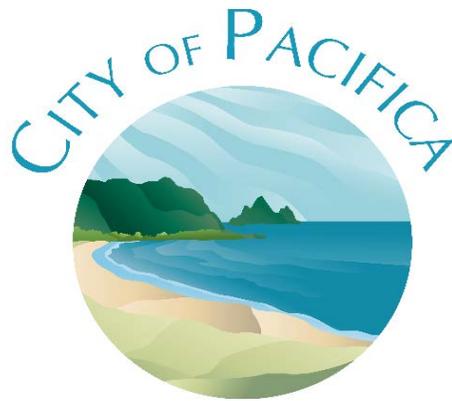


City of Pacifica Rate Study 2016



Wastewater Tables 3/17/2017



BARTLE WELLS ASSOCIATES
Independent Public Finance Advisors

Table 1
City of Pacifica
2016/17 Wastewater Rates

	<u>price per unit</u>	<u>minimum charge</u>
Residential [1]	\$13.04476	\$626.14
Commercial [2]	\$13.04476	\$626.14

Commerical Strength Factors

Car Washes	0.9
Cleaners	1.2
Laundromats	0.75
Restaurants with grease traps	1.2
Restaurants without grease traps	1.8
Gymnasiums	0.9
All other commercial use	1.0

1 - units calculated using either winter water use (December & January use x 6) or actual annual water use, whichever is lower

2 -units calculated using actual annual water use, multiplied by strength factor

Total Billed Water Consumption, FY2017

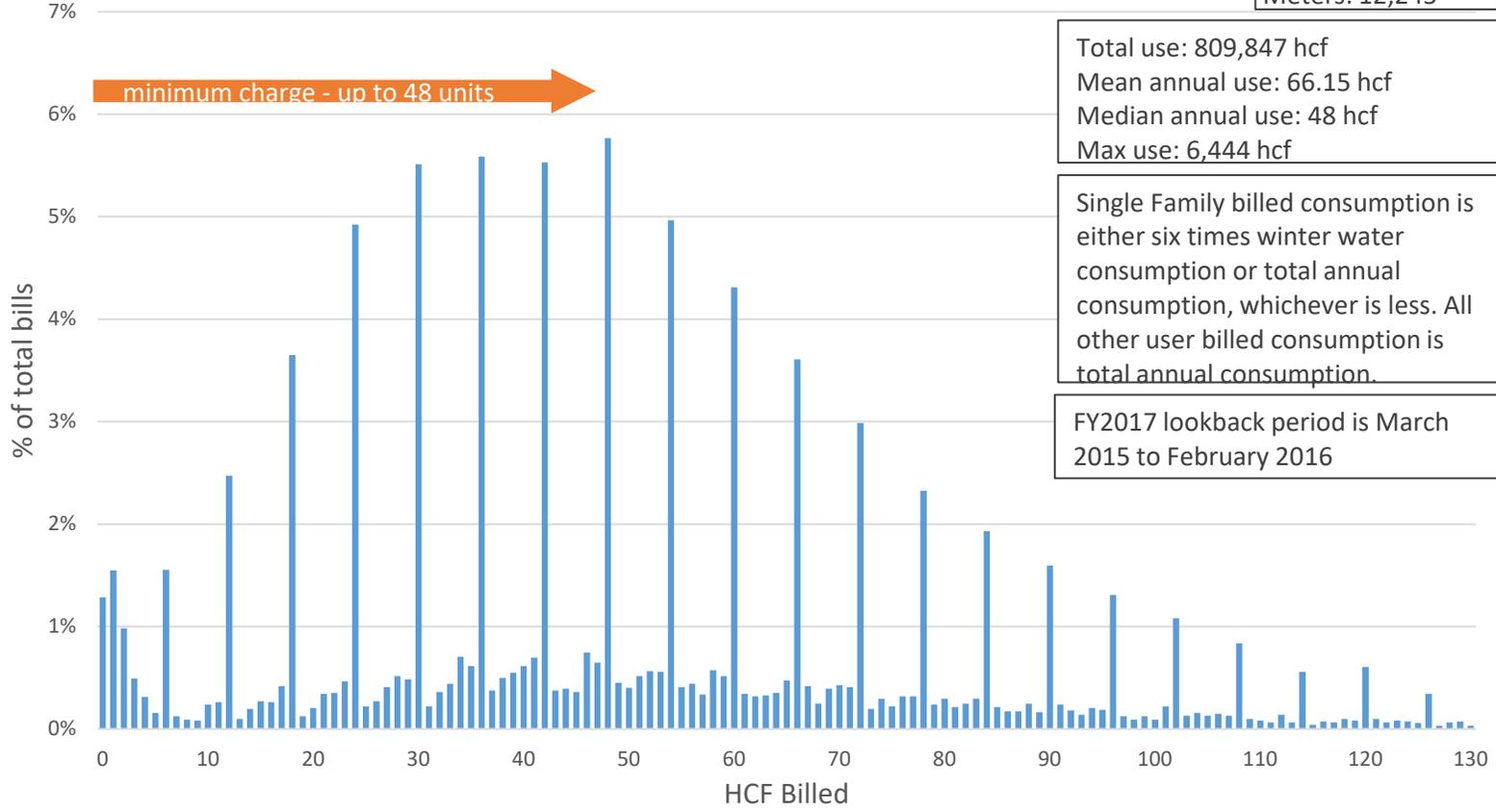
Meters: 12,245

minimum charge - up to 48 units

Total use: 809,847 hcf
 Mean annual use: 66.15 hcf
 Median annual use: 48 hcf
 Max use: 6,444 hcf

Single Family billed consumption is either six times winter water consumption or total annual consumption, whichever is less. All other user billed consumption is total annual consumption.

FY2017 lookback period is March 2015 to February 2016



Single Family Residential Billed Water Consumption, FY2017

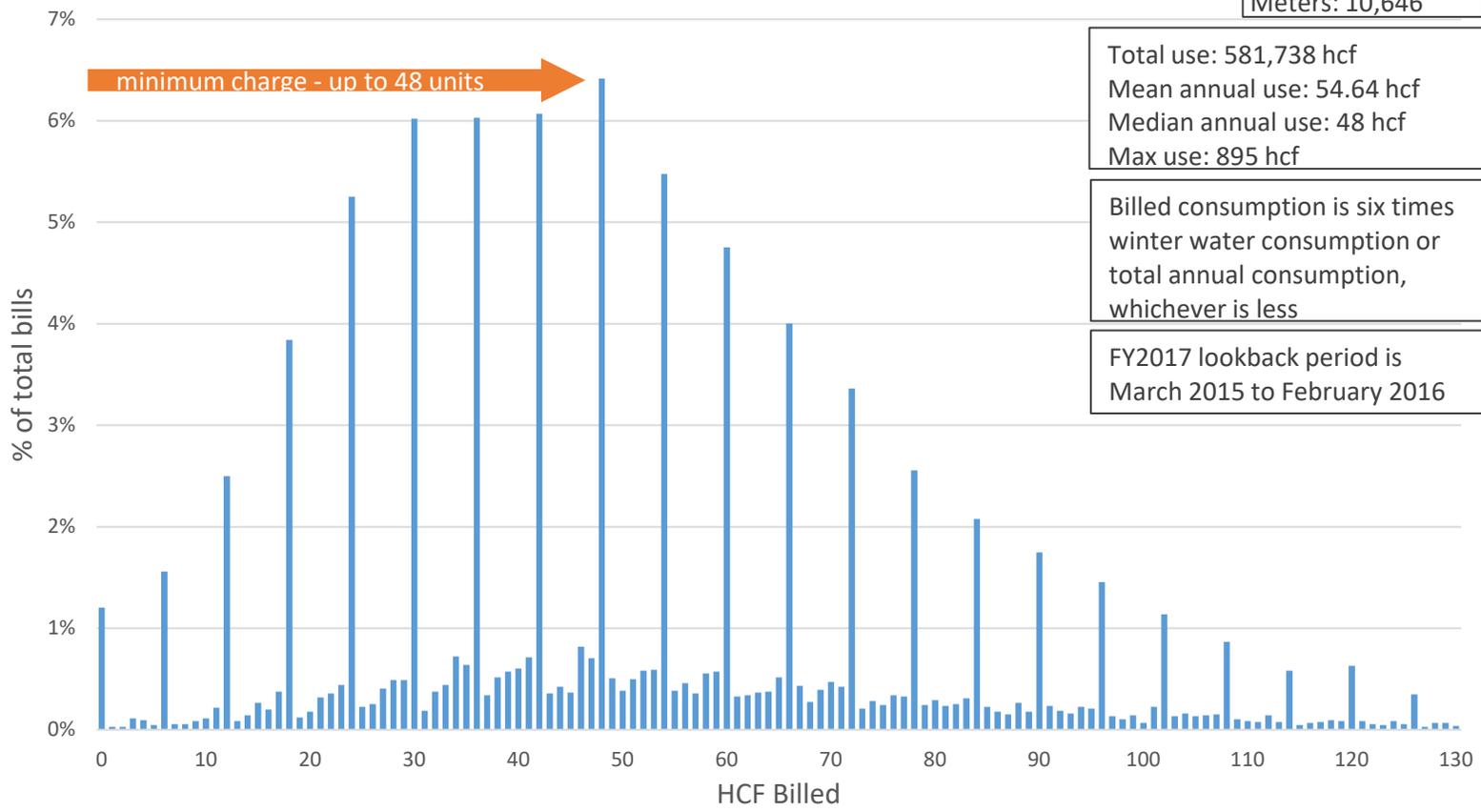
Meters: 10,646

minimum charge - up to 48 units

Total use: 581,738 hcf
 Mean annual use: 54.64 hcf
 Median annual use: 48 hcf
 Max use: 895 hcf

Billed consumption is six times winter water consumption or total annual consumption, whichever is less

FY2017 lookback period is March 2015 to February 2016



**Table 2
City of Pacifica
Debt Service**

Debt Service		<i>total payment (principal + interest)</i>										
Loan	Source	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
2012 Loan and Installment Agreement	WW Charge Fund	\$447,661	\$447,501	\$447,334	\$447,161	\$446,983	\$446,798	\$446,607	\$446,408	\$446,203	\$446,031	\$445,769
1997 State of California Water Resource Control Board Loan	WW Charge Fund	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919					
2014 Wastewater Revenue Refunding Bonds	WW Charge Fund	337,000	337,000	337,000	337,000	337,000	337,000	1,819,000	1,816,125	1,814,375	1,808,625	199,875
2017 Wastewater Revenue Bonds ¹	WW Charge Fund		<u>952,900</u>	<u>952,900</u>	<u>952,900</u>	<u>1,077,900</u>	<u>1,182,900</u>	<u>1,338,500</u>	<u>1,337,500</u>	<u>1,336,750</u>	<u>1,335,000</u>	<u>1,337,250</u>
Total Debt Service		\$2,850,580	\$3,803,320	\$3,803,153	\$3,802,980	\$3,927,802	\$4,032,617	\$3,604,107	\$3,600,033	\$3,597,328	\$3,589,656	\$1,982,894
Alternative Debt Service with 25% EQ Basin Cost Increase												
2017 Wastewater Revenue Bonds ¹	WW Charge Fund		<u>1,191,125</u>	<u>1,191,125</u>	<u>1,191,125</u>	<u>1,347,375</u>	<u>1,478,625</u>	<u>1,673,125</u>	<u>1,671,875</u>	<u>1,670,938</u>	<u>1,668,750</u>	<u>1,671,563</u>
Alternative Total Debt Service		\$2,850,580	\$4,041,545	\$4,041,378	\$4,041,205	\$4,197,277	\$4,328,342	\$3,938,732	\$3,934,408	\$3,931,515	\$3,923,406	\$2,317,206
Alternative Debt Service with 40% EQ Basin Cost Increase												
2017 Wastewater Revenue Bonds ¹	WW Charge Fund		<u>1,334,060</u>	<u>1,334,060</u>	<u>1,334,060</u>	<u>1,509,060</u>	<u>1,656,060</u>	<u>1,873,900</u>	<u>1,872,500</u>	<u>1,871,450</u>	<u>1,869,000</u>	<u>1,872,150</u>
Alternative Total Debt Service		\$2,850,580	\$4,184,480	\$4,184,313	\$4,184,140	\$4,358,962	\$4,505,777	\$4,139,507	\$4,135,033	\$4,132,028	\$4,123,656	\$2,517,794

1 - interest-only payments in the first three years, gradual ramp-up years 4-5

Attachment 3
City of Pacifica
Capital Improvement Plan, Updated January 2017

	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	FY21/22	FY22/23	FY23/24	FY24/25	FY25/26	FY26/27	FY27/28	FY28/29	FY29/30	FY30/31	FY31/32	TOTAL
SHORT TERM CAPITAL PLAN																	
Brighton Pump Station Improvements FY2016-18	\$200,000																\$200,000
Anza Pump Station Upgrade FY2016-17																	\$0
Linda Mar Pump Station Upgrade	\$50,000	\$140,000	\$140,000	\$200,000													\$530,000
COLLECTION SYSTEM PROJECTS	\$1,300,000	\$150,000		\$150,000	\$150,000	\$150,000											\$2,050,000
Rockaway Pump Station Upgrade				\$90,000													\$90,000
Sewer System Master Plan Phase 2			\$200,000														\$200,000
Sharp Park Pump Station Upgrade	\$50,000	\$105,000															\$155,000
Skyridge Pump Station Upgrade																	\$0
Linda Mar Generator																	\$0
CCTV Software and Equipment																	\$0
SEP Lateral																	\$0
OCE Settlement SEP	\$25,000																\$25,000
Collection System Capacity Improvement	\$300,000	\$720,000															\$1,020,000
Equalization Basin Project	\$4,413,688	\$13,722,564	\$2,383,738														\$20,519,990
Collection System Rehabilitation and Replacement Projects	\$500,000	\$3,700,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000											\$10,200,000
Lateral Grant Assistance (annual)	\$50,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000											\$550,000
Foremain Condition Assessment																	\$0
COLLECTION SYSTEM EASEMENT SURVEY	\$100,000	\$100,000															\$200,000
Digesters	\$100,000	\$500,000															\$600,000
Odor Control	\$100,000	\$150,000	\$150,000														\$400,000
CCWRP Pump Replacement	\$250,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000											\$1,000,000
CCWRP Meter & Probe	\$5,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000											\$55,000
CCWRP Centrifuges			\$350,000														\$350,000
CCWRP SCADA and PLC Upgrade	\$160,000	\$200,000	\$200,000	\$100,000													\$660,000
Calera Creek and Wetlands Compliance	\$100,000	\$100,000	\$150,000	\$150,000	\$150,000												\$650,000
CCWRP NPDES Permit Renewal	\$100,000	\$50,000				\$150,000											\$300,000
CCWRP Transformer Shed			\$75,000														\$75,000
CCWRP Parking Lot Restoration			\$50,000														\$50,000
CCWRP Roof Improvements		\$200,000															\$200,000
CCWRP Laboratory Room Improvements	\$20,000	\$80,000	\$80,000														\$180,000
CCWRP Security & Gate System		\$50,000															\$50,000
CCWRP Secondary System Blower	\$100,000	\$100,000	\$50,000	\$50,000	\$50,000	\$50,000											\$400,000
Sanitary Sewer Service Charges and Sewer Connection Fees Rate Study	\$100,000																\$100,000
Wastewater Treatment Facility and Pump Station Condition Assessment	\$200,000	\$150,000	\$50,000														\$400,000
San Pedro Creek and Pacifica State Beach TMDL General Fund	\$24,500	\$2,500	\$19,500	\$2,500	\$19,500												\$68,500
CCWRP Computerized Maintenance Management System (CMMS)		\$80,000															\$80,000
CCWRP Storage and Office Building - Feasibility Study		\$15,000															\$15,000
CCWRP Arc Flash Hazard Analysis		\$65,000															\$65,000
UV System Upgrade					\$100,000												\$100,000
CCWRP Projects		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000											\$250,000
TOTAL SHORT TERM	\$9,041,986	\$20,690,064	\$5,858,238	\$2,552,500	\$2,279,500	\$2,160,000	\$0	\$42,582,288									
LONG TERM CAPITAL PLAN																	
Capacity Improvement Projects																	
San Pedro Mainline	\$300,000																\$300,000
Oddstad Mainline		\$365,300															\$365,300
Terra Nova Mainline		\$388,700															\$388,700
Linda Mar Pump Station		\$260,000															\$260,000
Rehab and Replacement Projects																	
FY2016-17 (Pedro Point)	\$2,100,000																\$2,100,000
2017-18 (Southeast Side of Lower Linda Mar)		\$2,100,000															\$2,100,000
2019-22 (Locations TBD)			\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000											\$6,000,000
2022-32 (Locations TBD)							\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$15,000,000
Other Collection System Projects Not in Masterplan																	
Collection System Project FY2016-17	\$1,300,000																\$1,300,000
Collection System Project FY2017-22	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000											\$900,000
Relocation of Mainline at Sharp Park Pump Station	(TBD)																
Relocation of Sharp Park Foremain	(TBD)																
TOTAL LONG TERM	\$3,850,000	\$3,264,000	\$1,650,000	\$1,650,000	\$1,650,000	\$1,650,000	\$1,500,000	\$28,714,000									
TOTAL CIP PLAN	\$12,891,986	\$23,954,064	\$7,508,238	\$4,202,500	\$3,929,500	\$3,810,000	\$1,500,000	\$71,296,288									
Alternate EQ Basin Cost (25% Increase)	\$5,517,110	\$17,153,205	\$2,979,673														\$25,649,988
New Total CIP Plan Cost	\$13,995,408	\$27,384,705	\$8,104,173	\$4,202,500	\$3,929,500	\$3,810,000	\$1,500,000	\$76,426,286									
Alternate EQ Basin Cost (40% Increase)	\$6,179,163	\$19,211,589	\$3,337,234														\$28,727,986
New Total CIP Plan Cost	\$14,657,461	\$29,443,089	\$8,461,734	\$4,202,500	\$3,929,500	\$3,810,000	\$1,500,000	\$79,504,284									

Table 4
City of Pacifica
Revenue Estimation

Category	FY2017					
	# Users	Annual Water Use	Strength Factor	Rate	Min Charge	Total Charge
Residential						
Res-Multiple	1,206	134,822	1.0	\$13.04476	\$626.14	\$2,168,297
Res-Single [1]	10,646	581,738	1.0	\$13.04476	\$626.14	8,983,386
Total Residential	11,852	716,560				\$11,151,683
Commercial						
Carwash	2	2,086	0.9	\$11.74028	\$626.14	\$24,490
Church	17	2,470	1.0	\$13.04476	\$626.14	34,125
City of Pacifica [2]	21	12,123	1.0	\$13.04476	\$626.14	32,410
Commercial	71	22,319	1.0	\$13.04476	\$626.14	303,173
Government	1	72	1.0	\$13.04476	\$626.14	939
No hookup	0	0	1.0	\$13.04476	\$626.14	0
School	18	8,734	1.0	\$13.04476	\$626.14	115,185
Shopping Ctr.	197	28,302	1.0	\$13.04476	\$626.14	417,992
Vacant	0	0	0.0	\$0.00000	\$626.14	0
Well	1	48	1.0	\$13.04476	\$626.14	626
Office	3	267	1.0	\$13.04476	\$626.14	3,483
Cleaners	9	3,767	1.2	\$15.65371	\$626.14	86,628
Restaurant	51	17,119	1.2	\$15.65371	\$626.14	271,576
Medical	2	6,808	1.0	\$13.04476	\$626.14	88,809
Total Commercial	393	104,115				\$1,379,437
Total	12,245	820,675				\$12,531,120
					<i>Estimated Revenue from Minimum Charges</i>	\$7,653,935
					<i>% total</i>	61%

1 - Either winter water use or total annual water use, whichever is lower
2 - includes Irrigation Meter usage, which are not billed for sewer service

**Table 5A
City of Pacifica
Wastewater Cashflow Projection**

	Actual 2015/16	Budget 2016/17	projected									
			2017/18	2018/19	2019/20	2020/21	2021/22	2021/23	2021/24	2021/25	2021/26	2026/27
Beginning Fund Balance												
Unrestricted Charge Fund		\$2,235,470	\$3,116,590	\$3,832,922	\$5,196,879	\$8,048,659	\$11,490,502	\$14,694,307	\$18,005,772	\$20,984,575	\$24,320,820	\$27,297,791
Unrestricted Construction Fund		\$8,339,690	\$16,447,704	\$6,204,476	\$4,978,306	-\$681,626	-\$6,068,558	-\$11,335,990	-\$14,293,422	-\$17,250,854	-\$20,208,286	-\$23,165,718
Total Unrestricted Funds		\$10,575,160	\$19,564,294	\$10,037,398	\$10,175,184	\$7,367,033	\$5,421,943	\$3,358,317	\$3,712,350	\$3,733,720	\$4,112,533	\$4,132,072
% Rate Revenue Increase			6.5%	6.5%	6.5%	6.0%	6.0%	0.0%	0.0%	4.0%	0.0%	0.0%
% Capacity Fee Revenue Increase			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Growth			0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
REVENUE												
Charge Fund Revenue												
Investment Earnings	\$0	\$0										
Sewer Service Charges	12,879,458	12,531,120	13,412,371	14,355,596	15,365,154	16,368,498	17,437,361	17,524,548	17,612,171	18,408,241	18,500,282	18,592,783
Miscellaneous Income	80,250	0										
Pension Obligation Bond Repayment			170,682	146,817	904,970	904,970						
Total Charge Fund Revenue	\$12,959,708	\$12,531,120	\$13,583,053	\$14,502,413	\$16,270,124	\$17,273,468	\$17,437,361	\$17,524,548	\$17,612,171	\$18,408,241	\$18,500,282	\$18,592,783
Construction Fund												
Investment Earnings	\$22,337	\$0										
Development Connection Fees		0										
Miscellaneous Income		0										
Development Maintenance Fees		0										
Proceeds from Bond Issue		21,000,000										
Proposed Loan Proceeds¹			14,664,802	7,739,500								
Total Construction Fund	\$22,337	\$21,000,000	\$14,664,802	\$7,739,500	\$0							
TOTAL REVENUE	\$12,982,045	\$33,531,120	\$28,247,855	\$22,241,913	\$16,270,124	\$17,273,468	\$17,437,361	\$17,524,548	\$17,612,171	\$18,408,241	\$18,500,282	\$18,592,783
EXPENSES												
Charge Fund Expenses												
Operations and Maintenance	\$5,151,733	\$5,762,433	\$5,935,306	\$6,113,365	\$6,296,766	\$6,485,669	\$6,680,239	\$6,947,449	\$7,225,347	\$7,514,361	\$7,814,935	\$8,127,532
Collection System Maintenance	2,848,015	3,025,286	3,116,045	3,209,526	3,305,812	3,404,986	3,507,136	\$3,647,421	\$3,793,318	\$3,945,051	\$4,102,853	\$4,266,967
State Loan	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	0	0	0	0	0
Sewer Loan	210,536	447,662	447,501	447,334	447,161	446,983	446,798	446,607	446,408	446,203	446,031	445,769
2014 Refunding Bond	337,000	337,000	337,000	337,000	337,000	337,000	337,000	1,819,000	1,816,125	1,814,375	1,808,625	199,875
2017 Refunding Bond		0	952,900	952,900	952,900	1,077,900	1,182,900	1,338,500	1,337,500	1,336,750	1,335,000	1,337,250
Charge Compilation	5,256	11,700	12,051	12,413	12,785	13,168	13,564	\$14,106	\$14,670	\$15,257	\$15,867	\$16,502
Transfer Out - Rate Stabilization Fund												
Total Charge Fund	\$10,618,459	\$11,650,000	\$12,866,721	\$13,138,457	\$13,418,343	\$13,831,626	\$14,233,556	\$14,213,083	\$14,633,368	\$15,071,996	\$15,523,311	\$14,393,895
Construction Fund												
Capital Project ²	\$2,021,146	\$12,891,986	\$23,954,064	\$7,508,238	\$4,202,500	\$3,929,500	\$3,810,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Proposed Loan Debt Service³			953,966	1,457,432								
Total Construction Fund	\$2,021,146	\$12,891,986	\$24,908,030	\$8,965,670	\$5,659,932	\$5,386,932	\$5,267,432	\$2,957,432	\$2,957,432	\$2,957,432	\$2,957,432	\$2,957,432
TOTAL EXPENSES	\$12,639,606	\$24,541,986	\$37,774,751	\$22,104,127	\$19,078,275	\$19,218,558	\$19,500,988	\$17,170,515	\$17,590,800	\$18,029,428	\$18,480,743	\$17,351,327
Net Revenue												
Charge Fund	\$2,341,249	\$881,120	\$716,332	\$1,363,956	\$2,851,781	\$3,441,842	\$3,203,805	\$3,311,465	\$2,978,803	\$3,336,245	\$2,976,971	\$4,198,888
Construction Fund	-\$1,998,809	\$8,108,014	-\$10,243,228	-\$1,226,170	-\$5,659,932	-\$5,386,932	-\$5,267,432	-\$2,957,432	-\$2,957,432	-\$2,957,432	-\$2,957,432	-\$2,957,432
Total Net Revenue	\$342,439	\$8,989,134	-\$9,526,896	\$137,786	-\$2,808,151	-\$1,945,090	-\$2,063,627	\$354,033	\$21,371	\$378,813	\$19,539	\$1,241,456
Ending Fund Balance												
Unrestricted Operating Fund	\$2,235,470	\$3,116,590	\$3,832,922	\$5,196,879	\$8,048,659	\$11,490,502	\$14,694,307	\$18,005,772	\$20,984,575	\$24,320,820	\$27,297,791	\$31,496,679
Unrestricted Capital Fund	\$8,339,690	\$16,447,704	\$6,204,476	\$4,978,306	-\$681,626	-\$6,068,558	-\$11,335,990	-\$14,293,422	-\$17,250,854	-\$20,208,286	-\$23,165,718	-\$26,123,150
Total Unrestricted Funds	\$10,575,160	\$19,564,294	\$10,037,398	\$10,175,184	\$7,367,033	\$5,421,943	\$3,358,317	\$3,712,350	\$3,733,720	\$4,112,533	\$4,132,072	\$5,373,529
Total Unrestricted Fund Target												
(90 Days Charge Fund Expenses)	\$2,618,250	\$2,872,603	\$3,172,616	\$3,239,620	\$3,308,632	\$3,410,538	\$3,509,644	\$3,504,596	\$3,608,228	\$3,716,383	\$3,827,666	\$3,549,180
	364	613	285	283	200	143	86	95	93	100	97	136
Debt Service Coverage (Min 1.25x)	1.90	8.68	4.03	2.45	1.27	1.37	1.32	1.37	1.30	1.37	1.30	1.80
Target Met	yes											
Transfer In - Rate Stabilization Fund												
Debt Service Coverage with Transfer												

1 - FY17/18 loan covers capital from FY17/18 to FY19/20 minus existing bond issuance. FY18/19 loan covers capital from FY20/21 to FY21/22.

2 - Total Short and Long Term Capital Improvement Plan. Includes General Fund Transfers

3 - Assumes 30 year loan at 5% interest

Table 5B
City of Pacifica
Wastewater Cashflow Projection - Updated Debt Service and CIP Plan with New EQ Basin Cost (25% increase)

	Actual 2015/16	Budget 2016/17	projected										
			2017/18	2018/19	2019/20	2020/21	2021/22	2021/23	2021/24	2021/25	2021/26	2026/27	
Beginning Fund Balance													
Unrestricted Charge Fund		\$2,235,470	\$3,116,590	\$3,783,604	\$5,179,873	\$8,156,489	\$11,873,692	\$15,532,165	\$19,263,151	\$22,665,494	\$26,459,725	\$29,899,080	
Unrestricted Construction Fund		\$8,339,690	\$20,594,282	\$5,776,574	\$4,034,055	-\$1,546,292	-\$6,853,638	-\$12,041,485	-\$14,919,331	-\$17,797,178	-\$20,675,024	-\$23,552,871	
Total Unrestricted Funds		\$10,575,160	\$23,710,872	\$9,560,178	\$9,213,928	\$6,610,197	\$5,020,054	\$3,490,681	\$4,343,819	\$4,868,316	\$5,784,701	\$6,346,210	
% Rate Revenue Increase			8.0%	7.0%	7.0%	7.0%	7.0%	0.0%	0.0%	4.0%	0.0%	0.0%	
% Capacity Fee Revenue Increase			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
% Growth			0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
REVENUE													
Charge Fund Revenue													
Investment Earnings	\$0	\$0											
Sewer Service Charges	12,879,458	12,531,120	13,601,278	14,626,134	15,728,213	16,913,334	18,187,754	18,278,693	18,370,086	19,200,414	19,296,416	19,392,898	
Miscellaneous Income	80,250	0											
Pension Obligation Bond Repayment			170,682	146,817	904,970	904,970							
Total Charge Fund Revenue	\$12,959,708	\$12,531,120	\$13,771,960	\$14,772,951	\$16,633,183	\$17,818,304	\$18,187,754	\$18,278,693	\$18,370,086	\$19,200,414	\$19,296,416	\$19,392,898	
Construction Fund													
Investment Earnings	\$22,337	\$0											
Development Connection Fees		0											
Miscellaneous Income		0											
Development Maintenance Fees		0											
Proceeds from Bond Issue		26,250,000											
Proposed Loan Proceeds¹			13,441,378	7,739,500									
Total Construction Fund	\$22,337	\$26,250,000	\$13,441,378	\$7,739,500	\$0								
TOTAL REVENUE	\$12,982,045	\$38,781,120	\$27,213,338	\$22,512,451	\$16,633,183	\$17,818,304	\$18,187,754	\$18,278,693	\$18,370,086	\$19,200,414	\$19,296,416	\$19,392,898	
EXPENSES													
Charge Fund Expenses													
Operations and Maintenance	\$5,151,733	\$5,762,433	\$5,935,306	\$6,113,365	\$6,296,766	\$6,485,669	\$6,680,239	\$6,947,449	\$7,225,347	\$7,514,361	\$7,814,935	\$8,127,532	
Collection System Maintenance	2,848,015	3,025,286	3,116,045	3,209,526	3,305,812	3,404,986	3,507,136	\$3,647,421	\$3,793,318	\$3,945,051	\$4,102,853	\$4,266,967	
State Loan	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	0	0	0	0	0	
Sewer Loan	210,536	447,662	447,501	447,334	447,161	446,983	446,798	446,607	446,408	446,203	446,031	445,769	
2014 Refunding Bond	337,000	337,000	337,000	337,000	337,000	337,000	337,000	1,819,000	1,816,125	1,814,375	1,808,625	1,99,875	
2017 Refunding Bond		0	1,191,125	1,191,125	1,191,125	1,347,375	1,478,625	1,673,125	1,671,875	1,670,938	1,668,750	1,671,563	
Charge Compilation	5,256	11,700	12,051	12,413	12,785	13,168	13,564	\$14,106	\$14,670	\$15,257	\$15,867	\$16,502	
Transfer Out - Rate Stabilization Fund													
Total Charge Fund	\$10,618,459	\$11,650,000	\$13,104,946	\$13,376,682	\$13,656,568	\$14,101,101	\$14,529,281	\$14,547,708	\$14,967,743	\$15,406,183	\$15,857,061	\$14,728,207	
Construction Fund													
Capital Project ²	\$2,021,146	\$13,995,408	\$27,384,705	\$8,104,173	\$4,202,500	\$3,929,500	\$3,810,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	
Proposed Loan Debt Service³			874,381	1,377,846									
Total Construction Fund	\$2,021,146	\$13,995,408	\$28,259,085	\$9,482,020	\$5,580,346	\$5,307,346	\$5,187,846	\$2,877,846	\$2,877,846	\$2,877,846	\$2,877,846	\$2,877,846	
TOTAL EXPENSES	\$12,639,606	\$25,645,408	\$41,364,032	\$22,858,702	\$19,236,914	\$19,408,448	\$19,717,127	\$17,425,554	\$17,845,590	\$18,284,030	\$18,734,907	\$17,606,054	
Net Revenue													
Charge Fund	\$2,341,249	\$881,120	\$667,014	\$1,396,269	\$2,976,616	\$3,717,203	\$3,658,473	\$3,730,985	\$3,402,343	\$3,794,231	\$3,439,356	\$4,664,691	
Construction Fund	-\$1,998,809	\$12,254,592	-\$14,817,708	-\$1,742,520	-\$5,580,346	-\$5,307,346	-\$5,187,846	-\$2,877,846	-\$2,877,846	-\$2,877,846	-\$2,877,846	-\$2,877,846	
Total Net Revenue	\$342,439	\$13,135,712	-\$14,150,694	-\$346,250	-\$2,603,731	-\$1,590,143	-\$1,529,373	\$853,139	\$524,497	\$916,384	\$561,509	\$1,786,845	
Ending Fund Balance													
Unrestricted Operating Fund	\$2,235,470	\$3,116,590	\$3,783,604	\$5,179,873	\$8,156,489	\$11,873,692	\$15,532,165	\$19,263,151	\$22,665,494	\$26,459,725	\$29,899,080	\$34,563,771	
Unrestricted Capital Fund	\$8,339,690	\$20,594,282	\$5,776,574	\$4,034,055	-\$1,546,292	-\$6,853,638	-\$12,041,485	-\$14,919,331	-\$17,797,178	-\$20,675,024	-\$23,552,871	-\$26,430,717	
Total Unrestricted Funds	\$10,575,160	\$23,710,872	\$9,560,178	\$9,213,928	\$6,610,197	\$5,020,054	\$3,490,681	\$4,343,819	\$4,868,316	\$5,784,701	\$6,346,210	\$8,133,054	
Total Unrestricted Fund Target													
(90 Days Charge Fund Expenses)	\$2,618,250	\$2,872,603	\$3,231,357	\$3,298,360	\$3,367,373	\$3,476,984	\$3,582,562	\$3,587,106	\$3,690,676	\$3,798,785	\$3,909,960	\$3,631,613	
	364	743	266	251	177	130	88	109	119	137	146	202	
Debt Service Coverage (Min 1.25x)	1.90	10.52	3.69	2.43	1.30	1.42	1.40	1.44	1.38	1.46	1.39	1.89	
Target Met	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Transfer In - Rate Stabilization Fund													
Debt Service Coverage with Transfer													

1 - FY17/18 loan covers capital from FY17/18 to FY19/20 minus existing bond issuance. FY18/19 loan covers capital from FY20/21 to FY21/22
2 - Total Short and Long Term Capital Improvement Plan. Includes General Fund Transfers
3 - Assumes 30 year loan at 5% interest

Table 5C
City of Pacifica
Wastewater Cashflow Projection - Updated Debt Service and CIP Plan with New EQ Basin Cost (40% increase)

	Actual 2015/16	Budget 2016/17	projected										
			2017/18	2018/19	2019/20	2020/21	2021/22	2021/23	2021/24	2021/25	2021/26	2026/27	
Beginning Fund Balance													
Unrestricted Charge Fund		\$2,235,470	\$3,116,590	\$3,640,669	\$5,030,696	\$8,159,736	\$12,032,868	\$15,855,453	\$19,728,918	\$23,275,607	\$26,477,543	\$29,322,908	\$29,322,908
Unrestricted Construction Fund		\$8,339,690	\$23,082,229	\$5,519,833	\$3,467,504	-\$2,065,091	-\$7,324,686	-\$12,464,781	-\$15,294,877	-\$18,124,972	-\$20,955,067	-\$23,785,162	-\$23,785,162
Total Unrestricted Funds		\$10,575,160	\$26,198,819	\$9,160,502	\$8,498,200	\$6,094,645	\$4,708,182	\$3,390,672	\$4,434,041	\$5,150,635	\$5,522,476	\$5,537,746	\$5,537,746
% Rate Revenue Increase			8.0%	8.0%	8.0%	7.0%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Capacity Fee Revenue Increase			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
% Growth			0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
REVENUE													
Charge Fund Revenue													
Investment Earnings	\$0	\$0											
Sewer Service Charges	12,879,458	12,531,120	13,601,278	14,762,827	16,023,573	17,230,949	18,529,301	18,621,947	18,715,057	18,808,632	18,902,675	18,997,189	18,997,189
Miscellaneous Income	80,250	0											
Pension Obligation Bond Repayment			170,682	146,817	904,970	904,970							
Total Charge Fund Revenue	\$12,959,708	\$12,531,120	\$13,771,960	\$14,909,644	\$16,928,543	\$18,135,919	\$18,529,301	\$18,621,947	\$18,715,057	\$18,808,632	\$18,902,675	\$18,997,189	\$18,997,189
Construction Fund													
Investment Earnings	\$22,337	\$0											
Development Connection Fees		0											
Miscellaneous Income		0											
Development Maintenance Fees		0											
Proceeds from Bond Issue		29,400,000											
Proposed Loan Proceeds¹			12,707,323	7,739,500									
Total Construction Fund	\$22,337	\$29,400,000	\$12,707,323	\$7,739,500	\$0								
TOTAL REVENUE	\$12,982,045	\$41,931,120	\$26,479,283	\$22,649,144	\$16,928,543	\$18,135,919	\$18,529,301	\$18,621,947	\$18,715,057	\$18,808,632	\$18,902,675	\$18,997,189	\$18,997,189
EXPENSES													
Charge Fund Expenses													
Operations and Maintenance	\$5,151,733	\$5,762,433	\$5,935,306	\$6,113,365	\$6,296,766	\$6,485,669	\$6,680,239	\$6,947,449	\$7,225,347	\$7,514,361	\$7,814,935	\$8,127,532	\$8,127,532
Collection System Maintenance	2,848,015	3,025,286	3,116,045	3,209,526	3,305,812	3,404,986	3,507,136	\$3,647,421	\$3,793,318	\$3,945,051	\$4,102,853	\$4,266,967	\$4,266,967
State Loan	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	2,065,919	0	0	0	0	0	0
Sewer Loan	210,536	447,662	447,501	447,334	447,161	446,983	446,798	446,607	446,408	446,203	446,031	445,769	445,769
2014 Refunding Bond	337,000	337,000	337,000	337,000	337,000	337,000	337,000	1,819,000	1,816,125	1,814,375	1,808,625	1,808,625	1,808,625
2017 Refunding Bond		0	1,334,060	1,334,060	1,334,060	1,509,060	1,656,060	1,873,900	1,872,500	1,871,450	1,869,000	1,872,150	1,872,150
Charge Compilation	5,256	11,700	12,051	12,413	12,785	13,168	13,564	\$14,106	\$14,670	\$15,257	\$15,867	\$16,502	\$16,502
Transfer Out - Rate Stabilization Fund													
Total Charge Fund	\$10,618,459	\$11,650,000	\$13,247,881	\$13,519,617	\$13,799,503	\$14,262,786	\$14,706,716	\$14,748,483	\$15,168,368	\$15,606,696	\$16,057,311	\$16,928,795	\$16,928,795
Construction Fund													
Capital Project ²	\$2,021,146	\$14,657,461	\$29,443,089	\$8,461,734	\$4,202,500	\$3,929,500	\$3,810,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Proposed Loan Debt Service³			826,630	1,330,095									
Total Construction Fund	\$2,021,146	\$14,657,461	\$30,269,719	\$9,791,829	\$5,532,595	\$5,259,595	\$5,140,095	\$2,830,095	\$2,830,095	\$2,830,095	\$2,830,095	\$2,830,095	\$2,830,095
TOTAL EXPENSES	\$12,639,606	\$26,307,461	\$43,517,600	\$23,311,446	\$19,332,098	\$19,522,381	\$19,846,811	\$17,578,578	\$17,998,463	\$18,436,791	\$18,887,406	\$17,758,890	\$17,758,890
Net Revenue													
Charge Fund	\$2,341,249	\$881,120	\$524,079	\$1,390,027	\$3,129,040	\$3,873,133	\$3,822,585	\$3,873,465	\$3,546,689	\$3,201,936	\$2,845,365	\$4,068,394	\$4,068,394
Construction Fund	-\$1,998,809	\$14,742,539	-\$17,562,396	-\$2,052,329	-\$5,532,595	-\$5,259,595	-\$5,140,095	-\$2,830,095	-\$2,830,095	-\$2,830,095	-\$2,830,095	-\$2,830,095	-\$2,830,095
Total Net Revenue	\$342,439	\$15,623,659	-\$17,038,317	-\$662,302	-\$2,403,555	-\$1,386,463	-\$1,317,510	\$1,043,369	\$716,594	\$371,841	\$15,269	\$1,238,299	\$1,238,299
Ending Fund Balance													
Unrestricted Operating Fund	\$2,235,470	\$3,116,590	\$3,640,669	\$5,030,696	\$8,159,736	\$12,032,868	\$15,855,453	\$19,728,918	\$23,275,607	\$26,477,543	\$29,322,908	\$33,391,302	\$33,391,302
Unrestricted Capital Fund	\$8,339,690	\$23,082,229	\$5,519,833	\$3,467,504	-\$2,065,091	-\$7,324,686	-\$12,464,781	-\$15,294,877	-\$18,124,972	-\$20,955,067	-\$23,785,162	-\$26,615,257	-\$26,615,257
Total Unrestricted Funds	\$10,575,160	\$26,198,819	\$9,160,502	\$8,498,200	\$6,094,645	\$4,708,182	\$3,390,672	\$4,434,041	\$5,150,635	\$5,522,476	\$5,537,746	\$6,776,044	\$6,776,044
Total Unrestricted Fund Target													
(90 Days Charge Fund Expenses)	\$2,618,250	\$2,872,603	\$3,266,601	\$3,333,604	\$3,402,617	\$3,516,851	\$3,626,313	\$3,636,612	\$3,740,146	\$3,848,226	\$3,959,337	\$3,681,073	\$3,681,073
	364	821	252	229	161	120	84	110	124	129	126	166	166
Debt Service Coverage (Min 1.25x)	1.90	11.62	3.48	2.41	1.33	1.45	1.43	1.47	1.41	1.34	1.28	1.71	1.71
Target Met	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Transfer In - Rate Stabilization Fund													
Debt Service Coverage with Transfer													

1 - FY17/18 loan covers capital from FY17/18 to FY19/20 minus existing bond issuance. FY18/19 loan covers capital from FY20/21 to FY21/22.

2 - Total Short and Long Term Capital Improvement Plan. Includes General Fund Transfers

3 - Assumes 30 year loan at 5% interest

Table 6
City of Pacifica
Proposed Rates

PROPOSED RATE STRUCTURE OPTION 1 (Current Rates) *Recommended

		<i>projected increases (from Table 5A)</i>				
		6.5%	6.5%	6.5%	6.0%	6.0%
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
	<u>price per unit</u>					
Residential	\$13.04476	\$13.89267	\$14.79569	\$15.75741	\$16.70286	\$17.70503
Commercial	\$13.04476	\$13.89267	\$14.79569	\$15.75741	\$16.70286	\$17.70503
Min Charge¹	\$626.14	\$666.84	\$710.18	\$756.35	\$801.73	\$849.83

		<i>projected increases (from Table 5B)</i>				
		8.0%	7.0%	7.0%	7.0%	7.0%
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
	<u>price per unit</u>					
Residential	\$13.04476	\$14.08834	\$15.07452	\$16.12974	\$17.25882	\$18.46694
Commercial	\$13.04476	\$14.08834	\$15.07452	\$16.12974	\$17.25882	\$18.46694
Min Charge¹	\$626.14	\$676.23	\$723.57	\$774.22	\$828.41	\$886.40

		<i>projected increases (from Table 5C)</i>				
		8.0%	8.0%	8.0%	7.0%	7.0%
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
	<u>price per unit</u>					
Residential	\$13.04476	\$14.08834	\$15.21541	\$16.43264	\$17.58293	\$18.81373
Commercial	\$13.04476	\$14.08834	\$15.21541	\$16.43264	\$17.58293	\$18.81373
Min Charge¹	\$626.14	\$676.23	\$730.33	\$788.76	\$843.97	\$903.05

1 - Minimum charges will be rounded to the nearest even penny upon adoption

Table 7
City of Pacifica
Cost Allocation - RATE STRUCTURE OPTION 2 (Based on Meter Size)

From Table 5C

	Equivalent					
Fixed Cost [1]	2016/17 Budget	2017/18 Projected	2018/19 Projected	2019/20 Projected	2020/21 Projected	2021/22 Projected
Debt Service						
State Loan	\$2,065,919	\$2,065,919	\$2,065,919	\$2,065,919	\$2,065,919	\$2,065,919
Sewer Loan	447,662	447,501	447,334	447,161	446,983	446,798
2014 Refunding Bond	337,000	337,000	337,000	337,000	337,000	337,000
2017 Refunding Bond	0	1,334,060	1,334,060	1,334,060	1,509,060	1,656,060
Proposed Loan Debt Service	0	826,630	1,330,095	1,330,095	1,330,095	1,330,095
Total Fixed Cost	\$2,850,581	\$5,011,109	\$5,514,409	\$5,514,235	\$5,689,058	\$5,835,873
Variable Cost						
Operations and Maintenance	\$5,762,433	\$5,935,306	\$6,113,365	\$6,296,766	\$6,485,669	\$6,680,239
Collection System Maintenance	3,025,286	3,116,045	3,209,526	3,305,812	3,404,986	3,507,136
Charge Compilation	11,700	12,051	12,413	12,785	13,168	13,564
Capital Project	14,657,461	29,443,089	8,461,734	4,202,500	3,929,500	3,810,000
Total Variable Cost	\$23,456,880	\$38,506,491	\$17,797,037	\$13,817,863	\$13,833,324	\$14,010,938
Total Costs	\$26,307,461	\$43,517,600	\$23,311,446	\$19,332,098	\$19,522,381	\$19,846,811
Amount Funded from Rates	\$12,531,120	\$13,601,278	\$14,762,827	\$16,023,573	\$17,230,949	\$18,529,301
Amount Funded from Other Revenue	\$13,776,341	\$29,916,322	\$8,548,619	\$3,308,525	\$2,291,433	\$1,317,510

Table 8
City of Pacifica
Projected Billable Units - RATE STRUCTURE OPTION 2 (Based on Meter Size)

Meter Equivalent Units				Projected Meter Equivalent Units [1]				
Meter Size (inches)*	# of meters	Flow Factor for 1" Base	Current 2016/17 Meter Equivalent Units	2017/18	2018/19	2019/20	2020/21	2021/22
5/8	11,322	1.0	11,322	11,379	11,436	11,493	11,550	11,608
3/4	62	1.0	62	62	63	63	63	64
1	601	1.0	601	604	607	610	613	616
1 1/2	74	2.0	148	149	149	150	151	152
2	70	3.2	224	225	226	227	229	230
3	253	6.0	1,518	1,526	1,533	1,541	1,549	1,556
4	6	10.0	60	60	61	61	61	62
6	4	20.0	80	80	81	81	82	82
8	1	32.0	32	32	32	32	33	33
Total	12,393		14,047	14,117	14,188	14,259	14,330	14,402

		Projected Water Use (hcf) [1]				
Customer Class	Billable Units (hcf)	2017/18	2018/19	2019/20	2020/21	2021/22
Res-Multiple	134,822	135,496	136,173	136,854	137,539	138,226
Res-Single	581,738	584,647	587,570	590,508	593,461	596,428
Carwash	2,086	2,096	2,107	2,117	2,128	2,139
Church	2,470	2,482	2,495	2,507	2,520	2,532
City of Pacifica Other Use (hcf)	1,295	1,301	1,308	1,315	1,321	1,328
Commercial	22,319	22,430	22,542	22,655	22,768	22,882
Government	72	72	73	73	73	74
No hookup	0	0	0	0	0	0
School	8,734	8,778	8,822	8,866	8,910	8,955
Shopping Ctr.	28,302	28,444	28,586	28,729	28,872	29,017
Vacant	0	0	0	0	0	0
Well	48	48	48	49	49	49
Office	267	268	270	271	272	274
Cleaners	3,767	3,786	3,805	3,824	3,843	3,862
Restaurant	17,119	17,205	17,291	17,377	17,464	17,551
Medical	6,808	6,842	6,876	6,911	6,945	6,980
Total	809,847	813,896	817,966	822,055	826,166	830,296

Customer Class	Billable Units (EDU)	2017/18	2018/19	2019/20	2020/21	2021/22
City of Pacifica Mixed Use (EDUs)	27	27	27	27	28	28
Total	27	27	27	27	28	28

[1] Assumes 0.5% annual growth

*all residential accounts assumed to have 5/8" meter

Table 9
City of Pacifica
Fixed Charge Calculation - RATE STRUCTURE OPTION 2 (Based on Meter Size)

Meter Charges	Equivalent	2016/17 Budget	2017/18 Projected	2018/19 Projected	2019/20 Projected	2020/21 Projected	2021/22 Projected
Fixed Operating Costs - Debt Service		\$2,850,581	\$5,011,109	\$5,514,409	\$5,514,235	\$5,689,058	\$5,835,873
Meter Equivalent Units (1 inch) ¹		14,047	14,117	14,188	14,259	14,330	14,402
\$/Meter Equivalent (Monthly)		\$16.91	\$29.58	\$32.39	\$32.23	\$33.08	\$33.77
\$/Meter Equivalent (Annual)		\$202.93	\$354.96	\$388.67	\$386.73	\$397.00	\$405.22
Projected Annual Meter Charge							
1" or less		\$202.93	\$354.96	\$388.67	\$386.73	\$397.00	\$405.22
1.5"		\$405.86	\$709.93	\$777.34	\$773.45	\$794.00	\$810.44
2"		\$649.38	\$1,135.88	\$1,243.75	\$1,237.52	\$1,270.41	\$1,296.71
3"		\$1,217.59	\$2,129.78	\$2,332.03	\$2,320.36	\$2,382.01	\$2,431.33
4"		\$2,029.32	\$3,549.64	\$3,886.72	\$3,867.26	\$3,970.02	\$4,052.21
Projected Basic Rate Revenue		\$2,850,581	\$5,011,109	\$5,514,409	\$5,514,235	\$5,689,058	\$5,835,873

1- based on AWWA flow factor meter ratios

Table 10
City of Pacifica
Wastewater Flows and Loadings - RATE STRUCTURE OPTION 2 (Based on Meter Size)

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2016-17			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow hcf	mg	gpd	BOD	SS	BOD	SS
Residential										
Single Family	10,646		581,738	581,738	435.17	1,192,248	175	175	635,651	635,651
Multi Family	<u>1,206</u>		134,822	<u>134,822</u>	<u>100.85</u>	<u>276,312</u>	175	175	<u>147,317</u>	<u>147,317</u>
Total Residential	11,852			716,560	536.02	1,468,559			782,968	782,968
City of Pacifica										
Mixed Use (per EDU)	27	8.00	N/A	1,296	0.97	2,656	175	175	1,416	1,416
Other Use			1,295	<u>1,295</u>	<u>0.97</u>	<u>2,654</u>	175	175	<u>1,415</u>	<u>1,415</u>
				2,591	2	5,310			2,831	2,831
Commercial¹										
Car Washes		Varies	2,086	2,086	1.56	4,275	31	230	399	2,992
Cleaners		Varies	3,767	3,767	2.82	7,720	306	163	7,197	3,839
Restaurants		Varies	17,119	17,119	12.81	35,085	443	266	47,335	28,401
All other commercial use		Varies	69,020	<u>69,020</u>	<u>51.63</u>	<u>141,453</u>	175	175	<u>75,416</u>	<u>75,416</u>
Total Commercial			809,847	91,992	69	188,533			130,347	110,647
Total	11,879			811,143	607	1,662,403			916,147	896,446

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2017-18			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow hcf	mg	gpd	BOD	SS	BOD	SS
Residential										
Single Family	10,699		584,647	584,647	437.35	1,198,209	175	175	638,830	638,830
Multi Family	<u>1,212</u>		135,496	<u>135,496</u>	<u>101.36</u>	<u>277,693</u>	175	175	<u>148,053</u>	<u>148,053</u>
Total Residential	11,911			720,143	538.70	1,475,902			786,883	786,883
City of Pacifica										
Mixed Use (per EDU)	27	8.00	N/A	1,302	0.97	2,669	175	175	1,423	1,423
Other Use			1,301	<u>1,301</u>	<u>0.97</u>	<u>2,667</u>	175	175	<u>1,422</u>	<u>1,422</u>
				2,604	2	5,337			2,845	2,845
Commercial¹										
Car Washes		Varies	2,096	2,096	1.57	4,297	31	230	401	3,006
Cleaners		Varies	3,786	3,786	2.83	7,759	306	163	7,233	3,858
Restaurants		Varies	17,205	17,205	12.87	35,260	443	266	47,572	28,543
All other commercial use		Varies	69,365	<u>69,365</u>	<u>51.89</u>	<u>142,160</u>	175	175	<u>75,793</u>	<u>75,793</u>
Total Commercial			813,896	92,452	69	189,476			130,999	111,201
Total	11,938			815,199	610	1,670,715			920,727	900,929

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2018-19			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,753		587,570	587,570	439.53	1,204,200	175	175	642,024	642,024
Multi Family	<u>1,218</u>		136,173	<u>136,173</u>	<u>101.86</u>	<u>279,082</u>	175	175	<u>148,793</u>	<u>148,793</u>
Total Residential	11,971			723,744	541.40	1,483,282			790,817	790,817
City of Pacifica										
Mixed Use (per EDU)	27	8.00	N/A	1,309	0.98	2,683	175	175	1,430	1,430
Other Use			1,308	<u>1,308</u>	<u>0.98</u>	<u>2,681</u>	175	175	<u>1,429</u>	<u>1,429</u>
				2,617	2	5,363			2,860	2,860
Commercial¹										
Car Washes		Varies	2,107	2,107	1.58	4,318	31	230	403	3,022
Cleaners		Varies	3,805	3,805	2.85	7,798	306	163	7,269	3,877
Restaurants		Varies	17,291	17,291	12.93	35,436	443	266	47,810	28,686
All other commercial use		Varies	69,712	<u>69,712</u>	<u>52.15</u>	<u>142,871</u>	175	175	<u>76,172</u>	<u>76,172</u>
Total Commercial			817,966	92,914	70	190,423			131,654	111,757
Total	11,998			819,275	613	1,679,068			925,331	905,433

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2019-20			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,806		590,508	590,508	441.73	1,210,221	175	175	645,234	645,234
Multi Family	<u>1,224</u>		136,854	<u>136,854</u>	<u>102.37</u>	<u>280,477</u>	175	175	<u>149,537</u>	<u>149,537</u>
Total Residential	12,031			727,362	544.10	1,490,698			794,771	794,771
City of Pacifica										
Mixed Use (per EDU)	27	8.00	N/A	1,316	0.98	2,696	175	175	1,437	1,437
Other Use			1,315	<u>1,315</u>	<u>0.98</u>	<u>2,694</u>	175	175	<u>1,436</u>	<u>1,436</u>
				2,630	2	5,390			2,874	2,874
Commercial¹										
Car Washes		Varies	2,117	2,117	1.58	4,340	31	230	405	3,037
Cleaners		Varies	3,824	3,824	2.86	7,837	306	163	7,306	3,896
Restaurants		Varies	17,377	17,377	13.00	35,614	443	266	48,049	28,829
All other commercial use		Varies	70,060	<u>70,060</u>	<u>52.41</u>	<u>143,585</u>	175	175	<u>76,553</u>	<u>76,553</u>
Total Commercial			822,055	93,378	70	191,375			132,312	112,315
Total	12,058			823,371	616	1,687,464			929,958	909,960

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2020-21			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,861		593,461	593,461	443.94	1,216,272	175	175	648,460	648,460
Multi Family	<u>1,230</u>		137,539	<u>137,539</u>	<u>102.89</u>	<u>281,879</u>	175	175	<u>150,285</u>	<u>150,285</u>
Total Residential	12,091			730,999	546.83	1,498,152			798,745	798,745
City of Pacifica										
Mixed Use (per EDU)	28	8.00	N/A	1,322	0.99	2,710	175	175	1,445	1,445
Other Use			1,321	<u>1,321</u>	<u>0.99</u>	<u>2,708</u>	175	175	<u>1,444</u>	<u>1,444</u>
				2,643	2	5,417			2,888	2,888
Commercial¹										
Car Washes		Varies	2,128	2,128	1.59	4,361	31	230	407	3,052
Cleaners		Varies	3,843	3,843	2.87	7,876	306	163	7,342	3,916
Restaurants		Varies	17,464	17,464	13.06	35,792	443	266	48,289	28,973
All other commercial use		Varies	70,410	<u>70,410</u>	<u>52.67</u>	<u>144,303</u>	175	175	<u>76,936</u>	<u>76,936</u>
Total Commercial			826,166	93,845	70	192,332			132,974	112,877
Total	12,118			827,488	619	1,695,901			934,607	914,510

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2021-22			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,915		596,428	596,428	446.16	1,222,354	175	175	651,702	651,702
Multi Family	<u>1,236</u>		138,226	<u>138,226</u>	<u>103.40</u>	<u>283,289</u>	175	175	<u>151,036</u>	<u>151,036</u>
Total Residential	12,151			734,654	549.56	1,505,642			802,739	802,739
City of Pacifica										
Mixed Use (per EDU)	28	8.00	N/A	1,329	0.99	2,723	175	175	1,452	1,452
Other Use			1,328	<u>1,328</u>	<u>0.99</u>	<u>2,721</u>	175	175	<u>1,451</u>	<u>1,451</u>
				2,656	2	5,444			2,903	2,903
Commercial¹										
Car Washes		Varies	2,139	2,139	1.60	4,383	31	230	409	3,067
Cleaners		Varies	3,862	3,862	2.89	7,915	306	163	7,379	3,935
Restaurants		Varies	17,551	17,551	13.13	35,971	443	266	48,530	29,118
All other commercial use		Varies	70,763	<u>70,763</u>	<u>52.93</u>	<u>145,025</u>	175	175	<u>77,321</u>	<u>77,321</u>
Total Commercial			830,296	94,315	71	193,294			133,639	113,441
Total	12,179			831,625	622	1,704,380			939,280	919,083

Table 11
City of Pacifica
Rate Revenue Requirements - RATE STRUCTURE OPTION 2 (Based on Meter Size)

Variable Costs Allocated to All Customers	Equivalent 2016/17 Budget	Allocation %			Allocation \$			Projected Loadings (lbs)		
		Flow	BOD	SS	Flow	BOD	SS	Flow (hcf)	BOD	SS
								811,143	916,147	896,446
Cost Component										
Operations and Maintenance	\$5,762,433	36%	32%	32%	\$2,074,476	\$1,843,979	\$1,843,979			
Collection System Maintenance	\$3,025,286	100%	0%	0%	3,025,286	0	0			
Charge Compilation	\$11,700	36%	32%	32%	4,212	3,744	3,744			
Capital Project	\$14,657,461	36%	32%	32%	5,276,686	4,690,388	4,690,388			
Total Expenses	\$23,456,880				\$10,380,660	\$6,538,110	\$6,538,110			
Composite Percentages					44%	28%	28%			
Add: Net Revenue	\$15,623,659									
Less: Non-Rate Operating Revenue	0									
Less: Non-Operating Revenue	(\$29,400,000)									
Variable Revenue Requirement - 2016/17 Budget	\$9,680,539	44%	28%	28%	\$4,284,047	\$2,698,246	\$2,698,246	\$5.28	\$2.95	\$3.01
Variable Revenue Requirement - Future [1]										
2017/18	\$8,590,169	44%	28%	28%	\$3,801,512	\$2,394,328	\$2,394,328	815,199	920,727	900,929
								\$4.66	\$2.60	\$2.66
2018/19	\$9,248,419	44%	28%	28%	\$4,092,816	\$2,577,801	\$2,577,801	819,275	925,331	905,433
								\$5.00	\$2.79	\$2.85
2019/20	\$10,509,337	44%	28%	28%	\$4,650,825	\$2,929,256	\$2,929,256	823,371	929,958	909,960
								\$5.65	\$3.15	\$3.22
2020/21	\$11,541,891	44%	28%	28%	\$5,107,774	\$3,217,058	\$3,217,058	827,488	934,607	914,510
								\$6.17	\$3.44	\$3.52
2021/22	\$12,693,428	44%	28%	28%	\$5,617,378	\$3,538,025	\$3,538,025	831,625	939,280	919,083
								\$6.75	\$3.77	\$3.85

1 - Total Rate Revenue Requirement from Table 7 less Fixed Rate Revenue from Table 9

	# of Sewer Meters	Projected Water Use	Projected Wastewater Flow			Loadings (lbs)		FY 2018/19 Unit Rate Per Class			FY 2018/19 Cost Recovery			FY 2018/19	Strength Factor
			hcf	mg	gpd	BOD	SS	\$/hcf	\$/lb BOD	\$/lb SS	\$/hcf	\$/lb BOD	\$/lb SS	Monthly Rates	
Residential															
Single Family	10,753	587,570	587,570	439.53	1,204,200	642,024	642,024	\$5.00	\$2.79	\$2.85	\$2,935,300	\$1,788,560	\$1,827,865	\$11.15	
Multi Family	1,218	136,173	136,173	101.86	279,082	148,793	148,793	\$5.00	\$2.79	\$2.85	680,276	414,511	423,620	\$11.15	
Government Accounts															
City of Pacifica															
Mixed Use	27	N/A	1,309	0.98	2,683	1,430	1,430	\$5.00	\$2.79	\$2.85	6,539	3,985	4,072	\$/EDU \$535.23	
Other Use	N/A	1,308	1,308	0.98	2,681	1,429	1,429	\$5.00	\$2.79	\$2.85	6,534	3,981	4,069	\$/hcf \$11.15	
Commercial															
Car Washes	N/A	2,107	2,107	1.58	4,318	403	3,022	\$5.00	\$2.79	\$2.85	10,525	1,122	8,602	\$/hcf \$9.61	0.9
Cleaners	N/A	3,805	3,805	2.85	7,798	7,269	3,877	\$5.00	\$2.79	\$2.85	19,007	20,251	11,038	\$13.22	1.2
Restaurants	N/A	17,291	17,291	12.93	35,436	47,810	28,686	\$5.00	\$2.79	\$2.85	86,378	133,189	81,669	\$17.42	1.6
All other commercial use	N/A	69,712	69,712	52.15	142,871	76,172	76,172	\$5.00	\$2.79	\$2.85	348,255	212,202	216,865	\$11.15	
TOTAL	11,998	817,966	819,275	612.86	1,679,068	925,331	905,433				\$4,092,816	\$2,577,801	\$2,577,801		
												\$9,248,419			

	# of Sewer Meters	Projected Water Use	Projected Wastewater Flow			Loadings (lbs)		FY 2019/20 Unit Rate Per Class			FY 2019/20 Cost Recovery			FY 2019/20	Strength Factor
			hcf	mg	gpd	BOD	SS	\$/hcf	\$/lb BOD	\$/lb SS	\$/hcf	\$/lb BOD	\$/lb SS	Monthly Rates	
Residential															
Single Family	10,806	590,508	590,508	442	1,210,221	645,234	645,234	\$5.65	\$3.15	\$3.22	\$3,335,496	\$2,032,410	\$2,077,074	\$12.61	
Multi Family	1,224	136,854	136,854	102	280,477	149,537	149,537	\$5.65	\$3.15	\$3.22	773,024	471,025	481,376	\$12.61	
Government Accounts															
City of Pacifica															
Mixed Use	27	N/A	1,316	1	2,696	1,437	1,437	\$5.65	\$3.15	\$3.22	7,431	4,528	4,627	\$/EDU \$605.17	
Other Use	N/A	1,315	1,315	1	2,694	1,436	1,436	\$5.65	\$3.15	\$3.22	7,425	4,524	4,624	\$/hcf \$12.61	
Commercial															
Car Washes	N/A	2,117	2,117	2	4,340	405	3,037	\$5.65	\$3.15	\$3.22	11,960	1,275	9,775	\$/hcf \$10.87	0.9
Cleaners	N/A	3,824	3,824	3	7,837	7,306	3,896	\$5.65	\$3.15	\$3.22	21,599	23,012	12,543	\$14.95	1.2
Restaurants	N/A	17,377	17,377	13	35,614	48,049	28,829	\$5.65	\$3.15	\$3.22	98,155	151,348	92,804	\$19.70	1.6
All other commercial use	N/A	70,060	70,060	52	143,585	76,553	76,553	\$5.65	\$3.15	\$3.22	395,736	241,133	246,432	\$12.61	
TOTAL	12,058	822,055	823,371	615.92	1,687,464	929,958	909,960				\$4,650,825	\$2,929,256	\$2,929,256		
												\$10,509,337			

Table 13
City of Pacifica
Proposed Rates - RATE STRUCTURE OPTION 2 (Based on Meter Size)

	Equivalent Current Rate	2017/18 Projected	2018/19 Projected	2019/20 Projected	2020/21 Projected	2021/22 Projected
Fixed Rate (Annual)						
1" or less	\$202.93	\$354.96	\$388.67	\$386.73	\$397.00	\$405.22
1.5"	\$405.86	\$709.93	\$777.34	\$773.45	\$794.00	\$810.44
2"	\$649.38	\$1,135.88	\$1,243.75	\$1,237.52	\$1,270.41	\$1,296.71
3"	\$1,217.59	\$2,129.78	\$2,332.03	\$2,320.36	\$2,382.01	\$2,431.33
4"	\$2,029.32	\$3,549.64	\$3,886.72	\$3,867.26	\$3,970.02	\$4,052.21
		74.92%	9.50%	-0.50%	2.66%	2.07%
Volumetric Rate (\$/hcf billed¹)	\$11.79	\$10.41	\$11.15	\$12.61	\$13.78	\$15.08
		-11.71%	7.13%	13.07%	9.28%	9.43%
Government Volumetric Rates						
Mixed Use (\$/EDU)	\$565.85	\$499.62	\$535.23	\$605.17	\$661.32	\$723.69
All Other Use (\$/hcf billed¹)	\$11.79	\$10.41	\$11.15	\$12.61	\$13.78	\$15.08
No Minimum Volumetric Charge						

Strength Factors	
Car Washes	0.9
Cleaners	1.2
Restaurants	1.6
All Other Users	Unchanged from Current Strength

Government Mixed Use Classes	
Mixed-1	1 EDU
Mixed-2	2 EDUs
Mixed-3	3 EDUs
Mixed-4	4 EDUs

1 - For residential users total use multiplied by a factor of 0.9. For all other users, total annual water use.

Table 14
City of Pacifica
Cost Allocation - RATE STRUCTURE OPTION 3 (Based on Dwelling Unit)

All Costs	<i>From Table 5C</i>					
Debt Service	\$2,850,581	\$5,011,109	\$5,514,409	\$5,514,235	\$5,689,058	\$5,835,873
Operations and Maintenance	5,762,433	5,935,306	6,113,365	6,296,766	6,485,669	6,680,239
Collection System Maintenance	3,025,286	3,116,045	3,209,526	3,305,812	3,404,986	3,507,136
Charge Compilation	11,700	12,051	12,413	12,785	13,168	13,564
Capital Project	14,657,461	29,443,089	8,461,734	4,202,500	3,929,500	3,810,000
Total Costs	\$26,307,461	\$43,517,600	\$23,311,446	\$19,332,098	\$19,522,381	\$19,846,811
Amount Funded from Rates	\$12,531,120	\$13,601,278	\$14,762,827	\$16,023,573	\$17,230,949	\$18,529,301
Amount Funded from Other Revenue	\$13,776,341	\$29,916,322	\$8,548,619	\$3,308,525	\$2,291,433	\$1,317,510

Table 15
City of Pacifica
Projected Billable Units -RATE STRUCTURE OPTION 3 (Based on Dwelling Unit)

Customer Class	Current 2016/17	Projected Billable Units				
	Billable Units (EDU)	2017/18	2018/19	2019/20	2020/21	2021/22
Single-Family Residential	10,646	10,699	10,753	10,806	10,861	10,915
Multi-Family Residential	2,541	2,554	2,566	2,579	2,592	2,605
City of Pacifica Mixed Use	27	27	27	27	28	28
Total	13,214	13,280	13,346	13,413	13,480	13,548

Customer Class	Current 2016/17	Projected Billable Units				
	Billable Units (Annual hcf consumption)	2017/18	2018/19	2019/20	2020/21	2021/22
Res-Multiple	134,822	135,496	136,173	136,854	137,539	138,226
Res-Single	581,738	584,647	587,570	590,508	593,461	596,428
Carwash	2,086	2,096	2,107	2,117	2,128	2,139
Church	2,470	2,482	2,495	2,507	2,520	2,532
City of Pacifica Other Use (hcf)	1,295	1,301	1,308	1,315	1,321	1,328
Commercial	22,319	22,430	22,542	22,655	22,768	22,882
Government	72	72	73	73	73	74
No hookup	0	0	0	0	0	0
School	8,734	8,778	8,822	8,866	8,910	8,955
Shopping Ctr.	28,302	28,444	28,586	28,729	28,872	29,017
Vacant	0	0	0	0	0	0
Well	48	48	48	49	49	49
Office	267	268	270	271	272	274
Cleaners	3,767	3,786	3,805	3,824	3,843	3,862
Restaurant	17,119	17,205	17,291	17,377	17,464	17,551
Medical	6,808	6,842	6,876	6,911	6,945	6,980
Total	809,847	813,896	817,966	822,055	826,166	830,296

[1] Assumes 0.5% annual growth

*all residential accounts assumed to have 5/8" meter

Table 16
City of Pacifica
Wastewater Flows and Loadings - RATE STRUCTURE OPTION 3 (Based on Dwelling Unit)

	# of Sewer EDUs	Est. Monthly Flow (hcf) Per EDU	Projected Water Use (hcf)	2016-17			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow hcf	mg	gpd	BOD	SS	BOD	SS
Residential										
Single Family	10,646	5.00	N/A	638,760	477.83	1,309,111	175	175	697,958	697,958
Multi Family	<u>2,541</u>	5.00	N/A	<u>152,460</u>	<u>114.05</u>	<u>312,460</u>	175	175	<u>166,589</u>	<u>166,589</u>
Total Residential	13,187			791,220	591.87	1,621,572			864,547	864,547
City of Pacifica										
Mixed Use (per EDU)	27	5.00	N/A	1,620	1.21	3,320	175	175	1,770	1,770
Other Use			1,295	<u>1,295</u>	<u>0.97</u>	<u>2,654</u>	175	175	<u>1,415</u>	<u>1,415</u>
				2,915	2.18	5,974			3,185	3,185
Commercial¹										
Car Washes		N/A	2,086	2,086	1.56	4,275	31	230	399	2,992
Cleaners		N/A	3,767	3,767	2.82	7,720	306	163	7,197	3,839
Restaurants		N/A	17,119	17,119	12.81	35,085	443	266	47,335	28,401
All other commercial use		N/A	69,020	<u>69,020</u>	<u>51.63</u>	<u>141,453</u>	175	175	<u>75,416</u>	<u>75,416</u>
Total Commercial				91,992	68.81	188,533			130,347	110,647
Total	13,214			886,127	662.87	1,816,079			998,080	978,379

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2017-18			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow hcf	mg	gpd	BOD	SS	BOD	SS
Residential										
Single Family	10,699	5.00	N/A	641,954	480.21	1,315,657	175	175	701,447	701,447
Multi Family	<u>2,554</u>	5.00	N/A	<u>153,222</u>	<u>114.62</u>	<u>314,023</u>	175	175	<u>167,422</u>	<u>167,422</u>
Total Residential	13,253			795,176	594.83	1,629,680			868,870	868,870
City of Pacifica										
Mixed Use (per EDU)	27	5.00	N/A	1,628	1.22	3,337	175	175	1,779	1,779
Other Use			1,301	<u>1,301</u>	<u>0.97</u>	<u>2,667</u>	175	175	<u>1,422</u>	<u>1,422</u>
				2,930	2.19	6,004			3,201	3,201
Commercial¹										
Car Washes		N/A	2,096	2,096	1.57	4,297	31	230	401	3,006
Cleaners		N/A	3,786	3,786	2.83	7,759	306	163	7,233	3,858
Restaurants		N/A	17,205	17,205	12.87	35,260	443	266	47,572	28,543
All other commercial use		N/A	69,365	<u>69,365</u>	<u>51.89</u>	<u>142,160</u>	175	175	<u>75,793</u>	<u>75,793</u>
Total Commercial				92,452	69.16	189,476			130,999	111,201
Total	13,280			890,557	666.18	1,825,159			1,003,070	983,271

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2018-19			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,753	5.00	N/A	645,164	482.62	1,322,235	175	175	704,955	704,955
Multi Family	<u>2,566</u>	5.00	N/A	<u>153,988</u>	<u>115.19</u>	<u>315,593</u>	175	175	<u>168,259</u>	<u>168,259</u>
Total Residential	13,319			799,152	597.81	1,637,828			873,214	873,214
City of Pacifica										
Mixed Use (per EDU)	27	5.00	N/A	1,636	1.22	3,353	175	175	1,788	1,788
Other Use			1,308	<u>1,308</u>	<u>0.98</u>	<u>2,681</u>	175	175	<u>1,429</u>	<u>1,429</u>
				2,944	2.20	6,034			3,217	3,217
Commercial¹										
Car Washes		Varies	2,107	2,107	1.58	4,318	31	230	403	3,022
Cleaners		Varies	3,805	3,805	2.85	7,798	306	163	7,269	3,877
Restaurants		Varies	17,291	17,291	12.93	35,436	443	266	47,810	28,686
All other commercial use		Varies	69,712	<u>69,712</u>	<u>52.15</u>	<u>142,871</u>	175	175	<u>76,172</u>	<u>76,172</u>
Total Commercial				92,914	69.50	190,423			131,654	111,757
Total	13,346			895,010	669.51	1,834,285			1,008,085	988,188

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2019-20			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,806	5.00	N/A	648,389	485.03	1,328,847	175	175	708,479	708,479
Multi Family	<u>2,579</u>	5.00	N/A	<u>154,758</u>	<u>115.77</u>	<u>317,171</u>	175	175	<u>169,101</u>	<u>169,101</u>
Total Residential	13,386			803,148	600.80	1,646,017			877,580	877,580
City of Pacifica										
Mixed Use (per EDU)	27	5.00	N/A	1,644	1.23	3,370	175	175	1,797	1,797
Other Use			1,315	<u>1,315</u>	<u>0.98</u>	<u>2,694</u>	175	175	<u>1,436</u>	<u>1,436</u>
				2,959	2.21	6,064			3,233	3,233
Commercial¹										
Car Washes		N/A	2,117	2,117	1.58	4,340	31	230	405	3,037
Cleaners		N/A	3,824	3,824	2.86	7,837	306	163	7,306	3,896
Restaurants		N/A	17,377	17,377	13.00	35,614	443	266	48,049	28,829
All other commercial use		N/A	70,060	<u>70,060</u>	<u>52.41</u>	<u>143,585</u>	175	175	<u>76,553</u>	<u>76,553</u>
Total Commercial				93,378	69.85	191,375			132,312	112,315
Total	13,413			899,485	672.86	1,843,457			1,013,126	993,129

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2020-21			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,861	5.00	N/A	651,631	487.45	1,335,491	175	175	712,022	712,022
Multi Family	<u>2,592</u>	5.00	N/A	<u>155,532</u>	<u>116.35</u>	<u>318,757</u>	175	175	<u>169,946</u>	<u>169,946</u>
Total Residential	13,453			807,163	603.80	1,654,247			881,968	881,968
City of Pacifica										
Mixed Use (per EDU)	28	5.00	N/A	1,653	1.24	3,387	175	175	1,806	1,806
Other Use			1,321	<u>1,321</u>	<u>0.99</u>	<u>2,708</u>	175	175	<u>1,444</u>	<u>1,444</u>
				2,974	2.22	6,095			3,249	3,249
Commercial¹										
Car Washes		N/A	2,128	2,128	1.59	4,361	31	230	407	3,052
Cleaners		N/A	3,843	3,843	2.87	7,876	306	163	7,342	3,916
Restaurants		N/A	17,464	17,464	13.06	35,792	443	266	48,289	28,973
All other commercial use		N/A	70,410	<u>70,410</u>	<u>52.67</u>	<u>144,303</u>	175	175	<u>76,936</u>	<u>76,936</u>
Total Commercial				93,845	70.20	192,332			132,974	112,877
Total	13,480			903,983	676.23	1,852,674			1,018,191	998,094

	# of Sewer EDUs	Est. Annual Flow (hcf) Per EDU	Projected Water Use (hcf)	2021-22			Strength (mg/l)		Loadings (lbs)	
				Projected Wastewater Flow			BOD	SS	BOD	SS
				hcf	mg	gpd				
Residential										
Single Family	10,915	5.00	N/A	654,889	489.89	1,342,168	175	175	715,582	715,582
Multi Family	<u>2,605</u>	5.00	N/A	<u>156,310</u>	<u>116.93</u>	<u>320,350</u>	175	175	<u>170,796</u>	<u>170,796</u>
Total Residential	13,520			811,199	606.82	1,662,519			886,378	886,378
City of Pacifica										
Mixed Use (per EDU)	28	5.00	N/A	1,661	1.24	3,404	175	175	1,815	1,815
Other Use			1,328	<u>1,328</u>	<u>0.99</u>	<u>2,721</u>	175	175	<u>1,451</u>	<u>1,451</u>
				2,989	2.24	6,125			3,266	3,266
Commercial¹										
Car Washes		N/A	2,139	2,139	1.60	4,383	31	230	409	3,067
Cleaners		N/A	3,862	3,862	2.89	7,915	306	163	7,379	3,935
Restaurants		N/A	17,551	17,551	13.13	35,971	443	266	48,530	29,118
All other commercial use		N/A	70,763	<u>70,763</u>	<u>52.93</u>	<u>145,025</u>	175	175	<u>77,321</u>	<u>77,321</u>
Total Commercial				94,315	70.55	193,294			133,639	113,441
Total	13,548			908,503	679.61	1,861,937			1,023,282	1,003,085

Table 17
City of Pacifica
Rate Revenue Requirements - RATE STRUCTURE OPTION 3 (Based on Dwelling Unit)

Costs Allocated to All Customers	Equivalent 2016/17 Budget	Allocation %			Allocation \$			Projected Loadings (lbs)		
		Flow	BOD	SS	Flow	BOD	SS	Flow (hcf) 886,127	BOD 998,080	SS 978,379
Cost Component										
Debt Service	\$2,850,581	36%	32%	32%	\$1,026,209	\$912,186	\$912,186			
Operations and Maintenance	\$5,762,433	36%	32%	32%	\$2,074,476	\$1,843,979	\$1,843,979			
Collection System Maintenance	\$3,025,286	100%	0%	0%	3,025,286	0	0			
Charge Compilation	\$11,700	36%	32%	32%	4,212	3,744	3,744			
Capital Project	\$14,657,461	37%	32%	32%	5,423,261	4,617,100	4,617,100			
Total Expenses	\$26,307,461				\$11,553,444	\$7,377,009	\$7,377,009			
Composite Percentages					44%	28%	28%			
Add: Net Revenue	\$15,623,659									
Less: Non-Rate Operating Revenue	0									
Less: Non-Operating Revenue	(\$29,400,000)									
Revenue Requirement - 2016/17 Budget	\$12,531,120	44%	28%	28%	\$5,503,290	\$3,513,915	\$3,513,915	\$6.21	\$3.52	\$3.59
Revenue Requirement - Future										
2017/18	\$13,601,278	44%	28%	28%	\$5,973,271	\$3,814,003	\$3,814,003	890,557 \$6.71	1,003,070 \$3.80	983,271 \$3.88
2018/19	\$14,762,827	44%	28%	28%	\$6,483,388	\$4,139,719	\$4,139,719	895,010 \$7.24	1,008,085 \$4.11	988,188 \$4.19
2019/20	\$16,023,573	44%	28%	28%	\$7,037,070	\$4,493,251	\$4,493,251	899,485 \$7.82	1,013,126 \$4.44	993,129 \$4.52
2020/21	\$17,230,949	44%	28%	28%	\$7,567,313	\$4,831,818	\$4,831,818	903,983 \$8.37	1,018,191 \$4.75	998,094 \$4.84
2021/22	\$18,529,301	44%	28%	28%	\$8,137,510	\$5,195,895	\$5,195,895	908,503 \$8.96	1,023,282 \$5.08	1,003,085 \$5.18

1 - Total Rate Revenue Requirement from Table 14

	# of Sewer Meters	Projected Water Use	Projected Wastewater Flow			Loadings (lbs)		FY 2018/19 Unit Rate Per Class			FY 2018/19 Cost Recovery			FY 2018/19 Monthly Rates	Strength Factor
			hcf	mg	gpd	BOD	SS	\$/hcf	\$/lb BOD	\$/lb SS	\$/hcf	\$/lb BOD	\$/lb SS		
Residential															
Single Family	10,753	N/A	645,164	482.62	1,322,235	704,955	704,955	\$7.24	\$4.11	\$4.19	\$4,673,518	\$2,894,908	\$2,953,198	\$978.51	
Multi Family	2,566	N/A	153,988	115.19	315,593	168,259	168,259	\$7.24	\$4.11	\$4.19	1,115,481	690,960	704,873	\$978.51	
Government Accounts															
City of Pacifica															
Mixed Use	27	N/A	1,636	1.22	3,353	1,788	1,788	\$7.24	\$4.11	\$4.19	11,853	7,342	7,490	\$978.51	
Other Use	N/A	1,308	1,308	0.98	2,681	1,429	1,429	\$7.24	\$4.11	\$4.19	9,475	5,869	5,987	\$16.31	
Commercial															
Car Washes	N/A	2,107	2,107	1.58	4,318	403	3,022	\$7.24	\$4.11	\$4.19	15,262	1,654	12,658	\$14.04	0.9
Cleaners	N/A	3,805	3,805	2.85	7,798	7,269	3,877	\$7.24	\$4.11	\$4.19	27,561	29,852	16,242	\$19.36	1.2
Restaurants	N/A	17,291	17,291	12.93	35,436	47,810	28,686	\$7.24	\$4.11	\$4.19	125,252	196,331	120,171	\$25.55	1.6
All other commercial use	N/A	69,712	69,712	52.15	142,871	76,172	76,172	\$7.24	\$4.11	\$4.19	504,986	312,802	319,101	\$16.31	
TOTAL	13,346	94,222	895,010	669.51	1,834,285	1,008,085	988,188				\$6,483,388	\$4,139,719	\$4,139,719		
											\$14,762,827				

	# of Sewer Meters	Projected Water Use	Projected Wastewater Flow			Loadings (lbs)		FY 2019/20 Unit Rate Per Class			FY 2019/20 Cost Recovery			FY 2019/20 Monthly Rates	Strength Factor
			hcf	mg	gpd	BOD	SS	\$/hcf	\$/lb BOD	\$/lb SS	\$/hcf	\$/lb BOD	\$/lb SS		
Residential															
Single Family	10,806	N/A	648,389	485	1,328,847	708,479	708,479	\$7.82	\$4.44	\$4.52	\$5,072,637	\$3,142,133	\$3,205,402	\$1,056.79	
Multi Family	2,579	N/A	154,758	116	317,171	169,101	169,101	\$7.82	\$4.44	\$4.52	1,210,743	749,968	765,069	\$1,056.79	
Government Accounts															
City of Pacifica															
Mixed Use	27	N/A	1,644	1	3,370	1,797	1,797	\$7.82	\$4.44	\$4.52	12,865	7,969	8,129	\$1,056.79	
Other Use	N/A	1,315	1,315	1	2,694	1,436	1,436	\$7.82	\$4.44	\$4.52	10,284	6,370	6,499	\$17.61	
Commercial															
Car Washes	N/A	2,117	2,117	2	4,340	405	3,037	\$7.82	\$4.44	\$4.52	16,566	1,796	13,739	\$15.16	0.9
Cleaners	N/A	3,824	3,824	3	7,837	7,306	3,896	\$7.82	\$4.44	\$4.52	29,915	32,402	17,629	\$20.91	1.2
Restaurants	N/A	17,377	17,377	13	35,614	48,049	28,829	\$7.82	\$4.44	\$4.52	135,949	213,098	130,433	\$27.59	1.6
All other commercial use	N/A	70,060	70,060	52	143,585	76,553	76,553	\$7.82	\$4.44	\$4.52	548,112	339,516	346,352	\$17.61	
TOTAL	13,413	94,693	899,485	672.86	1,843,457	1,013,126	993,129				\$7,037,070	\$4,493,251	\$4,493,251		
											\$16,023,573				

	# of Sewer Meters	Projected Water Use	Projected Wastewater Flow			Loadings (lbs)		FY 2020/21 Unit Rate Per Class			FY 2020/21 Cost Recovery			FY 2020/21 Monthly Rates	Strength Factor
			hcf	mg	gpd	BOD	SS	\$/hcf	\$/lb BOD	\$/lb SS	\$/hcf	\$/lb BOD	\$/lb SS		
Residential															
Single Family	10,861	N/A	651,631	487	1,335,491	712,022	712,022	\$8.37	\$4.75	\$4.84	\$5,454,860	\$3,378,893	\$3,446,929	\$1,130.76	
Multi Family	2,592	N/A	155,532	116	318,757	169,946	169,946	\$8.37	\$4.75	\$4.84	1,301,972	806,478	822,717	\$1,130.76	
Government Accounts															
City of Pacifica															
Mixed Use	28	N/A	1,653	1	3,387	1,806	1,806	\$8.37	\$4.75	\$4.84	13,834	8,569	8,742	\$1,130.76	
Other Use	N/A	1,321	1,321	1	2,708	1,444	1,444	\$8.37	\$4.75	\$4.84	11,059	6,850	6,988	\$18.85	
Commercial															
Car Washes	N/A	2,128	2,128	2	4,361	407	3,052	\$8.37	\$4.75	\$4.84	17,814	1,931	14,774	\$16.22	0.9
Cleaners	N/A	3,843	3,843	3	7,876	7,342	3,916	\$8.37	\$4.75	\$4.84	32,169	34,843	18,957	\$22.37	1.2
Restaurants	N/A	17,464	17,464	13	35,792	48,289	28,973	\$8.37	\$4.75	\$4.84	146,192	229,155	140,261	\$29.52	1.6
All other commercial use	N/A	70,410	70,410	53	144,303	76,936	76,936	\$8.37	\$4.75	\$4.84	589,412	365,098	372,450	\$18.85	
TOTAL	13,480	95,166	903,983	676.23	1,852,674	1,018,191	998,094				\$7,567,313	\$4,831,818	\$4,831,818		
											\$17,230,949				

	# of Sewer Meters	Projected Water Use	Projected Wastewater Flow			Loadings (lbs)		FY 2020/21 Unit Rate Per Class			FY 2021/22 Cost Recovery			FY 2021/22 Monthly Rates	Strength Factor
			hcf	mg	gpd	BOD	SS	\$/hcf	\$/lb BOD	\$/lb SS	\$/hcf	\$/lb BOD	\$/lb SS		
Residential															
Single Family	10,915	N/A	654,889	490	1,342,168	715,582	715,582	\$8.96	\$5.08	\$5.18	\$5,865,883	\$3,633,493	\$3,706,655	\$1,209.92	
Multi Family	2,605	N/A	156,310	117	320,350	170,796	170,796	\$8.96	\$5.08	\$5.18	1,400,076	867,246	884,709	\$1,209.92	
Government Accounts															
City of Pacifica															
Mixed Use	28	N/A	1,661	1	3,404	1,815	1,815	\$8.96	\$5.08	\$5.18	14,877	9,215	9,401	\$1,209.92	
Other Use	N/A	1,328	1,328	1	2,721	1,451	1,451	\$8.96	\$5.08	\$5.18	11,892	7,366	7,515	\$20.17	
Commercial															
Car Washes	N/A	2,139	2,139	2	4,383	409	3,067	\$8.96	\$5.08	\$5.18	19,156	2,076	15,887	\$17.36	0.9
Cleaners	N/A	3,862	3,862	3	7,915	7,379	3,935	\$8.96	\$5.08	\$5.18	34,593	37,468	20,386	\$23.94	1.2
Restaurants	N/A	17,551	17,551	13	35,971	48,530	29,118	\$8.96	\$5.08	\$5.18	157,208	246,421	150,830	\$31.59	1.6
All other commercial use	N/A	70,763	70,763	53	145,025	77,321	77,321	\$8.96	\$5.08	\$5.18	633,824	392,608	400,514	\$20.17	
TOTAL	13,548	95,642	908,503	679.61	1,861,937	1,023,282	1,003,085				\$8,137,510	\$5,195,895	\$5,195,895		
											\$18,529,301				

Table 19
City of Pacifica
Rate Summary - RATE STRUCTURE OPTION 3 (Based on Dwelling Unit)

	Equivalent 2016/17	2017/18 Projected	2018/19 Projected	2019/20 Projected	2020/21 Projected	2021/22 Projected
Residential (\$/EDU)	\$838.91	\$906.03	\$978.51	\$1,056.79	\$1,130.76	\$1,209.92
Commercial (\$/hcf)	\$13.98	\$15.10	\$16.31	\$17.61	\$18.85	\$20.17
City Of Pacifica						
Mixed Use (\$/EDU)	\$838.91	\$906.03	\$978.51	\$1,056.79	\$1,130.76	\$1,209.92
All Other Use (\$/hcf)	\$13.98	\$15.10	\$16.31	\$17.61	\$18.85	\$20.17

Strength Factors	
Car Washes	0.9
Cleaners	1.2
Restaurants	1.6
All Other Users	1.0

Government Mixed Use Classes	
Mixed-1	1 EDU
Mixed-2	2 EDUs
Mixed-3	3 EDUs
Mixed-4	4 EDUs

Table 20
City of Pacifica
Single Family Residence Bill Impact assuming Cash Flow Table 7C

RATE STRUCTURE OPTION 1 (Current Rates) *Recommended					<i>Projected Increases (from Proposed Rates Table 8, 40% cont.)</i>				
	2016-17		2016/17		<i>8.0%</i>	<i>8.0%</i>	<i>8.0%</i>	<i>7.0%</i>	<i>7.0%</i>
	hcf billed	Volumetric Charge	Minimum Charge	Total Charge	2017-18	2018-19	2019-20	2020-21	2021-22
Minimum	0	\$0.00	\$626.14	\$626.14	\$676.23	\$730.33	\$788.76	\$843.97	\$903.05
25th Percentile	30	\$391.34	\$626.14	\$626.14	\$676.23	\$730.33	\$788.76	\$843.97	\$903.05
50th Percentile	48	\$626.15	\$626.14	\$626.15	\$676.24	\$730.34	\$788.77	\$843.98	\$903.06
Average	55	\$712.82	\$626.14	\$712.82	\$769.84	\$831.43	\$897.95	\$960.80	\$1,028.06
75th Percentile	72	\$939.22	\$626.14	\$939.22	\$1,014.36	\$1,095.51	\$1,183.15	\$1,265.97	\$1,354.59
Maximum	435	\$5,674.47	\$626.14	\$5,674.47	\$6,128.43	\$6,618.70	\$7,148.20	\$7,648.57	\$8,183.97

PROPOSED RATE STRUCTURE OPTION 2 (Based on Meter Size)

					<i>Projected Increases (from Rate Summary Table 13)</i>				
	2016-17		Equivalent	Total Annual	2017-18	2018-19	2019-20	2020-21	2021-22
	hcf billed	Volumetric Charge	1" Meter	Charge					
			Fixed Charge						
Minimum	0	\$0.00	\$202.93	\$202.93	\$354.96	\$388.67	\$386.73	\$397.00	\$405.22
25th Percentile	30	\$353.66	\$202.93	\$556.59	\$667.22	\$723.19	\$764.96	\$810.33	\$857.52
50th Percentile	48	\$565.85	\$202.93	\$768.78	\$854.58	\$923.90	\$991.90	\$1,058.33	\$1,128.91
Average	55	\$644.17	\$202.93	\$847.11	\$923.74	\$997.98	\$1,075.67	\$1,149.87	\$1,229.08
75th Percentile	72	\$848.78	\$202.93	\$1,051.71	\$1,104.39	\$1,191.51	\$1,294.48	\$1,388.99	\$1,490.75
Maximum	895	\$10,550.75	\$202.93	\$10,753.68	\$9,670.74	\$10,368.41	\$11,670.67	\$12,727.95	\$13,898.96

PROPOSED RATE STRUCTURE OPTION 3 (Based on Dwelling Unit)

		Equivalent	<i>Projected Increases (from Rate Summary Table 19)</i>				
		2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
All Residential Accounts (\$/EDU)		\$838.91	\$906.03	\$978.51	\$1,056.79	\$1,130.76	\$1,209.92

All Minimum or Fixed charges will be rounded to the nearest even penny upon adoption

Single Family Residential Monthly Wastewater Rates, FY16/17

