

CITY OF SEAL BEACH

WATER RATE STUDY ANALYSIS FINAL REPORT

DECEMBER 2, 2009

PREPARED FOR:

CITY OF SEAL BEACH



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Executive Summary

Included in this study are the findings of the water enterprise water cost analysis, estimated revenue requirement analysis, functional costs of service analysis, water rate calculations, along with a brief description of the assumptions used in the calculations. The study examines the City financials for fiscal years 2008/09 through 2017/18 (the study period). The estimated annual system revenues to be generated from proposed rate increases are derived from a comparison of total system revenues and costs, both operating and capital, during this 10-year projection period. City activities included in our analysis were gathered from the City's operating adopted budget (FY 2009/2010) and audited financial statements from FY 2005/06, FY 2006/07 & FY 2007/08. Base year income and expense data for both systems were obtained for fiscal year 2009/10 using the annual budget document.

It is our hope that this financial plan will be utilized by the City to project likely future financial conditions for the City and provide guidance in annual budgetary decision making processes. For the purposes of this study, we have included in our analysis fiscal years 2009/10 through 2013/14. We chose to highlight the first five fiscal years only because the nature of water costs in today's environment is highly volatile and difficult to predict in the out years. We believe a five-year analysis for the study is more reasonable.

1. Revenue Requirements Analysis

The next few sections of this study describe our Revenue Requirements Analysis.

Historical and Budgeted Revenues and Expenses

Base year income and expense data for the water enterprise fund were obtained for fiscal year 2008/2009 using the water enterprise adopted budget for that year and audited financial statements from fiscal years 2006 through 2008. The historic financial results and projected budgets of the water enterprise are shown in [Table 1](#).

Table 1. Historical Revenues and Expenditures - Fund 017

Account Number	Description	Historical Trial Balance		
		FY 2005/06	FY 2006/07	FY 2007/08
Operating Revenues				
017-000-34000	Water Revenue w/o rate increase	\$ 2,740,284	\$ 2,508,409	\$ 2,866,812
017-000-35000	Residential Water w/o rate increase	1,294,350	1,430,450	1,329,530
017-000-35010	Multi Residential Water w/o rate increase	-	-	-
017-000-35020	Commercial Water w/o rate increase	62,566	63,998	62,655
017-000-30960	Miscellaneous Revenue	300	600	505
017-000-35500	Water Turn On Fee	6,826	7,080	5,418
017-000-35510	Late Charge	19,432	37,419	33,183
017-000-35520	Door Tag Fee	50	690	450
017-000-35530	Water Meters	3,995	4,216	2,822
017-000-35540	New Customer Fee	-	-	-
017-000-35590	Fire Service	33,024	39,756	49,898
Total Operating Revenues		\$ 4,160,828	\$ 4,092,618	\$ 4,351,274
Non-Operating Revenues				
017-000-30420	Interest on Investments - Operations	\$ 69,574	\$ 170,425	\$ 211,812
017-000-30940	Sale of Surplus Property - Operations	-	-	-
017-000-30423	Unrealized Gain/Loss on Invest - Operations	-	19,660	11,370
017-000-36000	Gain/Loss on sale of asset - Operations	-	-	-
Total Non-Operating Revenues		\$ 69,574	\$ 190,085	\$ 223,182
Total Operating Revenues		\$ 4,230,402	\$ 4,282,703	\$ 4,574,456

Sources: Seal Beach General Ledger Summary Trial Balance for Water Operations dated 10/15/2008; Willdan Financial Services

Table 1. Historical Revenues and Expenditures - Fund 017 Continued

Account Number	Description	Historical Trial Balance		
		FY 2005/06	FY 2006/07	FY 2007/08
Operating Expenditures				
017-900-40001	Full-time Salaries	\$ 588,475	\$ 639,839	\$ 662,939
017-900-40002	Temporary Special Pay	-	-	-
017-900-40003	Overtime	20,143	44,201	51,898
017-900-40004	Part-time	27,327	27,787	31,752
017-900-40008	Auto Allowance Engineering	-	-	-
017-900-40009	Cell Phone Allowance	-	-	-
017-900-40010	Deferred Comp - Cafeteria	-	-	3,391
017-900-40011	Deferred Compensation	8,687	11,489	11,635
017-900-40012	Pers Retirement	76,909	87,131	91,073
017-900-40013	Pars Retirement	362	360	429
017-900-40014	Medical Insurance	69,840	83,464	93,014
017-900-40015	Dental Insurance	4,614	-	37
017-900-40017	Medicare	6,225	7,795	8,588
017-900-40018	Life and Disability	7,928	-	9,219
017-900-40020	Uniform Pay	-	-	-
017-900-40022	Flexible Spending - Cafeteria	-	9,054	19
017-900-40025	Pars Admin Expense	301	309	359
017-900-40030	Unemployment	760	-	-
017-900-40100	Office Supplies	27,027	27,161	25,545
017-900-40300	Membership and Dues	602	633	704
017-900-40400	Training and Meetings	4,534	3,926	4,629
017-900-40500	Bldg/grounds Materials	-	-	-
017-900-40700	Equipment/materials	87,874	97,450	100,178
017-900-40800	Special Departmental	34,798	33,956	38,194
017-900-40900	Depreciation	150,934	88,475	61,155
017-900-41000	Telephone	7,124	7,296	7,764
017-900-41010	Gas	102,726	86,732	103,904
017-900-41020	Electricity	99,899	131,648	107,283
017-900-42000	Rent/lease Equip	-	-	-
017-900-43000	Auto Allowance	536	540	-
017-900-44000	Contract Prof. Svcs	95,787	181,629	168,815
017-900-44050	Water Overhead	318,148	324,500	324,500
017-900-45000	Intergovernmental Water Purchases	1,280,730	1,326,424	1,388,641
017-900-47888	Debt Service	-	-	-
017-900-47999	Interest Payments	9,156	7,576	7,145
017-900-48000	Building Imp.	-	-	-
017-900-48050	Machinery And Equip	-	-	-
017-900-48075	Vehicles	737	-	250
017-900-49710	Legal Services - Water	-	-	-
Total Operating Expenditures		\$ 3,032,183	\$ 3,229,376	\$ 3,303,059
Net Income (Loss)		\$ 1,198,219	\$ 1,053,327	\$ 1,271,396

Sources: Seal Beach General Ledger Summary Trial Balance for Water Operations dated 10/15/2008; Willdan Financial Services

Financial Planning Analysis

The financial model addresses both operating and non-operating revenues and costs over the next five fiscal years beginning in FY 2009/10. The fiscal year 2009/10 budget figures were used as the base year and inflated based on appropriate measures as determined by the City's experience and our industry research and experience. [Table 2](#) presents the assumed escalation factors and other assumptions utilized to project water system revenues and expenses over the study planning period. *These assumptions will be centrally located within the final rate model to allow City staff the ability to easily update the model in the future as conditions and assumptions change.* Please note that we assume no customer growth over the study period. Because the City is fairly developed, and will likely result in a 0.00% increase in annual account growth and resulting rate revenues.

Table 2. Water Rate Analysis Assumptions

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
Projected Growth Rate	0.000%	0.000%	0.000%	0.000%	0.000%
Water Sales (af)	4,200	4,200	4,200	4,200	4,200
BPP % ¹	62%	62%	62%	62%	62%
Annual MWDOC Water Cost/AF ²	\$ 709.00	\$ 878.00	\$ 921.00	\$ 966.00	\$ 1,013.00
Annual OCWD Replenishment Assessment/AF ³	\$ 249.00	\$ 261.45	\$ 274.52	\$ 288.25	\$ 302.66
MWDOC Retail Meter Connection Fee	\$ 31,719	\$ 33,305	\$ 34,970	\$ 36,719	\$ 38,555
Number of Meters ⁴	5,116	5,116	5,116	5,116	5,116
Cost/Meter ⁵	\$ 6.20	\$ 6.51	\$ 6.84	\$ 7.18	\$ 7.54
MWDOC Capacity Charge	\$ 35,536	\$ 37,313	\$ 39,178	\$ 41,137	\$ 43,194
MWDOC RTS ⁶	\$ 22,833	\$ 23,974	\$ 25,173	\$ 26,432	\$ 27,753
Expenditure Growth Rate	5.00%	5.00%	5.00%	5.00%	5.00%
CCI ⁷	4.46%	4.46%	4.46%	4.46%	4.46%

1. Source for BPP% is OCWD e-mail to City on 2/27/09.

2. Each fiscal year projection of average of respective calendar years 2009 and 2010. These rates reflect MWD staff Option 2 rates (allocation scenario).

3. Per OCWD e-mails on 2/27/09 and 3/3/09, FY 09/10 RA is \$249/af and to project annual increases of 5%.

4. Source for number of meters: City Staff.

5. Source for Cost per Meter and Cost per CFS: MWDOC; Increase both by 5%.

6. Seal Beach share of Total MWDOC Sales.

7. Source is ENR Cost Indexes in LOS ANGELES (1978-2009).

Sources: City of Seal Beach; FY 2008/09 Annual Budget; MWDOC; OCWD; Engineering News Record; Willdan Financial Services.

Water Cost Analysis

[Table 3](#) illustrates the analysis used to project the City's water cost over the next five years. [Table 3](#) shows the water cost projections using MWDOC rates that reflect MWD staff Option 2 (allocation scenario) provided by the City. In today's environment, water purchased from the wholesale market requires significantly increasing costs. Therefore, we believe a large projected

annual increase in water costs is a conservative means to plan the future rate schedule for the City. The assessment for untreated replenishment water per acre foot via OCWD was projected using a rate of five percent (5%).

Table 3. Projected Water Cost Calculation

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
Total Import Water (MWDOC) in acre feet	1,596	1,596	1,596	1,596	1,596
Average MWDOC Treated Full Service Water Rate (\$/AF)	709.00	878.00	921.00	966.00	1,013.00
Subtotal Import Water Cost	\$ 1,131,564	\$ 1,401,288	\$ 1,469,916	\$ 1,541,736	\$ 1,616,748
MWDOC Retail Meter Connection Fee	\$ 31,719	\$ 33,305	\$ 34,970	\$ 36,719	\$ 38,555
MWDOC Capacity Charge	35,536	37,313	39,178	41,137	43,194
MWDOC RTS ⁴	22,833	23,974	25,173	26,432	27,753
Subtotal Import Meter, Capacity & RTS Cost	\$ 90,088	\$ 94,592	\$ 99,322	\$ 104,288	\$ 109,502
Total Import Water Cost	\$ 1,221,652	\$ 1,495,880	\$ 1,569,238	\$ 1,646,024	\$ 1,726,250
Total Groundwater in acre feet ²	2,604	2,604	2,604	2,604	2,604
OCWD Replenishment Rate (RA) (\$/AF) ³	249.00	261.45	274.52	288.25	302.66
Total Groundwater Replenishment Cost	\$ 648,396	\$ 680,816	\$ 714,857	\$ 750,599	\$ 788,129
Total Groundwater and Import Water Costs	\$ 1,870,048	\$ 2,176,696	\$ 2,284,094	\$ 2,396,623	\$ 2,514,380

1. Each fiscal year projection of average of respective calendar years 2009 and 2010. These rates reflect MWD staff Option 2 rates (allocation scenario).

2. Reflects 62% BPP.

3. Increased annually at five percent (5%).

Sources: City of Seal Beach; MWDOC; OCWD.

Capital Improvement Costs

The City maintains an inventory of Water System Capital Improvement Projects (CIP) for the funding of annual water-related capital projects. The values used in this analysis are based on cost estimates provided by City staff.

Table 4 presents the water-related CIP over the five-year planning period (note that it is assumed that all CIP costs are not driven by growth demands and will be funded on a “pay-as-you-go basis”).

Table 4: City of Seal Beach Water Capital Expenditures

		Approved Carryover 2008-2009 Budget	Approved 2009-2010 Budget	Approved 2010-2011 Budget	Approved 2011-2012 Budget	Approved 2012- 2013 Budget	Approved 2013- 2014 Budget	5-year total
Water System								
WT0902 Water System Infrastructure Repairs								
	Water Capital Fund	\$ 1,150,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 3,150,000
	Total	\$ 1,150,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 3,150,000
WT0903 New Water Well - College Park East								
	Water Capital Fund		\$ 2,000,000					\$ 2,000,000
	Total		\$ 2,000,000					\$ 2,000,000
WT0904 Water Station Rehab. - Beverly Manor								
	Water Capital Fund	\$ 1,500,000	\$ 1,200,000					\$ 2,700,000
	Total	\$ 1,500,000	\$ 1,200,000					\$ 2,700,000
WT1202 Water Well Rehab. - Bolsa Chica Well								
	Water Capital Fund					\$ 600,000		\$ 600,000
	Total					\$ 600,000		\$ 600,000
WT0905 Water System Master Plan Update								
	Water Capital Fund			\$ 100,000				\$ 100,000
	Total			\$ 100,000				\$ 100,000
WT0901 New 18" Water Line on OC Flood Control								
	Water Capital Fund		\$ 500,000					\$ 500,000
	Total		\$ 500,000					\$ 500,000
WT1201 Main line Replacement Hellman Ranch Permits								
	Water Capital Fund				\$ 10,000	\$ 500,000		\$ 510,000
	Total				\$ 10,000	\$ 500,000		\$ 510,000
GRAND TOTAL		\$ 2,650,000	\$ 4,100,000	\$ 500,000	\$ 410,000	\$ 1,500,000	\$ 400,000	\$ 9,560,000

Revenue Analysis

Our evaluation of future revenue required to meet the Water Fund's expenses include the four areas of: operating expenses, capital improvement costs, requirements for debt service, and the maintenance of reserve fund balances. The following sections discuss the impact of these four factors on the water enterprise required revenue.

Operating Expense Projections

For the purpose of determining annual revenue needed to set future water rates, we used a projection period of five years. During this period (FY 2009/2010 through FY 2013/2014), costs are assumed to increase and customer accounts are assumed to stay level. Therefore, the study assumes a customer growth rate of zero percent (0.00%). In reviewing the historical expenditure data, we have found that costs have not increased in a readily identifiable manner, therefore we recommend using an expenditure and personnel growth rate of five percent (5%) to project the future costs of the system.

Capital Improvement Costs

As discussed above, Table 4 presents the CIP over the five-year planning period.

Debt Service

The water enterprise currently is making payments on a Economic Development Administration Loan in the amount of \$288,000. The water enterprise is making payments in the amount of \$17,074 annually. When an Agency is considering incurring additional debt, debt service coverage ratios are established and must be met through adequate revenue streams. The range of typical ratios is one hundred fifteen percent (115%) to one hundred thirty –five percent (135%), depending on the credit quality of the issuer.

Reserve Funds

According to the Audited Financial Statements as of June 30, 2008, the Water Enterprise Fund #017 had a reserve fund balance of \$5,657,066. We recommend that the City adopt a policy of maintaining a designated balance in the operating fund of three months (90 days) of operating expenses in order to satisfy expense obligations as cash flow fluctuates during the year.

Water Revenue Requirements

Table 5 depicts the annual revenue requirements of the water enterprise for each year of the study period. Fiscal Year 2009/2010 is used as the base year for the study. The study assumes a customer growth rate of zero percent (0.00%) and an expenditure and personnel growth rate of five percent (5%) to project the future costs of the system. The Desired Operating Reserve Fund Balance is set at ninety (90) days or twenty-five percent (25%) of O&M expenses. The beginning operating fund balance for fiscal year 2009/2010 is estimated at \$5,657,066 (line 118).

Table 5 includes annual revenues projected to decreased by thirty-five percent (35%) for the remaining five months of fiscal year 2009/2010; followed by an increase of twenty-six and a quarter percent (26.25%) in fiscal year 2010/2011; followed by a projected revenue increase of four and eight tenths percent (4.80%) in fiscal year 2011/2012; followed by a revenue increase of five and one tenth percent (5.10%) in fiscal year 2012/2013; finally in fiscal year 2013/2014 system revenues will be increased by five percent (5%). These projected decrease and increase will allow the City to meet projected department expenditures, the projected operating and non-operating expenses, and fund balances based on the revenues generated from rate and fee adjustments.

Row 11 of this table shows the revenue generated using current rates and fees; a zero percent (0.0%) population growth rate was used in the projection of these rates and fees. These rates and fees produce enough revenue to maintain a healthy operating fund balance. The section below the current revenues (rows 6 through 13) incorporates the revenue generated by the proposed revenue decrease and increases. As the table illustrates, water service charge revenue is sufficient to maintain a positive cumulative fund balance throughout the study period.

Total Operating Expenses are shown in row 64. Net Income is found in row 95 with the Operating Fund Balance detailed near the bottom of the table in row 103.

A line for Desired Operating Fund Balance (row 101) is also included in the table. This shows the minimum amount of funds the City would like to maintain in its operating fund, to address annual cash flow requirements that may arise for the department.

Table 5. City of Seal Beach Water Revenue Requirements Analysis - Operations

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
1 Operating Revenue					
2 Water Revenue w/o rate increase	\$ 2,866,812	\$ 2,866,812	\$ 2,866,812	\$ 2,866,812	\$ 2,866,812
3 Residential Water w/o rate increase	1,329,530	1,329,530	1,329,530	1,329,530	1,329,530
4 Multi Residential Water w/o rate increase	-	-	-	-	-
5 Commercial Water w/o rate increase	62,655	62,655	62,655	62,655	62,655
6 Total Operating Revenue	\$ 4,258,997	\$ 4,258,997	\$ 4,258,997	\$ 4,258,997	\$ 4,258,997
7 Capital Revenue					
8 Water Capital Charge w/o rate increase	1,381,833	1,381,833	1,381,833	1,381,833	1,381,833
9 Fire Service Charge	-	-	-	-	-
10 Total Capital Revenue	\$ 1,381,833	\$ 1,381,833	\$ 1,381,833	\$ 1,381,833	\$ 1,381,833
11 Total Revenue	\$ 5,640,830	\$ 5,640,830	\$ 5,640,830	\$ 5,640,830	\$ 5,640,830
12 Additional Revenue Required					
	<i>Revenue</i>				
13	<i>Year</i>	<i>Increase</i>	<i>Months Effective</i>		
14	2008/09	0.00%	0	-	-
15	2009/10	-35.00%	5	(822,621)	(1,974,290)
16	2010/11	26.25%	12	-	962,467
17	2011/12	4.80%	12	-	222,192
18	2012/13	5.10%	12	-	247,411
19	2013/14	5.00%	12	-	254,930
20	2014/15	5.25%	12	-	-
21	2015/16	6.00%	12	-	-
22	2016/17	4.75%	12	-	-
23	2017/18	4.85%	12	-	-
24 Total Additional Operating Revenue				(822,621)	(1,011,824)
25 Total Required Revenue	\$ 4,818,209	\$ 4,629,006	\$ 4,851,198	\$ 5,098,609	\$ 5,353,540
26 Operating Expenses					
27 Full-time Salaries	\$ 730,890	\$ 767,435	\$ 805,806	\$ 846,097	\$ 888,402
28 Temporary Special Pay	-	-	-	-	-
29 Overtime	57,217	60,078	63,082	66,236	69,548
30 Part-time	35,006	36,757	38,595	40,524	42,551
31 Auto Allowance Engineering	-	-	-	-	-
32 Cell Phone Allowance	-	-	-	-	-
33 Deferred Comp - Cafeteria	3,739	3,926	4,122	4,328	4,545
34 Deferred Compensation	12,827	13,468	14,142	14,849	15,591
35 Pers Retirement	100,408	105,428	110,700	116,235	122,047
36 Pars Retirement	473	497	522	548	575
37 Medical Insurance	102,548	107,675	113,059	118,712	124,648
38 Dental Insurance	1,628	1,710	1,795	1,885	1,979
39 Medicare	9,468	9,941	10,438	10,960	11,508
40 Life and Disability	10,164	10,672	11,206	11,766	12,354
41 Uniform Pay	-	-	-	-	-
42 Flexible Spending - Cafeteria	3,176	3,334	3,501	3,676	3,860
43 Pars Admin Expense	395	415	436	458	481
44 Unemployment	266	279	293	308	323
45 Office Supplies	27,907	29,302	30,767	32,305	33,921
46 Membership and Dues	776	815	855	898	943
47 Training and Meetings	4,581	4,810	5,051	5,303	5,568
48 Bldg/grounds Materials	-	-	-	-	-
49 Equipment/materials	110,446	115,968	121,767	127,855	134,248
50 Special Departmental	42,109	44,214	46,425	48,746	51,184
51 Depreciation	105,197	110,457	115,980	121,779	127,868
52 Telephone	8,560	8,988	9,438	9,909	10,405
53 Gas	114,554	120,281	126,295	132,610	139,241
54 Electricity	118,279	124,193	130,403	136,923	143,769
55 Rent/lease Equip	-	-	-	-	-
56 Auto Allowance	377	395	415	436	458
57 Contract Prof. Svcs	156,181	163,990	172,189	180,798	189,838
58 Water Overhead	357,761	375,649	394,432	414,153	434,861
59 Intergovernmental Water Purchases	1,870,048	2,176,696	2,284,094	2,396,623	2,514,380
60 Building Imp.	-	-	-	-	-
61 Machinery And Equip	-	-	-	-	-
62 Vehicles	345	363	381	400	420
63 Legal Services - Water	-	-	-	-	-
64 Total Operating Expenses	\$ 3,985,326	\$ 4,397,739	\$ 4,616,189	\$ 4,845,323	\$ 5,085,514

Table 5. City of Seal Beach Water Revenue Requirements Analysis - Operations

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
65 Capital Expenses					
66 Contract Professional Services	\$ 120,620	\$ 120,620	\$ 120,620	\$ 120,620	\$ 120,620
67 Depreciation	<u>357,703</u>	<u>357,703</u>	<u>357,703</u>	<u>357,703</u>	<u>357,703</u>
68 Total Capital Expenses	\$ 478,322	\$ 478,322	\$ 478,322	\$ 478,322	\$ 478,322
69 Net Operating Income (Loss)	\$ 354,560	\$ (247,055)	\$ (243,313)	\$ (225,036)	\$ (210,296)
70 Debt Service					
71 Debt Service	\$ 17,074	\$ 17,074	\$ 17,074	\$ 17,074	\$ 17,074
72 Total Debt Service	17,074	17,074	17,074	17,074	17,074
73 Debt Coverage Ratio	39.61	1.58	1.69	1.77	1.65
74 Non-Rate Revenue					
75 Miscellaneous Revenue	505	505	505	505	505
76 Water Turn On Fee	5,418	5,418	5,418	5,418	5,418
77 Late Charge	33,183	33,183	33,183	33,183	33,183
78 Door Tag Fee	450	450	450	450	450
79 Water Meters	2,822	2,822	2,822	2,822	2,822
80 New Customer Fee	-	-	-	-	-
81 Fire Service	49,898	49,898	49,898	49,898	49,898
82 Total Non-Rate Revenue	92,277	92,277	92,277	92,277	92,277
83 Non-Operating Revenue - Operations					
84 Interest on Investments - Operations	\$ 37,190	\$ 47,868	\$ 48,835	\$ 49,850	\$ 44,254
85 Unrealized Gain/Loss on Invest - Operations	10,343	10,343	10,343	10,343	10,343
86 Sale of Surplus Property - Operations	-	-	-	-	-
87 Gain/Loss on sale of asset - Operations	-	-	-	-	-
88 Total Non-Operating Revenue - Ops	\$ 47,533	\$ 58,212	\$ 59,179	\$ 60,193	\$ 54,598
89 Non-Operating Revenue - Capital					
90 Interest on Investments - Capital	\$ 176,102	\$ 107,102	\$ 93,452	\$ 64,802	\$ 42,903
91 Interest on Investments - Repair & Replacement	16,097	26,828	37,559	48,290	59,021
92 Unrealized Gain/Loss on Invest - Capital	11,050	11,050	11,050	11,050	11,050
93 Sale of Surplus Property - Capital	-	-	-	-	-
94 Total Non-Operating Revenue - Cap	\$ 203,248	\$ 144,980	\$ 142,061	\$ 124,142	\$ 112,973
95 Net Income (Loss)	\$ 680,545	\$ 31,339	\$ 33,129	\$ 34,502	\$ 32,477
96 O&M Fund Information					
97 Beginning Operating Fund Balance	\$ 899,401	\$ 1,579,945	\$ 1,611,284	\$ 1,644,413	\$ 1,678,915
98 Deposit (Withdrawals)	<u>680,545</u>	<u>31,339</u>	<u>33,129</u>	<u>34,502</u>	<u>32,477</u>
99 Sub Total O&M Fund	\$ 1,579,945	\$ 1,611,284	\$ 1,644,413	\$ 1,678,915	\$ 1,711,392
100 Reserve Balance Percent of O&M	25%	25%	25%	25%	25%
101 Desired Operating Reserve Balance	\$ 996,332	\$ 1,099,435	\$ 1,154,047	\$ 1,211,331	\$ 1,271,379
102 Excess (Deficit) O&M / Excess to CIP Fund	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>440,014</u>
103 Ending O&M Fund Balance	\$ 1,579,945	\$ 1,611,284	\$ 1,644,413	\$ 1,678,915	\$ 1,271,379
104 Capital Improvement Projects					
105 Capital Projects Fund Balance	\$ 7,920,079	\$ 3,820,079	\$ 3,320,079	\$ 2,910,079	\$ 1,850,093
106 CIP Costs	<u>(4,100,000)</u>	<u>(500,000)</u>	<u>(410,000)</u>	<u>(1,500,000)</u>	<u>(400,000)</u>
107 Total Capital Improvement Projects funded by R&R fund	\$ -	\$ -	\$ -	\$ -	\$ -
108 Repair & Replacement Reserve Fund					
109 Beginning R&R Fund Balance	\$ 357,703	\$ 715,406	\$ 1,073,108	\$ 1,430,811	\$ 1,788,514
110 (Withdrawals for CIP Projects)	-	-	-	-	-
111 Deposit (Depreciation)	<u>357,703</u>	<u>357,703</u>	<u>357,703</u>	<u>357,703</u>	<u>357,703</u>
112 Ending Repair & Replacement Reserve Fund	\$ 715,406	\$ 1,073,108	\$ 1,430,811	\$ 1,788,514	\$ 2,146,217
113 Capital Projects Fund					
114 Beginning CIP Fund Balance	\$ 7,920,079	\$ 3,820,079	\$ 3,320,079	\$ 2,910,079	\$ 1,410,079
115 (Withdrawals for CIP Projects)	<u>(4,100,000)</u>	<u>(500,000)</u>	<u>(410,000)</u>	<u>(1,500,000)</u>	<u>(400,000)</u>
116 Deposits excess O&M Funds	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>440,014</u>
117 Ending Capital Projects Fund	\$ 3,820,079	\$ 3,320,079	\$ 2,910,079	\$ 1,410,079	\$ 1,450,093

Sources: City of Seal Beach; Willdan Financial Services

2. Cost of Service Analysis

A cost of service analysis converts enterprise-related costs incurred by user classes for which rates can be developed. The cost of service study for City of Seal Beach is performed in three basic steps.

The first step is called functionalization. Functionalization categorizes cost data in terms of functions performed by a water utility system. The functions identified in this study include operating expenses, debt service, and capital projects.

The second step classifies operating and non-operating expenses of the water facilities to the cost components of volume (base use), extra-capacity, customer billing/administration, and meters & services. This approach is referred to as the base-extra capacity method and is recommended by the American Water Works Association as an appropriate means of equitably allocating costs to customer classes. The cost components are defined as follows:

- ◆ Volume, or Base Costs: Volume or base costs vary with the consumption of water by users over a specified period of time and relates to the average annual rates of water demand by system users.
- ◆ Extra-Capacity Costs: Capacity costs vary with the demand, or the rate of flow, of water used by user classes of service in excess of average demand, otherwise known as peak demand.
- ◆ Customer Costs: Customer costs vary with the number of customers, or the addition of customers, served by a water system. These costs are typically fixed utility expenses, regardless of customer consumption.
- ◆ Meters & Services: Costs that are related to the water meters such as maintenance, repair, installation and meter reading.

Table 6 presents the peaking factors for each of these customer classes. The final step in the functionalization process involves classifying each expense by a certain factor such as base costs, average day/maximum day demand peaking factors and fixed customer costs. Table 7 presents the allocation of each expense component (operations, debt service and capital projects) based on its functional category of base, extra-capacity, customer, or meter & services costs.

Table 6. Customer Peaking Factors

Customer Class	Mean Usage	Max Usage	Peak Factor
Residential	554,226	755,622	1.36
Commercial	1,063,652	1,505,771	1.42
City	112,603	139,104	1.24

1. Customer class peaking factors were determined by taking the ratio of each customer class' average month consumption to the customer's peak month consumption.

Table 7. Classification of Water Costs by Function

Description	10 Yr Avg Rev. Req.	Commodity Costs		Customer Costs		Basis of Classification
		Base	Max Day	Customer Billing	Meters & Services	
OPERATING EXPENSES						
Full-time Salaries	\$ 875,529	\$ 291,843	\$ -	\$ 291,843	\$ 291,843	33% Base/Billing/Meters
Temporary Special Pay	-	-	-	-	-	33% Base/Billing/Meters
Overtime	68,540	22,847	-	22,847	22,847	33% Base/Billing/Meters
Part-time	41,934	13,978	-	13,978	13,978	33% Base/Billing/Meters
Auto Allowance Engineering	-	-	-	-	-	33% Base/Billing/Meters
Cell Phone Allowance	-	-	-	-	-	33% Base/Billing/Meters
Deferred Comp - Cafeteria	4,479	1,493	-	1,493	1,493	33% Base/Billing/Meters
Deferred Compensation	15,366	5,122	-	5,122	5,122	33% Base/Billing/Meters
Pers Retirement	120,278	40,093	-	40,093	40,093	33% Base/Billing/Meters
Pars Retirement	567	189	-	189	189	33% Base/Billing/Meters
Medical Insurance	122,842	40,947	-	40,947	40,947	33% Base/Billing/Meters
Dental Insurance	1,950	650	-	650	650	33% Base/Billing/Meters
Medicare	11,342	3,781	-	3,781	3,781	33% Base/Billing/Meters
Life and Disability	12,175	4,058	-	4,058	4,058	33% Base/Billing/Meters
Uniform Pay	-	-	-	-	-	33% Base/Billing/Meters
Flexible Spending - Cafeteria	3,804	1,268	-	1,268	1,268	33% Base/Billing/Meters
Pars Admin Expense	474	158	-	158	158	33% Base/Billing/Meters
Unemployment	319	106	-	106	106	33% Base/Billing/Meters
Office Supplies	33,429	-	-	33,429	-	100% Customer Billing
Membership and Dues	929	310	-	310	310	33% Base/Billing/Meters
Training and Meetings	5,488	1,829	-	1,829	1,829	33% Base/Billing/Meters
Bldg/grounds Materials	-	-	-	-	-	33% Base/Billing/Meters
Equipment/materials	132,302	44,101	-	44,101	44,101	33% Base/Billing/Meters
Special Departmental	50,442	16,814	-	16,814	16,814	33% Base/Billing/Meters
Depreciation	126,015	31,504	31,504	31,504	31,504	25% across
Telephone	10,254	-	-	10,254	-	100% Customer Billing
Gas	137,223	72,220	65,004	-	-	Avg/Max Day
Electricity	141,686	74,569	67,118	-	-	Avg/Max Day
Rent/lease Equip	-	-	-	-	-	33% Base/Billing/Meters
Auto Allowance	451	150	-	150	150	33% Base/Billing/Meters
Contract Prof. Svcs	187,088	62,363	-	62,363	62,363	33% Base/Billing/Meters
Water Overhead	428,560	142,853	-	142,853	142,853	33% Base/Billing/Meters
Intergovernmental Water Purchases	2,418,415	2,418,415	-	-	-	100% Base
Building Imp.	-	-	-	-	-	33% Base/Billing/Meters
Machinery And Equip	-	-	-	-	-	Avg/Max Day
Vehicles	414	138	-	138	138	33% Base/Billing/Meters
Legal Services - Water	-	-	-	-	-	33% Base/Billing/Meters
Total Operation Expenses	\$ 4,952,296	\$ 3,291,798	\$ 163,625	\$ 770,278	\$ 726,595	
CAPITAL EXPENSES						
Contract Professional Services	\$ 120,620	\$ 40,207	\$ -	\$ 40,207	\$ 40,207	33% Base/Billing/Meters
Depreciation	357,703	89,426	89,426	89,426	89,426	25% across
Total Capital Expenses	\$ 478,322	\$ 129,632	\$ 89,426	\$ 129,632	\$ 129,632	
DEBT SERVICE						
Debt Service	\$ 17,074	8,986	8,088	-	-	Avg/Max Day
Total Debt Service	\$ 17,074	\$ 8,986	\$ 8,088	\$ -	\$ -	
CAPITAL IMPROVEMENT COSTS						
CIP Costs	\$ 1,357,529	714,459	643,070	-	-	Avg/Max Day
Total CIP Costs	\$ 1,357,529	\$ 714,459	\$ 643,070	\$ -	\$ -	
TOTAL COST ALLOCATION	\$ 6,805,222	\$ 4,144,876	\$ 904,209	\$ 899,910	\$ 856,227	
ALLOCATION PERCENTAGES	100.0%	60.9%	13.3%	13.2%	12.6%	
LESS: NONRATE REVENUES						
Miscellaneous Revenue	\$ 505	\$ 308	\$ 67	\$ 67	\$ 64	As % of Total Cost Allocation
Water Turn On Fee	5,418	3,300	720	717	682	As % of Total Cost Allocation
Late Charge	33,183	20,211	4,409	4,388	4,175	As % of Total Cost Allocation
Door Tag Fee	450	274	60	60	57	As % of Total Cost Allocation
Water Meters	2,822	1,719	375	373	355	As % of Total Cost Allocation
New Customer Fee	-	-	-	-	-	As % of Total Cost Allocation
Fire Service	49,898	30,392	6,630	6,598	6,278	As % of Total Cost Allocation
Interest on Investments - Operations	77,595	47,261	10,310	10,261	9,763	As % of Total Cost Allocation
Unrealized Gain/Loss on Invest - Operator	10,343	6,300	1,374	1,368	1,301	As % of Total Cost Allocation
Sale of Surplus Property - Operations	-	-	-	-	-	As % of Total Cost Allocation
Gain/Loss on sale of asset - Operations	-	-	-	-	-	As % of Total Cost Allocation
Interest on Investments - Capital	100,764	61,372	13,388	13,325	12,678	As % of Total Cost Allocation
Unrealized Gain/Loss on Invest - Capital	11,050	6,730	1,468	1,461	1,390	As % of Total Cost Allocation
Sale of Surplus Property - Capital	-	-	-	-	-	As % of Total Cost Allocation
Total Non Rate Revenues	\$ 292,028	\$ 177,866	\$ 38,802	\$ 38,617	\$ 36,743	
TOTAL AVERAGE REVENUE REQUIREMENT	\$ 6,513,193	\$ 3,967,009	\$ 865,407	\$ 861,293	\$ 819,484	
FUNCTIONALIZATION FACTOR	100.0%	60.9%	13.3%	13.2%	12.6%	

Sources: City of Seal Beach, WFS

Using the water demand factor and functionalization analyses, we allocated the system revenue requirements to each proposed customer class by base, extra capacity, customer and meter categories. Table 8 presents this data and the results. Each customer class' share of water system needs are appropriately identified and become the basis for the final step of rate design. We utilize

the factors to allocate costs between the Residential and All Other Classes, particularly for the consumption-related costs. Table 9 presents breakdown of the Block 2 penalty water costs that are allocated to each customer class. Due to the recent water shortages in Southern California, Metropolitan Water District (MWD) has determined the amount of water to be allocated to each agency. If an agency exceeds its allocation from MWD, it will charge a penalty of \$1,889 per acre foot for the amount over the Agency's allocation.

Table 8. Allocation of Water Costs to Customer Classes

Customer Class	Base	Max Day	Customer Billing	Meters & Services	Total Revenue Requirement
Residential	1,290,013	276,859	577,364	549,337	2,693,572
City	105,530	20,522	5,323	5,065	136,439
Commercial	1,503,166	334,975	46,663	44,398	1,929,203
Total	\$ 2,898,708	\$ 632,356	\$ 629,350	\$ 598,800	\$ 4,759,214

Percentage Totals					
Residential	27.11%	5.82%	12.13%	11.54%	56.60%
City	2.22%	0.43%	0.11%	0.11%	2.87%
Commercial	31.58%	7.04%	0.98%	0.93%	40.54%
Total	60.91%	13.29%	13.22%	12.58%	100.00%

Sources: City of Seal Beach, WFS.

Table 9. Penalty Water Cost Calculation

	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
Acre feet of Allocation	4,200	4,200	4,200	4,200	4,200
Exceed Allocation by five percent	5.00%	5.00%	5.00%	5.00%	5.00%
Total Acre Feet Over Allocation	210	210	210	210	210
Penalty Cost per Acre Foot	\$ 1,889	\$ 1,889	\$ 1,889	\$ 1,889	\$ 1,889
Total Penalty Water Cost	\$ 396,690	\$ 396,690	\$ 396,690	\$ 396,690	\$ 396,690

Customer Class	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
Residential	\$ 173,329	\$ 173,329	\$ 173,329	\$ 173,329	\$ 173,329
Commercial	207,523	207,523	207,523	207,523	207,523
City	15,838	15,838	15,838	15,838	15,838
Total Penalty Water Costs	\$ 396,690	\$ 396,690	\$ 396,690	\$ 396,690	\$ 396,690

Sources: City of Seal Beach, WFS.

Fire Service Costs

Due to the absence of actual fire service costs, various assumptions were made to arrive at annual fire service costs. It is our recommendation that the City begin tracking costs associated to fire service. We recommend reevaluating the Monthly Fire Service Standby Fees once the City has tracked these costs for a specified period of time. To determine annual fire service costs, we used the current number of meters by size of connection and multiplied by the current monthly fire service standby fees. Table 10 presents calculation of the Projected Annual Fire Service Costs.

Table 10. Projected Fire Service Cost Calculation

Size of connection, in.	Number in Service	Current Monthly Charge	Projected Annual Fire Service Costs	Charge per equivalent
1	1		\$ -	
2	1		-	
4	18	47.50	10,260.00	
6	14	71.25	11,970.00	
8	16	95.00	18,240.00	
10	13	118.75	18,525.00	
12	0	142.50	0	
Totals			\$ 58,995.00	\$ 18.90

Sources: City of Seal Beach, Willdan Financial Services.

Rate Design

Rate design is the final step in the Cost of Service analysis. Following the functionalization of water utility expenditures to the classification factors, these expenditures are further distributed to customer classes by the appropriate allocation factors. The result is a meter charge calculation and customer charge to distribute the proportionate fixed costs of running the City's water system to each meter size category as well as commodity or consumption-based rate for each customer class (Residential and All Other Classes). Based on the allocated customer-related costs and the number of meter equivalents within the City, a meter charge was identified for each customer's meter size on their property. We used AWWA meter equivalency factors to calculate the meter charge for each size of meter (these were utilized in the last rate analysis). Table 11 presents the number of projected equivalent meters for the City. The lack of growth in the number of equivalent meters is based on the zero percent (0.00%) customer growth rate. The meter count is based upon the average number of equivalent meters per billing period during FY 2008. Table 12 presents the number of projected equivalent fire service connections by size of connection for the City. Table 13 presents the projected annual water consumption by customer class for the water utility. The projected annual water consumption remains level throughout the study period due to a zero percent (0.00%) customer growth rate. Table 14 presents the proposed bi-monthly meter charges by meter size per account for the City. Table 15 presents the proposed monthly fire service standby fees by size of connection.

Tables 16, 17, 18, and 19 present the commodity or consumption-based rate design by customer class. This analysis factors the base and extra capacity costs of water service to each customer class and divides the data into the water consumption figures for each class. The result is a variable rate per unit of water consumed by each customer. Table 17 presents estimated residential bi-monthly water bills in comparison to current bi-monthly water bills.

Table 11. Meters and Equivalent Meters by Customer Class

Description	Number of Meters by Size										Total
	5/8" & 3/4"	1"	1.5"	2"	3"	4"	6"	8"	10"	12"	
Flow per Meter Size (gpm)	30	50	100	160	320	500	1000	1600	2300	3100	
Equivalent Meter Factor	1.00	1.67	3.33	5.33	10.67	16.67	33.33	53.33	76.67	103.33	
Active Meters	4,117	660	111	189	15	16	6	1	-	1	5,116
Equivalent Meters	4,117	1,100	370	1,008	160	267	200	53	-	103	7,378

Sources: City of Seal Beach

Table 12. Fire Service Equivalent Connections

Size of connection, in.	Number in Service	Demand Factor ¹	Equivalent Connections
1	1	1.00	1
2	1	4.00	4
4	18	16.00	288
6	14	36.00	504
8	16	64.00	1,024
10	13	100.00	1,300
12	0	144.00	0
Totals	63		3,121

¹ Demand factors based on nominal size of connection raised to the 2.00 power. The demand factors are based on AWWA standards for allocating service costs to public and private fire accounts.

Sources: City of Seal Beach; American Water Works Association (AWWA)

Table 13. Total Water System Consumption by Customer Class

Description	Projected Water Consumption (hcf)					
	Base Year (2008)	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14
Residential	782,299	782,299	782,299	782,299	782,299	782,299
City	63,996	63,996	63,996	63,996	63,996	63,996
Commercial	911,561	911,561	911,561	911,561	911,561	911,561
Total Water Consumption	1,757,856	1,757,856	1,757,856	1,757,856	1,757,856	1,757,856
Percent of Total Water Consumption						
Residential	44.5%	44.5%	44.5%	44.5%	44.5%	44.5%
City	3.6%	3.6%	3.6%	3.6%	3.6%	3.6%
Commercial	51.9%	51.9%	51.9%	51.9%	51.9%	51.9%
Total	100%	100%	100%	100%	100%	100%

Sources: City of Seal Beach.

Table 14. Meter Charge Calculation (All Customer Classes except Fire Service)

	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Total Meters & Services Costs	\$ 598,800	\$ 574,995	\$ 602,951	\$ 634,080	\$ 666,155
Number of Equivalent Meters	7,378	7,378	7,378	7,378	7,378
Bi-Monthly Cost per 5/8" & 3/4" Meter	\$ 13.53	\$ 12.99	\$ 13.62	\$ 14.32	\$ 15.05
Total Customer Billing Costs	\$ 629,350	\$ 604,330	\$ 633,712	\$ 666,430	\$ 700,141
Number of Accounts	5,116	5,116	5,116	5,116	5,116
Bi-Monthly Cost per 5/8" & 3/4" Meter	\$ 20.50	\$ 19.69	\$ 20.64	\$ 21.71	\$ 22.81

BI-MONTHLY METER CHARGE

Meter Size	Equivalent Meter Factor					
5/8" & 3/4"	1.00	34.03	32.68	34.26	36.03	37.86
1"	1.67	43.05	41.33	43.34	45.58	47.89
1.5"	3.33	65.59	62.98	66.04	69.45	72.97
2"	5.33	92.64	88.96	93.28	98.10	103.06
3"	10.67	164.78	158.23	165.92	174.49	183.32
4"	16.67	245.94	236.16	247.64	260.43	273.60
6"	33.33	471.37	452.63	474.64	499.14	524.39
8"	53.33	741.89	712.40	747.04	785.60	825.34
10"	76.67	1,057.50	1,015.46	1,064.83	1,119.81	1,176.45
12"	103.33	1,418.20	1,361.82	1,428.03	1,501.76	1,577.72

Sources: City of Seal Beach, Willdan Financial Service

Table 15. Fire Service Standby Fees Calculation

	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Total Annual Fire Service Costs	\$ 58,995.00	\$ 58,995.00	\$ 58,995.00	\$ 58,995.00	\$ 58,995.00
Number of Equivalent Connections	3,121	3,121	3,121	3,121	3,121
Charge per equivalent	\$ 18.90	\$ 18.90	\$ 18.90	\$ 18.90	\$ 18.90

Meter Size	Demand Factor ¹	Standby Fees - Minimum Monthly Charge				
1"	1.00	1.58	1.58	1.58	1.58	1.58
2"	4.00	6.30	6.30	6.30	6.30	6.30
4"	16.00	25.20	25.20	25.20	25.20	25.20
6"	36.00	56.71	56.71	56.71	56.71	56.71
8"	64.00	100.81	100.81	100.81	100.81	100.81
10"	100.00	157.52	157.52	157.52	157.52	157.52
12"	144.00	226.83	226.83	226.83	226.83	226.83

¹ Demand factors based on nominal size of connection raised to the 2.00 power. The demand factors are based on AWWA standards for allocating service costs to public and private fire accounts.

Sources: City of Seal Beach, Willdan Financial Services

Table 16. Residential Bi-monthly Increasing Block Consumption Rate Calculation

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
Residential Water Costs	\$ 1,566,872	\$ 1,504,581	\$ 1,577,733	\$ 1,659,188	\$ 1,743,118
Residential Consumption (hcf)	782,299	782,299	782,299	782,299	782,299
Residential Base Rate (\$/hcf)	\$ 2.00	\$ 1.92	\$ 2.02	\$ 2.12	\$ 2.23
Residential Share of Penalty Water Costs	\$ 176,539	\$ 176,539	\$ 176,539	\$ 176,539	\$ 176,539
Residential Consumption Above Avg Usage (hcf)	273,805	273,805	273,805	273,805	273,805
Additional Amount per hcf for Conservation	\$ 0.64	\$ 0.64	\$ 0.64	\$ 0.64	\$ 0.64
Block 1 Rates (per hcf): (1 to 26 hcf bi-monthly)	\$ 2.00	\$ 1.92	\$ 2.02	\$ 2.12	\$ 2.23
Block 2 Rates (per hcf): (27 hcf and above bi-monthly)	\$ 2.65	\$ 2.57	\$ 2.66	\$ 2.77	\$ 2.87

Source: City of Seal Beach; Willdan Financial Services

Table 17. Commercial Bi-monthly Increasing Block Consumption Rate Calculation

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
Commercial Water Costs	\$ 1,838,141	\$ 1,765,066	\$ 1,850,883	\$ 1,946,440	\$ 2,044,901
Commercial Consumption (hcf)	911,561	911,561	911,561	911,561	911,561
Commercial Base Rate (\$/hcf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Commercial Share of Penalty Water Costs	\$ 205,709	\$ 205,709	\$ 205,709	\$ 205,709	\$ 205,709
Commercial Consumption Above Avg Usage (hcf)	364,624	364,624	364,624	364,624	364,624
Additional Amount per hcf for Conservation	\$ 0.56	\$ 0.56	\$ 0.56	\$ 0.56	\$ 0.56
Block 1 Rates (per hcf): See Table Below	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rates (per hcf): See Table Below	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81

Source: City of Seal Beach; Willdan Financial Services

Table 18. Commercial Bi-monthly Increasing Block Consumption Rate Summary

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
5/8" - 3/4" Meters					
Block 1 Rate per ccf (0-26 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (27+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
1" Meters					
Block 1 Rate per ccf (0-43 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (44+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
1 1/2" Meters					
Block 1 Rate per ccf (0-88 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (89+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
2" Meters					
Block 1 Rate per ccf (0-205 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (206+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
3" Meters ¹					
Block 1 Rate per ccf (0-420 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (421+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
4" Meters					
Block 1 Rate per ccf (0-686 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (687+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
6" Meters					
Block 1 Rate per ccf (0-1941 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (1942+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
8" Meters					
Block 1 Rate per ccf (0-4951 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (4952+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
10" Meters ¹					
Block 1 Rate per ccf (0-7117 ccf)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (7118+ ccf)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81
12" Meters					
Block 1 Rate per ccf (0-40500 ccf per month)	\$ 2.02	\$ 1.94	\$ 2.03	\$ 2.14	\$ 2.24
Block 2 Rate per ccf (40501+ ccf per month)	\$ 2.58	\$ 2.50	\$ 2.59	\$ 2.70	\$ 2.81

1. Allotment based on AWWA Flow Ratios.

Source: City of Seal Beach; Willdan Financial Services

Table 19. Consumption Rate - City and All Other Classes

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
City Water Costs including Penalty Water Costs	\$ 140,493	\$ 135,482	\$ 141,367	\$ 147,919	\$ 154,671
City Consumption (hcf)	63,996	63,996	63,996	63,996	63,996
Base Rate (\$/hcf)	\$ 2.20	\$ 2.12	\$ 2.21	\$ 2.31	\$ 2.42
Rate (per hcf)	\$ 2.20	\$ 2.12	\$ 2.21	\$ 2.31	\$ 2.42

Source: City of Seal Beach; Willdan Financial Services

Examples of the estimated bi-monthly residential water bills in comparison to current water bills are provided below. We have provided examples of residential water bills at various usages in [Table 20](#). [Table 21](#) presents sample Leisure World water bill comparisons at various usages.

Table 20. Estimated Bi-Monthly Residential Water Bill at Various Usages

		2009 Proposed Block 1 Consumption Rate per hcf		(0-26 hcf)		\$		2.00	
		2009 Proposed Block 2 Consumption Rate per hcf		(27+ hcf)		\$		2.65	
Meter Size	Amount of Consumption	Current Bi-Monthly Meter Rates	Current Rates Consumption Charge	Total Current Fee	Proposed Bi-Monthly Meter Charge	Proposed Block 1 Consumption Charge	Proposed Block 2 Consumption Charge	Total Proposed Charge	Increase/ (Decrease)
5/8" or 3/4"	20	\$ 35.12	\$ 40.40	\$ 75.52	\$ 34.03	\$ 40.06	\$ -	\$ 74.09	\$ (1.43)
5/8" or 3/4"	26	\$ 35.12	\$ 46.13	\$ 81.25	\$ 34.03	\$ 52.08	\$ -	\$ 86.10	\$ 4.85
5/8" or 3/4"	40	\$ 35.12	\$ 84.49	\$ 119.61	\$ 34.03	\$ 52.08	\$ 37.07	\$ 123.17	\$ 3.57

⁽¹⁾ Approximately 80% of the total number of system accounts are 5/8" or 3/4".

Source: City of Seal Beach; Willdan Financial Services

Table 21. Estimated Monthly Leisure World Water Bill at Various Usages

		2009 Proposed Block 1 Consumption Rate per hcf		(0-40500 ccf)		\$		2.02		
		2009 Proposed Block 2 Consumption Rate per hcf		(40501+ ccf)		\$		2.58		
Month	Meter Size	Amount of Consumption	Current Monthly Meter Rates	Current Rates Consumption Charge	Total Current Fee	Proposed Monthly Meter Charge	Proposed Block 1 Consumption Charge	Proposed Block 2 Consumption Charge	Total Proposed Charge	Increase/ (Decrease)
Jun-08	12"	60,835	\$ 2,528.95	\$ 177,029.85	\$ 179,558.80	\$ 709.10	\$ 81,667.30	\$ 52,477.39	\$ 134,853.79	\$ (44,705.01)
Jul-08	12"	48,520	\$ 2,528.95	\$ 123,726.00	\$ 126,254.95	\$ 709.10	\$ 81,667.30	\$ 20,696.76	\$ 103,073.16	\$ (23,181.79)
Aug-08	12"	51,259	\$ 2,528.95	\$ 140,867.46	\$ 140,867.46	\$ 709.10	\$ 81,667.30	\$ 27,765.15	\$ 109,432.44	\$ (31,435.02)

Source: City of Seal Beach; Willdan Financial Services

Table 22 presents a summary of the revenues and expenses from operations for the next five fiscal years. Table 22 indicates total rate revenue is not projected to increase from the Proposed Rates.

Table 22. City of Seal Beach Water Operations Summary

Description	FY 2009/10	FY 2010/11	FY 2011/12	FY 2012/13	FY 2013/14
REVENUE					
Total Rate Revenue	\$ 4,818,209	\$ 4,629,006	\$ 4,851,198	\$ 5,098,609	\$ 5,353,540
Total Non-Operating Revenue - Cap	203,248	144,980	142,061	124,142	112,973
Total Non-Operating Revenue - Ops	47,533	58,212	59,179	60,193	54,598
Total Non-Rate Revenue	<u>92,277</u>	<u>92,277</u>	<u>92,277</u>	<u>92,277</u>	<u>92,277</u>
Total Revenue	\$ 5,161,267	\$ 4,924,474	\$ 5,144,714	\$ 5,375,221	\$ 5,613,387
EXPENSES					
Total Operating Expenses	\$ 3,985,326	\$ 4,397,739	\$ 4,616,189	\$ 4,845,323	\$ 5,085,514
Total Capital Expenses	478,322	478,322	478,322	478,322	478,322
Total Debt Service	<u>17,074</u>	<u>17,074</u>	<u>17,074</u>	<u>17,074</u>	<u>17,074</u>
Total Expenses	\$ 4,480,723	\$ 4,893,135	\$ 5,111,585	\$ 5,340,719	\$ 5,580,910
Net Income (Loss)	\$ 680,545	\$ 31,339	\$ 33,129	\$ 34,502	\$ 32,477

Sources: City of Seal Beach; Willdan Financial Services

Conclusion

The proposed water fee schedule is based on the City projected revenue requirements over the next five fiscal years. The City contracted with Willdan Financial Services, a Professional Consulting/Engineering firm to prepare a Water Rate Analysis which included the development of a Proposition 218 compliant utility rate structure and model.

The existing fee structure while financially viable no longer matches the utility's cost of service and it does not match the Prop. 218 compliant rates proposed in the study and thus are less defensible. The Proposed Rate structure is a result of allocating the Water Utility Budget costs based on standards approved by the American Water Works Association (AWWA). These standards are founded in cost of service based principles. The proposed rates are fair and equitable to all customer classes. The proposed rates are not projected to increase rate revenues for the City, but are simply a reallocation of the existing rate revenue. Through the Cost of Service Analysis, residential is now placing a greater burden on the Water Utility than in previous years. As a result, in the proposed rate structure the residential customers will provide a greater percentage of the total rate revenues than in years past. Willdan recommends that the City adopt the proposed rate structures to ensure that the water system maintains a stable cash flow stream in order to provide for ongoing costs and allow for funding of reserves for unscheduled expenses, while being more in line with Proposition 218.