponding: Y / (N)

Adjacent to Stream: Y / (N) Evidence of Overflow: Y / (N)



Include defining features (street striping, asphalt edge, etc) on manhole diagram for orientation

General Observations:

Odors: NO

Location and general conditions/comments:

Flow Observations:

Indicate number of inlets/outlets in the table below. For flow condition, indicate if flow is slow, backed up, obstructed, or fast

	Approx Diameter	Pipe Material	Invert	Lined	Condition of Seal	Drop? Y/N	Flow Condition
Outlet 1	24"	clay	11:10		good		fast
Outlet 2					good		
Inlet 1	24"	clay	11:20		good		fast
Inlet 2	8"	clay	6:21		good	yes	NONE
Inlet 3	8"	clay	9:21		good		NONE

Cover Observations:

Cover Diameter: 24" Rust on Cover or Frame: NO Odor Control Insert: Y / (N)

Holes in cover: 1 Inflow/Infiltration Insert: Y / (N) Is the cover misaligned: Y / (N)

Cover general comments:

Maintenance holes are considered confined spaces, DO NOT ENTER ANY CONFINED SPACE FOR ANY REASON! Use cameras and flashlights to make observations from the surface

Structure Observations:

Depth to channel invert (inlet): 11 2O

Depth to channel invert (outlet): 11 10

Estimated Inside Diameter of Chimney: 24"

Estimated Inside Diameter of Barrel: 9'

Structure material (Circle): (brick), precast concrete, block masonry, cast-in-place concrete, coated, Other: _____

Condition of Mortar (brick or block masonry): good

Steps Present? Y / (N) If yes, material: _____

Condition of Steps (circle): Good, Poor, Corroded, Missing Steps, Other: _____

Grease or solids on bench: NO

Grease or solids in channel: NO

Grease or solids on step: NO

Grease or solids on barrel: NO

Water Marks? Y / (N) If yes, depth below surface: _____

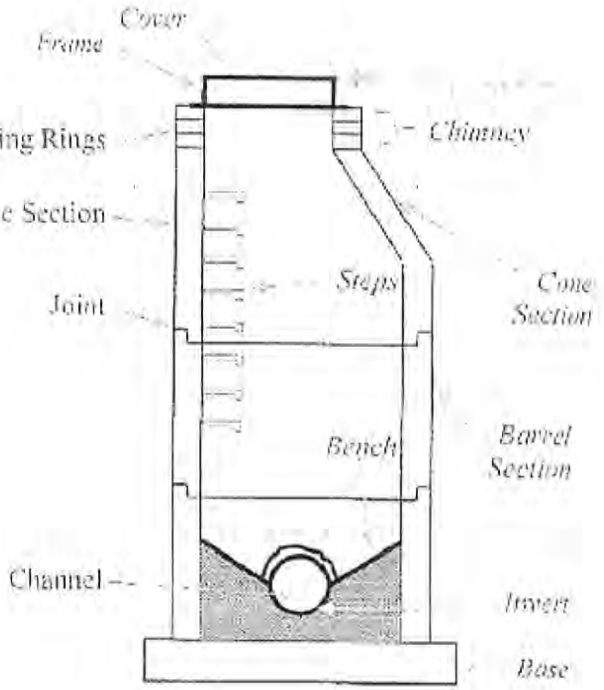
Exposed aggregate: NO

If present, coating condition (peeling, missing, flaking, etc.): _____

Exposed rebar (rust): NO

Open cracks (orientation - horizontal, vertical, diagonal): NO

Obstructions (roots, debris, etc): _____



Structural general comments:

Photographs:

Provide photographs of manhole and surrounding vicinity from grade as well as of the interior to document observed condition. Include date and maintenance hole number in photo on a white board or other type of sign with text.

A minimum of 2 photos (1 of vicinity and 1 of interior) shall be provided. Attach photographs to inspection form or list file names in inspection form and provide photos separately.

Vicinity Photo File 1: 070191-1 7545 Interior Photo File 1: 070191-2 7544

Vicinity Photo File 2: 070191-3 7542 Interior Photo File 2: _____

Vicinity Photo File 3: _____ Interior Photo File 3: _____

Vicinity Photo File 4: _____ Interior Photo File 4: _____

APPENDIX N

CIP CUTSHEETS

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2020/2021

Project Name: ANNUAL R/R - MAINTENANCE HOLES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: The primary function of the Sanitary Sewer Collection System (SSCS) is to collect and transmit untreated wastewater from the source to the treatment plant without allowing the wastewater to contaminate either groundwater, public areas, or waters of the state. Maintenance Holes allow for access to the buried pipeline to maintain the system. However, many maintenance holes have deteriorated to the point where untreated wastewater comes into contact with the soil. Further, the ability for liquid to pass provides for a point of infiltration when rainfall percolates into the soil. This increases the volume of wastewater. This project involves planned and unplanned repairs to maintenance holes to restore the structure to a proper sealed system.





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$300,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$300,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$300,000**

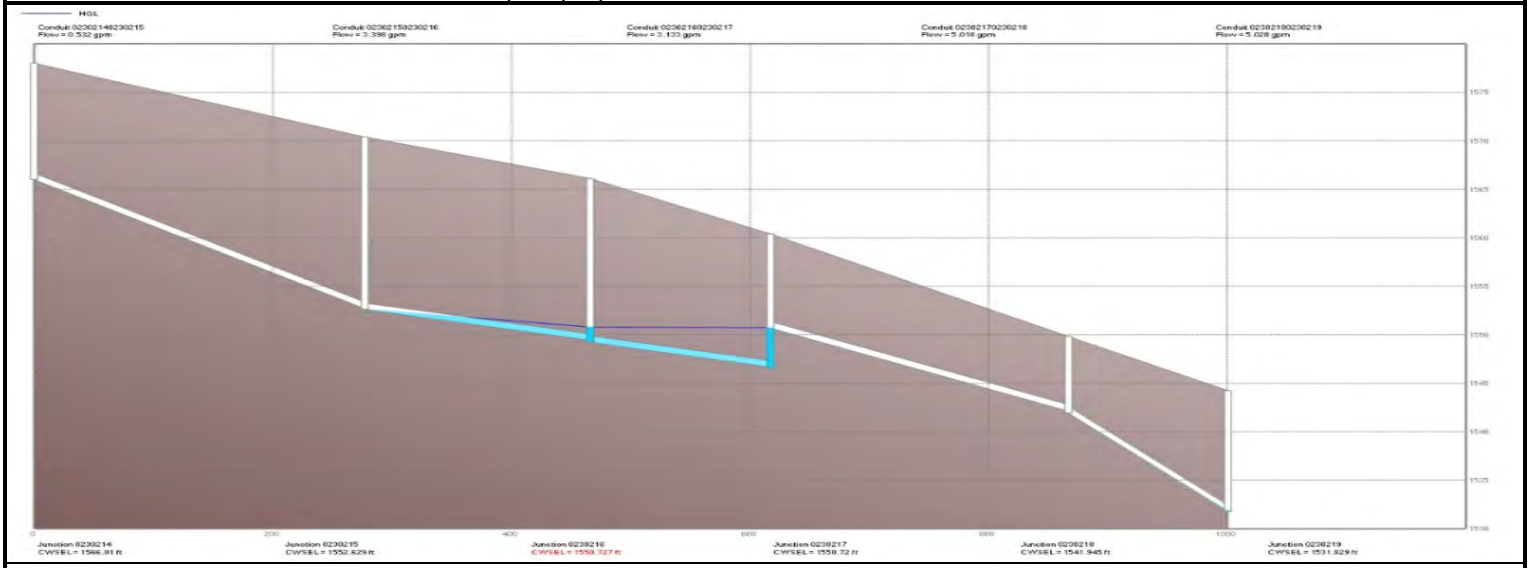
Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$300,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$300,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2020/2021

Project Name: PIPELINE AND SIPHON FLOW STUDY
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: Sources of uncertainty in the SBMWD hydraulic model include pipe and maintenance hole attributes such as invert elevation, slope, and in some cases, connectivity. The amount and depth of flow in modeled pipelines are dependent upon these attributes for accuracy and as such a flow study is recommended to verify flow rates and available capacity in the effected pipelines. This study calls for flow monitoring at 40 locations with an estimated cost for flow monitoring of roughly $3,800 per location. The locations prioritized for this study are those showing capacity deficiency in the existing dry weather and existing 2-year storm wet weather scenarios of the 2019 Sewer Master Plan Update. In addition, there are several siphons in the SBMWD system that, according to model analysis, are not meeting minimum velocity criteria during average day flows. These siphons should be flow monitored for velocity and flow rate to confirm the model flows and a capital project is needed.



Budgetary Requirements:

Cost Category	Estimated Cost
Const. Mgmnt:	$0
Construction:	$0
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$150,000
Subtotal:	**$150,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$150,000**

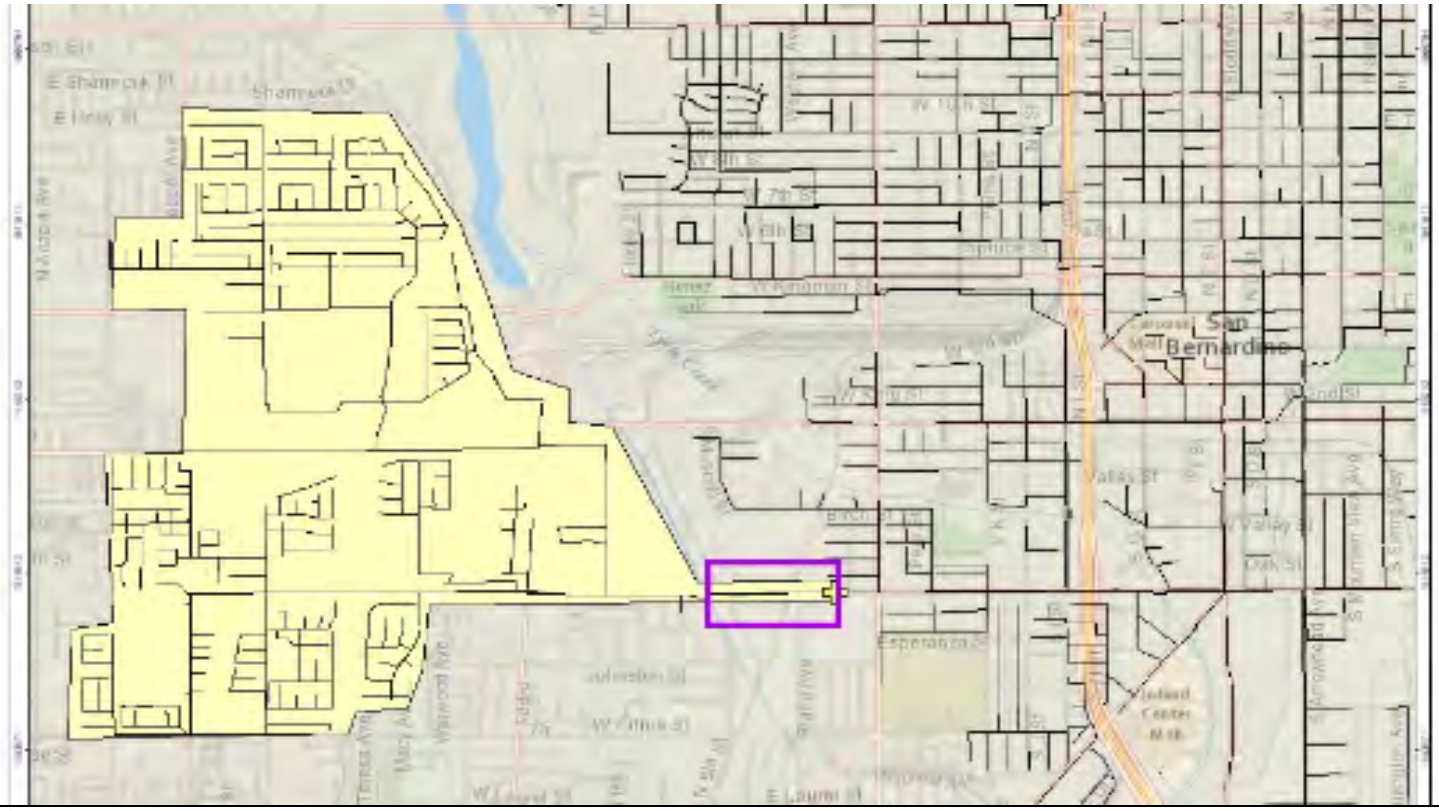
Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$150,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$150,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2020/2021

Project Name: SPECIAL AREA GIS STUDY - WEST RESIDENTIAL
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: The West Residential portion of the SBMWD service area was unable to be calibrated in the 2019 Sewer Master Plan Update hydraulic model. The GIS data and maintenance hole survey data for this area is also conflicting at many locations. This study calls for a detailed GIS investigation for this location in concert with flow monitoring to confirm model flows. This study assumes a survey of 100 maintenance holes and one month of flow monitoring at three locations.



Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$0
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$100,000
Subtotal:	**$100,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$100,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$100,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$100,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2020/2021

Project Name: PDR STUDY LARGE DIAMETER PIPELINES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: A pre-design study for four large diameter pipelines identified in the 2019 SMP Update to address construction challenges such as bypass pumping, available right-of-way, utility inference, and traffic impacts. Pipes included in this study are:

Pipe·ID¤	Pipe·Length·(feet)¤	Pipe·Diameter·(inches)¤	Grid·ID¤
07600950760105¤	681¤	48¤	76¤
07600940760095¤	732.9¤	48¤	76¤
07600960760094¤	667.5¤	48¤	76¤
08700140860134¤	634.3¤	54¤	86¤

These pipelines have recent CCTV available with the exception of 08700140860134. Pipeline 08700140860134 is attached to a concrete structure located east of the WRP and the Twin Creek Channel and south of Dumas Street which shows visible concrete and rebar damage.





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$0
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$100,000
Subtotal:	**$100,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$100,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$100,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$100,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2020/2021

Project Name: MERIDIAN LIFT STATION REPLACEMENT
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: LIFT STATION REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: One of the twelve (12) small lift stations, the Meridian Lift Station, currently has no backup source of energy with which to power the lift pumps in case of utility power failure. This lift station is a high flow station that, within short order, can back up and cause a Sanitary Sewer Overflow (SSO). In order to prevent this, temporary portable power measures are currently in place. This project involves full replacement of Meridien Lift Station.



Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$1,011,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$1,011,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$1,010,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$1,010,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$1,010,000** *excludes SBMWD labor

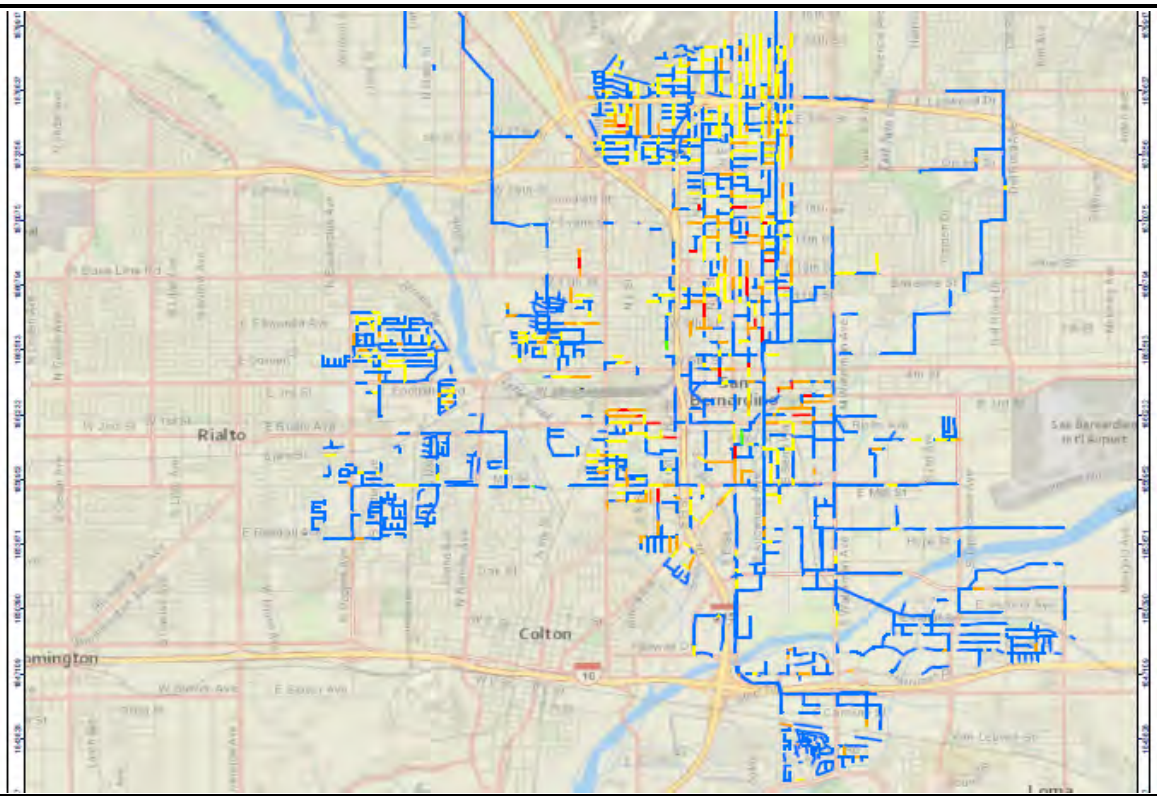
San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2020/2021

Project Name: CONDITION BASED REPLACEMENT OF PIPELINES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: Project involves replacement of pipelines based on condition assessment performed for the 2019 Sewer Master Plan Update. Pipelines were identified using CCTV video and PACP scoring and prioritizated according to risk scoring. This CIP item includes 12 inch or greater diameter pipelines that were identified in the immediate horizon of the 2019 Sewer Master Plan Update.

Facility	Length (ft)	Total Project Cost ($)
Replacement of 12" diameter	2,986	$ 2,037,000
Replacement of 18" diameter	828	$ 761,000
Replacement of 27" diameter	170	$ 188,000



Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$2,986,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$2,986,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$2,990,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$2,990,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$2,990,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2021/2022

Project Name: ANNUAL R/R - MAINTENANCE HOLES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: The primary function of the Sanitary Sewer Collection System (SSCS) is to collect and transmit untreated wastewater from the source to the treatment plant without allowing the wastewater to contaminate either groundwater, public areas, or waters of the state. Maintenance Holes allow for access to the buried pipeline to maintain the system. However, many maintenance holes have deteriorated to the point where untreated wastewater comes into contact with the soil. Further, the ability for liquid to pass provides for a point of infiltration when rainfall percolates into the soil. This increases the volume of wastewater. This project involves planned and unplanned repairs to maintenance holes to restore the structure to a proper sealed system.





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$300,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$300,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$300,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$300,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$300,000** *excludes SBMWD labor

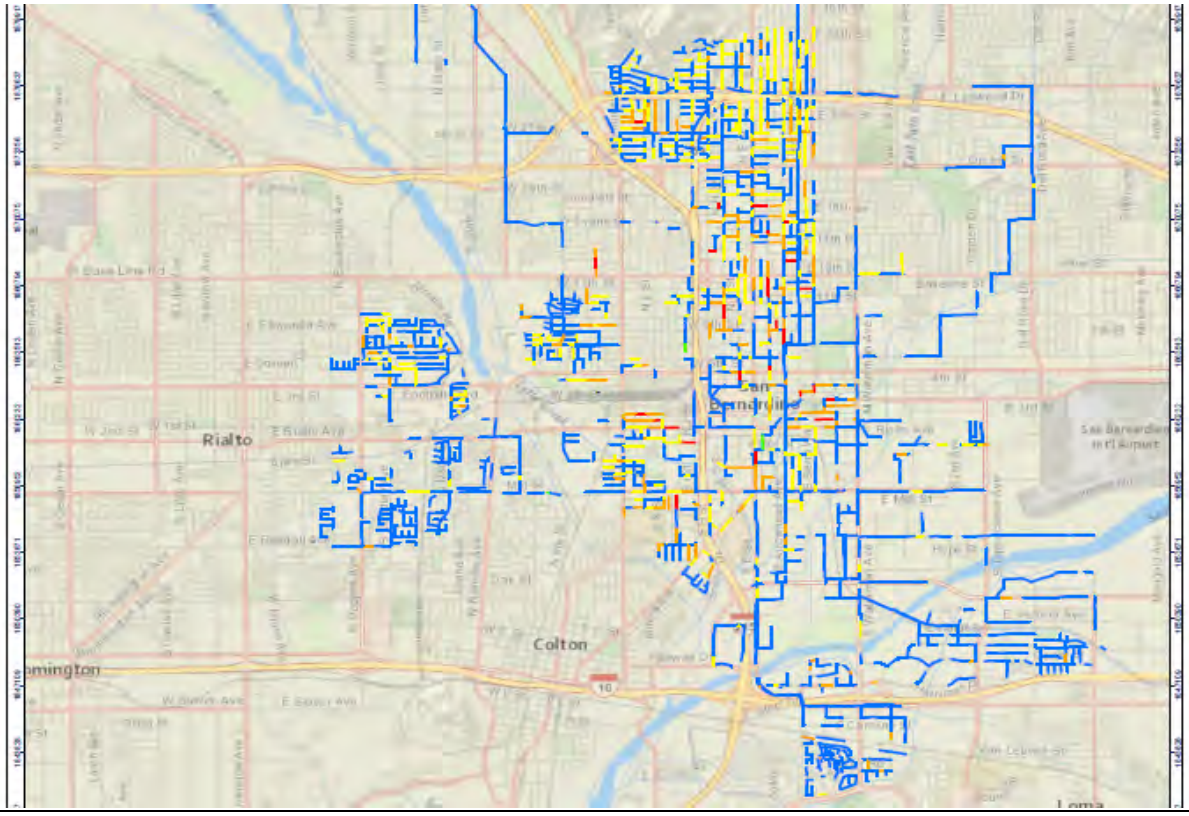
San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2021/2022

Project Name: CONDITION BASED REPLACEMENT OF PIPELINES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: Project involves replacement of pipelines based on condition assessment performed for the 2019 Sewer Master Plan Update. Pipelines were identified using CCTV video and PACP scoring and prioritizated according to risk scoring. This CIP item includes 8 inch diameter pipelines that were identified in the immediate horizon of the 2019 Sewer Master Plan Update.

Facility	Length (ft)	Total Project Cost ($)
Replacement of 8" diameter	9,268	$ 4,475,000



Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$2,986,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$2,986,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$2,990,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$2,990,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$2,990,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2022/2023 through 2025/2026

Project Name: ANNUAL R/R - MAINTENANCE HOLES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: The primary function of the Sanitary Sewer Collection System (SSCS) is to collect and transmit untreated wastewater from the source to the treatment plant without allowing the wastewater to contaminate either groundwater, public areas, or waters of the state. Maintenance Holes allow for access to the buried pipeline to maintain the system. However, many maintenance holes have deteriorated to the point where untreated wastewater comes into contact with the soil. Further, the ability for liquid to pass provides for a point of infiltration when rainfall percolates into the soil. This increases the volume of wastewater. This project involves planned and unplanned repairs to maintenance holes to restore the structure to a proper sealed system.





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$300,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$300,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$300,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$300,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$300,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2022/2023

Project Name: GIS SURVEY STUDY
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION

Budget ID No. **CO No.**

Project Description: This study involves a system wide maintenance hole survey for improvng the SBMWD GIS data. There is significant disagreement between recent survey results and existing GIS data. This study will include survey of roughly 900 maintenance holes. Survey points will be spread throughout the system and address known areas of data inconsistency. This program is expected to be delivered as a mix of internal labor and outside contracted services.



Budgetary Requirements:

Cost Category	Estimated Cost
Const. Mgmnt:	$0
Construction:	$
SBMWD Labor & Ovhd:	$50,000
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$50,000
Subtotal:	**$100,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$100,000**

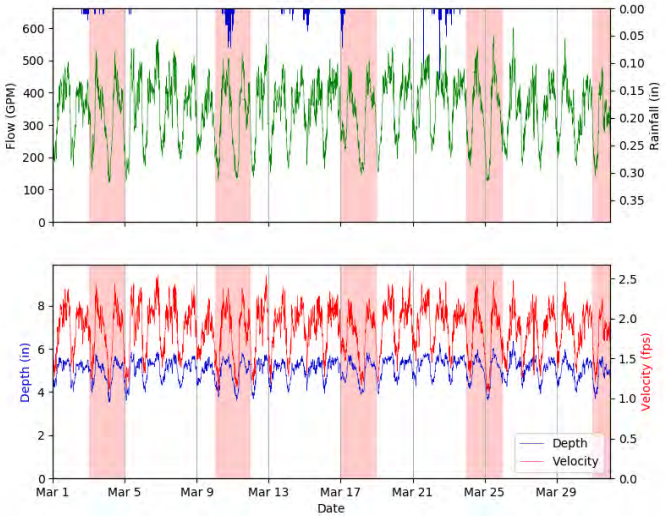
Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$50,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$50,000** *excludes SBMWD labor

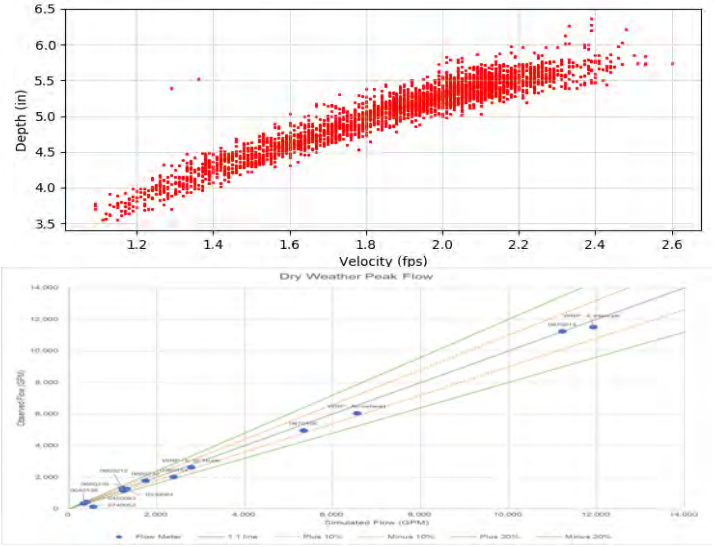
San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2022/2023

Project Name: PIPELINE FLOW STUDY
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: Sources of uncertainty in the SBMWD hydraulic model include pipe and maintenance hole attributes such as invert elevation, slope, and in some cases, connectivity. The amount and depth of flow in modeled pipelines are dependent upon these attributes for accuracy and as such a flow study is recommended to verify flow rates and available capacity in the effected pipelines. This is a continuation of the 2020-2021 study. The pipelines recommended for this study are pipelines identified in the 2019 Sewer Master Plan Update identified as having capacity concerns for the existing dry and wet weather planning horizons. This study is assumed to address 40 flow monitoring locations at an average cost per location of $3,800.





Budgetary Requirements:

Cost Category	Estimated Cost
Const. Mgmnt:	$0
Construction:	$0
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$150,000
Subtotal:	**$150,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$150,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$150,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$150,000** *excludes SBMWD labor

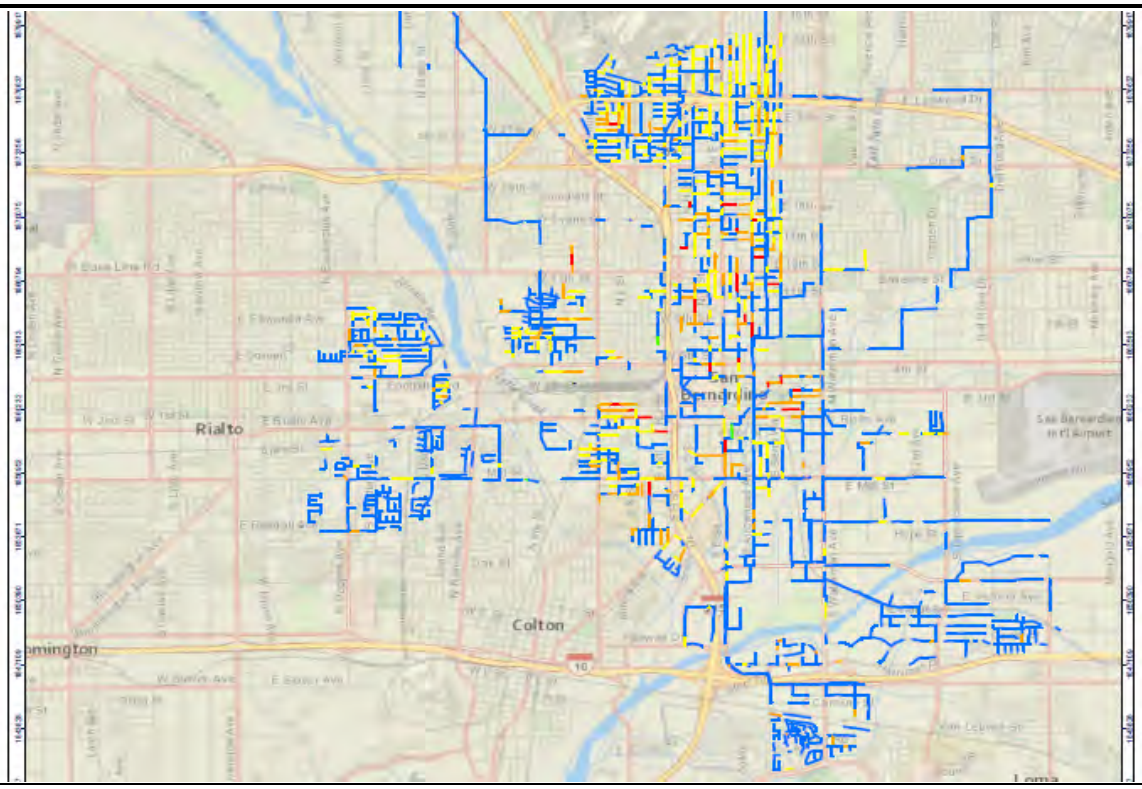
San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2022/2023 through 2025/2026

Project Name: CONDITION BASED REPLACEMENT OF PIPELINES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: Project involves replacement of pipelines based on condition assessment performed for the 2019 Sewer Master Plan Update. Pipelines were identified using CCTV video and PACP scoring and prioritizated according to risk scoring. This CIP item includes pipelines recommended for replacement in the four-year short term planning horizon (2022-2025) and include:

Pipeline Diameter (inches)	Total Length (feet)	Estimated Total Project Cost (2019 Dollars)
8	18,269	8,775,000
12	791	518,000
15	252	191,000
18	249	250,000



Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$9,734,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$9,734,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$9,730,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$9,730,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$9,730,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2022/2023 through 2025/2026

Project Name: LIFT STATION REHABILITATION
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: LIFT STATION REHABILITATION

Budget ID No. **CO No.**

Project Description: This project involves various lift station improvements as identified in the 2019 Sewer Master Plan Update for the short term planning scenario. Improvements will address the following lift stations:

Lift Station Number	Priority	Lift Station Name	Recommended Time Horizon	Total Cost
CC	2	East Interceptor Lift Station	2022-2025	122,000
AA	3	Arrowhead Lift Station	2022-2025	1,981,000
LS 4	4	Fairway Lift Station	2022-2025	267,000
LS 3	5	Colton Lift Station	2022-2025	282,000
LS 2	6	May Co Lift Station	2022-2025	404,000





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$3,057,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$3,057,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$3,060,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$3,060,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$3,060,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2022/2023 through 2025/2026

Project Name: SIPHON STRUCTURE REHABILITATION
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION

Budget ID No. **CO No.**

Project Description: This project involves rehabiitation of SBMWD siphon structures over the short term (2022-2025) planning horizon. Projects are summarized in the table below and address findings from Stantec and V&A Engineering assessment of siphon structures conducted in 2018.

Siphon	Upstream/ Downstream	Notes	Total Project Cost	Time Horizon
Mill Street - Lytle Creek Channel	US	Remove T-lock liner Resurface and recoat Replace brick and mortar weir wall	117,000	Short-Term
	DS	Remove t-lock liner Resurface and recoat	104,000	Short-Term
Perris Hill Park - Twin Creek Channel	US	Resurface and recoat	145,000	Short-Term
	DS	Resurface and recoat Modify flow channel	117,000	Short-Term
San Bernardino Siphon - Santa Ana River	US	Remove existing spray on liner Reform flow channel Resurface and recoat	130,000	Short-Term
	DS	Resurface and recoat Modify flow channel	63,000	Short-Term
Loma Linda Siphon - Santa Ana River Channel	US	Remove existing spray on liner and T-lock liner Remove existing MH frames and covers over siphon inlet bay Resurface and recoat	157,000	Short-Term
	DS	Remove t-lock liner Resurface and recoat	103,000	Short-Term
Zanga - Mission Channel	US	Remove ladder rungs Address root intrusion Resurface and recoat	53,000	Short-Term
	DS	Remove ladder rungs Fill abandoned connection Injection corrosion inhibitor resurface and recoat	79,000	Short-Term

Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$1,069,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$1,069,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$1,070,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$1,070,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$1,070,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2022/2023 through 2025/2026

Project Name: SIPHON PIPELINES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: This project involves replacement of high priority single-barreled siphons in the SBMWD system. Single barrel siphons require a redundant barrel installed for maintenance and reliability purposes. Any structure attached to a single barrel siphon will be replaced during installation of the second barrel and was not accounted for in the siphon structure rehabilitation CIP cutsheet.

US MH ID	DS MH ID	Location	Pipe Diam.	Approx. Length (ft)
560312	560157	W Base Line St, East of N Arrowhead Ave	8	600
660342	660341	Carousel Mall	8	385
670102	670103	E 6th St, East of Cooley St	33	120







Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$9,484,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$9,484,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$9,480,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$9,480,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$9,480,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2026/2027 through 2030/2031

Project Name: ANNUAL R/R - MAINTENANCE HOLES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: The primary function of the Sanitary Sewer Collection System (SSCS) is to collect and transmit untreated wastewater from the source to the treatment plant without allowing the wastewater to contaminate either groundwater, public areas, or waters of the state. Maintenance Holes allow for access to the buried pipeline to maintain the system. However, many maintenance holes have deteriorated to the point where untreated wastewater comes into contact with the soil. Further, the ability for liquid to pass provides for a point of infiltration when rainfall percolates into the soil. This increases the volume of wastewater. This project involves planned and unplanned repairs to maintenance holes to restore the structure to a proper sealed system.





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$300,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$300,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$300,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$300,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$300,000** *excludes SBMWD labor

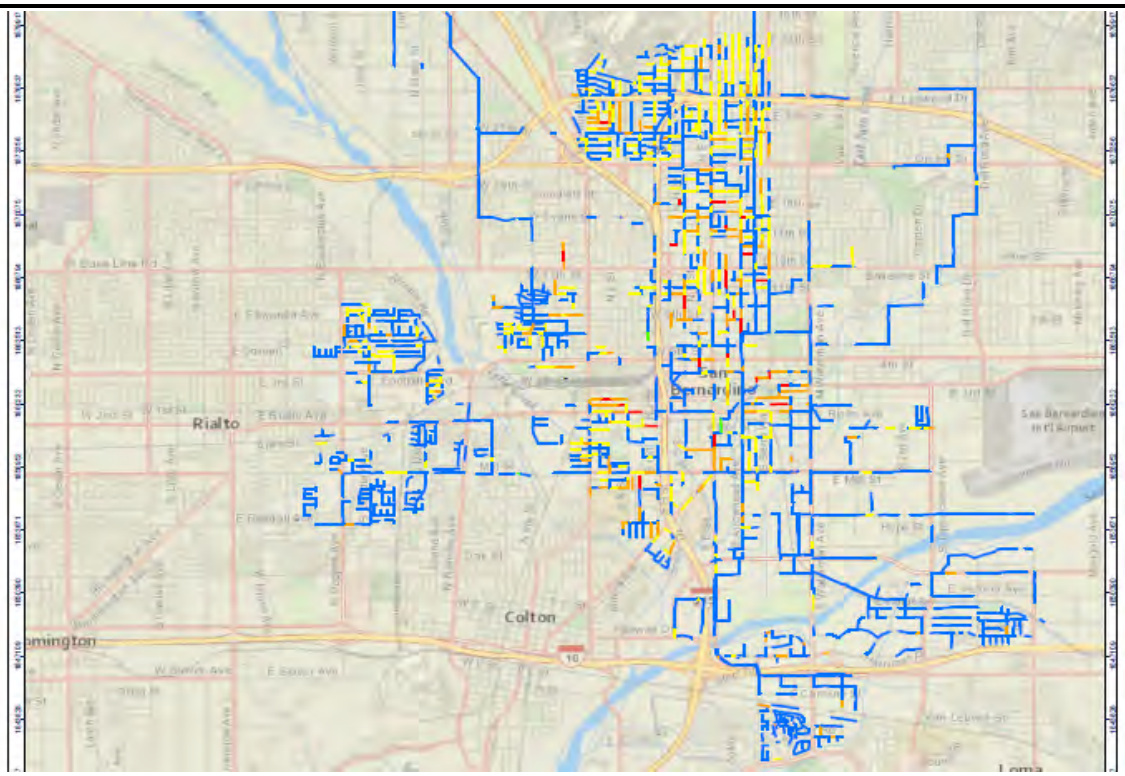
San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2026/2027 through 2030/2031

Project Name: CONDITION BASED REPLACEMENT OF PIPELINES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: Project involves replacement of pipelines based on condition assessment performed for the 2019 Sewer Master Plan Update. Pipelines were identified using CCTV video and PACP scoring and prioritizated according to risk scoring. This CIP item includes pipelines recommended for replacement in the five-year long term planning horizon (2026-2030) and include:

Pipeline Diameter (inches)	Total Length (feet)	Estimated Total Project Cost (2019 Dollars)
8	22,794	10,899,000
12	298	29,000
15	1,276	750,000
18	296	267,000



Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$11,945,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$11,945,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$11,950,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$11,950,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$11,950,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2026/2027 through 2030/2031

Project Name: SIPHON STRUCTURE REHABILITATION
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION

Budget ID No. **CO No.**

Project Description: This project involves rehabiitation of SBMWD siphon structures over the long term (2026-2030) planning horizon. Projects are summarized in the table below and address findings from Stantec and V&A Engineering assessment of siphon structures conducted in 2018.

Siphon	Upstream/ Downstream	Notes	Total Project Cost	Time Horizon
Waterman Avenue - Santa Ana River Channel	US	2 covers	131,000	Long-Term
	DS	Remove t-lock liner Resurface and recoat	68,000	Long-Term
I street - Lytle Creek Channel	US	Remove t-lock liner Resurface and recoat	100,000	Long-Term
	DS	Remove t-lock liner Resurface and recoat	92,000	Long-Term
Santa Fe - Santa Ana River	US	Remove flap gates and ladder rungs Resurface and recoat	177,000	Long-Term
	DS	Remove ladder rungs Resurface and recoat Replace frame and cover	183,000	Long-Term
Inland Center Mall - Santa Ana River Channel	US	Resurface and recoat	87,000	Long-Term
	DS	Resurface and recoat Pour new concrete collar around frame and cover	78,000	Long-Term

Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$915,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$915,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$920,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$920,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$920,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2026/2027 through 2030/2031

Project Name: SIPHON PIPELINES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: LIFT STATION REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: This project involves replacement of all single-barreled siphons in the SBMWD system not addressed with the short term CIP project for siphons. Single barrel siphons require a redundant barrel installed for maintenance and reliability purposes. Any structure attached to a single barrel siphon will be replaced during installation of the second barrel and was not accounted for in the siphon structure rehabilitation CIP cutsheet.

US MH ID	DS MH ID	Location	Pipe Diam. (inches)	Approx. Length (feet)
530102	530103	W 16th St, West of N State St University Pkwy	8	123
530103	530104	W 16th St, West of N State St University Pkwy	8	291
530104	530105	W 16th St, West of N State St University Pkwy	8	318
530105	530068	W 16th St, West of N State St University Pkwy	8	147
530106	530103	W 16th St & Colorado Ave	8	136
660341	660036	Carousel Mall	8	230
660343	660113	W 8th St near N D St	8	185
970197	970161	E Weir Rd, east of Steele Rd	8	340







Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$13,038,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$13,038,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$13,040,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$13,040,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$13,040,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2026/2027 through 2030/2031

Project Name: MERIDIAN LIFT STATION REPLACEMENT
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: LIFT STATION REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: This project involves various lift station improvements as identified in the 2019 Sewer Master Plan Update for the short term planning scenario. Improvements will address the following lift stations:

Lift Station Number	Priority	Lift Station Name	Recommended Time Horizon	Total Cost
LS 5	7	Airport Lift Station	2026-2030	103,000
LS 8	8	Pine Lift Station	2026-2030	245,000
LS 6	9	Valley Truck Farm Lift Station	2026-2030	153,000
LS 11	10	Macy Lift Station	2026-2030	278,000
LS 7	11	Allen Lift Station	2026-2030	88,000
BB	12	E street lift station	2026-2030	1,254,000
LS 9	13	City Hall Lift Station	2026-2030	57,000
LS 1	14	Carousel Lift Station	2026-2030	116,000
LS 12	15	Riverwalk Lift Station	2026-2030	98,000





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$2,390,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$2,390,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$2,390,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$2,390,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$2,390,000** *excludes SBMWD labor

San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2031/2032 through 2035/2036

Project Name: ANNUAL R/R - MAINTENANCE HOLES
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: MAINTENANCE HOLE REHABILITATION AND REPLACEMENT

Budget ID No. **CO No.**

Project Description: The primary function of the Sanitary Sewer Collection System (SSCS) is to collect and transmit untreated wastewater from the source to the treatment plant without allowing the wastewater to contaminate either groundwater, public areas, or waters of the state. Maintenance Holes allow for access to the buried pipeline to maintain the system. However, many maintenance holes have deteriorated to the point where untreated wastewater comes into contact with the soil. Further, the ability for liquid to pass provides for a point of infiltration when rainfall percolates into the soil. This increases the volume of wastewater. This project involves planned and unplanned repairs to maintenance holes to restore the structure to a proper sealed system.





Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$300,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$300,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$300,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$300,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$300,000** *excludes SBMWD labor

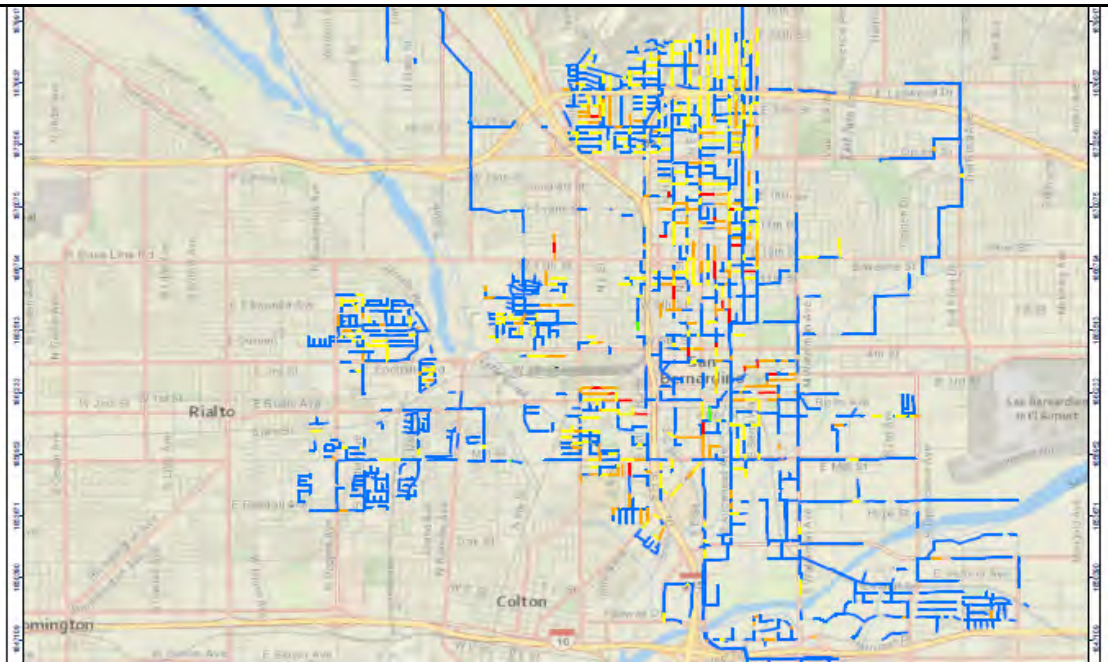
San Bernardino Municipal Water Department
Sewer Collection Fund Capital Projects Budget
Fiscal Year 2031/2032 through 2035/2036

Project Name: CONDITION BASED REPLACEMENT OF PIPELINE
Asset Classification: REPLACEMENT/REHABILITATION OF SYSTEM ASSETS
Asset Category: SEWER MAIN REPLACEMENT

Budget ID No. **CO No.**

Project Description: Project involves replacement of pipelines based on condition assessment performed for the 2019 Sewer Master Plan Update. Piplines were identified using CCTV video and PACP scoring and prioritizated according to risk scoring. This CIP items includes pipelines recommended for replacement in the five-year 2031-2035 planning horizon and include:

Pipeline Diameter (inches)	Total Length (feet)	Estimated Total Project Cost (2019 Dollars)
8	154,952	21,437,000
10	4,089	934,000
12	11,686	2,655,000
15	5,282	1,170,000
18	3,031	915,000
21	336	64,000
27	692	75,000
36	220	128,000



Budgetary Requirements:

Cost Category	Estimated Cost
CEQA Compliance:	$0
Design:	$0
Const. Mgmnt:	$0
Construction:	$27,378,000
SBMWD Labor & Ovhd:	$0
SBMWD Stock Issues	$0
Equipment Rental:	$0
Purchased Material:	$0
Contract Services	$0
Subtotal:	**$27,378,000**
Contingency (10%)	**$0**
TOTAL COSTS (ROUNDED)	**$27,380,000**

Project Funding Sources:	Funding Amount
Sewer Collection Capital:	$27,380,000
Chartis Escrow:	$0
Water Conservation:	$0
Other:	$0
FUNDING (ROUNDED)	**$27,380,000** *excludes SBMWD labor

APPENDIX O

CIP SUMMARY WORKBOOK

Immediate Time Horizon (2020-2021)		
Facility	**Length (ft)**	**Total Project Cost ($)**
Modeled Pipes		
Pipeline and Siphon Flow Study	Flow Monitoring of 40 sites at an assumed cost of $3,800 per site	$ 150,000
Special Area GIS Study - West Residential	[100 MHs + 1 month of FM at 3 locations]	$ 100,000
Condition Assessment - CCTVed Pipes		
Replacement of 8" diameter	9,268	$ 4,475,000
Replacement of 12" diameter	2,986	$ 2,037,000
Replacement of 18" diameter	828	$ 761,000
Replacement of 27" diameter	170	$ 188,000
PDR Study of Large Diameter Condition Pipelines	$25,000 per segment	$ 100,000
Condition Assessment		
Maintenance Holes	$300,000 per year	$ 600,000
Lift Station		$ 1,011,000
Subtotal, 2019 $		*$ 9,422,000*
Escalated Total, 2021 $		$ 9,996,000
Average Yearly CIP Cost (2019 $)		$ 4,711,000
Average Yearly CIP Cost (Escalated)		$ 4,925,000
Notes:		
1. Total Project Cost rounded to nearest thousand dollar		
2. Total Project Cost includes 20% Construction Contingency; 30% Engineering, Legal, and Adminstration Costs; 10% Contractor GCs in addition		
3. Escalation assumes 3% annual inflation. Costs are escalated on a year-to-year basis and averaged.		

Short-Term Time Horizon (2022 - 2025)		
Facility	Length (ft)	Total Project Cost ($)
Model Pipes		
Pipeline Flow Study	Flow Monitoring of 40 sites at an assumed cost of $3,800 per site	$ 150,000
GIS Study	Survey of 900 manholes	$ 100,000
Condition Assessment - CCTVed Pipes		
Replacement of 8" diameter	18,269	$ 8,775,000
Replacement of 12" diameter	791	$ 518,000
Replacement of 15" diameter	252	$ 191,000
Replacement of 18" diameter	249	$ 250,000
Condition Assessment		
Maintenance Holes	$300,000 per year	$ 1,200,000
Siphon Structures		$ 1,069,000
Siphon Pipelines	1,105	$ 9,484,000
Lift Station		$ 3,057,000
Subtotal, 2019 $		*$ 24,794,000*
Escalated Total, 2024 $		$ 28,743,000
Average Yearly CIP Cost (2019 $)		$ 6,198,500
Average Yearly CIP Cost (Escalated)		$ 7,084,000
Notes:		
1. Total Project Cost rounded to nearest thousand dollar		
2. Total Project Cost includes 20% Construction Contingency; 30% Engineering, Legal, and Adminstration Costs; 10% Contractor		
3. Escalation assumes 3% annual inflation. Costs are escalated on a year-to-year basis and averaged.		

Long-Term Time Horizon (2026-2030)		
Facility	Length (ft)	Total Project Cost ($)
Condition Assessment - CCTVed Pipes		
Replacement of 8" diameter	22,794	$ 10,899,000
Replacement of 12" diameter	298	$ 29,000
Replacement of 15" diameter	1,276	$ 750,000
Replacement of 18" diameter	296	$ 267,000
Condition Assessment		
Maintenance Holes		$ 1,500,000
Siphon Structures		$ 915,000
Siphon Pipelines	1,770	$ 13,038,000
Lift Station		$ 2,390,000
Subtotal, 2019 $		*$ 29,788,000*
Escalated Total, 2028 $		$ 38,867,000
Average Yearly CIP Cost (2019 $)		$ 5,957,600
Average Yearly CIP Cost (Escalated)		$ 7,780,200
Notes:		
1. Total Project Cost rounded to nearest thousand dollar		
2. Total Project Cost includes 20% Construction Contingency; 30% Engineering, Legal, and Adminstration		
3. Escalation assumes 3% annual inflation. Costs are escalated on a year-to-year basis and averaged.		

2031-2035 Horizon		
Facility	Length (ft)	Total Project Cost ($)
Condition Assessment - Pipes to CCTV		
Replacement of 8" diameter	154,952	$ 21,437,000
Replacement of 10" diameter	4,089	$ 934,000
Replacement of 12" diameter	11,686	$ 2,655,000
Replacement of 15" diameter	5,282	$ 1,170,000
Replacement of 18" diameter	3,031	$ 915,000
Replacement of 21" diameter	336	$ 64,000
Replacement of 27" diameter	692	$ 75,000
Replacement of 36" diameter	220	$ 128,000
Condition Assessment		
Maintenance Holes		$ 1,500,000
Subtotal, 2019 $		*$ 28,878,000*
Escalated Total, 2033 $		$ 43,681,000
Average Yearly CIP Cost (2019 $)		$ 5,775,600
Average Yearly CIP Cost (Escalated)		$ 8,743,800
Notes:		
1. Total Project Cost rounded to nearest thousand dollar		
2. Total Project Cost includes 20% Construction Contingency; 30% Engineering, Legal, and Adminstration Costs; 10% Contractor GCs in		
3. Escalation assumes 3% annual inflation. Costs are escalated on a year-to-year basis and averaged.		

Total CIP (2019$)	Total CIP (Escalated to each year)	
$ 92,882,000	$ 120,806,000	$ 56,518,000

Summary by Analysis Type		
Improvement Type	Length (ft)	Total Project Cost ($)
Capacity-Related Improvements		
Pipeline and Siphon Flow Study	) sites at an assumed cost of $3,800 per site	$ 150,000
Special Area GIS Study - West Residential	[100 MHs + 1 month of FM at 3 locations]	$ 100,000
Pipeline Flow Study	) sites at an assumed cost of $3,800 per site	$ 150,000
GIS Study	Survey of 900 manholes	$ 100,000
Subtotal of Capacity-Related Improvements		*$ 500,000*
Condition Assessment - CCTVed Pipes for Improvement		
Replacement of 8" diameter	205,283	$ 45,586,000
Replacement of 10" diameter	4,089	$ 934,000
Replacement of 12" diameter	15,761	$ 5,239,000
Replacement of 15" diameter	6,810	$ 2,111,000
Replacement of 18" diameter	4,404	$ 2,193,000
Replacement of 21" diameter	336	$ 64,000
Replacement of 27" diameter	862	$ 263,000
Replacement of 36" diameter	220	$ 128,000
PDR Study of Large Diameter Condition Pipelines	$25,000 per segment	$ 100,000
Subtotal of Condition-Related Improvements, CCTVed Pipes		*$ 56,618,000*
Condition Assessment - Pipes to CCTV		
Maintenance Holes		$ 4,800,000
Siphon Structures		$ 1,984,000
Siphon Pipelines		$ 22,522,000
Lift Station		$ 6,458,000
Total, 2019 $		***$ 92,882,000***
Notes:		
1. Total Project Cost rounded to nearest thousand dollar		
2. Total Project Cost includes 20% Construction Contingency; 30% Engineering, Legal, and Adminstration Costs; 10% Contractor GCs in addition		
3. This table does not take into consideration time horizons and related escalation, and thus all values are in 2019 dollars. Improvements		

Capacity-Related Replacement

Pipe ID	d/D at Existing	Old Diameter (in)	New Diameter (in)	Inlet SMH Depth	Depth Tier for Costing	Length	Material	d/D at Buildout	Larger Diameter Needed for Buildout?	Note
03800520380106	0.83	8	12	8.07	12	315.2	PVC	0.61		2-year flooding of 0380048
03801060380042	0.81	8	12	8.8	12	150	PVC	1	12" diameter is sufficient for buildout but 4 upstream/downstream pipes also need to be upsized at buildout (not triggered in existing). If neighboring pipes are upsized to 12", and this pipe is kept at 12", d/D = 0.55 at buildout; If neighboring pipes are upsized to 12" and this pipe is upsized to 15", d/D = 0.4 at buildout. SBMWD input if 4 immediate upstream/downstream pipes should be added to CIP.	2-year flooding of 0380048
05501470550146	1	12	15	7.22	8	464.4	PVC	0.66		2-year flooding of 0550154
05501480550154	1	15	18	7.37	8	487.7	VCP	0.56		2-year flooding of 0550154
05501540560032	1	8	12	5.51	8	680	PVC	0.63		2-year flooding of 0550154
05600280660054	1	8	15	4.92	8	319.4	PVC	0.49		2-year flooding of 0550154
05600290560028	1	8	15	4.85	8	317.3	PVC	0.49		2-year flooding of 0550154
05600310560029	1	8	15	5	8	337.7	PVC	0.51		2-year flooding of 0550154
05600320560031	1	8	15	4.92	8	736.7	PVC	0.49		2-year flooding of 0550154
05700100570006	0.77	10	15	5.04	8	239.7	PVC	0.91	Pipe diameter is satisfactory, but 7 upstream/downstream pipes must also be upsized at buildout. If upstream/downstream pipes are also upsized, d/D of this pipe is 0.55 at buildout. Will need SBMWD input if 7 upstream/downstream pipes should be added to CIP.	
06600580660073	0.76	8	12	6.42	8	331.5	PVC	0.53		
06600600660077	1	8	12	6.7	8	275.6	PVC	0.62		
06600640660077	1	8	12	6.45	8	359.9	PVC	0.39		
06600720660058	0.85	8	12	6.13	8	352.8	PVC	0.6		
06600770660072	1	8	12	7.02	8	336.9	PVC	0.68		
06601020660096	0.8	8	15	5.95	8	339.9	PVC	0.44		
06601400660141	0.75	8	15	9.89	12	323.2	PVC	0.64		
06601460660158	0.76	8	12	6.35	8	333.2	PVC	0.53		
06601580660159	0.78	8	15	5.92	8	374.6	PVC	0.69		
06600730660092	0.74	8	12	5.14	8	680	PVC	0.76	Pipe diameter is satisfactory at buildout but 3 downstream pipes would also need to be upsized to 12". Will need SBMWD input if 3 downstream pipes should be added to CIP.	Downstream effect of upsizing 06600580660073
06600960660103	0.72	8	15	6.03	8	340.2	PVC	0.67		Downstream effect of upsizing 06601020660096
06601440660146	0.59*	8	12	6.21	8	380.7	PVC	0.44		Related to upsizing of 06601460660158
05600490560039	1	8	21	7.31	8	39.9	VCP	1	15" upsize would be acceptable for existing, but buildout would need at least 21". If upsized to 21", d/D at buildout would be 0.63. Diameter upsize would fix diameter constriction.	May be also GIS issue as upstream diameter is 21" and downstream pipe diameter is 27"
06600230660060	1	8	12	4.73	8	393.6	PVC	0.51		
06600540660056	1	8	12	4.8	8	64.5	PVC	0.49		
06600560660023	0.87	8	12	3.8	8	297.7	PVC	0.49		
06601040660107	0.78	8	12	6.31	8	340.9	PVC	0.49		
					Total	***9613.2***	***$ 6,298,300***			

* Represents original d/D, not d/D after upstream sections were revised

Projects in this category are recommended for further investigation (Flow Study) and not costed as part of the CIP

Unit Costs

Replacement Costs ($/LF)

Material	PVC			VCP		
Depth (ft)	Up to 8 ft	8 to 12 ft	12 to 16 ft	Up to 8 ft	8 to 12 ft	12 to 16 ft
Diameter (in)						
8	$ 477	$ 553	$ 629	$ 561	$ 651	$ 740
10	$ 503	$ 603	$ 629	$ 592	$ 709	$ 740
12	$ 655	$ 705	$ 781	$ 770	$ 829	$ 918
15	$ 629	$ 692	$ 755	$ 740	$ 814	$ 888
18	$ 684	$ 720	$ 792	$ 756	$ 918	$ 1,005
21	$ 777	$ 819	$ 882	$ 882	$ 947	$ 1,036
24	$ 888	$ 912	$ 984	$ 984	$ 1,005	$ 1,036
27	$ 972	$ 1,026	$ 1,080	$ 1,107	$ 1,066	$ 1,153
30	$ 1,080	$ 1,110	$ 1,170	$ 1,200	$ 1,095	$ 1,184
36	$ 1,224	$ 1,332	$ 1,404	$ 1,408	$ 1,512	$ 1,538
42	$ 1,428	$ 1,512	$ 1,596	$ 1,642	$ 1,681	$ 1,954
48	$ 1,536	$ 1,728	$ 1,824	$ 1,766	$ 1,920	$ 2,112
54	$ 1,728	$ 1,836	$ 1,998	$ 1,987	$ 2,106	$ 2,322
60	$ 1,800	$ 2,040	$ 1,369	$ 2,160	$ 2,280	$ 2,520
Notes:						
1. All costs shown are in 2019 $						

Note to the Department:

The costs provided to the Department on 9/26 via email included escalation (two years, to year 2021). We decided to escalate respective to each horizon, as shown in the "Summary by Horizon" tab to avoid confusion.

If you add escalation to the unit costs in this sheet, you will find they equal the same values provided on 9/26. Please see example below:

8-inch PVC pipe replacement for up to 8 ft depth, $/LF per 9/26 email: $506/LF

$477*1.03*1.03 = $506.04

Repair Costs

	Repair Type	
Diameter	**CIPP**	**Point Repair**
8	$ 56	$ 44,064
10	$ 75	$ 46,800
12	$ 96	$ 49,824
15	$ 127	$ 54,343
18	$ 162	$ 59,328
21	$ 194	$ 63,972
24	$ 229	$ 69,017
27	$ 270	$ 74,880
30	$ 420	$ 96,480
36	$ 637	$ 127,713
42	$ 756	$ 144,864
48	$ 927	$ 169,401
54	$ 1,188	$ 207,072
60	$ 1,529	$ 256,112
Notes:		
1. All costs shown are in 2019 $		

CCTV Costs

Diameter	CCTV Cost ($/LF)
All Diameters	$2.55

GridID	Average Score	Rank	Length of pipeline to CCTV
86	5.49	1	18911.9
76	4.61	2	30194.9
68	4.51	3	4365.3
56	4.47	4	31107.5
74	4.47	5	9229.4
66	4.39	6	58268.2
75	4.36	7	29914.7
67	4.14	8	24923.2
46	3.85	9	24820.2
77	3.75	10	14517.7
57	3.63	11	78308
48	3.63	12	44868
55	3.62	13	83959.8
45	3.61	14	13135.5
73	3.53	15	17023.4
58	3.52	16	22560.1
47	3.41	17	65273.1
36	3.40	18	51219.7
65	3.39	19	74538.4
54	3.34	20	82710.1
64	3.33	21	25798.3
87	3.29	22	9759.6
49	3.29	23	2314.3
28	3.24	24	2753
72	3.24	25	34798.2
53	3.23	26	30882.4
27	3.15	27	12793.5
85	3.14	28	2519.7
63	3.06	29	9918.2
35	3.04	30	25650.2
21	3.01	31	1675.7
44	2.99	32	47166.3
33	2.98	33	20471.8
38	2.98	34	44817.8
78	2.92	35	6781.8
26	2.91	36	70251.2
37	2.86	37	61343.3
22	2.80	38	23142.3
98	2.79	39	3341.7
62	2.78	40	6996.9
96	2.74	41	9219.9
89	2.70	42	15189.9
43	2.61	43	17308.2
97	2.59	44	12293.4
39	2.57	45	15741.5
10	2.56	46	3633.9
88	2.53	47	11935.6
25	2.48	48	38476.1
34	2.48	49	18187.4
11	2.46	50	30648.9
32	2.43	51	17355.6
24	2.38	52	37443.2
13	2.31	53	16774.7
01	2.18	54	1538.5
23	2.16	55	56516.3
0	2.13	56	4237.5
00	2.13	56	4237.5
12	1.91	58	74341.9
02	1.66	59	1124.9

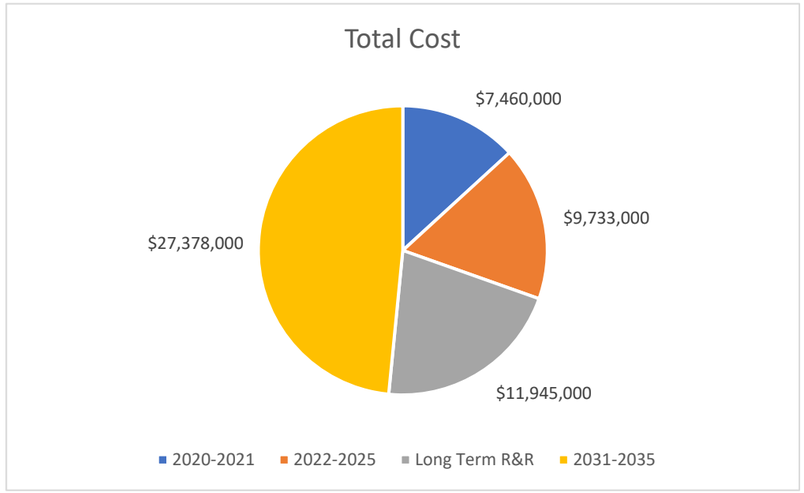
CCTV Review Findings

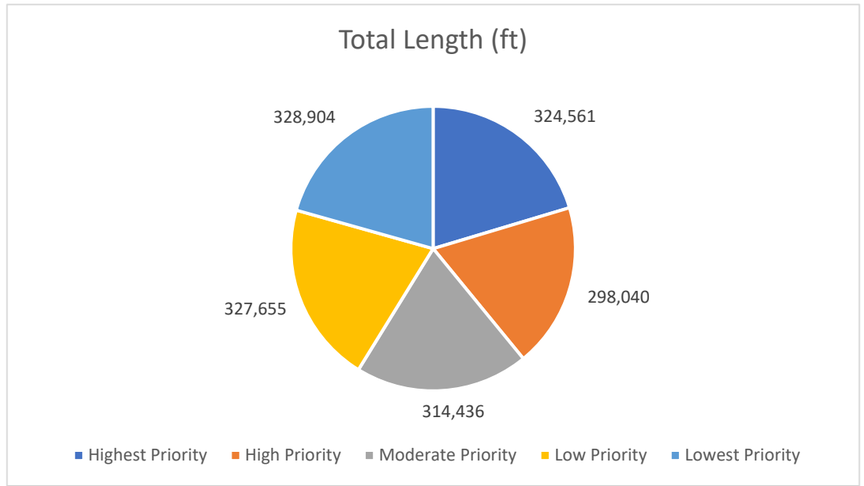
PipeIDText	R&R Action (Replacement, CIPP)	Notes
04501400450146	Replacement	**High priority.** Two locations with broken pipe at the hinges and soil visible
04501450450147	Replacement	**Medium priority.** Broken pipe at three locations driving replacement. Continuous multiple cracking for a majority of pipe.
04602210460222	Replacement	**Low priority.** Replacement recommended due to broken pipe with soil visible and sag at end of pipe. Cracks and fractures run the entire length of pipe
04602580460259	Replacement	**Low priority.** Replacement recommended due to broken pipe @ 55' & 112'
05401660540164	Replacement	**Medium priority**. 8" VCP - There are a few broken locations which makes this more suited for replacement, but there maybe a potential to CIPP, but would need to confirm with vendor regarding "broken" / "fractured' pipe locations. Specifically around 345.2'
05401720540166	Replacement	**Medium to high priority**. Roots inflitrating Fractures and Broken segments
05401750540172	Replacement	**Medium priority.** Joint offset medium at flowliine. Roots infiltrating sewer through fractures
05501450560035	Replacement	**Medium to high priority.** Multiple broken or hole with voids and soil visible. **Lateral @33' bringing lots of soil into pipe.**
05502280560057	Replacement	**Low to Medium priority.** Replacement recommended to repair pipe sag & possible cross-bored utility with soil (large rocks) visible, potential to be brought into pipe with surcharge
05600960560092	Replacement	**Medium to high priority.** Relatively short segment of pipe with three significant structural defects
05601000560090	Replacement	**High priority.** Pipe surface seems signficantly deteriated causing multiple holes with soil and voids visible
05601300560128	Replacement	**Medium priority.** Broken @ 197.56' @ joint @ flowline. Sag in pipe and broken piece at 297' driving replacement.
05601480560138	Replacement	**High priority.** Mulitple holes with voids or soil visible. Lateral @ 105.43' JOL in lateral, soil visible above offset. Sag in downstream section of pipe
05601510660153	Replacement	**Medium to high priority.** Multiple holes with voids or soil visible
05601790560180	Replacement	**High priority.** Multiple holes with voids visible on lower half of pipe - further erosion is possible even with lower water levels
05601870560165	Replacement	**High priority.** Mulitple large joint offsets, broken pipe with soil visible driving replacmenet
05602080560206	Replacement	**Medium to high priority**
05602710560174	Replacement	**High priority**. Significant brokenpipe/ hole on top of pipe - sediment in bottom of pipe. **Sediment infiltrating @ 598' @ Joint**
05701160570092	Replacement	**High priority.** Possible pipe collapse 95-100% of flow blocked at 380'. Multiple holes with soil and voids visible
06500250650024	Replacement	**High priority.** Pipe collapse/sharp sag causing at least 50% reduction in cross section
06600230660020	Replacement	**Medium to high priority.** Hole with void visible, and multiple defective taps or intruding taps (allowing soil to inflitrate
06601010660100	Replacement	**High priority.** Three points with a hole void visible and broken pipe with soil visible.
06601670660181	Replacement	**Medium to high priority.** HSV @ 208' is missing all pipe above water level and HSV @ 280' is missing top of pipe material.
06601680660165	Replacement	**High priority.** Partial pipe collapse, crown of pipe missing @ 438', and multiple breaks in pipe
06601860660146	Replacement	**Medium to high priority.** Large hole with soil visible along with multiple fractures. Sag. Large fracture along crown of pipe (64') "high priority"
06602650660254	Replacement	**High priority.** Replacement recommended to fix deformations, hinge fractures/ broken pipe and sag
06602660660264	Replacement	**Medium to high prriority.** 15" VCP - @5' JOM/FM/**BSV, @129 B - Driving replacement,** there is also a sag between 92.4 and 135' which would make replacement a better choice.
06700760670077	Replacement	**High priority.** Two large holes with soil/voids visible. Survey is incomplete
07501300750131	Replacement	**Medium to high priority.** Replacment recommended due to hinge fractures, broken pipe section, and sag in the pipe. Survey is incomplete. Sag shows Water Level around 30% instead of 10% called out in report. FH @ crown @ beginning of survey.
07501650750162	Replacement	**High priority.** Broken @ 12 o'clock
07501900750192	Replacement	**Medium to high priority.** Multiple holes with soil visible - smaller holes relative to other pipes, but can still errod backfill. Multiple intruding taps
07502000750168	Replacement	**High priority.** Portion of pipe with hole void visible appears to be moving. Other holes voids or soils visible, 20% deformed in some areas
07600940760095	Further Investigation	Check as-builts to confirm egg-shaped 48"- VCP called out. **If so no action needed.** Pipe looks like egg-shaped clay tile pipe. First 77' difficult to see. (camera is also not completely centered in pipe)
07600950760105	Further Investigation	Egg-Shaped VCP tile. (7600950760105_20190411) - @4:45 in video it looks like there is a broken tile @ 2 o'clock not documented in report, @6:20 cracked tile at 2 o'clock, @8:25 in video broken tile at 2 o'clock. Overall pipe is in fair shape. Could CIPP to extend life of line, confirm with vendor for egg-shape.
07600960760094	Replacement	**Medium to high priority.** Brick sewer under tile? Multiple locations where tile has broken off. Operator does not inspect all broken locations to determine if soil or voids are visible. No survey past 174.6'. Pipe length is 662'
07700010760202	Replacement	**Medium to high priority.** Cross-bored utility caused two holes with voids visible. Additional holes with voids and soil visible, Joint offset. JOM @ 572.2 not suitable for CIPP
Notes:		
1. Highlighted rows are recommended for immediate horizon replacement. All other rows are recommended for short term horizon replacement		

Condition Assessment Summary Table

Action	Number of Pipes	Length of Pipes	Total Cost	
2020-2021	31	13251.6	$	7,460,000
2022-2025	50	19561.7	$	9,733,000
Long Term R&R	62	24664.5	$	11,945,000
2031-2035	440	180288.9	$	27,378,000
2036-2040	0	0	$	-

Action	Total Length (ft)	Number of Grids
Highest Priority	324,561	11
High Priority	298,040	7
Moderate Priority	314,436	12
Low Priority	327,655	13
Lowest Priority	328,904	16





Cost ($)

Diameter	Time Horizon: Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
8	$ 4,475,000	$ 8,775,000	$ 10,899,000	$ 21,437,000	$ -
10	$ -	$ -	$ -	$ 934,000	$ -
12	$ 2,037,000	$ 518,000	$ 29,000	$ 2,655,000	$ -
15	$ -	$ 191,000	$ 750,000	$ 1,170,000	$ -
18	$ 761,000	$ 250,000	$ 267,000	$ 915,000	$ -
21	$ -	$ -	$ -	$ 64,000	$ -
24	$ -	$ -	$ -	$ -	$ -
27	$ 188,000	$ -	$ -	$ 75,000	$ -
30	$ -	$ -	$ -	$ -	$ -
36	$ -	$ -	$ -	$ 128,000	$ -
42	$ -	$ -	$ -	$ -	$ -
48	$ -	$ -	$ -	$ -	$ -
54	$ -	$ -	$ -	$ -	$ -
	$ 7,461,000	$ 9,734,000	$ 11,945,000	$ 27,378,000	

Length (ft)

Diameter	Time Horizon: Immediate	ShortTerm	LongTerm	2031-2035	2036-2040
8	9268	18269	22794	154952	0
10	0	0	0	4089	0
12	2986	791	298	11686	0
15	0	252	1276	5282	0
18	828	249	296	3031	0
21	0	0	0	336	0
24	0	0	0	0	0
27	170	0	0	692	0
30	0	0	0	0	0
36	0	0	0	220	0
42	0	0	0	0	0
48	0	0	0	0	0
54	0	0	0	0	0

Lift Station

Lift Station Number	Priority Ranking	Lift Station Name	Summary of Recommendations	Estimated Construction Cost (2019 $)	20% Contingency + 30% Engineering, Legal, and Admin + 10% Contractor GCs	Total Project Cost (2019 $)	Time Horizon
LS#10	1	Meridian Lift Station	Full replacement with submersible pump type lift station	$ 631,800	$ 379,100	$ 1,010,900	Immediate
			3x Trough liner replacement				
			3x Deflector shield support replacement				
			3x 60 HP Archimedes Screw pump motor replacement				
CC	2	East Interceptor Lift Station	3x Archimedes Screw pump gear rehabilitation	$ 76,300	$ 45,800	$ 122,100	Short-Term
			3x Wet well hatch replacement				
			Concrete wall and ceiling spot repair				
			Drain cover replacement				
			4x 225 HP Pump Replacement				
			Coating repair on piping				
			4x 24" Gate valve replacement				
AA	3	Arrowhead Lift Station	4x 24" Check valve replacement	$ 1,238,300	$ 743,000	$ 1,981,300	Short-Term
			Replace intrusion alarm				
			2x 15 HP Pump replacement				
			Pipe support replacement				
			Concrete spot repair				
			Install ultrasonic level measurement				
			Coating repair on piping				
			Install SCADA equipment and SCADA integration				
LS#4	4	Fairway Lift Station	Relocate control panel to above grade	$ 166,700	$ 100,000	$ 266,700	Short-Term
			Replace ladder to dry pit				
			Install dry pit ventilation system				
			Install overturn restraint for propane tank				
			Install SCADA equipment and connect to SCADA				
LS#3	5	Colton Lift Station	Replace level switches	$ 176,500	$ 105,900	$ 282,400	Short-Term
			Remove ladder from wet well				
			Install new retaining wall				
			Replace Control Panel				
			Install ultrasonic level measurement				
			Replace generator				
			Recoat piping				
			Recoat dry pit				
			Replace wet well				
			Install SCADA equipment and connect to SCADA				
LS#2	6	May Co Lift Station	Replace 2x 10hp pumps and motors	$ 252,500	$ 151,500	$ 404,000	Short-Term
			Install ultrasonic level measurement				
			Replace 2x 3hp pumps and motors				
			Replace backup float switch				
			Recoat piping				
			Install SCADA equipment and connect to SCADA				
LS#5	7	Airport Lift Station	Relocate electrical panel to above grade	$ 64,200	$ 38,500	$ 102,700	Long-Term
			Concrete spot repair				
			Resurface and Coat wet well				
			Replace control panel				
LS#8	8	Pine Lift Station	Replace 2x 15hp pumps and motors	$ 152,900	$ 91,700	$ 244,600	Long-Term
			Replace ventilation fan				
			Rehabilitate wet well				
LS#6	9	Valley Truck Farm Lift Station	Replace 2x 5hp pumps and motors	$ 95,300	$ 57,200	$ 152,500	Long-Term
			Install overturn restraint for propane tank				
			Replace uninteruptible power supply				
			Reconfigure piping				
LS#11	10	Macy Lift Station	Replace 2x 15hp pumps and motors	$ 173,500	$ 104,100	$ 277,600	Long-Term
			Replace wet well hatch (assume 4' x 6' dimension)				
			Replace 2x 5hp pumps and motors				
LS#7	11	Allen Lift Station	Add fence (assume 50 LF chain link fence with privacy slats)	$ 55,000	$ 33,000	$ 88,000	Long-Term
			Install ultrasonic level measurement				
BB	12	E street lift station	Replace 3x 200hp pumps and motors	$ 783,500	$ 470,100	$ 1,253,600	Long-Term
			Replace wet well hatch (assume 4' x 6' dimension)				
LS#9	13	City Hall Lift Station	Replace 2x 3hp pumps and motors	$ 35,400	$ 21,200	$ 56,600	Long-Term
			Replace ladder to dry pit				
			Replace 2x 2hp pumps and motors				
			Replace control panel				
			Install ultrasonic level measurement				
			Install SCADA equipment and connect to SCADA				
LS#1	14	Carousel Lift Station	Replace dry pit (assume 8' diameter, 10' deep dry pit)	$ 72,700	$ 43,600	$ 116,300	Long-Term
LS#12	15	Riverwalk Lift Station	Replace 2x 7.5 hp pumps and motors	$ 61,500	$ 36,900	$ 98,400	Long-Term
			Total	***$ 4,036,100***	***$ 2,421,600***	***$ 6,457,700***	

Notes:

1. All costs in this table are rounded to nearest hundred dollar.
2. Total Project Cost includes 20% Construction Contingency; 30% Engineering, Legal, and Adminstration Costs; 10% Contractor GCs in addition to Construction Costs.

Maintenance Holes

									Time Horizon				
Recommendation	**Amount based on TKE's inspections**	**Percentage**	**SBMWD MHs**	**Raw Unit Cost per Maint. Hole (2019 $)**	**20% Contingency + 30% Engineering, Legal, and Admin + 10% Contractor GCs**	**Unit Cost per MH, including ELA and Contigency (2019 $)**	**Estimated Cost (2019 $)**	**Time Horizon**	**Immediate**	**Short-Term**	**Long-Term**	**11-15 Year**	**16-20 Year**
No Action	14	14%	1110	$ -			$ -						
Rehab	57	56%	4520	$ 6,800	$ 4,080	$ 10,880	$ 49,177,600	20 year program	$ 2,458,900	$ 9,835,600	$ 12,294,500	$ 12,294,500	$ 12,294,500
Replace	30	30%	2379	$ 12,000	$ 7,200	$ 19,200	$ 45,676,800	20 year program	$ 2,283,800	$ 9,135,200	$ 11,419,000	$ 11,419,000	$ 11,419,000
Total	***101***	***100%***	***8009***				***$ 94,854,400***		***$ 4,742,700***	***$ 18,970,800***	***$ 23,713,500***	***$ 23,713,500***	***$ 23,713,500***
Notes:													
1. All costs in this table are rounded to nearest hundred dollar. Due to rounding, slight discrepancies in summation may occur.													
1. Maintenance hole replacement and rehabilitation assumes completion within a 20 year timeframe. Rehab and replacement was assumed to spread out equally over 20 years.													
2. 20-Year replacement program was deemed appropriate as there were no significant inflow and infiltration (I&I) issues found within the system.													

It is assumed that SBMWD will allocate $300,000 per year to Maintenance Hole Rehab

Siphon Pipelines

Upstream Structure ID	Downstream Structure ID	Location	Pipe Diameter (in)	Approx Length (ft)	Recommendation	Esimated Construction Cost (2019$)	20% Contingency + 30% Engineering, Legal, and Admin + 10% Contractor GCs (10% GC not	Total Project Cost (2019 $)	Time Horizon
0530102	0530103	W 16th St, West of N State St University Pkwy	8	123	Replace with double barrel (8")	$ 576,600	$ 346,000	$ 922,600	Long-Term
0530103	0530104	W 16th St, West of N State St University Pkwy	8	291	Replace with double barrel (8")	$ 1,279,000	$ 767,400	$ 2,046,400	Long-Term
0530104	0530105	W 16th St, West of N State St University Pkwy	8	318	Replace with double barrel (8")	$ 1,391,894	$ 835,100	$ 2,227,000	Long-Term
0530105	0530068	W 16th St, West of N State St University Pkwy	8	147	Replace with double barrel (8")	$ 739,400	$ 443,600	$ 1,183,000	Long-Term
0530106	0530103	W 16th St & Colorado Ave	8	136	Replace with double barrel (8")	$ 631,000	$ 378,600	$ 1,009,600	Long-Term
0560312	0560157	W Base Line St, East of N Arrowhead Ave	8	600	Replace with double barrel (8")	$ 2,633,300	$ 1,580,000	$ 4,213,300	Short-Term
0580015	0580016	Perris Hill Park - Twin Creek Channel	8	100	Flow Monitor				
			10	100	Flow Monitor				
0580065	0580066	Baseline St, East of Fairfax Dr	24	95	Flow Monitor				
			14	95	Flow Monitor				
0660341	0660036	Carousel Mall	8	230	Replace with double barrel (8")	$ 1,086,400	$ 651,800	$ 1,738,200	Long-Term
0660342	0660341	Carousel Mall	8	385	Replace with double barrel (8")	$ 1,672,000	$ 1,003,200	$ 2,675,200	Short-Term
0660343	0660113	W 8th St near N D St	8	185	Replace with double barrel (8")	$ 898,200	$ 538,900	$ 1,437,100	Long-Term
0670102	0670103	E 6th St, East of Cooley St	33	120	Replace with double barrel (24")	$ 1,622,400	$ 973,400	$ 2,595,800	Short-Term
0680042	0680041	N Tippecanoe Ave, north of E 9th St	14	147	Flow Monitor				
			24	147	Flow Monitor				
0750186	0750134	I street - Lytle Creek Channel	24	260	Flow Monitor				
			18	260	Flow Monitor				
0760035	0760036	Inland Center Mall - Santa Ana River Channel	15	390	Flow Monitor				
			15	390	Flow Monitor				
0760039	0760040	Mill Street - Lytle Creek Channel	24	268	Flow Monitor				
			24	268	Flow Monitor				
0860052	0860051	San Bernardino Siphon - Santa Ana River	10	800	Flow Monitor				
			12	800	Flow Monitor				
0860068	0860069	Loma Linda Siphon - Santa Ana River Channel	16	802	Flow Monitor				
			20	802	Flow Monitor				
0870084	0870083	Waterman Avenue - Santa Ana River Channel	10	944	Flow Monitor				
			15	944	Flow Monitor				
0870108	0870107	Santa Fe - Santa Ana River	12	950	Flow Monitor				
			24	950	Flow Monitor				
0870118	0870109	Zanga - Mission Channel	10	235	Flow Monitor				
			21	235	Flow Monitor				
0970197	0970161	E Weir Rd, east of Steele Rd	8	340	Replace with double barrel (8")	$ 1,546,300	$ 927,800	$ 2,474,100	Long-Term
					Total	***$ 14,076,494***	***$ 8,445,800***	***$ 22,522,300***	

Notes:

1. All costs in this table are rounded to nearest hundred dollar.
2. Siphon names highlighted in blue indicate correlating project for siphon structure. Projects that have both a siphon structure and a siphon pipeline project have the same time horizon indicated.

Siphon Structures

Siphon	Upstream / Downstream Structure	Recommendation	Recommendation Notes	Esimated Construction Cost (2019 $)	20% Contingency + 30% Engineering, Legal, and Admin + 10% Contractor GCs	Total Project Cost (2019 $)	Time Horizon
Mill Street - Lytle Creek Channel	Upstream	Rehab	Remove T-lock liner Resurface and recoat Replace brick and mortar weir wall	$ 73,300	$ 44,000	$ 117,300	Short-Term
	Downstream	Rehab	Remove t-lock liner Resurface and recoat	$ 65,200	$ 39,100	$ 104,300	Short-Term
Waterman Avenue - Santa Ana River Channel	Upstream	Replace	2 covers	$ 81,600	$ 49,000	$ 130,600	Long-Term
	Downstream	Rehab	Remove t-lock liner Resurface and recoat	$ 42,300	$ 25,400	$ 67,700	Long-Term
Perris Hill Park - Twin Creek Channel	Upstream	Rehab	Resurface and recoat	$ 90,600	$ 54,400	$ 145,000	Short-Term
	Downstream	Rehab	Resurface and recoat Modify flow channel	$ 73,300	$ 44,000	$ 117,300	Short-Term
I street - Lytle Creek Channel	Upstream	Rehab	Remove t-lock liner Resurface and recoat	$ 62,400	$ 37,400	$ 99,800	Long-Term
	Downstream	Rehab	Remove t-lock liner Resurface and recoat	$ 57,200	$ 34,300	$ 91,500	Long-Term
San Bernardino Siphon - Santa Ana River	Upstream	Rehab	Remove existing spray on liner Reform flow channel Resurface and recoat	$ 81,000	$ 48,600	$ 129,600	Short-Term
	Downstream	Rehab	Resurface and recoat Modify flow channel	$ 39,500	$ 23,700	$ 63,200	Short-Term
Loma Linda Siphon - Santa Ana River Channel	Upstream	Rehab	Remove existing spray on liner and T-lock liner Remove existing MH frames and covers over siphon inlet bay Resurface and recoat	$ 97,900	$ 58,700	$ 156,600	Short-Term
	Downstream	Rehab	Remove t-lock liner Resurface and recoat	$ 64,600	$ 38,800	$ 103,300	Short-Term
Zanga - Mission Channel	Upstream	Rehab	Remove ladder rungs Address root intrusion Resurface and recoat	$ 32,900	$ 19,700	$ 52,700	Short-Term
	Downstream	Rehab	Remove ladder rungs Fill abandoned connection Injection corrosion inhibitor resurface and recoat	$ 49,600	$ 29,800	$ 79,300	Short-Term
Santa Fe - Santa Ana River	Upstream	Rehab	Remove flap gates and ladder rungs Resurface and recoat	$ 110,900	$ 66,500	$ 177,400	Long-Term
	Downstream	Rehab	Remove ladder rungs Resurface and recoat Replace frame and cover	$ 114,100	$ 68,500	$ 182,600	Long-Term
Inland Center Mall - Santa Ana River Channel	Upstream	Rehab	Resurface and recoat	$ 54,200	$ 32,500	$ 86,700	Long-Term
	Downstream	Rehab	Resurface and recoat Pour new concrete collar around frame and cover	$ 48,900	$ 29,300	$ 78,200	Long-Term
			Total	***$ 1,239,500***	***$ 743,700***	***$ 1,983,100***	

Notes:

1. All costs in this table are rounded to nearest hundred dollar.



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