

Master Plan of Sewer - Update - SQ-87-DE-19-32 Rev. 1
City of Fontana, CA

Item	Description	Bruce Davis	Joseph Caldwell	Kristopher Danielson	Chandler Drachsin	Elizabeth Xiong	Teresa DeShazer	Darin Hawkes	Nick Graue	Michael Maughan	Shannon Viner	Total Hours	Subtotal - Labor	Sub-consultant budget	Expenses	Total/task ¹
	Billout Rate	\$ 293	\$ 293	\$ 252	\$ 173	\$ 173	\$ 115	\$ 230	\$ 224	\$ 184	\$ 109					
	4.1 Data Collection and Field Investigations		16	38	12	8	15					89	\$ 19,449	\$ -	\$ -	\$ 19,449
	1.1 Review all existing Documents		8	16	4		4					32	\$ 7,528	\$ -		\$ 7,528
	1.2 Coordinate with IEUA		6	6			3					15	\$ 3,615	\$ -		\$ 3,615
	1.3 Conduct site investigations			12								12	\$ 3,024	\$ -		\$ 3,024
	1.4 Prepare technical memorandum		2	4	8	8	8					30	\$ 5,282	\$ -		\$ 5,282
	4.2 GIS Gap Analyses & Needs Assessment			14	24			34	88		1	161	\$ 35,343	\$ -	\$ -	\$ 35,343
	2.1 Review GIS Assets			4	4			16	40			64	\$ 14,350	\$ -		\$ 14,350
	2.2 Identify missing sewer data in GIS			4	16			12	24			56	\$ 11,918	\$ -		\$ 11,918
	2.3 Develop confidence level in Data			2	2			4	12			20	\$ 4,461	\$ -		\$ 4,461
	2.4 Prepare technical memorandum			4	2			2	12		1	21	\$ 4,614	\$ -		\$ 4,614
	4.3 Temporary Flow Monitoring		10	54	34		16	10	24	4	1	153	\$ 32,787	\$ 87,345	\$ -	\$ 120,132
	3.1 Develop Flow Monitoring Plan			4	4			4	8			20	\$ 4,414	\$ -		\$ 4,414
	3.2 Describe criteria for flow locations		2	4				2	4	4		16	\$ 3,687	\$ -		\$ 3,687
	3.3 Determine flow monitoring locations			2	2			2	4			10	\$ 2,207	\$ -		\$ 2,207
	3.4 Consultant site visits			24								24	\$ 6,048	\$ -		\$ 6,048
	3.5 Inflow and infiltration analysis			4	4		4					12	\$ 2,160	\$ 87,345		\$ 89,505
	3.6 Optional interim flow monitoring		4	8	8		4					24	\$ 5,032	\$ -		\$ 5,032
	3.7 Prepare technical memorandum		4	8	16		8	2	8		1	47	\$ 9,239	\$ -		\$ 9,239
	4.4 Establish Sewer Flow Criteria		10	36	104	48	4					202	\$ 38,758	\$ -	\$ -	\$ 38,758
	4.1 Update existing sewer flow criteria		2	4	4							10	\$ 2,286	\$ -		\$ 2,286
	4.2 Analyze existing sewer flows		2	16	16	8						42	\$ 8,770	\$ -		\$ 8,770
	4.3 Develop design factors		2	4	40	20						66	\$ 11,974	\$ -		\$ 11,974
	4.4 Account for future projected flows		2	4	40	20						66	\$ 11,974	\$ -		\$ 11,974
	4.5 Prepare technical memorandum		2	8	4		4					18	\$ 3,754	\$ -		\$ 3,754
	4.5 Hydraulic Sewer Model Calibration / Update		4	22			2	48	128	136	1	341	\$ 71,823	\$ -	\$ -	\$ 71,823
	5.1 Determine modeling software - GIS Based (2)		2	6			2					10	\$ 2,328	\$ -		\$ 2,328
	5.2 Review previous sewer system model		2	4				8	16	16		46	\$ 9,966	\$ -		\$ 9,966
	5.3 Populate sewer mainlines / manholes			2				24	80	80		186	\$ 38,684	\$ -		\$ 38,684
	5.4 Formulate approach on existing vs buildout			2				8	16	16		42	\$ 8,876	\$ -		\$ 8,876
	5.5 Review flow monitoring results			2				2	4	4		12	\$ 2,597	\$ -		\$ 2,597
	5.6 Review and recommend modeling parameters			4				4	8	8		24	\$ 5,194	\$ -		\$ 5,194
	5.7 Prepare technical memorandum / training (3)			2				2	4	12	1	21	\$ 4,178	\$ -		\$ 4,178
	4.6 Hydraulic Sewer Model Analysis		8	12				26	44	84		174	\$ 36,671	\$ -	\$ -	\$ 36,671
	6.1 Perform hydraulic analysis - existing		2	4				8	12	24		50	\$ 10,541	\$ -		\$ 10,541
	6.2 Perform hydraulic analysis - buildout		2	4				8	12	24		50	\$ 10,541	\$ -		\$ 10,541
	6.3 Identify deficiencies		2	2				2	8	12		26	\$ 5,552	\$ -		\$ 5,552
	6.4 Perform hydraulic analysis on CIP		2	2				8	12	24		48	\$ 10,037	\$ -		\$ 10,037

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4.7 Update of Sanitary Sewer System Master Plan			16	50	148		24					238	\$ 45,652	\$ -	\$ -	\$ 45,652
7.1 Prepare Sanitary Sewer Master Plan			12	40	120		24					196	\$ 37,116	\$ -		\$ 37,116
7.2 Identify and Prioritize CIP			2	4	8							14	\$ 2,978	\$ -		\$ 2,978
7.3 Identify Previously construction CIP projects			2	2	8							12	\$ 2,474	\$ -		\$ 2,474
7.4 Create Associated Exhibits				4	12							16	\$ 3,084	\$ -		\$ 3,084
4.8 Capital Improvement Program			12	40	84							136	\$ 28,128	\$ -	\$ -	\$ 28,128
8.1 Develop Capital Improvement Plan			4	8	12							24	\$ 5,264	\$ -		\$ 5,264
8.2 Provide individual CIP descriptions			4	20	60							84	\$ 16,592	\$ -		\$ 16,592
8.3 Develop Cost estimate for CIP Projects			4	12	12							28	\$ 6,272	\$ -		\$ 6,272
4.9 Connection Fee Study		4	2	16	28		8					58	\$ 11,554	\$ -	\$ -	\$ 11,554
9.1 Review Total Cost for CIP			2	4	4							10	\$ 2,286	\$ -		\$ 2,286
9.2 Analyze vacant land and estimate ADU's				4	8							12	\$ 2,392	\$ -		\$ 2,392
9.3 Develop a Fiscal and Fee Analysis		4		8	16		8					36	\$ 6,876	\$ -		\$ 6,876
4.10 Sewer Lift Station Analyses - Deleted													\$ -	\$ -	\$ -	\$ -
4.11 Update of Sanitary Sewer System Mgt Plan			12	50	110		24					196	\$ 37,906	\$ -	\$ -	\$ 37,906
11.1 Review Draft 2019 (SSMP)			2	4	8		2					16	\$ 3,208	\$ -		\$ 3,208
11.2 Update SSMP - draft			8	30	60		12					110	\$ 21,664	\$ -		\$ 21,664
11.3 Update SSMP - final			2	12	40		8					62	\$ 11,450	\$ -		\$ 11,450
11.4 Workshop with City				4	2		2					8	\$ 1,584	\$ -		\$ 1,584
4.12 Project Management		12	17	56			32	12	18			147	\$ 33,086	\$ -	\$ -	\$ 33,086
12.1 Kick off meeting		1	2	4			2	2	2			13	\$ 3,026	\$ -		\$ 3,026
12.2 Monthly status meetings/reports		2	4	12			6	6	12			42	\$ 9,543	\$ -		\$ 9,543
12.3 Workshops with City (4)		4	4	16			4	4	4			36	\$ 8,653	\$ -		\$ 8,653
12.4 Project Management		5	7	24			20					56	\$ 11,864	\$ -		\$ 11,864
Total		16	107	388	544	56	125	130	302	224	3	1895	\$ 391,157	\$ 87,345	\$ -	\$ 478,502

1. Rounded to the nearest \$1.

2. Assumes InfoSewer ® software selected with no additional costs; other software selection will require additional fees for licensing and training.

3. Assumes training is specific to running this model and is limited to 4 hours maximum, recommend City staff gets general InfoSewer® general training prior to model specific training.

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