

Appendix K: Financial Analysis

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Table 3

Master Plan Update CIP, Escalated Dollars

Project Name	year # >	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	FY13 - FY27 Total	% of Total	
	Budget FY12	Projected FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27			
(1) Annual Sewer Main Repair	369,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
(1) Sewer Collection System Upgrade	942,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
CRT Annual Sewer Root Foaming	332,000	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	268,783	276,847	285,152	293,707	302,518	311,593	3,831,376	11%	
GIS Annual GIS Updates	0	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339	65,239	67,196	69,212	71,288	73,427	75,629	77,898	957,844	3%	
FOG FOG Program	0	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339	65,239	67,196	69,212	71,288	73,427	75,629	77,898	957,844	3%	
H1 South Sewer Replacement, Ph.2 (City Proj. 11-14)	0	333,226	214,514	0	0	0	0	0	0	0	0	0	0	0	0	0	547,740	2%	
S1 Structural Reach Replacement, PCR A	0	629,948	540,741	556,963	573,672	590,882	0	0	0	0	0	0	0	0	0	0	2,892,206	8%	
M1 Maintenance problem areas, 30-day locations	0	523,652	599,302	617,281	635,800	0	0	0	0	0	0	0	0	0	0	0	2,376,036	7%	
C2 (2) CIPP corrosion rehabilitation, phase 2	0	0	145,502	18,085	0	0	0	0	0	0	0	0	0	0	0	0	163,587	0%	
C3 CIPP corrosion rehabilitation, phase 3	0	0	0	342,187	276,045	284,326	292,856	301,642	396,689	320,012	329,612	339,501	349,686	0	0	0	3,232,557	9%	
C4 CIPP corrosion rehabilitation, phase 4	0	0	0	0	0	0	0	0	0	0	0	616,122	396,647	0	0	0	1,012,769	3%	
C5 CIPP corrosion rehabilitation, phase 5 (28)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	
S2 Structural Reach Replacement, PCR B	0	0	0	0	0	922,029	1,055,224	1,086,881	1,119,487	1,037,751	1,187,664	1,223,294	1,259,992	0	0	0	8,892,321	25%	
M2 Maintenance problem areas, 60-day locations	0	0	0	0	0	0	0	0	0	0	0	0	0	1,334,946	723,673	745,384	2,804,003	8%	
M3 Maintenance problem areas, 90-day locations	0	0	0	0	0	0	0	0	0	0	0	0	0	1,087,596	1,866,989	1,922,999	4,877,585	14%	
MP Sewer Master Plan Update	0	0	0	0	0	0	0	0	0	0	403,175	0	0	0	0	0	403,175	1%	
SSMP Biannual SSMP Update	0	0	0	21,855	0	23,185	0	24,597	0	26,095	0	27,685	0	29,371	0	31,159	183,948	1%	
CCTV Sewer Main CCTV	379,000	0	0	0	0	0	286,573	295,170	304,025	313,146	322,540	0	0	0	0	0	1,521,453	4%	
CADB CCTV Condition Assessment/Mapguide Updates	0	0	0	0	0	0	107,465	110,689	114,009	117,430	120,952	0	0	0	0	0	570,545	2%	
Total, FY13-FY27	2,022,000	1,795,826	1,818,330	1,884,189	1,823,170	2,168,205	2,100,333	2,187,940	2,314,241	2,205,866	2,767,118	2,621,872	2,434,053	2,892,473	3,044,440	3,166,932	35,224,987	100%	
Cumulative, FY13-FY27		1,795,826	3,614,155	5,498,344	7,321,514	9,489,719	11,590,052	13,777,992	16,092,233	18,298,099	21,065,217	23,687,089	26,121,142	29,013,615	32,058,055	35,224,987			
Average FY13 - FY27		<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>			
Average, FY13-FY27		2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	2,348,332	35,224,987	
Cumulative, FY13-FY27		2,348,332	4,696,665	7,044,997	9,393,330	11,741,662	14,089,995	16,438,327	18,786,660	21,134,992	23,483,325	25,831,657	28,179,990	30,528,322	32,876,655	35,224,987			
Difference, Average vs Annual		552,507	530,003	464,143	525,163	180,128	247,999	160,392	34,091	142,467	-418,786	-273,539	-85,721	-544,140	-696,107	-818,600	0		
Cumulative, Average vs Annual		552,507	1,082,510	1,546,653	2,071,816	2,251,944	2,499,943	2,660,335	2,694,426	2,836,893	2,418,107	2,144,568	2,058,848	1,514,707	818,600	0			
Annual Increase On Base Amount		<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>			
Base Amount, FY13		1,534,000																	
Annual \$ Change			89,309	94,509	100,011	105,834	111,995	118,516	125,416	132,717	140,444	148,621	157,273	166,430	176,119	186,373			
Annual Amount		1,534,000	1,623,309	1,717,818	1,817,829	1,923,663	2,035,658	2,154,173	2,279,589	2,412,306	2,552,750	2,701,371	2,858,644	3,025,074	3,201,193	3,387,566	35,224,942		
Cumulative, FY13-FY27		1,534,000	3,157,309	4,875,127	6,692,956	8,616,619	10,652,276	12,806,450	15,086,039	17,498,345	20,051,095	22,752,466	25,611,110	28,636,183	31,837,376	35,224,942	-45		
Annual % Change			5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%	5.8%			
Annual Escalation of CIP from 2011 Dollars		<u>FY13</u>	<u>FY14</u>	<u>FY15</u>	<u>FY16</u>	<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>	<u>FY25</u>	<u>FY26</u>	<u>FY27</u>			
Annual % Change		3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%			
Cumulative % Change		3%	6%	9%	13%	16%	19%	23%	27%	30%	34%	38%	43%	47%	51%	56%			

Table 4
Cash Flow and Sewer Service Charge Revenue Requirement

Item	Budget ¹	Budget ¹	Budget ¹	Budget ¹	Projected															FY13-FY27
	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	Total
Expenditures^{2,8}																				
Personnel	\$791,443	\$685,078	\$720,158	\$731,658	\$772,628	\$795,807	\$819,681	\$844,271	\$869,600	\$895,688	\$922,558	\$950,235	\$978,742	\$1,008,104	\$1,038,347	\$1,069,498	\$1,101,583	\$1,134,630	\$1,168,669	\$14,370,042
Lead Sewer Worker					\$100,000	\$103,000	\$106,090	\$109,273	\$112,551	\$115,927	\$119,405	\$122,987	\$126,677	\$130,477	\$134,392	\$138,423	\$142,576	\$146,853	\$151,259	\$1,859,891
Mtce/Insp/Capital Outlay	\$1,262,900	\$858,893	\$1,154,469	\$826,161	\$821,361	\$846,002	\$871,382	\$897,523	\$924,449	\$952,183	\$980,748	\$1,010,170	\$1,040,476	\$1,071,690	\$1,103,841	\$1,136,956	\$1,171,064	\$1,206,196	\$1,242,382	\$15,276,423
Capital Projects	\$1,640,000	\$2,176,500	\$2,775,500	\$2,022,000	\$1,534,000	\$1,623,309	\$1,717,818	\$1,817,829	\$1,923,663	\$2,035,658	\$2,154,173	\$2,279,589	\$2,412,306	\$2,552,750	\$2,701,371	\$2,858,644	\$3,025,074	\$3,201,193	\$3,387,566	\$35,224,942
Treatment Plant	\$2,355,843	\$2,392,828	\$2,400,000	\$2,472,000	\$2,472,000	\$2,496,720	\$2,521,687	\$2,546,904	\$2,623,311	\$2,702,011	\$2,783,071	\$2,866,563	\$2,952,560	\$3,041,137	\$3,132,371	\$3,226,342	\$3,323,132	\$3,422,826	\$3,525,511	\$43,636,145
Treatment Plant New Debt ⁷					\$0	\$42,837	\$42,837	\$564,393	\$660,040	\$773,798	\$773,818	\$774,798	\$773,798	\$773,798	\$1,001,406	\$1,371,405	\$1,370,406	\$1,370,406	\$1,370,406	\$11,664,146
Total Expenses	\$6,050,186	\$6,113,299	\$7,050,127	\$6,051,819	\$5,699,989	\$5,907,675	\$6,079,495	\$6,780,194	\$7,113,613	\$7,475,264	\$7,733,774	\$8,004,343	\$8,284,559	\$8,577,956	\$9,111,727	\$9,801,268	\$10,133,835	\$10,482,105	\$10,845,793	\$122,031,589
Revenues and Fund Balance																				
Beginning Cash ⁴	\$7,000,000	\$7,042,000	\$8,995,247	\$8,649,123	\$7,368,990	\$6,763,588	\$6,195,586	\$5,708,575	\$4,835,640	\$3,953,173	\$3,099,974	\$2,396,299	\$1,861,666	\$1,518,422	\$1,385,820	\$1,256,355	\$1,005,983	\$1,022,857	\$1,339,024	
Revenues																				
Sewer Service Charges ⁴	\$5,600,186	\$5,168,710	\$4,654,398	\$4,256,686	\$4,507,880	\$4,724,025	\$4,945,577	\$5,226,342	\$5,516,600	\$5,871,494	\$6,240,679	\$6,637,619	\$7,062,416	\$7,515,174	\$7,995,998	\$8,504,991	\$9,042,257	\$9,621,413	\$10,229,085	\$103,641,548
Interest Earnings ⁵		\$129,330	\$20,000	\$15,000	\$51,583	\$47,345	\$43,369	\$39,960	\$33,849	\$27,672	\$21,700	\$16,774	\$13,032	\$10,629	\$9,701	\$8,794	\$7,042	\$7,160	\$9,373	\$347,984
Town of Los Altos Hills Charges ⁶	\$500,000	\$500,000	\$500,000	\$500,000	\$535,125	\$568,303	\$603,538	\$640,957	\$680,696	\$722,899	\$767,719	\$815,318	\$865,867	\$919,551	\$976,563	\$1,037,110	\$1,101,411	\$1,169,699	\$1,242,220	\$12,646,976
Total Revenues					\$5,094,587	\$5,339,673	\$5,592,484	\$5,907,259	\$6,231,146	\$6,622,065	\$7,030,098	\$7,469,710	\$7,941,315	\$8,445,354	\$8,982,262	\$9,550,895	\$10,150,710	\$10,798,272	\$11,480,678	\$116,636,508
Ending Cash					\$6,763,588	\$6,195,586	\$5,708,575	\$4,835,640	\$3,953,173	\$3,099,974	\$2,396,299	\$1,861,666	\$1,518,422	\$1,385,820	\$1,256,355	\$1,005,983	\$1,022,857	\$1,339,024	\$1,973,909	
Target Ending Cash																				
% of Total Expenses					25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%	25%
\$ Target					\$1,040,000	\$1,070,000	\$1,090,000	\$1,240,000	\$1,300,000	\$1,360,000	\$1,390,000	\$1,430,000	\$1,470,000	\$1,510,000	\$1,600,000	\$1,740,000	\$1,780,000	\$1,820,000	\$1,860,000	

Notes:

- Budget values for FY9, FY10, FY11 and FY12 are from annual sewer service charge reports prepared by Harris & Associates. The reports by Harris & Associates also published values for "Capital Reserve" and "Reserve (Cash Flow Contingency)" shown below:

	FY9	FY10	FY11	FY12
Capital Reserve	\$5,000,000	\$5,000,000	\$5,331,000	\$5,912,109
Reserve (Cash Flow Contingency)	\$2,050,000	\$1,726,741	\$1,788,518	\$1,456,881

The Capital Reserve is for on-going capital projects started prior to FY13 and is not used in the evaluation of cash flow.
The Reserve (Cash Flow Contingency) is not used in the evaluation of cash flow.
- Operating expenditure values for FY13 are from a file named "08-Sewer 11-13 Budget Workbook-Proposed.pdf" provided by the City on June 17, 2011. Personnel includes expense codes for Personnel Services in categories 61100 and 61200. Treatment Plant is for expense code 5270 in category 61100. Mtce / Insp includes expense codes for Services and Supplies in category 61100 (excluding expense code 5270) and Services and Supplies and Capital Outlay in category 61200. Operating expenditures for FY14 onward are escalated as shown below:

	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Personnel	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Mtce / Insp	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Treatment Plant	1.0%	1.0%	1.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

Capital project expenditures for FY13 through FY27 were provided by Brown and Caldwell as part of the 2005 Master Plan Update and are shown in Table 3.

3 The Beginning Cash value for FY13 is based on the previous years' expenditures and revenues provided by Harris & Associates.

4 Revenue from Sewer Service Charges for FY13 onward is based on the annual increases shown below:

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Annual % Increase in Revenue	7.0%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%

5 Revenue from Interest Earnings for FY13 onward is based on the Beginning Cash value times the interest rates shown below:

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Interest Rate	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%

6 Revenue from charges to the Town of Los Altos Hills is projected to increase by the same annual percentage as the annual increase in revenue from City's Sewer Service Charges.

7 Treatment Plant new debt service is the difference between the existing debt service and aggregate debt service shown in the City of Palo Alto Long Range Facilities Plan: Financing Analysis.

	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Existing debt service >	\$135,956	\$135,439	\$135,795	\$135,351	\$135,441	\$135,674	\$135,769	\$135,186	\$135,433	\$135,307	\$135,499	\$135,416	\$62,097	\$62,097	\$62,097
Aggregate debt service (new + existing) >	\$135,956	\$178,276	\$178,632	\$699,744	\$795,481	\$909,472	\$909,587	\$909,984	\$909,231	\$909,105	\$1,136,905	\$1,506,821	\$1,432,503	\$1,432,503	\$1,432,503
New debt service >	\$0	\$42,837	\$42,837	\$564,393	\$660,040	\$773,798	\$773,818	\$774,798	\$773,798	\$773,798	\$1,001,406	\$1,371,405	\$1,370,406	\$1,370,406	\$1,370,406

8 FY13 expenditures for a new Lead Sewer Worker position were provided by the City on June 20, 2012. Expenditures for FY14 onward are escalated at the same annual percentage as Personnel expenditures.

Table 5
City Sewer Service Charge Rate

Item	Past	Past	Past	Current	Projected														
	FY9	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27
Sewer Service Charge																			
Revenue Requirement, \$	5,600,186	5,168,710	4,654,398	4,256,686	4,507,880	4,724,025	4,945,577	5,226,342	5,516,600	5,871,494	6,240,679	6,637,619	7,062,416	7,515,174	7,995,998	8,504,991	9,042,257	9,621,413	10,229,085
Total Sewer Flow, 100 cf	1,850,728	1,705,805	1,536,274	1,404,939	1,387,179	1,369,283	1,351,251	1,343,533	1,335,739	1,337,470	1,339,202	1,340,933	1,342,665	1,344,396	1,346,128	1,347,859	1,349,591	1,351,322	1,353,054
Sewer Service Charge Rate																			
Rate, \$/100 cf	\$3.03	\$3.03	\$3.03	\$3.03	\$3.25	\$3.45	\$3.66	\$3.89	\$4.13	\$4.39	\$4.66	\$4.95	\$5.26	\$5.59	\$5.94	\$6.31	\$6.70	\$7.12	\$7.56
\$ Change		\$0.00	\$0.00	\$0.00	\$0.22	\$0.20	\$0.21	\$0.23	\$0.24	\$0.26	\$0.27	\$0.29	\$0.31	\$0.33	\$0.35	\$0.37	\$0.39	\$0.42	\$0.44
% Change		0%	0%	0%	7.3%	6.2%	6.1%	6.3%	6.2%	6.3%	6.2%	6.2%	6.3%	6.3%	6.3%	6.2%	6.2%	6.3%	6.2%
Maximum Rate																			
Past																			
SF-CIP % Inc, Dec-Dec Rate		1.2%	2.6%	1.5%															
	\$3.03	\$3.066	\$3.146	\$3.192															
Projected																			
SF-CIP % Inc, Dec-Dec Rate					1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%	1.808%
					\$3.2497	\$3.31	\$3.37	\$3.43	\$3.49	\$3.55	\$3.62	\$3.68	\$3.75	\$3.82	\$3.89	\$3.96	\$4.03	\$4.10	\$4.18

