



**SOQUEL CREEK
WATER DISTRICT**



Financial Plan & Water Rate Study Summary of Recommendations

11/15/2012



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS



Soquel Creek Water District

Financial Plan Update & Water Rate Study

Summary of Key Findings & Recommendations

Background

The District has been a good financial steward by gradually raising rates in 8 of past 10 years to keep revenues in line with operating and capital funding needs. However, the District faces substantial financial challenges in upcoming years and needs to continue phasing in rate increases. Rate increases projected for the next 3 years are needed to fund District operations and District CIP projects. *This round of rate increases does not fund construction of a desal facility or alternative measures needed to address the District's critical water supply challenges.*

Financial Challenges

The District faces a number of substantial financial challenges in upcoming years that are driving the need for future rate increases. These financial challenges include:

- The District's CIP totals \$66 million over approximately next 10 years
- The District's share of potential regional desal project costs is estimated at almost \$51.2 million with bulk of financing needed starting FY 2015/16, in approximately three years. *Prior District analysis estimated that the cost of conservation/curtailment scenarios could range from roughly \$40 million under a conceptual Enforcement Approach to over \$100 million under a conceptual Full Toolbox Approach*
- Decreased water sales have reduced revenues in recent years and put upward pressure on rates. Additional future conservation would also negatively impact District finances. Financial impacts of rate increases due to reduced water sales are mitigated by reduced water purchases (from the customer's perspective, it's the bill that counts).
- The District is facing potential additional operating costs in future years for a) either desalination plant production or water conservation/curtailment program, and b) hex chrome treatment. For financial planning purposes, the cash flow projections assume funding of a future regional desal facility. *Prior analysis of the costs of reducing water consumption to the estimated long-term sustainable groundwater supply level indicated similar rate increases would be needed with or without desal*
- The District faces ongoing cost inflation for annual operating and capital costs.

Financial Plan Recommendations

BWA developed 10-year financial projections to evaluate the District's annual revenue requirements and project rate increases. The projections are based on slightly conservative assumptions for financial planning purposes with water sales and associated revenues estimated a little on the low side, and expenses estimated slightly on the high side.

Based on the financial projections, BWA recommends the District adopt three annual 9% overall rate increases for the next three years. Customer impacts will vary based on the proposed rate structure modifications and customer water use. The District will need to re-evaluate future rates in approximately three years.

Water Rate Structure Modifications

This section summarizes a number of proposed rate structure modifications. The proposed modifications are based on evaluation of a range of alternatives, analysis of District water consumption data, and input from the District. No rate structure is perfect, all options have benefits and limitations. The recommended rate structure is designed to best achieve a balance of District objectives. Key recommendations include:

- **Water rate revenue recovery: 30% Fixed / 70% Variable**
 - This allocation is in line with historical District rates and the California Urban Water Conservation Counsel's best management practices (BMP 1.4)
 - For comparison, the District's fixed costs (that don't vary based on changes in water sales) are substantially higher than 30% of total expenses
- **Align fixed meter charges for each meter size with meter capacity**
 - Phase in to American Water Works Association (AWWA) meter capacity ratios over three years. This will result in larger rate impacts to larger meters as rates are brought in line with meter capacity.
- **Single family residential rates:**
 - Establish a uniform rate structure for all single family residential customers
 - Eliminate the separate rate structure that currently applies to a little over 200 single family accounts served by 3/4-inch and 1-inch meters.
 - Transition to a 4-tiered, steeper inclining rate structure
 - Phase in steeper rates over three years with reduced impacts at low to moderate use levels coupled with higher impacts at higher use levels
- **Multi-family residential rates:**
 - Transition from the current uniform quantity charges for all multi-family water use to a moderate 4-tiered rate structure based on the number of multi-family dwelling units
 - Multi-family tier breakpoints are set at approximately 2/3 of single family tier breakpoints (multi-family use is approximately 65%-70% of single family use)
 - The District may need to work out a few kinks during the transition phase to the new multi-family rate structure
- **Commercial rates:**
 - Maintain uniform quantity charges for all use.
- **Eliminate reduced rates for the handful of restricted meter accounts**
 - These customers will still benefit from low fixed meter charges designed to recover 30% of rate revenues
- **Private fire service charges:**
 - Transition to charges set at 2.5% of standard meter charges over the next three years

Soquel Creek Water District

Proposed Water Rates

	Current*	Mar-1 2013	Jan-1 2014	Jan-1 2015	
Overall Rate Adjustment		9%	9%	9%	
BI-MONTHLY SERVICE CHARGES					
Single Family Residential	-	\$43.40	\$46.43	\$49.66	
<i>Applies all single family accounts regardless of meter size</i>					
All Other Accounts					
5/8"	\$40.14	\$43.40	\$46.43	\$49.66	
Restricted 5/8"	20.07	43.40	46.43	49.66	
3/4"	47.92	56.24	64.91	74.49	
1"	71.23	87.51	104.85	124.15	
1.5"	123.16	161.11	202.25	248.30	
2"	187.91	251.18	320.08	397.28	
3"	434.35	530.08	631.77	744.90	
4"	667.71	842.96	1,031.28	1,241.50	
6"	1,316.14	1,672.02	2,055.13	2,483.00	
QUANTITY CHARGES (PER HCF)					
Single Family Residential					
Tier 1	0-6 hcf	0-8 hcf \$3.51	\$3.60	\$3.80	\$4.00
Tier 2	7-14 hcf	9-30 hcf \$6.70	5.80	6.40	7.00
Tier 3	15-30 hcf	31+ hcf \$11.61	8.50	9.75	11.00
Tier 4	31+ hcf		13.00	14.50	16.00
Multi-Family Residential					
<i>Tiers Apply Per Dwelling Unit</i>					
Tier 1	0-4 hcf	\$5.53	\$5.00	\$5.30	\$5.60
Tier 2	5-10 hcf	5.53	6.00	6.55	7.10
Tier 3	11-20 hcf	5.53	7.00	7.80	8.60
Tier 4	21+ hcf	5.53	8.00	9.10	10.20
Non-Domestic		\$5.53	\$5.94	\$6.47	\$7.05
Bi-Monthly Fire Service Charge					
Up to 2"	\$6.47	\$7.62	\$8.77	\$9.93	
3"	12.95	14.84	16.73	18.62	
4"	24.34	26.57	28.80	31.04	
6"	50.77	54.54	58.31	62.08	
8"	73.04	81.80	90.56	99.33	

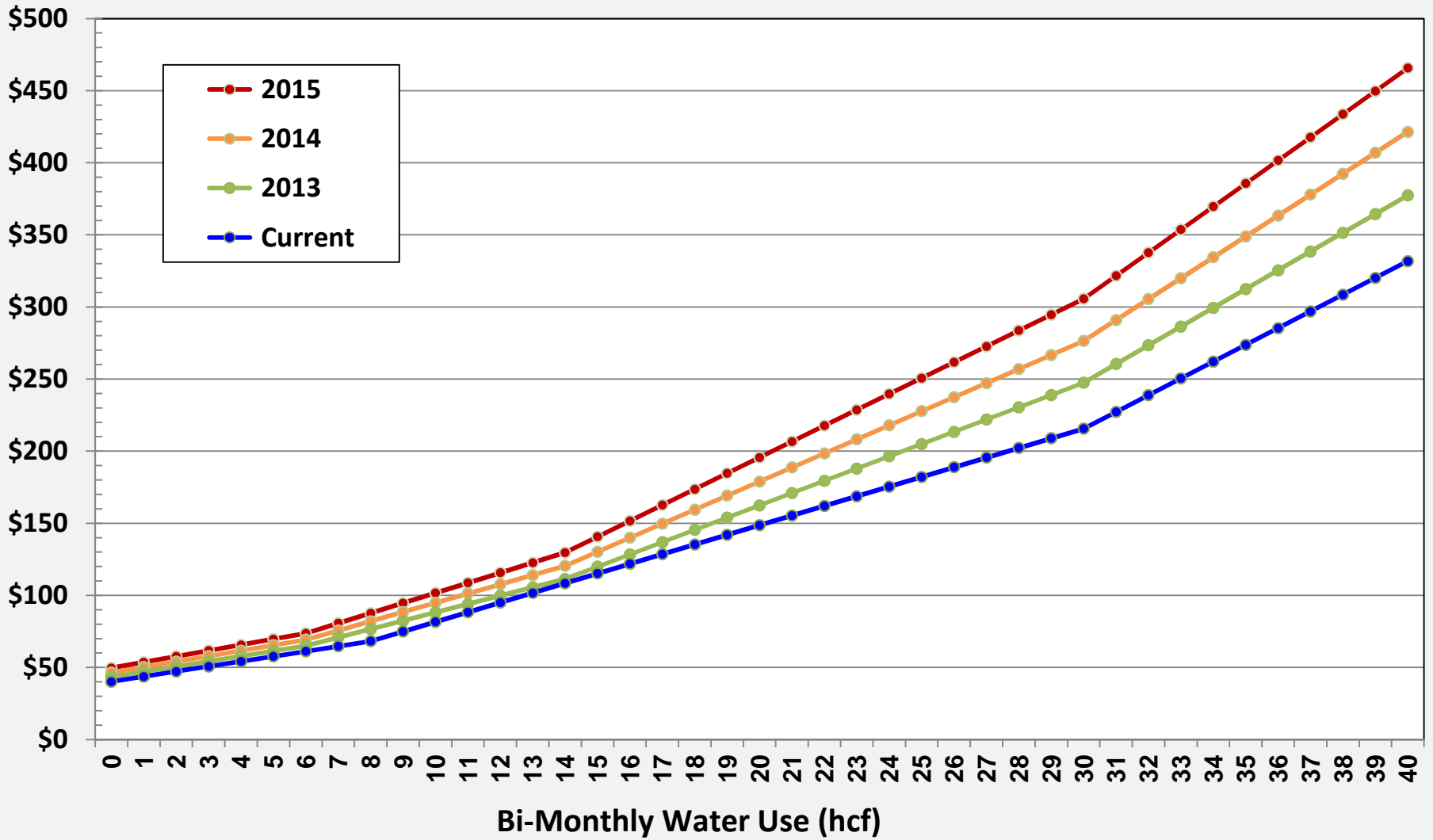
* Single family accounts with 3/4" and 1" meters currently pay higher meter charges and get more water in each tier.

Soquel Creek Water District

Single Family Residential Bill Impacts

Bi-Monthly Use (hcf)	% of Bills in Block	% of Bills at or Below	Current Bill	Projected Bi-Monthly Bills			3-Year Impact	
				Mar-1, 2013	Jan-1, 2014	Jan-1, 2015	\$	%
Overall Rate Increase				9%	9%	9%		29.5%
Single Family Residential, 5/8" Meter								
0	2.5%	2.5%	\$40.14	\$43.40	\$46.43	\$49.66	\$9.52	23.7%
1	2.9%	5.4%	43.65	47.00	50.23	53.66	10.01	22.9%
2	3.0%	8.5%	47.16	50.60	54.03	57.66	10.50	22.3%
3	3.4%	11.9%	50.67	54.20	57.83	61.66	10.99	21.7%
4	3.9%	15.8%	54.18	57.80	61.63	65.66	11.48	21.2%
5	4.5%	20.2%	57.69	61.40	65.43	69.66	11.97	20.7%
6	5.0%	25.2%	61.20	65.00	69.23	73.66	12.46	20.4%
7	5.2%	30.4%	64.71	70.80	75.63	80.66	15.95	24.6%
8	5.2%	35.6%	68.22	76.60	82.03	87.66	19.44	28.5%
9	5.1%	40.7%	74.92	82.40	88.43	94.66	19.74	26.3%
10	5.4%	46.2%	81.62	88.20	94.83	101.66	20.04	24.6%
11	5.1%	51.2%	88.32	94.00	101.23	108.66	20.34	23.0%
12	4.9%	56.1%	95.02	99.80	107.63	115.66	20.64	21.7%
13	4.4%	60.6%	101.72	105.60	114.03	122.66	20.94	20.6%
14	4.0%	64.6%	108.42	111.40	120.43	129.66	21.24	19.6%
15	3.6%	68.2%	115.12	119.90	130.18	140.66	25.54	22.2%
16	3.4%	71.6%	121.82	128.40	139.93	151.66	29.84	24.5%
17	3.1%	74.7%	128.52	136.90	149.68	162.66	34.14	26.6%
18	2.7%	77.4%	135.22	145.40	159.43	173.66	38.44	28.4%
19	2.4%	79.8%	141.92	153.90	169.18	184.66	42.74	30.1%
20	2.1%	82.0%	148.62	162.40	178.93	195.66	47.04	31.7%
21	1.9%	83.9%	155.32	170.90	188.68	206.66	51.34	33.1%
22	1.6%	85.5%	162.02	179.40	198.43	217.66	55.64	34.3%
23	1.5%	87.0%	168.72	187.90	208.18	228.66	59.94	35.5%
24	1.4%	88.4%	175.42	196.40	217.93	239.66	64.24	36.6%
25	1.2%	89.6%	182.12	204.90	227.68	250.66	68.54	37.6%
26	1.1%	90.8%	188.82	213.40	237.43	261.66	72.84	38.6%
27	1.0%	91.7%	195.52	221.90	247.18	272.66	77.14	39.5%
28	0.8%	92.5%	202.22	230.40	256.93	283.66	81.44	40.3%
29	0.8%	93.3%	208.92	238.90	266.68	294.66	85.74	41.0%
30	0.7%	94.0%	215.62	247.40	276.43	305.66	90.04	41.8%
31	0.6%	94.6%	227.23	260.40	290.93	321.66	94.43	41.6%
32	0.5%	95.1%	238.84	273.40	305.43	337.66	98.82	41.4%
33	0.5%	95.6%	250.45	286.40	319.93	353.66	103.21	41.2%
34	0.4%	96.0%	262.06	299.40	334.43	369.66	107.60	41.1%
35	0.4%	96.4%	273.67	312.40	348.93	385.66	111.99	40.9%
36	0.3%	96.7%	285.28	325.40	363.43	401.66	116.38	40.8%
37	0.3%	97.0%	296.89	338.40	377.93	417.66	120.77	40.7%
38	0.3%	97.3%	308.50	351.40	392.43	433.66	125.16	40.6%
39	0.2%	97.5%	320.11	364.40	406.93	449.66	129.55	40.5%
40	0.2%	97.7%	331.72	377.40	421.43	465.66	133.94	40.4%
50	41-50: 1.2%	97.9%	447.82	507.40	566.43	625.66	177.84	39.7%
75	51-75: 0.8%	98.1%	738.07	832.40	928.93	1,025.66	287.59	39.0%
100	76-100: 0.2%	98.2%	1,028.32	1,157.40	1,291.43	1,425.66	397.34	38.6%
200	101-200: 0.1%	100.0%	2,189.32	2,457.40	2,741.43	3,025.66	836.34	38.2%

Projected Single Family Bi-Monthly Bills



Soquel Creek Water District Water Curtailment Stages & Rate Requirements

		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	Base Assumptions	Water Shortage Alert	Water Shortage Warning	Emergency Water Shortage	Severe Water Shortage Emergency	Critical Water Shortage Emergency
Curtailment Target [1]	0%	5%	15%	25%	35%	50%
Water Sales Impact (hcf)						
Reduced Water Sales (hcf)	0	78,000	233,900	389,900	545,800	779,700
Water Sales with Curtailment (hcf)	1,559,400	1,481,400	1,325,500	1,169,500	1,013,600	779,700
Add'l Revenue Requirement						
Water Sales Revenue Loss [2]	\$0	\$597,000	\$1,791,000	\$2,986,000	\$4,180,000	\$5,971,000
Reduced O&M [3]	0	(32,000)	(97,000)	(161,000)	(226,000)	(322,000)
Add'l Conservation Program Costs	0	0	100,000	200,000	300,000	400,000
Total Add'l Revenue Requirement	0	565,000	1,794,000	3,025,000	4,254,000	6,049,000
Required Rate Adjustments						
Required Rate Increase %	0.0%	5.4%	19.2%	36.7%	59.5%	110.0%
Proposed Quantity Charges (\$/hcf)						
<i>With 3-year rate increases</i>						
<u>Single Family Residential</u>						
Tier 1 0-6 hcf	4.00	4.22	4.77	5.47	6.38	8.40
Tier 2 7-14 hcf	7.00	7.38	8.34	9.57	11.17	14.70
Tier 3 15-30 hcf	11.00	11.59	13.11	15.04	17.55	23.10
Tier 4 31+ hcf	16.00	16.86	19.07	21.87	25.52	33.60
<u>Multi-Family Residential (Per Dwelling)</u>						
Tier 1 0-4 hcf	5.60	5.90	6.68	7.66	8.93	11.76
Tier 2 5-10 hcf	7.10	7.48	8.46	9.71	11.32	14.91
Tier 3 11-20 hcf	8.60	9.06	10.25	11.76	13.72	18.06
Tier 4 21+ hcf	10.20	10.75	12.16	13.94	16.27	21.42
Non-Residential	7.05	7.43	8.40	9.64	11.24	14.81

1 Source: Urban Water Management Plan 2010

2 From Table 2; assumes lower levels of curtailment in lower tiers and a higher percentage of curtailment in higher tiers.

3 Estimated at \$180 per AF or approximately \$0.41 per hcf.



**SOQUEL CREEK
WATER DISTRICT**



10-Year Financial Plan Update

11/15/2012



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS



Soquel Creek Water District 10-Year Financial Plan Update November 15, 2012

Overview

- District has been a good financial steward by gradually raising rates in 8 of past 10 years to keep revenues in line with operating and capital funding needs
- District faces substantial financial challenges in upcoming years and needs to continue phasing in rate increases
- Key decision is what level of rate increases does District want to implement over the next 3 years leading up to the decision to pursue desal or alternative measures to address the District's critical water supply challenges
- More rate increases now result in the need for lower rate increases later, and vice versa
- Rate increases over next 3 years are needed to fund District operations and District CIP projects;
 - *This round of rate increases does not fund construction of a desal facility or alternative measures needed to address the District's critical water supply challenges*

Financial Challenges

- Draft District CIP totals \$66 million over approximately next 10 years (latest draft estimates as of 09/27/12)
- District share of potential regional desal project costs is estimated at almost \$51.2 million with bulk of financing needed starting FY 2015/16, in approximately three years
 - *Prior District analysis estimated that the cost of conservation/curtailment scenarios could range from roughly \$40 million under a conceptual Enforcement Approach to over \$100 million under a conceptual Full Toolbox Approach*
- Decreased water sales have reduced revenues in recent years and put upward pressure on rates
 - Financial impact of rate increases due to reduced water sales are mitigated by reduced water purchases (from customer perspective, it's the bill that counts)
- Potential impact of additional conservation measures
- District facing potential additional operating costs in future years for a) either desalination plant production or water conservation/curtailment program, and b) hex chrome treatment
 - *For financial planning purposes, the cash flow projections assume funding of a future regional desal facility*
 - *Prior analysis of the costs of reducing water consumption to the estimated long-term sustainable groundwater supply level indicated similar rate increases would be needed with or without desal*
- Ongoing cost inflation

Key Assumptions

- We tried to err a little on the conservative side for financial planning purposes with water sales and associated revenues estimated a little on the low side, and expenses estimated slightly on the high side
- For financial planning purposes, water sales projected to remain constant at 3,580 AFY per year assuming future increases in demand are offset by additional conservation
- Desal project and District CIP costs based on latest cost estimates available and account for 4% construction cost inflation
- Operating costs based on FY2012/13 budget and escalate at the annual rate of 5% to account for future cost inflation
- Projections assume the District issues debt for financing most of the desal project as well as a substantial portion of District CIP projects
 - Debt service conservatively estimated assuming 25-year repayment term and 5.25% average annual interest rate (higher than current rates)
 - Projections do not assume any future funding from grants or subsidized loans
- Future desal operating costs based on new estimates dated October 2012 and include a preliminary estimate for carbon offset costs (\$12 per metric ton)
- Future operating costs account for a) reduction in groundwater production costs when desal comes online, and b) preliminary estimate for potential hex chrome treatment

Findings & Draft Recommendations

- District should adopt rate increases for next 3 years leading up to the desal decision
- Preliminary Recommendation: Forge ahead with three annual 9% overall rate increases
- Changes in rate structure will result in varying impacts to customers
 - E.g. Reduced impacts to low water users and increased impacts to high water users
 - Rate impacts on high users would be compounded by both a) rate increases and b) rate structure modifications designed to increase conservation incentive on high levels of use
- Projected rate increases are somewhat front-loaded over next 7 years, corresponding with desal and District CIP capital funding needs. Rate increases can potentially be spread over additional years if costs can be deferred.
- District will need to re-evaluate future rates in approximately 3 years, when the time comes to either finance the desal project or pursue alternative conservation/curtailment measures to address the District's critical water supply challenges

Table 1 - Soquel Creek Water District - Cash Flow Projections With Desal, 2900 AF Target

Draft 11/15/12

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
1 Projected Rate Adjustments (Effective Jan-1)	9%	9%	9%	12%	12%	12%	6%	6%	3.5%	3.5%
2 Cumulative Increases Starting 2012/13	9%	19%	30%	45%	62%	82%	93%	104%	112%	119%
3 Projected Growth (5/8" meter equivs)	10	10	10	10	10	10	10	10	10	10
4 Change in Water Sales	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
5 Total Water Sales AFY	3,580	3,580	3,580	3,580	3,580	3,580	3,580	3,580	3,580	3,580
6 Total Water Sales HCF	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400
7 Total Production Demand AFY (+7%)	3,831	3,831	3,831	3,831	3,831	3,831	3,831	3,831	3,831	3,831
8 Groundwater Production AFY	3,831	3,831	3,831	3,831	3,831	3,831	2,900	2,900	2,900	2,900
9 Desal Water Supply (AF)	-	-	-	-	-	-	931	931	931	931
10 Desal & Transmission O&M (\$/AF)	-	-	-	-	-	-	\$2,005	\$2,105	\$2,210	\$2,321
11 Groundwater Production Costs per AF	\$160	\$168	\$176	\$185	\$194	\$204	\$214	\$225	\$236	\$248
12 Service Installation Charge (5/8")	\$3,782	\$3,782	\$3,782	\$3,782	\$3,782	\$3,782	\$3,782	\$3,782	\$3,782	\$3,782
13 Water Capacity Charge (5/8")	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200	\$11,200
14 Cost Escalation		5%	5%	5%	5%	5%	5%	5%	5%	5%
15 Interest Earnings Rate	0.5%	1.0%	1.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
16 Beginning Fund Reserves	\$3,300,000	\$6,680,000	\$7,812,000	\$7,930,000	\$8,043,000	\$8,148,000	\$8,318,000	\$8,458,000	\$8,640,000	\$9,167,000
17 Designated CIP Carryover Reserves	3,333,000	2,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
18 REVENUES										
19 Water Service Charges (incl fire)	3,747,000	4,157,000	4,536,000	5,003,000	5,623,000	6,305,000	6,934,000	7,359,000	7,747,000	8,027,000
20 Water Sales	8,575,000	9,479,000	10,414,000	11,472,000	12,850,000	14,392,000	15,862,000	16,814,000	17,704,000	18,324,000
21 Capacity & Installation Fees	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000	150,000
22 Interest Income	33,000	87,000	132,000	179,000	181,000	183,000	186,000	189,000	193,000	203,000
23 Rental/Delinq/After Hrs Fees/Misc	<u>160,000</u>	<u>165,000</u>	<u>170,000</u>	<u>175,000</u>	<u>180,000</u>	<u>185,000</u>	<u>191,000</u>	<u>197,000</u>	<u>203,000</u>	<u>209,000</u>
24 Total Revenues	12,665,000	14,038,000	15,402,000	16,979,000	18,984,000	21,215,000	23,323,000	24,709,000	25,997,000	26,913,000
25 2011 COPs Project Fund Drawdown	8,754,000									
26 Future Debt Proceeds for District CIP		4,700,000	6,400,000	4,000,000	6,700,000	6,100,000	6,700,000	7,400,000		
27 Future Debt Proceeds for Desal Project			6,000,000	46,000,000						
28 Grant Proceeds	65,000									
29 EXPENSES										
30 <u>Operating</u>										
31 Salaries & Benefits (Assumes no vacancies)	4,618,000	4,849,000	5,091,000	5,346,000	5,613,000	5,894,000	6,189,000	6,498,000	6,823,000	7,164,000
32 Less Personnel Allocation to CIP	(429,000)	(430,000)	(450,000)	(473,000)	(497,000)	(522,000)	(548,000)	(575,000)	(200,000)	(210,000)
33 Services & Supplies (Excludes AMR Mtrs & Contractor)	956,000	1,004,000	1,054,000	1,107,000	1,162,000	1,220,000	1,281,000	1,345,000	1,412,000	1,483,000
34 Power	550,000	578,000	607,000	637,000	669,000	702,000	737,000	774,000	813,000	854,000
35 Other Excludes Conservation Rebates	1,084,000	1,041,000	1,093,000	1,148,000	1,205,000	1,265,000	1,328,000	1,394,000	1,464,000	1,537,000
36 OPEB (Approx. \$175,000 is discretionary)	442,000	464,000	487,000	511,000	537,000	564,000	592,000	622,000	653,000	686,000
37 Desal & Transmission O&M	0	0	0	0	0	0	1,866,000	1,959,000	2,057,000	2,160,000
38 Est Change in Groundwtr Production Costs	0	0	0	0	0	0	(199,000)	(209,000)	(220,000)	(231,000)
39 Potential Future Hex Chrome Treatment	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>350,000</u>	<u>350,000</u>	<u>350,000</u>	<u>350,000</u>	<u>350,000</u>	<u>350,000</u>
40 Subtotal	7,221,000	7,506,000	7,882,000	8,276,000	9,039,000	9,473,000	11,596,000	12,158,000	13,152,000	13,793,000
41 <u>Debt Service</u>										
42 2012 Refunding Bonds (Refi of 2004 Bonds)	615,000	629,000	629,000	629,000	629,000	629,000	0	0	0	0
43 2011 COPs	767,000	767,000	767,000	767,000	767,000	767,000	767,000	1,462,000	1,459,000	1,459,000
44 Future District CIP Debt, Projected	0	190,000	630,000	1,050,000	1,480,000	1,990,000	2,510,000	3,070,000	3,370,000	3,370,000
45 Desal Project Debt, Projected	<u>0</u>	<u>0</u>	<u>240,000</u>	<u>1,500,000</u>	<u>3,500,000</u>	<u>4,160,000</u>	<u>4,160,000</u>	<u>4,160,000</u>	<u>4,160,000</u>	<u>4,160,000</u>
46 Subtotal	1,382,000	1,586,000	2,266,000	3,946,000	6,376,000	7,546,000	7,437,000	8,692,000	8,989,000	8,989,000
47 <u>Capital Improvements & Other Non-Operating</u>										
48 District CIP Projects	8,397,000	6,863,000	10,534,000	6,990,000	8,120,000	7,992,000	9,269,000	10,083,000	2,690,000	3,237,000
49 Desal Project Encumbrance Requirements	1,043,000	1,233,000	6,275,000	46,890,000	1,241,000	1,291,000	696,000	66,000	68,000	0
50 Personnel Allocation to CIP	<u>429,000</u>	<u>430,000</u>	<u>450,000</u>	<u>473,000</u>	<u>497,000</u>	<u>522,000</u>	<u>548,000</u>	<u>575,000</u>	<u>200,000</u>	<u>210,000</u>
51 Subtotal CIP	9,869,000	8,526,000	17,259,000	54,353,000	9,858,000	9,805,000	10,513,000	10,724,000	2,958,000	3,447,000
52 Conservation Program Rebates	200,000	210,000	221,000	232,000	244,000	256,000	269,000	282,000	296,000	311,000
53 AMR Meters & Installation	715,000	725,000	0	0	0	0	0	0	0	0
53 Other Non-Operating	<u>50,000</u>	<u>53,000</u>	<u>56,000</u>	<u>59,000</u>	<u>62,000</u>	<u>65,000</u>	<u>68,000</u>	<u>71,000</u>	<u>75,000</u>	<u>79,000</u>
54 Subtotal	10,834,000	9,514,000	17,536,000	54,644,000	10,164,000	10,126,000	10,850,000	11,077,000	3,329,000	3,837,000
55 Total Expenses	19,437,000	18,606,000	27,684,000	66,866,000	25,579,000	27,145,000	29,883,000	31,927,000	25,470,000	26,619,000
56 Revenues Less Expenses	2,047,000	132,000	118,000	113,000	105,000	170,000	140,000	182,000	527,000	294,000
57 Ending Fund Reserves (Excluding CIP Carryover)	6,680,000	7,812,000	7,930,000	8,043,000	8,148,000	8,318,000	8,458,000	8,640,000	9,167,000	9,461,000
58 Est. Designated CIP Carryover Reserves	2,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
59 Min Operating Fund Rsrv Target (40% O&M)	2,888,000	3,002,000	3,153,000	3,310,000	3,616,000	3,789,000	4,638,000	4,863,000	5,261,000	5,517,000
60 Debt Service Coverage	3.94	4.12	3.32	2.21	1.56	1.56	1.58	1.44	1.43	1.46

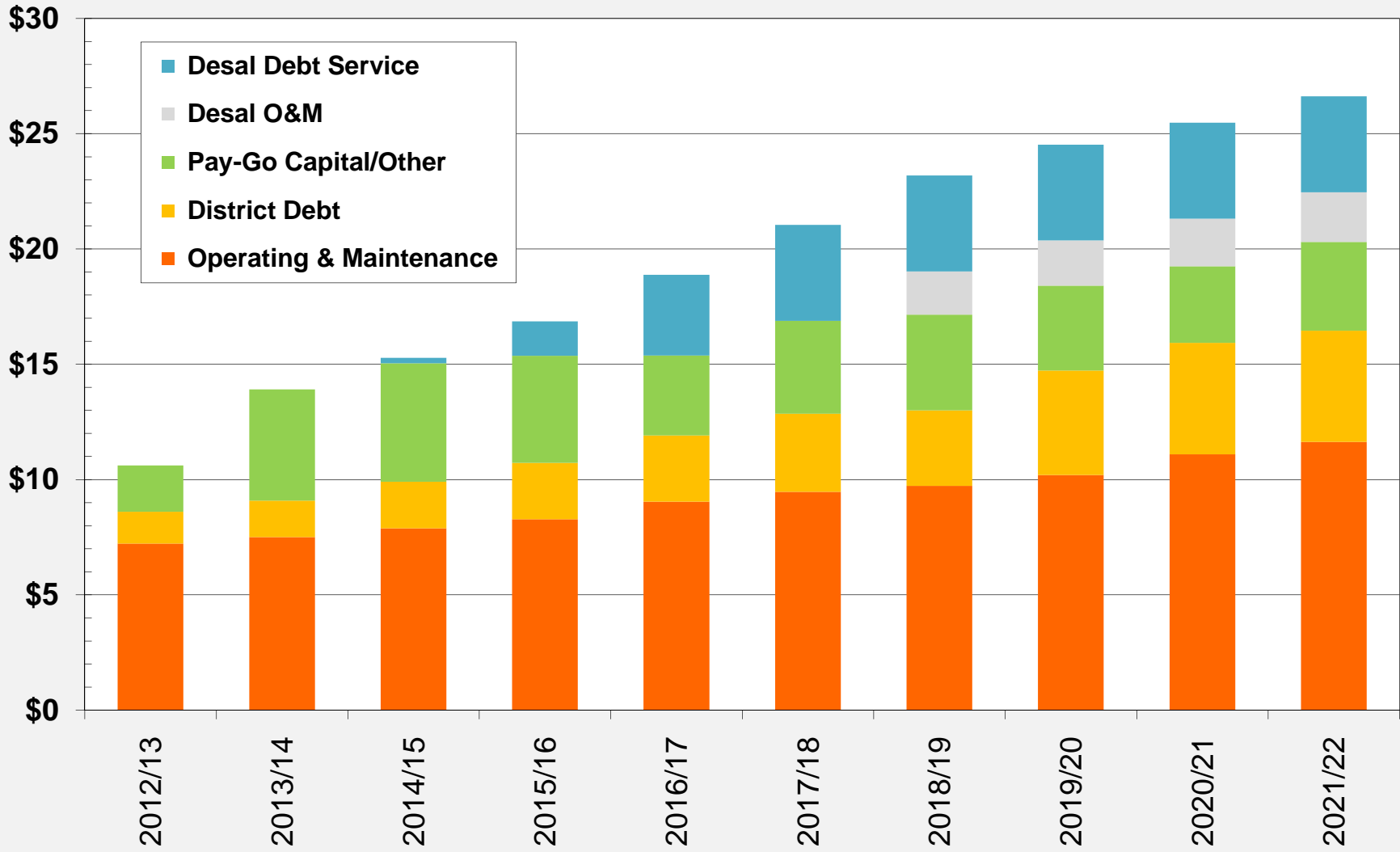
Table 2
Soquel Creek Water District
Cash Flow Assumptions

BASE CASE ASSUMPTIONS WITH DESALINATION PLANT

- >>> Water sales are projected to remain constant at 3,580 AFY (based on the level of actual water sales in FY2011/12, a low use year). Projections assume future increases in demand are offset by additional conservation.
 - >>> Desalination facility and related capital costs based on latest estimates as of October 2012.
 - >>> District capital improvement costs are estimated at \$64.5 million (current \$) through FY2022/23 based on revised draft estimates as of September 27, 2012.
 - >>> The financial projections account for 4% annual cost escalation for future capital expenditures.
 - >>> The projections assume the District issues debt to help finance desalination project costs and substantial amount of District capital improvements. For financial planning purposes, debt service projections are estimated at \$800,000 per each \$10 million of project proceeds assuming 25-year debt, 5.25% average interest rate (higher than current rates), and level annual debt service;. Desal project financing assumes no grants or subsidized loans.
 - >>> District operating and maintenance costs are based on the 2012/13 Budget and account for 5% annual cost escalation.
 - >>> Desalination plant operating costs based on estimates as of October 2012 escalated at the annual rate of 5%, plus carbon offset costs based on Kennedy/Jenks preliminary estimate of \$12,000 per mgd (\$12 per metric ton). Desal water transmission costs estimated at \$110 per AF in current dollars escalated at the annual rate of 5%.
 - >>> Hexavalent chromium treatment costs are projected at \$350,000 per year starting 2016/17 as a placeholder estimate. The estimate is based on Jacobs Engineering Inc report dated November 2011 and District input, and assumes treatment will be required.
 - >>> Future operating and maintenance costs also account for a) a reduction in well-pumping costs when the desalination plant starts operating, and b) a preliminary placeholder estimate for future costs of hexavalent chromium treatment.
-

Soquel Creek Water District

10-Year Expense Projections (\$ Millions)



Excludes capital projects funded by debt.

Table 3
Soquel Creek Water District
Capital Improvement Program

	District %	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL
DESALINATION PROJECT		Source: Desal Project Cost Estimates October 2012 & Rough Estimates for Outreach & Energy Offset Projects											
<i>District's Share of Desalination Project Costs (Annual Expenses)</i>													
Project Management	50%	226,000	461,000	461,000	461,000	461,000	461,000	-	-	-	-	-	2,531,000
Studies	50%	717,000	625,000	-	-	-	-	-	-	-	-	-	1,342,000
Intake Facility Property Purchase	50%	-	-	250,000	-	-	-	-	-	-	-	-	250,000
Intake Facility Design	50%	-	-	500,000	500,000	-	-	-	-	-	-	-	1,000,000
Intake Facility Construction & Management	41%	-	-	-	4,100,000	4,100,000	-	-	-	-	-	-	8,200,000
Desalination Plant Property Purchase	50%	-	-	2,750,000	-	-	-	-	-	-	-	-	2,750,000
Desalination Plant Design	50%	-	-	625,000	625,000	-	-	-	-	-	-	-	1,250,000
Desalination Plant Construction & Mgmt	41%	-	-	-	8,268,000	8,268,000	8,268,000	-	-	-	-	-	24,804,000
Intake Pipeline & Brine Pipeline	50%/41%	-	-	228,000	1,026,000	1,026,000	-	-	-	-	-	-	2,280,000
Intertie	50%/41%	-	-	263,000	1,184,000	1,184,000	-	-	-	-	-	-	2,631,000
CEQA/Permitting/Other	50%/41%	-	-	625,000	820,000	-	-	-	-	-	-	-	1,445,000
Public Outreach & Education ¹	50%	100,000	100,000	100,000	100,000	100,000	100,000	50,000	50,000	50,000	-	-	750,000
Energy Offset Projects ¹	100%	-	-	-	500,000	500,000	500,000	500,000	-	-	-	-	2,000,000
Total District Share of Desal Projects		1,043,000	1,186,000	5,802,000	17,584,000	15,639,000	9,329,000	550,000	50,000	50,000	0	0	51,233,000
Encumbrance Adjustments for Multi-Year Projects													
Intake Facility Construction & Const Mgmt		-	-	-	4,100,000	(4,100,000)	-	-	-	-	-	-	0
Desal Plant Construction & Const Mgmt		-	-	-	16,536,000	(8,268,000)	(8,268,000)	-	-	-	-	-	0
Intake Pipeline, Brine Pipelines, & Intertie		-	-	-	2,210,000	(2,210,000)	-	-	-	-	-	-	0
Subtotal Encumbrance Adjustments		-	-	-	22,846,000	(14,578,000)	(8,268,000)	-	-	-	-	-	0
Total with Encumbrance Adjustments		1,043,000	1,186,000	5,802,000	40,430,000	1,061,000	1,061,000	550,000	50,000	50,000	0	0	51,233,000
DISTRICT CAPITAL IMPROVEMENTS		Source: The Covello Group 10-Year Capital Improvement Budget dated 09/27/12											
Well Master Plan		1,140,000	670,000	2,417,000	-	-	-	-	-	-	160,000	-	4,387,000
Booster Pump Stations		1,760,000	300,000	-	1,300,000	-	-	-	-	30,000	284,600	-	3,674,600
Water Treatment		601,000	2,990,000	50,000	432,000	-	-	-	-	-	-	-	4,073,000
Hexavalent Chromium Treatment ²		150,000	200,000	1,050,000	1,050,000	2,100,000	2,100,000	-	-	-	-	-	6,650,000
Main Replacements		3,625,000	2,085,000	3,149,000	899,500	4,568,500	4,195,500	6,796,000	7,433,500	1,207,000	1,100,000	978,000	36,037,000
Tank Recoats & Maintenance		228,000	229,000	229,000	229,000	229,000	229,000	229,000	229,000	229,000	229,000	229,000	2,518,000
New Tanks		229,000	125,000	1,000,000	1,535,000	-	-	-	-	-	-	-	2,889,000
Water Service Replacement Projects		664,000	-	1,844,000	768,500	44,000	44,000	-	-	-	-	-	3,364,500
Intertie within District Service Area		-	-	-	-	-	-	300,000	-	-	-	590,000	890,000
Other Unplanned Projects		-	-	-	-	-	-	-	-	500,000	500,000	500,000	1,500,000
Total District Capital Improvements		8,397,000	6,599,000	9,739,000	6,214,000	6,941,500	6,568,500	7,325,000	7,662,500	1,966,000	2,273,600	2,297,000	65,983,100
TOTAL CAPITAL IMPROVEMENTS		9,440,000	7,785,000	15,541,000	23,798,000	22,580,500	15,897,500	7,875,000	7,712,500	2,016,000	2,273,600	2,297,000	117,216,100
With Encumbrance Adjustments		9,440,000	7,785,000	15,541,000	46,644,000	8,002,500	7,629,500	7,875,000	7,712,500	2,016,000	2,273,600	2,297,000	117,216,100

1 Placeholder estimate for planning purposes; actual costs may vary.

2 Assumes District exceeds future Maximum Contaminant Levels at 2-3 wells and installs treatment facilities.

Capital Improvement Program

Current Dollars (\$ Millions)

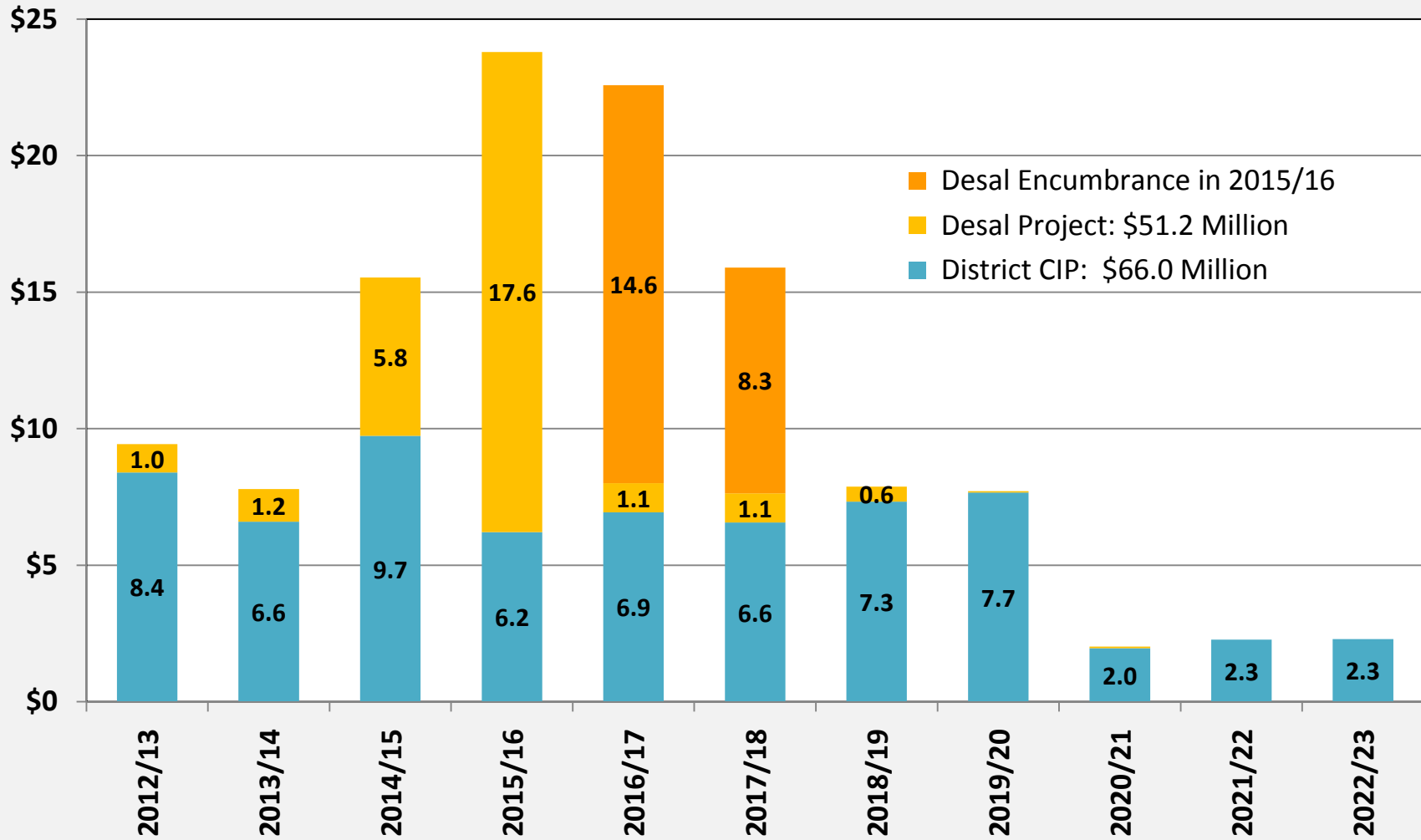


Table 4
Soquel Creek Water District
Capital Improvement Program with Cost Escalation

	District %	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL
Est Construction Cost Inflation			4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	
Cost Escalator		1.000	1.040	1.082	1.125	1.170	1.217	1.265	1.316	1.369	1.423	1.480	
DESALINATION PROJECT													
<i>District's Share of Desalination Project Costs (Annual Expenses)</i>													
Project Management	50%	226,000	479,000	499,000	519,000	539,000	561,000	-	-	-	-	-	2,823,000
Studies	50%	717,000	650,000	-	-	-	-	-	-	-	-	-	1,367,000
Intake Facility Property Purchase	50%	-	-	270,000	-	-	-	-	-	-	-	-	270,000
Intake Facility Design	41%	-	-	541,000	562,000	-	-	-	-	-	-	-	1,103,000
Intake Facility Construction & Management	41%	-	-	-	4,612,000	4,796,000	-	-	-	-	-	-	9,408,000
Desalination Plant Property Purchase	50%	-	-	2,974,000	-	-	-	-	-	-	-	-	2,974,000
Desalination Plant Design	41%	-	-	676,000	703,000	-	-	-	-	-	-	-	1,379,000
Desalination Plant Construction & Mgmt	41%	-	-	-	9,300,000	9,672,000	10,059,000	-	-	-	-	-	29,031,000
Intake Pipeline & Brine Pipeline	50%/41%	-	-	247,000	1,154,000	1,200,000	-	-	-	-	-	-	2,601,000
Intertie	50%/41%	-	-	284,000	1,332,000	1,385,000	-	-	-	-	-	-	3,001,000
CEQA/Permitting/Other	50%	-	-	676,000	922,000	-	-	-	-	-	-	-	1,598,000
Public Outreach & Education ¹	50%	100,000	104,000	108,000	112,000	117,000	122,000	63,000	66,000	68,000	-	-	860,000
Energy Offset Projects ¹	100%	-	-	-	562,000	585,000	608,000	633,000	-	-	-	-	2,388,000
Total District Share of Desal Projects		1,043,000	1,233,000	6,275,000	19,778,000	18,294,000	11,350,000	696,000	66,000	68,000	0	0	58,803,000
Encumbrance Adjustments for Multi-Year Projects													
Intake Facility Construction & Const Mgmt		-	-	-	4,796,000	(4,796,000)	-	-	-	-	-	-	0
Desal Plant Construction & Const Mgmt		-	-	-	19,731,000	(9,672,000)	(10,059,000)	-	-	-	-	-	0
Infrastructure to Plant & Eastside Pressure		-	-	-	2,585,000	(2,585,000)	-	-	-	-	-	-	0
Subtotal Encumbrance Adjustments		-	-	-	27,112,000	(17,053,000)	(10,059,000)	-	-	-	-	-	0
Total with Encumbrance Adjustments		1,043,000	1,233,000	6,275,000	46,890,000	1,241,000	1,291,000	696,000	66,000	68,000	0	0	58,803,000
DISTRICT CAPITAL IMPROVEMENTS													
Well Master Plan		1,140,000	697,000	2,614,000	-	-	-	-	-	-	228,000	-	4,679,000
Booster Pump Stations		1,760,000	312,000	-	1,462,000	-	-	-	-	41,000	405,000	-	3,980,000
Water Treatment		601,000	3,110,000	54,000	486,000	-	-	-	-	-	-	-	4,251,000
Hexavalent Chromium Treatment		150,000	208,000	1,136,000	1,181,000	2,457,000	2,555,000	-	-	-	-	-	7,687,000
Main Replacements		3,625,000	2,168,000	3,406,000	1,012,000	5,344,000	5,104,000	8,599,000	9,782,000	1,652,000	1,566,000	1,448,000	43,706,000
Tank Recoats & Maintenance		228,000	238,000	248,000	258,000	268,000	279,000	290,000	301,000	313,000	326,000	339,000	3,088,000
New Tanks		229,000	130,000	1,082,000	1,727,000	-	-	-	-	-	-	-	3,168,000
Water Service Replacement Projects		664,000	-	1,994,000	864,000	51,000	54,000	-	-	-	-	-	3,627,000
District Inter Tie		-	-	-	-	-	-	380,000	-	-	-	873,000	1,253,000
Other Unplanned Projects		-	-	-	-	-	-	-	-	684,000	712,000	740,000	2,136,000
Total District Capital Improvements		8,397,000	6,863,000	10,534,000	6,990,000	8,120,000	7,992,000	9,269,000	10,083,000	2,690,000	3,237,000	3,400,000	77,575,000
TOTAL CAPITAL IMPROVEMENTS													
With Encumbrance Adjustments		9,440,000	0	0	0	0	0	0	0	0	0	0	0
With Encumbrance Adjustments		9,440,000	8,096,000	16,809,000	53,880,000	9,361,000	9,283,000	9,965,000	10,149,000	2,758,000	3,237,000	3,400,000	136,378,000

¹ Placeholder estimate for planning purposes; actual costs may vary.

² Assumes District exceeds future Maximum Contaminant Levels at 2-3 wells and installs treatment facilities.

Table 5
Soquel Creek Water District
Capital Funding Requirements & Funding Sources

Includes CIP cost-escalation and encumbrance requirements

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	TOTAL
Funding Requirements												
District Share of Desal Project												
Annual Funding Requirements	1,043,000	1,233,000	6,275,000	19,778,000	18,294,000	11,350,000	696,000	66,000	68,000	0	0	58,803,000
Encumbrance Adjustments	0	0	0	27,112,000	(17,053,000)	(10,059,000)	0	0	0	0	0	0
Subtotal	1,043,000	1,233,000	6,275,000	46,890,000	1,241,000	1,291,000	696,000	66,000	68,000	0	0	58,803,000
District CIP Projects	8,397,000	6,863,000	10,534,000	6,990,000	8,120,000	7,992,000	9,269,000	10,083,000	2,690,000	3,237,000	3,400,000	77,575,000
Total Funding Requirements (future \$)	9,440,000	8,096,000	16,809,000	53,880,000	9,361,000	9,283,000	9,965,000	10,149,000	2,758,000	3,237,000	3,400,000	136,378,000
Funding Sources												
2011 COPs for District CIP	8,754,000	0	0	0	0	0	0	0	0	0	0	8,754,000
2013 COPs for District CIP	0	4,700,000	6,400,000	0	0	0	0	0	0	0	0	11,100,000
2015 COPs for District CIP	0	0	0	4,000,000	6,700,000	0	0	0	0	0	0	10,700,000
2017 COPs for District CIP	0	0	0	0	0	6,100,000	6,700,000	7,400,000	0	0	0	20,200,000
Debt Financing for Desal Project	0	0	6,000,000	46,000,000	0	0	0	0	0	0	0	52,000,000
Grant Proceeds	65,000	0	0	0	0	0	0	0	0	0	0	65,000
Pay-As-You-Go Cash Financing	621,000	3,396,000	4,409,000	3,880,000	2,661,000	3,183,000	3,265,000	2,749,000	2,758,000	3,237,000	3,400,000	33,559,000
Total Funding Sources	9,440,000	8,096,000	16,809,000	53,880,000	9,361,000	9,283,000	9,965,000	10,149,000	2,758,000	3,237,000	3,400,000	136,378,000

Table 6
Soquel Creek Water District
Bond/COP Debt Service Estimates
Per \$10 Million of Project Funding

Repayment Term	20 Years	25 Years	30 Years
Funding Target	\$10,000,000	\$10,000,000	\$10,000,000
Total Debt Issue	\$11,120,000	\$11,050,000	\$11,025,000
Project Funding	\$10,000,000	\$10,000,000	\$10,000,000
Issuance Costs & Reserve Requirement			
Underwriter Discount	<i>0.80%</i>	\$89,000	\$88,400
Issuance Costs	<i>Est.</i>	150,000	150,000
Reserve Requirement	<i>MADS</i>	873,500	803,800
Bond Insurance		0	0
Reserve Surety		0	0
Contingency/Rounding		<u>7,500</u>	<u>7,800</u>
Total	1,120,000	1,050,000	1,025,000
Financing Terms			
Term (Years)	20	25	30
Rough Est. Future Interest Rate	4.75%	5.25%	5.75%
Annual Debt Service			
Gross Annual Debt Service	873,500	803,800	779,600
Less Interest on Reserve Fund	<i>2.00%</i>	<u>(17,500)</u>	<u>(15,600)</u>
Net Annual Debt Service	856,000	787,700	764,000

Financing costs and interest rates estimated for financial planning purposes.

Table 7
Soquel Creek Water District
2011 Certificates of Participation

Dated Date:	06/01/11
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Payment Date	Principal	Rate	Interest	Period Debt Svc	Annual Debt Svc
09/01/11			191,656.25	191,656.25	
03/01/12			383,312.50	383,312.50	574,968.75
09/01/12			383,312.50	383,312.50	
03/01/13			383,312.50	383,312.50	766,625.00
09/01/13			383,312.50	383,312.50	
03/01/14			383,312.50	383,312.50	766,625.00
09/01/14			383,312.50	383,312.50	
03/01/15			383,312.50	383,312.50	766,625.00
09/01/15			383,312.50	383,312.50	
03/01/16			383,312.50	383,312.50	766,625.00
09/01/16			383,312.50	383,312.50	
03/01/17			383,312.50	383,312.50	766,625.00
09/01/17			383,312.50	383,312.50	
03/01/18			383,312.50	383,312.50	766,625.00
09/01/18			383,312.50	383,312.50	
03/01/19			383,312.50	383,312.50	766,625.00
09/01/19			383,312.50	383,312.50	
03/01/20	695,000	4.000%	383,312.50	1,078,312.50	1,461,625.00
09/01/20			369,412.50	369,412.50	
03/01/21	720,000	4.000%	369,412.50	1,089,412.50	1,458,825.00
09/01/21			355,012.50	355,012.50	
03/01/22	750,000	4.000%	355,012.50	1,105,012.50	1,460,025.00
09/01/22			340,012.50	340,012.50	
03/01/23	780,000	4.000%	340,012.50	1,120,012.50	1,460,025.00
09/01/23			324,412.50	324,412.50	
03/01/24	810,000	4.000%	324,412.50	1,134,412.50	1,458,825.00
09/01/24			308,212.50	308,212.50	
03/01/25	845,000	4.100%	308,212.50	1,153,212.50	1,461,425.00
09/01/25			290,890.00	290,890.00	
03/01/26	880,000	4.250%	290,890.00	1,170,890.00	1,461,780.00
09/01/26			272,190.00	272,190.00	
03/01/27	915,000	4.300%	272,190.00	1,187,190.00	1,459,380.00
09/01/27			252,517.50	252,517.50	
03/01/28	955,000	4.500%	252,517.50	1,207,517.50	1,460,035.00
09/01/28			231,030.00	231,030.00	
03/01/29	995,000	4.600%	231,030.00	1,226,030.00	1,457,060.00
09/01/29			208,145.00	208,145.00	
03/01/30	1,045,000	4.700%	208,145.00	1,253,145.00	1,461,290.00
09/01/30			183,587.50	183,587.50	
03/01/31	1,090,000	4.800%	183,587.50	1,273,587.50	1,457,175.00
09/01/31			157,427.50	157,427.50	
03/01/32	1,145,000	4.900%	157,427.50	1,302,427.50	1,459,855.00
09/01/32			129,375.00	129,375.00	
03/01/33	1,200,000	5.000%	129,375.00	1,329,375.00	1,458,750.00
09/01/33			99,375.00	99,375.00	
03/01/34	1,260,000	5.000%	99,375.00	1,359,375.00	1,458,750.00
09/01/34			67,875.00	67,875.00	
03/01/35	1,325,000	5.000%	67,875.00	1,392,875.00	1,460,750.00
09/01/35			34,750.00	34,750.00	
03/01/36	1,390,000	5.000%	34,750.00	1,424,750.00	1,459,500.00
Total	16,800,000		13,956,418.75	30,756,418.75	30,756,418.75

Table 8
Soquel Creek Water District
2012 Refunding Bonds
\$3,625,000 at 1.25%

Pymt #	Payment Date	Principal	Interest	Period Debt Svc	Fiscal Year Debt Svc
1	09/01/12	291,656.18	8,181.42	299,837.60	
2	03/01/13	293,720.86	20,949.14	314,670.00	614,507.60
3	09/01/13	295,250.19	19,419.81	314,670.00	
4	03/01/14	297,422.38	17,247.62	314,670.00	629,340.00
5	09/01/14	299,036.71	15,633.29	314,670.00	
6	03/01/15	301,170.96	13,499.04	314,670.00	629,340.00
7	09/01/15	302,871.37	11,798.63	314,670.00	
8	03/01/16	304,913.59	9,756.41	314,670.00	629,340.00
9	09/01/16	306,754.44	7,915.56	314,670.00	
10	03/01/17	308,811.36	5,858.64	314,670.00	629,340.00
11	09/01/17	310,687.22	3,982.78	314,670.00	
12	03/01/18	312,704.74	1,965.26	314,670.00	629,340.00
Total		3,625,000.00	136,207.60	3,761,207.60	3,761,207.60

**Table 9
Soquel Creek Water District
Rate Projections**

With Proposed Rate Adjustments

	Current	Jan-1 2013	Jan-1 2014	Jan-1 2015	Jan-1 2016	Jan-1 2017	Jan-1 2018	Jan-1 2019	Jan-1 2020	Jan-1 2021	Jan-1 2022	
Rate Adjustment		9%	9%	9%	12%	12%	12%	6%	6%	4%	4%	
BI-MONTHLY SERVICE CHARGES												
Single Family Residential	-	\$43.40	\$46.43	\$49.66	\$55.62	\$62.29	\$69.76	\$73.95	\$78.39	\$81.13	\$83.97	
All Other												
5/8"	\$40.14	\$43.40	\$46.43	\$49.66	\$55.62	\$62.29	\$69.76	\$73.95	\$78.39	\$81.13	\$83.97	
3/4"	47.92	56.24	64.91	74.49	83.43	93.44	104.65	110.93	117.59	121.71	125.97	
1"	71.23	87.51	104.85	124.15	139.05	155.74	174.43	184.90	195.99	202.85	209.95	
1.5"	123.16	161.11	202.25	248.30	278.10	311.47	348.85	369.78	391.97	405.69	419.89	
2"	187.91	251.18	320.08	397.28	444.95	498.34	558.14	591.63	627.13	649.08	671.80	
3"	434.35	530.08	631.77	744.90	834.29	934.40	1,046.53	1,109.32	1,175.88	1,217.04	1,259.64	
4"	667.71	842.96	1,031.28	1,241.50	1,390.48	1,557.34	1,744.22	1,848.87	1,959.80	2,028.39	2,099.38	
6"	1,316.14	1,672.02	2,055.13	2,483.00	2,780.96	3,114.68	3,488.44	3,697.75	3,919.62	4,056.81	4,198.80	
QUANTITY CHARGES (PER HCF)												
Single Family Residential (Domestic)												
Tier 1	0-6 hcf	\$3.51	\$3.60	\$3.80	\$4.00	\$4.48	\$5.02	\$5.62	\$5.96	\$6.32	\$6.54	\$6.77
Tier 2	7-14 hcf	6.70	5.80	6.40	7.00	7.84	8.78	9.83	10.42	11.05	11.44	11.84
Tier 3	15-30 hcf	11.61	8.50	9.75	11.00	12.32	13.80	15.46	16.39	17.37	17.98	18.61
Tier 4	31+ hcf		13.00	14.50	16.00	17.92	20.07	22.48	23.83	25.26	26.14	27.05
Multi-Family Residential (Per Dwelling Unit)												
Tier 1	0-4 hcf	\$5.53	\$5.00	\$5.30	\$5.60	\$6.27	\$7.02	\$7.86	\$8.33	\$8.83	\$9.14	\$9.46
Tier 2	5-10 hcf	5.53	6.00	6.55	7.10	7.95	8.90	9.97	10.57	11.20	11.59	12.00
Tier 3	11-20 hcf	5.53	7.00	7.80	8.60	9.63	10.79	12.08	12.80	13.57	14.04	14.53
Tier 4	21+ hcf	5.53	8.00	9.10	10.20	11.42	12.79	14.32	15.18	16.09	16.65	17.23
Non-Residential		5.53	5.94	6.47	7.05	7.90	8.85	9.91	10.50	11.13	11.52	11.92
Bi-Monthly Fire Service Charge(Phase in to 2.5% of Service Charge)												
Up to 2"		\$6.47	\$7.62	\$8.77	\$9.93	\$13.35	\$14.95	\$16.74	\$17.75	\$18.81	\$19.47	\$20.15
3"		12.95	14.84	16.73	18.62	25.03	28.03	31.40	33.28	35.28	36.51	37.79
4"		24.34	26.57	28.80	31.04	41.71	46.72	52.33	55.47	58.79	60.85	62.98
6"		50.77	54.54	58.31	62.08	83.43	93.44	104.65	110.93	117.59	121.70	125.96
8"		73.04	81.80	90.56	99.33	133.49	149.50	167.44	177.49	188.14	194.72	201.54

Table 10
Soquel Creek Water District
Projected Bi-Monthly Service Charge Revenues

	Current	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Growth (Single Family Equivalents)		10	10	10	10	10	10	10	10	10	10
ACCOUNTS											
Single Family Dwelling Units		12,336	12,346	12,356	12,366	12,376	12,386	12,396	12,406	12,416	12,426
<u>All Other</u>											
5/8"	13,025	922	922	932	942	952	962	972	982	992	1,002
3/4"	48	33	33	33	33	33	33	33	33	33	33
1"	665	457	457	457	457	457	457	457	457	457	457
1-1/2"	81	81	81	81	81	81	81	81	81	81	81
2"	58	58	58	58	58	58	58	58	58	58	58
3"	20	20	20	20	20	20	20	20	20	20	20
4"	5	5	5	5	5	5	5	5	5	5	5
6"	1	1	1	1	1	1	1	1	1	1	1
Subtotal	13,903	1,577	1,577	1,587	1,597	1,607	1,617	1,627	1,637	1,647	1,657
Total	13,903	13,913	13,923	13,943	13,963	13,983	14,003	14,023	14,043	14,063	14,083
BI-MONTHLY SERVICE CHARGES											
Effective	Jan-1	Mar-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1
Single Family		43.40	46.43	49.66	55.62	62.29	69.76	73.95	78.39	81.13	83.97
<u>All Other</u>											
5/8"	\$40.14	\$43.40	\$46.43	\$49.66	\$55.62	\$62.29	\$69.76	\$73.95	\$78.39	\$81.13	\$83.97
3/4"	47.92	56.24	64.91	74.49	83.43	93.44	104.65	110.93	117.59	121.71	125.97
1"	71.23	87.51	104.85	124.15	139.05	155.74	174.43	184.90	195.99	202.85	209.95
1-1/2"	123.16	161.11	202.25	248.30	278.10	311.47	348.85	369.78	391.97	405.69	419.89
2"	187.91	251.18	320.08	397.28	444.95	498.34	558.14	591.63	627.13	649.08	671.80
3"	434.35	530.08	631.77	744.90	834.29	934.40	1,046.53	1,109.32	1,175.88	1,217.04	1,259.64
4"	667.71	842.96	1,031.28	1,241.50	1,390.48	1,557.34	1,744.22	1,848.87	1,959.80	2,028.39	2,099.38
6"	1,316.14	1,672.02	2,055.13	2,483.00	2,780.96	3,114.68	3,488.44	3,697.75	3,919.62	4,056.81	4,198.80
ANNUAL REVENUES											
Months Collected at New Rate		2	4	4	4	4	4	4	4	4	4
Single Family		3,037,551	3,289,715	3,521,954	3,831,976	4,295,215	4,814,190	5,292,348	5,614,707	5,907,781	6,119,308
<u>All Other</u>											
5/8"		\$225,060	\$245,676	\$265,657	\$291,907	\$330,401	\$373,910	\$414,986	\$444,434	\$472,013	\$493,445
3/4"		9,763	11,708	13,484	15,339	17,180	19,241	21,135	22,404	23,555	24,380
1"		202,753	255,801	305,139	354,038	396,530	444,122	487,857	517,132	543,675	562,704
1-1/2"		62,930	84,964	105,754	125,501	140,563	157,430	172,932	183,308	192,720	199,466
2"		69,062	95,403	120,343	143,783	161,036	180,359	198,118	210,005	220,787	228,515
3"		54,037	67,677	80,338	92,964	104,119	116,613	128,095	135,781	142,752	147,749
4"		20,908	27,172	33,041	38,735	43,383	48,589	53,373	56,575	59,480	61,562
6"		8,253	10,798	13,187	15,494	17,353	19,436	21,349	22,630	23,792	24,625
Total		3,690,316	4,088,915	4,458,896	4,909,737	5,505,779	6,173,890	6,790,193	7,206,976	7,586,555	7,861,753

Table 11
Soquel Creek Water District
Projected Bi-Monthly Fire Service Charge Revenues

	Current	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
ACCOUNTS BY METER SIZE											
Up to 2"		1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333
3"		1	1	1	1	1	1	1	1	1	1
4"		13	13	13	13	13	13	13	13	13	13
6"		1	1	1	1	1	1	1	1	1	1
8"		2	2	2	2	2	2	2	2	2	2
Total		1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
BI-MONTHLY SERVICE CHARGES											
Effective	Jan-1	Mar-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1	Jan-1
Up to 2"	\$6.47	\$7.62	\$8.77	\$9.93	\$13.35	\$14.95	\$16.74	\$17.75	\$18.81	\$19.47	\$20.15
3"	12.95	14.84	16.73	18.62	25.03	28.03	31.40	33.28	35.28	36.51	37.79
4"	24.34	26.57	28.80	31.04	41.71	46.72	52.33	55.47	58.79	60.85	62.98
6"	50.77	54.54	58.31	62.08	83.43	93.44	104.65	110.93	117.59	121.70	125.96
8"	73.04	81.80	90.56	99.33	133.49	149.50	167.44	177.49	188.14	194.72	201.54
ANNUAL REVENUES WITH MID-YEAR RATE ADJUSTMENT											
Months at New Rate	2	4	4	4	4	4	4	4	4	4	4
2"	\$53,280	\$64,011	\$73,235	\$88,538	\$111,039	\$124,342	\$136,579	\$144,790	\$152,202	\$157,534	
3"	80	93	104	125	156	175	192	204	214	222	
4"	1,928	2,130	2,305	2,699	3,384	3,790	4,163	4,413	4,639	4,802	
6"	308	335	357	415	521	583	640	679	714	739	
8"	894	1,017	1,122	1,329	1,666	1,866	2,049	2,172	2,284	2,364	
Total	56,490	67,585	77,123	93,105	116,765	130,756	143,625	152,259	160,053	165,660	

Table 12
Soquel Creek Water District
Projected Water Sales by Rate Tier

	Annual Water Sales (hcf)		Water Sales by Tier 2012/13 (hcf) ¹			Future Year Water Sales by Tier (hcf) ²			
	Current Tiers	New Tiers	Current Tiers Jul-Apr	New Tiers May-Jun	Total	New Tiers Jul-Feb	New Tiers Mar-Jun	Total Sales	Jul-Feb % of Total
WATER SALES BY RATE TIER									
Single Family Residential (hcf)									
Tier 1	506,200	398,700	423,500	65,100	488,600	269,300	129,400	398,700	67.5%
Tier 2	437,900	337,800	368,000	55,400	423,400	236,100	101,700	337,800	69.9%
Tier 3	62,900	207,600	55,400	32,200	87,600	156,200	51,400	207,600	75.2%
Tier 4	-	62,900	-	7,500	7,500	51,000	11,900	62,900	81.1%
Subtotal	1,007,000	1,007,000	846,900	160,200	1,007,100	712,600	294,400	1,007,000	70.8%
Multi-Family Residential (hcf)									
Tier 1	248,400	92,400	211,300	13,700	225,000	63,800	28,600	92,400	69.0%
Tier 2	-	89,400	-	12,800	12,800	63,400	26,000	89,400	70.9%
Tier 3	-	38,500	-	3,500	3,500	30,500	8,000	38,500	79.2%
Tier 4	-	28,100	-	7,100	7,100	18,100	10,000	28,100	64.4%
Subtotal	248,400	248,400	211,300	37,100	248,400	175,800	72,600	248,400	70.8%
All Other Accounts (hcf)	304,000	304,000	255,900	48,100	304,000	220,000	84,000	304,000	72.4%
Total Water Sales (hcf)	1,559,400	1,559,400	1,314,100	245,400	1,559,500	1,108,400	451,000	1,559,400	71.1%
Total Demand (AF)	3,580	3,580	3,017	563	3,580	2,545	1,035	3,580	

1 Assumes new rates become effective on March 1, 2013 and apply to bills sent on or after May 1, 2013.

2 Assumes new rates become effective on January 1 each year (starting 2014) and apply to bills sent on or after March 1.

Table 14
Soquel Creek Water District
Projected Water Sales Revenues

	2012/13		2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
ANNUAL WATER SALES (HCF)	<u>Jul-Apr</u>	<u>May-Jun</u>									
Single-Family Residential											
Tier 1	423,500	65,100	398,700	398,700	398,700	398,700	398,700	398,700	398,700	398,700	398,700
Tier 2	368,000	55,400	337,800	337,800	337,800	337,800	337,800	337,800	337,800	337,800	337,800
Tier 3	55,400	32,200	207,600	207,600	207,600	207,600	207,600	207,600	207,600	207,600	207,600
Tier 4	-	<u>7,500</u>	<u>62,900</u>	<u>62,900</u>	<u>62,900</u>	<u>62,900</u>	<u>62,900</u>	<u>62,900</u>	<u>62,900</u>	<u>62,900</u>	<u>62,900</u>
Subtotal	846,900	160,200	1,007,000	1,007,000	1,007,000	1,007,000	1,007,000	1,007,000	1,007,000	1,007,000	1,007,000
Multi-Family Residentia											
Tier 1	211,300	13,700	92,400	92,400	92,400	92,400	92,400	92,400	92,400	92,400	92,400
Tier 2	-	12,800	89,400	89,400	89,400	89,400	89,400	89,400	89,400	89,400	89,400
Tier 3	-	3,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500	38,500
Tier 4	-	<u>7,100</u>	<u>28,100</u>	<u>28,100</u>	<u>28,100</u>	<u>28,100</u>	<u>28,100</u>	<u>28,100</u>	<u>28,100</u>	<u>28,100</u>	<u>28,100</u>
Subtotal	211,300	37,100	248,400	248,400	248,400	248,400	248,400	248,400	248,400	248,400	248,400
All Other Accounts	255,900	48,100	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000	304,000
Total Water Sales	1,314,100	245,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400	1,559,400
QUANTITY RATES	% of Use	<u>Jul-Apr</u>	<u>May-Jun</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>
Single-Family Residential	<u>Jul-Feb</u>										
Tier 1	67.5%	\$3.51	\$3.60	\$3.80	\$4.00	\$4.48	\$5.02	\$5.62	\$5.96	\$6.32	\$6.54
Tier 2	69.9%	6.70	5.80	6.40	7.00	7.84	8.78	9.83	10.42	11.05	11.44
Tier 3	75.2%	11.61	8.50	9.75	11.00	12.32	13.80	15.46	16.39	17.37	17.98
Tier 4	81.1%	-	13.00	14.50	16.00	17.92	20.07	22.48	23.83	25.26	26.14
Multi-Family Residentia											
Tier 1	69.0%	\$5.53	\$5.00	\$5.30	\$5.60	\$6.27	\$7.02	\$7.86	\$8.33	\$8.83	\$9.14
Tier 2	70.9%	-	6.00	6.55	7.10	7.95	8.90	9.97	10.57	11.20	11.59
Tier 3	79.2%	-	7.00	7.80	8.60	9.63	10.79	12.08	12.80	13.57	14.04
Tier 4	64.4%	-	8.00	9.10	10.20	11.42	12.79	14.32	15.18	16.09	16.65
All Other Accounts	72.4%	5.53	5.94	6.47	7.05	7.90	8.85	9.91	10.50	11.13	11.52
ANNUAL REVENUES	<i>Assumes new rates become effective on January 1 each year (starting 2014) and apply to bills sent on or after March 1.</i>										
Single-Family Residential											
Tier 1	\$1,486,485	\$234,360	\$1,461,200	\$1,540,940	\$1,656,912	\$1,856,052	\$2,079,114	\$2,284,690	\$2,422,836	\$2,548,252	\$2,637,260
Tier 2	2,465,600	321,320	2,020,260	2,222,940	2,450,028	2,743,950	3,072,669	3,380,577	3,583,947	3,772,353	3,905,112
Tier 3	643,194	273,700	1,828,850	2,088,350	2,351,448	2,633,704	2,950,204	3,257,298	3,452,936	3,637,366	3,765,030
Tier 4	<u>0</u>	<u>97,500</u>	<u>835,550</u>	<u>929,900</u>	<u>1,029,248</u>	<u>1,152,753</u>	<u>1,291,082</u>	<u>1,430,057</u>	<u>1,515,924</u>	<u>1,599,326</u>	<u>1,655,035</u>
Subtotal	4,595,279	926,880	6,145,860	6,782,130	7,487,636	8,386,459	9,393,069	10,352,622	10,975,643	11,557,297	11,962,437
Multi-Family Residentia											
Tier 1	1,168,489	68,500	470,580	498,300	536,602	600,798	672,672	739,706	783,992	824,758	853,688
Tier 2	0	76,800	550,700	599,870	656,840	735,430	823,480	906,918	961,338	1,011,420	1,046,806
Tier 3	0	24,500	275,900	306,700	339,340	380,035	425,735	470,840	498,960	526,205	544,460
Tier 4	<u>0</u>	<u>56,800</u>	<u>235,800</u>	<u>266,710</u>	<u>298,820</u>	<u>334,602</u>	<u>374,699</u>	<u>410,992</u>	<u>435,658</u>	<u>457,729</u>	<u>473,665</u>
Subtotal	1,168,489	226,600	1,532,980	1,671,580	1,831,602	2,050,865	2,296,586	2,528,456	2,679,948	2,820,112	2,918,619
All Other Accounts	1,415,127	285,714	1,850,280	2,015,600	2,214,600	2,481,400	2,779,440	3,062,200	3,244,920	3,416,280	3,535,680
Bulk Water Revenue	>>>	10,000	11,700	12,749	14,286	16,004	17,920	18,987	20,127	20,832	21,555
Leak Adjustments	>>>	-53,000	-62,009	-67,568	-75,714	-84,819	-94,978	-100,633	-106,671	-110,409	-114,242
Total	>>>	8,575,089	9,478,811	10,414,491	11,472,409	12,849,908	14,392,037	15,861,632	16,813,967	17,704,112	18,324,049

Table 15
Soquel Creek Water District
Rate Projections

	Current	Mar-1 2013	Jan-1 2014	Jan-1 2015	
Overall Rate Adjustment		9%	9%	9%	
BI-MONTHLY SERVICE CHARGES					
Single Family Residential	-	\$43.40	\$46.43	\$49.66	
All Other					
5/8"	\$40.14	\$43.40	\$46.43	\$49.66	
3/4"	47.92	56.24	64.91	74.49	
1"	71.23	87.51	104.85	124.15	
1.5"	123.16	161.11	202.25	248.30	
2"	187.91	251.18	320.08	397.28	
3"	434.35	530.08	631.77	744.90	
4"	667.71	842.96	1,031.28	1,241.50	
6"	1,316.14	1,672.02	2,055.13	2,483.00	
QUANTITY CHARGES (PER HCF)					
Single Family Residential (Domestic)					
Tier 1	0-6 hcf	\$3.51	\$3.60	\$3.80	\$4.00
Tier 2	7-14 hcf		5.80	6.40	7.00
Tier 3	15-30 hcf	6.70	8.50	9.75	11.00
Tier 4	31+ hcf	11.61	13.00	14.50	16.00
Multi-Family Residential (Per Dwelling Unit)					
Tier 1	0-4 hcf	\$5.53	\$5.00	\$5.30	\$5.60
Tier 2	5-10 hcf	5.53	6.00	6.55	7.10
Tier 3	11-20 hcf	5.53	7.00	7.80	8.60
Tier 4	21+ hcf	5.53	8.00	9.10	10.20
Non-Residential		5.53	5.94	6.47	7.05
Bi-Monthly Fire Service Charge					
Up to 2"	\$6.47	\$7.62	\$8.77	\$9.93	
3"	12.95	14.84	16.73	18.62	
4"	24.34	26.57	28.80	31.04	
6"	50.77	54.54	58.31	62.08	
8"	73.04	81.80	90.56	99.33	

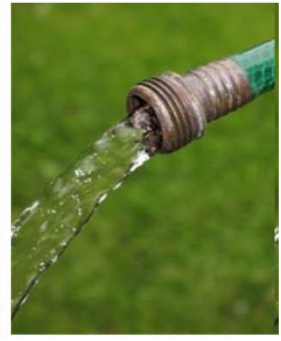
Table 16
Soquel Creek Water District
Quantity Charges per 100 Gallons

For Informational Purposes Only

		Current	Mar-1 2013	Jan-1 2014	Jan-1 2015
QUANTITY CHARGES (PER HCF)					
				<i>1 HCF = 748 GALLONS</i>	
<u>Single Family Residential (Domestic)</u>					
Tier 1	0-6 hcf	\$3.51	\$3.60	\$3.80	\$4.00
Tier 2	7-14 hcf	6.70	5.80	6.40	7.00
Tier 3	15-30 hcf		8.50	9.75	11.00
Tier 4	31+ hcf	11.61	13.00	14.50	16.00
<u>Multi-Family Residential (Per Dwelling Unit)</u>					
Tier 1	0-4 hcf	\$5.53	\$5.00	\$5.30	\$5.60
Tier 2	5-10 hcf	5.53	6.00	6.55	7.10
Tier 3	11-20 hcf	5.53	7.00	7.80	8.60
Tier 4	21+ hcf	5.53	8.00	9.10	10.20
Non-Residential		5.53	5.94	6.47	7.05
EQUIVALENT QUANTITY CHARGES PER 100 GALLONS					
<u>Single Family Residential (Domestic)</u>					
Tier 1	0-6 hcf	\$0.47	\$0.48	\$0.51	\$0.53
Tier 2	7-14 hcf		0.78	0.86	0.94
Tier 3	15-30 hcf	0.90	1.14	1.30	1.47
Tier 4	31+ hcf	1.55	1.74	1.94	2.14
<u>Multi-Family Residential (Per Dwelling Unit)</u>					
Tier 1	0-4 hcf	\$0.74	\$0.67	\$0.71	\$0.75
Tier 2	5-10 hcf	0.74	0.80	0.88	0.95
Tier 3	11-20 hcf	0.74	0.94	1.04	1.15
Tier 4	21+ hcf	0.74	1.07	1.22	1.36
Non-Residential		0.74	0.79	0.86	0.94



**SOQUEL CREEK
WATER DISTRICT**



Water Rate Structure

11/15/2012



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS



Soquel Creek Water District Water Rate Structure November 15, 2012

Overview

- No rate structure is perfect, all options have benefits and limitations
- Goal is to transition toward a rate structure that best achieves a balance of District objectives
- District can phase in rate structure modifications over time to minimize annual impacts
- From a strictly economic perspective, the marginal cost per unit of water is what provides financial disincentive to purchase an additional unit of water
 - Uniform block rate does provide conservation incentive
 - Inclining tiers provide more conservation incentive at higher levels of use and less at lower levels of use
- Different rate structures may be more appropriate for different customer classifications
- Rate structure changes will result in winners and losers

Rate Structure Objectives

- Encourage conservation and efficient water use for all customer classes
- Fair and equitable to all customers
 - Equity is a matter of perspective
- Increase conservation incentive on highest water users
- Lower financial impacts on low water users
- Cost effective to implement and administer
- Easy to understand
- Flexibility to modify and transition to emergency water rates and potential water budgets
- Financial stability (or can mitigate with fund reserves & periodic rate adjustments)
- Simple and straightforward options preferred over more complex alternatives that achieve the same objectives
- Other District objectives

General Rate Structure Issues

- **Fixed vs. Variable revenue recovery**
 - Current rate recovery roughly 30% Fixed, 70% Variable
 - *In line with Cal Urban Water Conservation Council BMP 1.4 (previously BMP 11)*
 - For comparison, current expenses are over 80% fixed (preliminary rough estimate)

- Does District want to consider any changes to current fixed vs. variable rate recovery?
- Note: Increase in fixed charges often impacts low water users more
- **Fixed meter charges (Bi-Monthly Service Charges)**
 - Not currently aligned with AWWA meter capacity ratios
 - Preliminary recommendation: Realign fixed meter charges with AWWA meter capacity ratios; *can phase in over 3 years to minimize impact on ratepayers*
- **Variable water quantity rate structure options**
 - Uniform block rate for all use
 - Inclining tier rates
 - Water budgets (inclining tiers; breakpoints vary by customer characteristics)
 - Historical allocations (surcharge or reward based on changes from historical use)
May be legally allowable as a temporary conservation incentive, but may not comply with Prop. 218 for ongoing water rates.

Single Family Residential

Current Rates

- Different rates for 5/8" meter vs. 3/4" & 1" meters
- Number of Single Family Residential accounts:
 - 5/8" meter account: 12,103 (over 98%)
 - 3/4" & 1" meter accounts: 233
- Larger 3/4" & 1" meters pay a higher fixed charge, but get more water in each rate tier
 - At moderate to higher levels of water use, 3/4" & 1" accounts pay less than 5/8" meter accounts with the same water use
- New fire flow plumbing code requirements will result in more 1" and larger meters in future

Preliminary Rate Options

- **Fixed Residential Meter Charges:**
- Establish a uniform fixed meter charges for all single family residential customers regardless of meter size
 - Applies to all single family homes (regardless of meter size)
 - Note: The limited number of customers with 3/4" or 1" meters would pay lower fixed charges, but higher water quantity charges (essentially no financial impact to District)
- Concurrently with establishing a uniform standard rate for all single family residences, District can also establish a uniform standard charge for homes with private fire service (regardless of meter size or meter type)

- Due to relatively low fixed meter charges, it is possible that a number of vacation homes with little use during many months are not paying what they otherwise could be paying
 - Some agencies with a high % vacation homes have a) established higher fixed charges, and/or b) included a minimal water allowance in the fixed charge
 - Note: higher fixed charges can also disproportionately impact low water users
- **Water Quantity Charges:**
- Two 4-tiered single family rate options developed
 - Both options result in lower rate impacts on low water users and higher impacts on high water users
- Weighted average rate of single family residential tiers should be roughly the same as the uniform rate charged to other accounts to ensure rate equity between customer classes

Multi-Family Residential

- Currently multi-family accounts billed same as commercial and all other accounts other than single family homes
 - Fixed charge based on meter size
 - Uniform block rate applies to all water use
- Approx. 80% of multi-family accounts are master metered; separate meters for each dwelling unit have been required since 1983
- Utility billing database indicates number of dwelling units per account
 - *Accuracy of data needs to be verified*
 - Some anomalies in data (e.g. multi-family accts with 1 dwelling unit and very high use)
- Note: It can be challenging to generate incentive for individual units to conserve since customers are not billed individually, but rather collectively via one bill for the entire building.

Preliminary Rates Options

- Maintain uniform block rates and conduct more outreach to multi-family buildings
- Establish tiered quantity charges based on number of dwelling units
 - Tables show example of a 4-Tier multi-family rate option
 - Tiers are phased in over 3 years
 - Tier steepness is intentionally more moderate than single family tiers

Preliminary Recommendation

- Transition to a moderate 4-tiered multi-family quantity rate structure over 3 years

Commercial/Non-Residential

- Current Rates: Fixed charge based on meter size, uniform block rate for all use
- Commercial use can range widely depending on business type and other factors (e.g. restaurant vs. office, business open part-time vs. full-time, seasonal businesses, etc.)
 - Can be difficult/challenging to come up with a commercial rate structure that is reasonably fair and equitable for a wide range of businesses
 - Can try to break down commercial customers into smaller, more homogenous groups, and develop different conservation rate structures tailored to each group
 - Can separate out irrigation customers for separate rate structure (e.g. simple budgets)
- Conservation incentive for commercial customers is leveraged via variable sewer rates
- Although well-intentioned, conservation rate initiatives for commercial customers can have the effect of penalizing businesses with high water needs (regardless of how efficient they are) while rewarding businesses with lower water needs (regardless of how inefficient they may be)
- Drawbacks can outweigh the benefits for implementing commercial conservation rates

Preliminary Rates Options

- Maintain uniform block rates for most commercial customers
- Implement more-moderate rate tiers that apply to all commercial accounts
- Implement rate tiers that vary based on meter size, with more water in each tier for larger meters
- Implement separate rate structures for subcategories
 - e.g. irrigation accounts - transition to water budgets
 - e.g. schools – tiers based on ADA plus faculty/staff
- Establish rate incentives based on changes in use from prior years

Preliminary Recommendation

- Maintain uniform block rates for commercial customers
- Uniform rates do provide conservation incentive

Other Rate Issues

Preliminary Recommendation

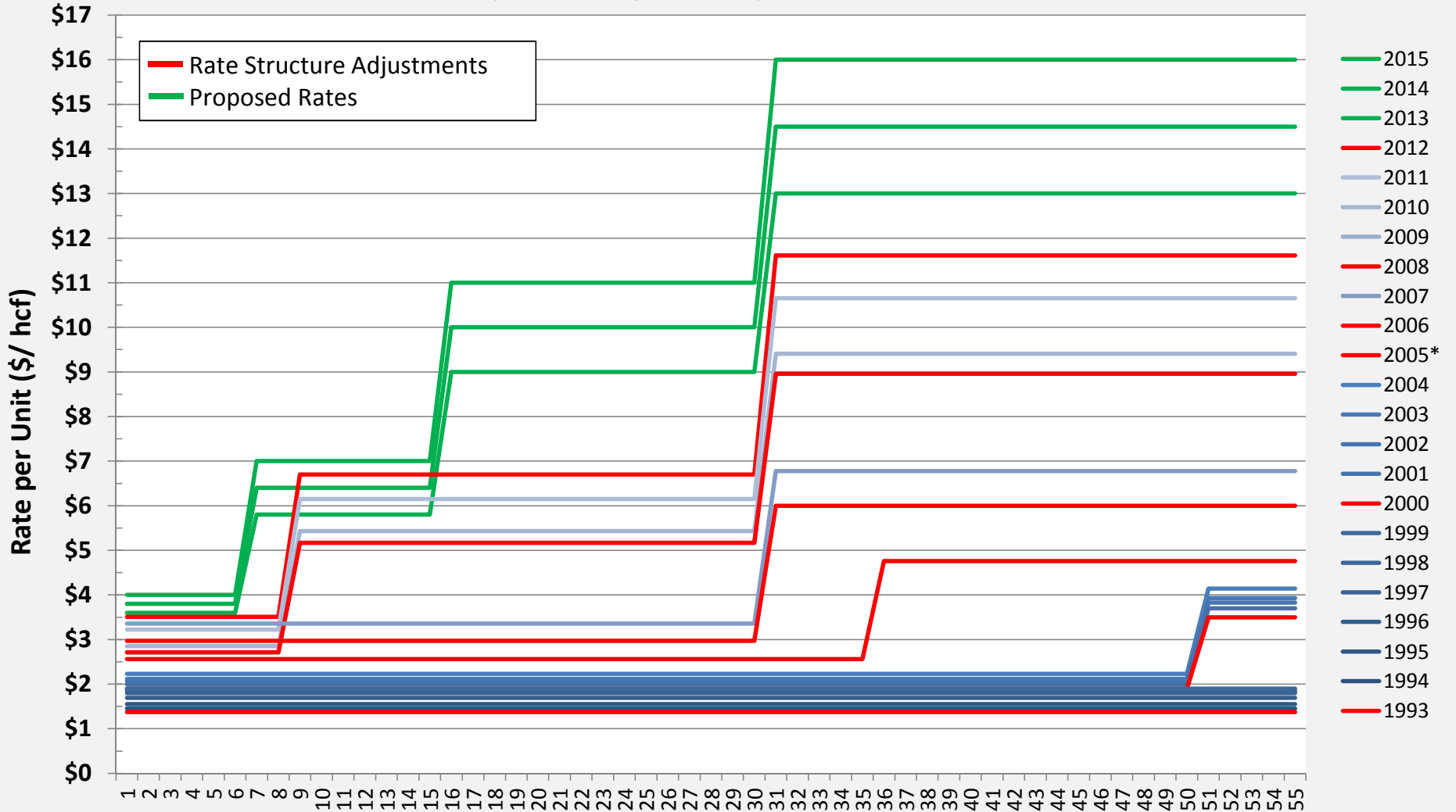
- Set private fire service charges at 2.5% of standard meter charges; phase in over 3 years
 - Minimum private fire service charge applies to meters up to 2", including newer dual meters that provide both water service and private fire service
- Eliminate reduced rates for the handful of restricted meter accounts
 - These accounts already benefit from the District's relatively low fixed charges (compared to the District's fixed expenses)
 - These accounts also benefit from disproportionately low rates for low water use

Table 1
Soquel Creek Water District
Historical Rates

	Mar-1 2008	Jan-1 2009	Jan-1 2010	Jan-1 2011	Jan-1 2012		
Rate Adjustment Proposed Implemented		0%	9%	9%	9%		
		0%	5%	13%	9%		
Bi-Monthly Service Charge							
5/8"	\$31.00	\$31.00	\$32.55	\$36.83	\$40.14		
3/4"	37.00	37.00	38.85	43.96	47.92		
1"	55.00	55.00	57.75	65.34	71.23		
1.5"	95.10	95.10	99.86	112.99	123.16		
2"	145.10	145.10	152.36	172.40	187.91		
3"	335.40	335.40	352.17	398.48	434.35		
4"	515.60	515.60	541.38	612.57	667.71		
6"	1,016.30	1,016.30	1,067.12	1,207.45	1,316.14		
Quantity Charge (per hcf)							
<u>Single Family Residential (Domestic)</u>							
	<u>5/8" Meter</u>	<u>3/4" & 1" Meter</u>					
Tier 1	1 - 8 hcf	1 - 13 hcf	\$2.71	\$2.71	\$2.85	\$3.22	\$3.51
Tier 2	9 - 30 hcf	14 - 49 hcf	5.17	5.17	5.43	6.15	6.70
Tier 3	31+ hcf	50+ hcf	8.96	8.96	9.41	10.65	11.61
Non-Residential (rate for all water use)			\$4.27	4.27	4.48	5.07	5.53
Bi-Monthly Fire Service Charge							
2"	\$5.00	\$5.00	\$5.25	\$5.94	\$6.47		
3"	10.00	10.00	10.50	11.88	12.95		
4"	18.80	18.80	19.74	22.34	24.34		
6"	39.20	39.20	41.16	46.57	50.77		
8"	56.40	56.40	59.22	67.01	73.04		

Soquel Creek Water District

Historical & Projected Single Family Residential Water Rate Tiers



* Also adopted higher tier breakpoints for 3/4" and 1" meters.

Soquel Creek Water District

Historical & Projected Single Family Residential Water Rate Tiers

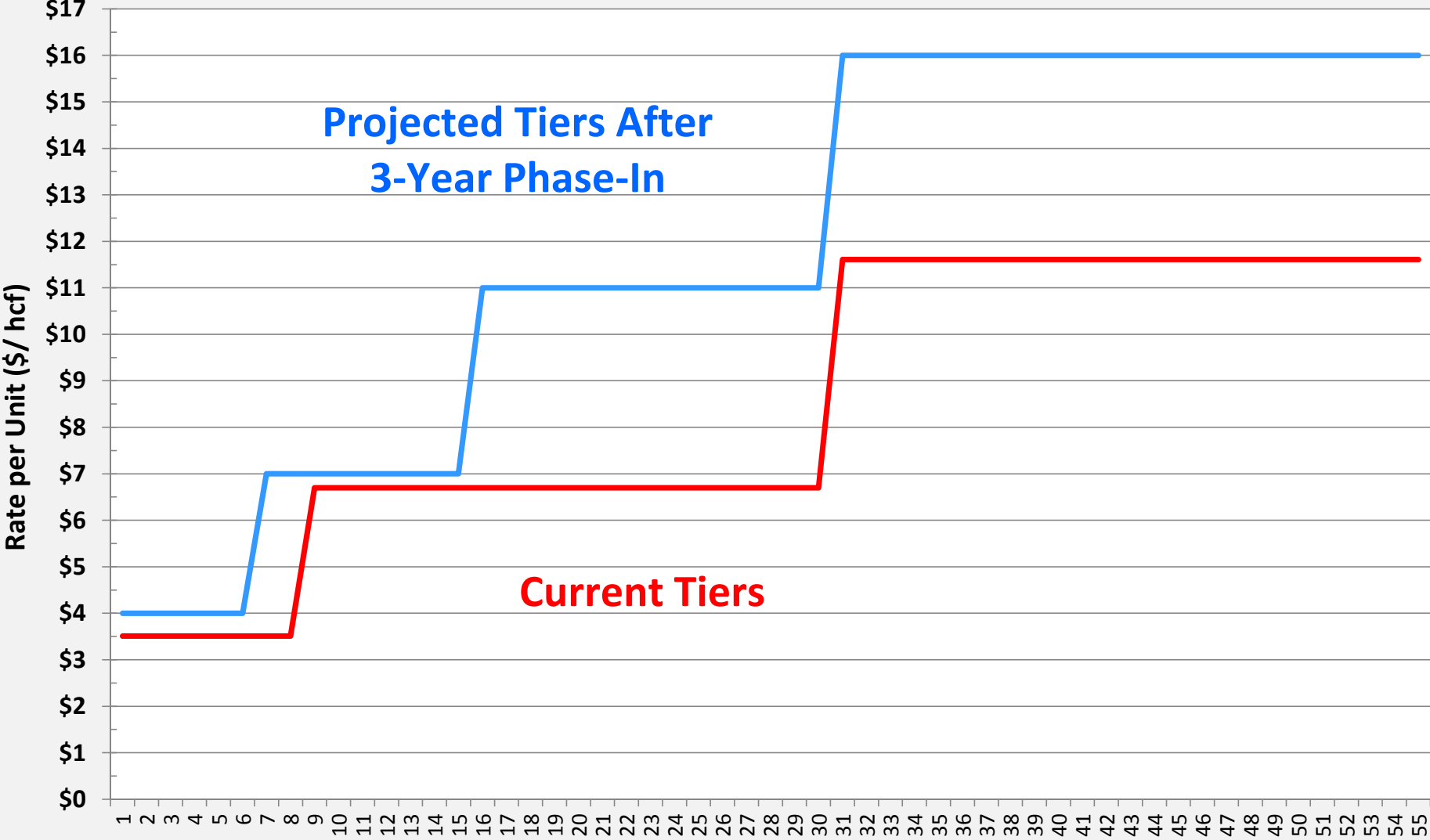


Table 2
Soquel Creek Water District
Meter Ratios

	Number of Accounts		Current Meter Charge Ratios		AWWA Meter Ratios*	
	Single Family Residential	All Other	Current Rates	Ratio to 5/8"	Meter Capacity (gpm)	Ratio to 5/8"
Bi-Monthly Water Service Charges						
5/8"	12,103	922	\$40.14	1.00	20	1.00
3/4"	15	33	47.92	1.19	30	1.50
1"	208	457	71.23	1.77	50	2.50
1-1/2"	-	81	123.16	3.07	100	5.00
2"	-	59	187.91	4.68	160	8.00
3"	-	21	434.35	10.82	300	15.00
4"	-	5	667.71	16.63	500	25.00
6"	-	1	1,316.14	32.79	1,000	50.00

* Based on American Water Works Association (AWWA), Safe Maximum Operating Capacity for standard displacement meters.

Table 3
Soquel Creek Water District
3-Year Transition to AWWA Meter Capacity Ratios

Meter Size	Current Ratio to 5/8" Meter	3-Year Transition to AWWA Meter Capacity Ratios			AWWA Ratio to 5/8" Meter	AWWA Meter Capacity
		03/01/13	01/01/14	01/01/15		
5/8"	1.00	1.00	1.00	1.00	1.00	20
3/4"	1.19	1.30	1.40	1.50	1.50	30
1"	1.77	2.02	2.26	2.50	2.50	50
1-1/2"	3.07	3.71	4.36	5.00	5.00	100
2"	4.68	5.79	6.89	8.00	8.00	160
3"	10.82	12.21	13.61	15.00	15.00	300
4"	16.63	19.42	22.21	25.00	25.00	500
6"	32.79	38.53	44.26	50.00	50.00	1000

Table 4
Soquel Creek Water District
Meter Equivalents

With 3-Year Transition to AWWA Meter Capacity Ratios

	3-Year Transition to AWWA Meter Capacity Ratios		
	2012/13	2013/14	2014/15
ACCOUNTS	13,913	13,923	13,943
Single Family Residential Accounts	12,336	12,346	12,366
<i>Assumes all SFR assigned 1 unit</i>			
All Other Accounts			
5/8"	922	922	922
3/4"	33	33	33
1"	457	457	457
1-1/2"	81	81	81
2"	58	58	58
3"	20	20	20
4"	5	5	5
6"	1	1	1
Subtotal	1,577	1,577	1,577
METER RATIOS			
Single Family Residential Accounts	1.00	1.00	1.00
<i>Assumes all SFR assigned 1 unit</i>			
All Other Accounts			
5/8"	1.00	1.00	1.00
3/4"	1.30	1.40	1.50
1"	2.02	2.26	2.50
1-1/2"	3.71	4.36	5.00
2"	5.79	6.89	8.00
3"	12.21	13.61	15.00
4"	19.42	22.21	25.00
6"	38.53	44.26	50.00
5/8" METER EQUIVALENTS			
Single Family Residential Accounts	12,336	12,346	12,366
All Other Accounts			
5/8"	922	922	922
3/4"	43	46	50
1"	921	1,032	1,143
1-1/2"	301	353	405
2"	336	400	464
3"	244	272	300
4"	97	111	125
6"	39	44	50
Subtotal	2,903	3,180	3,458
Total Meter Equivalents	15,239	15,526	15,824

Table 5
Soquel Creek Water District
Annualized Meter Charge Revenues at Current Rates

ACCOUNTS BY METER SIZE

5/8"	13,025
3/4"	48
1"	665
1-1/2"	81
2"	58
3"	20
4"	5
6"	1
Total	13,903

BI-MONTHLY SERVICE CHARGES

Effective	<u>Current Rates</u>
5/8"	\$40.14
3/4"	47.92
1"	71.23
1-1/2"	123.16
2"	187.91
3"	434.35
4"	667.71
6"	1,316.14

ANNUAL REVENUES

5/8"	\$3,136,941
3/4"	13,801
1"	284,208
1-1/2"	59,856
2"	65,393
3"	52,122
4"	20,031
6"	7,897
Total	3,640,248

Table 6
Soquel Creek Water District
Annualized Water Sales Revenues at Current Rates

ANNUAL WATER SALES

Single-Family Residential (all meters, hcf)	
Tier 1	506,200
Tier 2	437,900
Tier 3	<u>62,900</u>
Subtotal	1,007,000
All Other Accounts (hcf)	552,400
Total Water Sales	1,559,400

QUANTITY RATES

Single-Family Residential	<u>Current Rates</u>
Tier 1	\$3.51
Tier 2	6.70
Tier 3	11.61
All Other Accounts	5.53

ANNUAL REVENUES

Single-Family Residential	
Tier 1	\$1,776,762
Tier 2	2,933,930
Tier 3	<u>730,269</u>
Subtotal	5,440,961
All Other Accounts	3,054,772
Total	8,495,733

Table 7
Soquel Creek Water District
Fixed & Variable Rate Recovery

	Projected		
	03/01/13	01/01/14	01/01/15
Projected Overall Rate Increase	9%	9%	9%
Annualized Water Rate Revenue Target¹	\$13,228,220	\$14,418,760	\$15,716,448
Fixed/Variable Allocation			
Fixed: Service Charges	30%	30%	30%
Variable: Quantity Charges	70%	70%	70%
Fixed Service Charge Calculation			
30% Fixed Revenue Requirement	\$3,968,466	\$4,325,628	\$4,714,934
Total Meter Equivalents ²	15,239	15,526	15,824
Annual Charge per 5/8" Meter	\$260.42	\$278.60	\$297.96
Bi-Monthly Service Charge per 5/8" Meter	\$43.40	\$46.43	\$49.66
Variable Quantity Charge Calculation			
70% Variable Revenue Requirement	\$9,259,754	\$10,093,132	\$11,001,514
Divided by Water Sales (hcf)	1,559,400	1,559,400	1,559,400
Average Quantity Charge per Unit	\$5.94	\$6.47	\$7.05

1 Based on revenues at current rates with estimated accounts and water use, adjusted by projected rate increases.

2 Assumes all Single Family Residential pay the same uniform bi-monthly service charge.

Table 8
Soquel Creek Water District
Projected Bi-Monthly Service Charges

Meter Size	Current Ratio to 5/8" Meter	3-Year Transition to AWWA Meter Ratios		
		03/01/13	01/01/14	01/01/15
5/8"	1.00	1.00	1.00	1.00
3/4"	1.19	1.30	1.40	1.50
1"	1.77	2.02	2.26	2.50
1-1/2"	3.07	3.71	4.36	5.00
2"	4.68	5.79	6.89	8.00
3"	10.82	12.21	13.61	15.00
4"	16.63	19.42	22.21	25.00
6"	32.79	38.53	44.26	50.00

Meter Size	Current 2011/12	Projected Bi-Monthly Service Charges		
		2012/13	2013/14	2016/17
5/8"	\$40.14	\$43.40	\$46.43	\$49.66
3/4"	47.92	56.24	64.91	74.49
1"	71.23	87.51	104.85	124.15
1-1/2"	123.16	161.11	202.25	248.30
2"	187.91	251.18	320.08	397.28
3"	434.35	530.08	631.77	744.90
4"	667.71	842.96	1,031.28	1,241.50
6"	1,316.14	1,672.02	2,055.13	2,483.00

Table 9
Soquel Creek Water District
Single Family Residential Consumption Block Analysis 2011/12

Median Bi-Monthly Use: 11 hcf
Average Bi-Monthly Use: 13.5 hcf

Bi-Monthly Use (hcf)	Number of Bills				Water Use (hcf)		Use Through Break	
	In Block	% of Total	Cumulative	Cumulative %	In Block	% of Ttl	Use (hcf)	% of Ttl
0	1,893	2.5%	1,893	2.5%	0	0.0%	0	0.0%
1	2,133	2.9%	4,026	5.4%	2,133	0.2%	72,525	7.2%
2	2,263	3.0%	6,289	8.5%	4,526	0.4%	142,917	14.2%
3	2,547	3.4%	8,836	11.9%	7,641	0.8%	211,046	21.0%
4	2,890	3.9%	11,726	15.8%	11,560	1.1%	276,628	27.5%
5	3,312	4.5%	15,038	20.2%	16,560	1.6%	339,320	33.7%
6	3,721	5.0%	18,759	25.2%	22,326	2.2%	398,700	39.6%
7	3,866	5.2%	22,625	30.4%	27,062	2.7%	454,359	45.1%
8	3,875	5.2%	26,500	35.6%	31,000	3.1%	506,152	50.3%
9	3,808	5.1%	30,308	40.7%	34,272	3.4%	554,070	55.0%
10	4,046	5.4%	34,354	46.2%	40,460	4.0%	598,180	59.4%
11	3,783	5.1%	38,137	51.2%	41,613	4.1%	638,244	63.4%
12	3,646	4.9%	41,783	56.1%	43,752	4.3%	674,525	67.0%
13	3,299	4.4%	45,082	60.6%	42,887	4.3%	707,160	70.2%
14	2,994	4.0%	48,076	64.6%	41,916	4.2%	736,496	73.1%
15	2,713	3.6%	50,789	68.2%	40,695	4.0%	762,838	75.8%
16	2,497	3.4%	53,286	71.6%	39,952	4.0%	786,467	78.1%
17	2,320	3.1%	55,606	74.7%	39,440	3.9%	807,599	80.2%
18	1,978	2.7%	57,584	77.4%	35,604	3.5%	826,411	82.1%
19	1,806	2.4%	59,390	79.8%	34,314	3.4%	843,245	83.7%
20	1,596	2.1%	60,986	82.0%	31,920	3.2%	858,273	85.2%
21	1,428	1.9%	62,414	83.9%	29,988	3.0%	871,705	86.6%
22	1,217	1.6%	63,631	85.5%	26,774	2.7%	883,709	87.8%
23	1,113	1.5%	64,744	87.0%	25,599	2.5%	894,496	88.8%
24	1,021	1.4%	65,765	88.4%	24,504	2.4%	904,170	89.8%
25	921	1.2%	66,686	89.6%	23,025	2.3%	912,823	90.6%
26	854	1.1%	67,540	90.8%	22,204	2.2%	920,555	91.4%
27	721	1.0%	68,261	91.7%	19,467	1.9%	927,433	92.1%
28	603	0.8%	68,864	92.5%	16,884	1.7%	933,590	92.7%
29	570	0.8%	69,434	93.3%	16,530	1.6%	939,144	93.3%
30	512	0.7%	69,946	94.0%	15,360	1.5%	944,128	93.8%
31	444	0.6%	70,390	94.6%	13,764	1.4%	948,600	94.2%
32	403	0.5%	70,793	95.1%	12,896	1.3%	952,628	94.6%
33	348	0.5%	71,141	95.6%	11,484	1.1%	956,253	95.0%
34	295	0.4%	71,436	96.0%	10,030	1.0%	959,530	95.3%
35	280	0.4%	71,716	96.4%	9,800	1.0%	962,512	95.6%
36	243	0.3%	71,959	96.7%	8,748	0.9%	965,214	95.8%
37	213	0.3%	72,172	97.0%	7,881	0.8%	967,673	96.1%
38	206	0.3%	72,378	97.3%	7,828	0.8%	969,919	96.3%
39	174	0.2%	72,552	97.5%	6,786	0.7%	971,959	96.5%
40	155	0.2%	72,707	97.7%	6,200	0.6%	973,825	96.7%
41	154	0.2%	72,861	97.9%	6,314	0.6%	975,536	96.9%
42	128	0.2%	72,989	98.1%	5,376	0.5%	977,093	97.0%
43	111	0.1%	73,100	98.2%	4,773	0.5%	978,522	97.2%
44	82	0.1%	73,182	98.3%	3,608	0.4%	979,840	97.3%
45	94	0.1%	73,276	98.5%	4,230	0.4%	981,076	97.4%
46	86	0.1%	73,362	98.6%	3,956	0.4%	982,218	97.5%
47	76	0.1%	73,438	98.7%	3,572	0.4%	983,274	97.6%
48	90	0.1%	73,528	98.8%	4,320	0.4%	984,254	97.7%
49	58	0.1%	73,586	98.9%	2,842	0.3%	985,144	97.8%
50	50	0.1%	73,636	98.9%	2,500	0.2%	985,976	97.9%
51-75	570	0.8%	74,206	99.7%	33,753	3.4%	na	-
76-100	117	0.2%	74,323	99.9%	9,979	1.0%	na	-
101-200	77	0.1%	74,400	100.0%	10,411	1.0%	na	-
201+	18	0.0%	74,418	100.0%	6,001	0.6%	na	-
Total	74,418	100.0%			1,007,020	100.0%		

Soquel Creek Water District

Bi-Monthly Single Family Residential Water Bills 2011/12

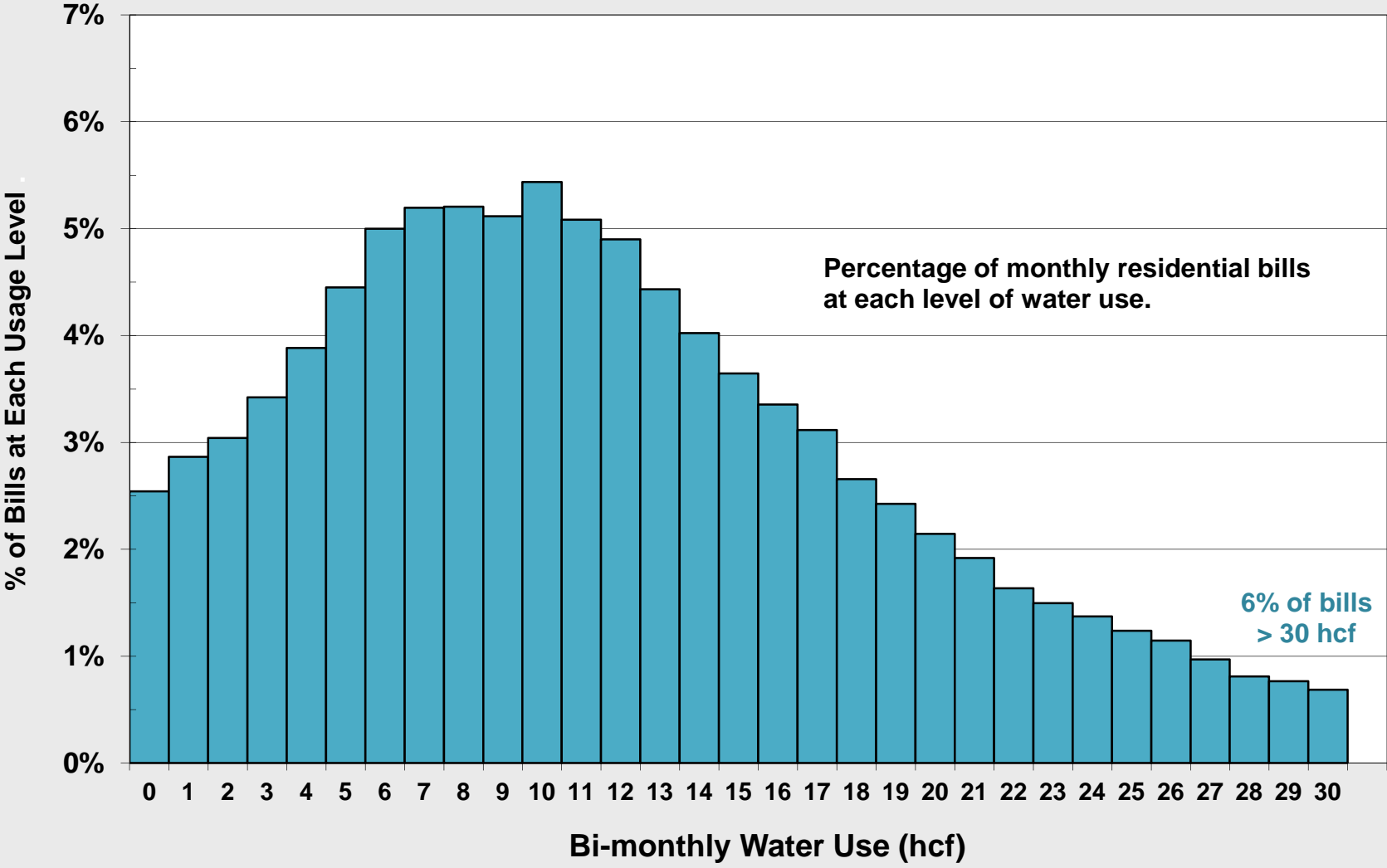


Table 10
Soquel Creek Water District
Single Family Residential Tiers

Slight reduction in Tier 1 use
Bifurcate Tier 2 to add another step up in rates
Reduced impact on lower tier rates
More impact on higher tier rates

	Base Year FY 2011/12	Quantity Charge per hcf			
		03/01/13	01/01/14	01/01/15	
Overall Rate Increase		9%	9%	9%	
Target Average Rate per hcf		\$5.94	\$6.47	\$7.05	
Water Use Billed in Tier					
Tier 1	0-6 hcf	398,700	398,700	398,700	398,700
Tier 2	7-14 hcf	337,796	337,796	337,796	337,796
Tier 3	15-30 hcf	207,632	207,632	207,632	207,632
Tier 4	31+ hcf	<u>62,892</u>	<u>62,892</u>	<u>62,892</u>	<u>62,892</u>
Total		1,007,020	1,007,020	1,007,020	1,007,020
Annual Change		0	0	0	0
Single Family Residential Tiers					
Tier 1	0-6 hcf		\$3.60	3.80	\$4.00
Tier 2	7-14 hcf		5.80	6.40	7.00
Tier 3	15-30 hcf		8.50	9.75	11.00
Tier 4	31+ hcf		13.00	14.50	16.00
Total					
Weighted SFR Average			5.94	6.57	7.20
<i>Difference from Target \$</i>			<i>0.00</i>	<i>(0.09)</i>	<i>(0.14)</i>
<i>Difference from Target %</i>			<i>0.0%</i>	<i>1.5%</i>	<i>2.0%</i>

* Assumes water use billed in Tier 3 decreases by 2% per year for the next 3 years.

** Assumes water use billed in Tier 4 decreases by 3% per year for the next 3 years.

Table 11
Soquel Creek Water District
Comparison of Current vs. Proposed Tiers

CURRENT TIERS				PROPOSED TIERS (ALL SFR)			
		Bills Ending in Tier %	Water Use in Tier			Bills Ending in Tier %	Water Use in Tier
Tier 1	0-8 hcf	35.6%	50.3%	Tier 1	0-6 hcf	25.2%	39.6%
Tier 2	9-30 hcf	58.4%	43.5%	Tier 2	7-14 hcf	39.4%	33.5%
Tier 3	31+ hcf	6.0%	6.2%	Tier 3	15-30 hcf	29.4%	20.6%
<i>Tiers shown for 5/8" meters</i>				Tier 4	31+ hcf	6.0%	6.2%

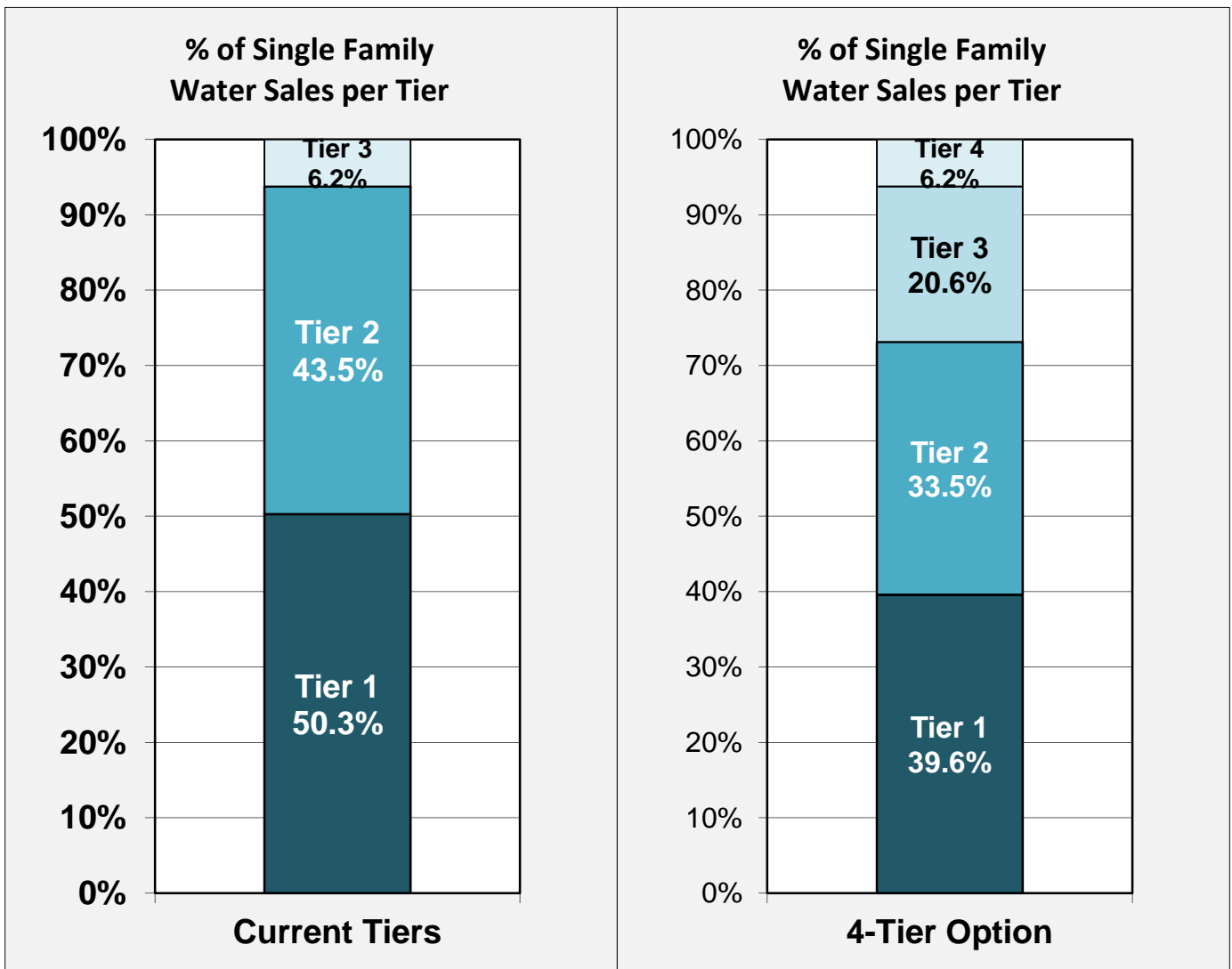


Table 12
Soquel Creek Water District
Rate Projections

3-Year Phase in of Meter Capacity Ratios
 & Addition of Fourth Residential Rate Tier

	Current	Projected		
		03/01/13	01/01/14	01/01/15
OVERALL RATE INCREASE		9%	9%	9%

BI-MONTHLY SERVICE CHARGE

Single Family Residential	\$40.14	\$43.40	\$46.43	\$49.66
<i>Applies to all accounts, regardless of meter size</i>				

All Other Accounts

Meter Size

5/8"	\$40.14	\$43.40	\$46.43	\$49.66
3/4"	47.92	56.24	64.91	74.49
1"	71.23	87.51	104.85	124.15
1-1/2"	123.16	161.11	202.25	248.30
2"	187.91	251.18	320.08	397.28
3"	434.35	530.08	631.77	744.90
4"	667.71	842.96	1,031.28	1,241.50
6"	1,316.14	1,672.02	2,055.13	2,483.00

QUANTITY CHARGE (PER HCF)

Single-Family Residential

	<u>Bi-Monthly Use</u>	<u>Current Tiers</u>			
Tier 1	0-6 hcf	0-8 hcf 3.51	3.60	3.80	4.00
Tier 2	7-14 hcf	9-30 hcf 6.70	5.80	6.40	7.00
Tier 3	15-30 hcf	31+ hcf 11.61	8.50	9.75	11.00
Tier 4	31+ hcf	-	13.00	14.50	16.00
All Other Accounts	All Use	5.53	5.94	6.47	7.05

QUANTITY CHARGE (PER 100 GALLONS)

Single-Family Residential

For Informational Purposes Only

	<u>Bi-Monthly Use</u>				
Tier 1	0-6 hcf	0.47	0.48	0.51	0.53
Tier 2	7-15 hcf	0.90	0.78	0.86	0.94
Tier 3	16-30 hcf	1.55	1.14	1.30	1.47
Tier 4	31+ hcf	-	1.74	1.94	2.14
All Other Accounts	All Use	0.74	0.79	0.86	0.94

Table 13
Soquel Creek Water District
Single Family Residential Bill Impacts

	Use (hcf)	% of Bills at or Below	Current	Projected Bills			3-Year Impact	
				03/01/13	01/01/14	01/01/15		
Overall Rate Increase				9%	9%	9%	29.5%	
Single Family Residential, 5/8" Meter (Bi-Monthly Billing)								
	<u>Bi-Monthly Use</u>							
Low	6 hcf	25%	Bi-Monthly Bill	\$61.20	\$65.00	\$69.23	\$73.66	
			\$ Increase		3.80	4.23	4.43	12.46
			% Increase		6.2%	6.5%	6.4%	20.4%
Median	11 hcf	50%	Bi-Monthly Bill	\$88.32	\$94.00	\$101.23	\$108.66	
			\$ Increase		5.68	7.23	7.43	20.34
			% Increase		6.4%	7.7%	7.3%	23.0%
Average	14 hcf (13.5 hcf)	65%	Bi-Monthly Bill	\$108.42	\$111.40	\$120.43	\$129.66	
			\$ Increase		2.98	9.03	9.23	21.24
			% Increase		2.7%	8.1%	7.7%	19.6%
Mod-High	20 hcf	82%	Bi-Monthly Bill	\$148.62	\$162.40	\$178.93	\$195.66	
			\$ Increase		13.78	16.53	16.73	47.04
			% Increase		9.3%	10.2%	9.4%	31.7%
High	30 hcf	94%	Bi-Monthly Bill	\$215.62	\$247.40	\$276.43	\$305.66	
			\$ Increase		31.78	29.03	29.23	90.04
			% Increase		14.7%	11.7%	10.6%	41.8%
Higher	50 hcf	99%	Bi-Monthly Bill	\$447.82	\$507.40	\$566.43	\$625.66	
			\$ Increase		59.58	59.03	59.23	177.84
			% Increase		13.3%	11.6%	10.5%	39.7%
Very High	100 hcf	99%	Bi-Monthly Bill	\$1,028.32	\$1,157.40	\$1,291.43	\$1,425.66	
			\$ Increase		129.08	134.03	134.23	397.34
			% Increase		12.6%	11.6%	10.4%	38.6%

Table 14
Soquel Creek Water District
Single Family Residential Bill Impacts

Bi-Monthly Use (hcf)	% of Bills in Block	% of Bills at or Below	Current Bill	Projected Bi-Monthly Bills			3-Year Impact	
				Mar-1, 2013	Jan-1, 2014	Jan-1, 2015	\$	%
Overall Rate Increase				9%	9%	9%		29.5%
Single Family Residential, 5/8" Meter (Bi-Monthly Billing)								
0	2.5%	2.5%	\$40.14	\$43.40	\$46.43	\$49.66	\$9.52	23.7%
1	2.9%	5.4%	43.65	47.00	50.23	53.66	10.01	22.9%
2	3.0%	8.5%	47.16	50.60	54.03	57.66	10.50	22.3%
3	3.4%	11.9%	50.67	54.20	57.83	61.66	10.99	21.7%
4	3.9%	15.8%	54.18	57.80	61.63	65.66	11.48	21.2%
5	4.5%	20.2%	57.69	61.40	65.43	69.66	11.97	20.7%
6	5.0%	25.2%	61.20	65.00	69.23	73.66	12.46	20.4%
7	5.2%	30.4%	64.71	70.80	75.63	80.66	15.95	24.6%
8	5.2%	35.6%	68.22	76.60	82.03	87.66	19.44	28.5%
9	5.1%	40.7%	74.92	82.40	88.43	94.66	19.74	26.3%
10	5.4%	46.2%	81.62	88.20	94.83	101.66	20.04	24.6%
11	5.1%	51.2%	88.32	94.00	101.23	108.66	20.34	23.0%
12	4.9%	56.1%	95.02	99.80	107.63	115.66	20.64	21.7%
13	4.4%	60.6%	101.72	105.60	114.03	122.66	20.94	20.6%
14	4.0%	64.6%	108.42	111.40	120.43	129.66	21.24	19.6%
15	3.6%	68.2%	115.12	119.90	130.18	140.66	25.54	22.2%
16	3.4%	71.6%	121.82	128.40	139.93	151.66	29.84	24.5%
17	3.1%	74.7%	128.52	136.90	149.68	162.66	34.14	26.6%
18	2.7%	77.4%	135.22	145.40	159.43	173.66	38.44	28.4%
19	2.4%	79.8%	141.92	153.90	169.18	184.66	42.74	30.1%
20	2.1%	82.0%	148.62	162.40	178.93	195.66	47.04	31.7%
21	1.9%	83.9%	155.32	170.90	188.68	206.66	51.34	33.1%
22	1.6%	85.5%	162.02	179.40	198.43	217.66	55.64	34.3%
23	1.5%	87.0%	168.72	187.90	208.18	228.66	59.94	35.5%
24	1.4%	88.4%	175.42	196.40	217.93	239.66	64.24	36.6%
25	1.2%	89.6%	182.12	204.90	227.68	250.66	68.54	37.6%
26	1.1%	90.8%	188.82	213.40	237.43	261.66	72.84	38.6%
27	1.0%	91.7%	195.52	221.90	247.18	272.66	77.14	39.5%
28	0.8%	92.5%	202.22	230.40	256.93	283.66	81.44	40.3%
29	0.8%	93.3%	208.92	238.90	266.68	294.66	85.74	41.0%
30	0.7%	94.0%	215.62	247.40	276.43	305.66	90.04	41.8%
31	0.6%	94.6%	222.32	256.40	290.93	321.66	94.34	41.6%
32	0.5%	95.1%	238.84	273.40	305.43	337.66	98.84	41.4%
33	0.5%	95.6%	250.45	286.40	319.93	353.66	103.21	41.2%
34	0.4%	96.0%	262.06	299.40	334.43	369.66	107.60	41.1%
35	0.4%	96.4%	273.67	312.40	348.93	385.66	111.99	40.9%
36	0.3%	96.7%	285.28	325.40	363.43	401.66	116.38	40.8%
37	0.3%	97.0%	296.89	338.40	377.93	417.66	120.77	40.7%
38	0.3%	97.3%	308.50	351.40	392.43	433.66	125.16	40.6%
39	0.2%	97.5%	320.11	364.40	406.93	449.66	129.55	40.5%
40	0.2%	97.7%	331.72	377.40	421.43	465.66	133.94	40.4%
50	41-50: 1.2%	97.9%	447.82	507.40	566.43	625.66	177.84	39.7%
75	51-75: 0.8%	98.1%	738.07	832.40	928.93	1,025.66	287.59	39.0%
100	76-100: 0.2%	98.2%	1,028.32	1,157.40	1,291.43	1,425.66	397.34	38.6%
200	101-200: 0.1%	100.0%	2,189.32	2,457.40	2,741.43	3,025.66	836.34	38.2%

Projected Single Family Bi-Monthly Bills

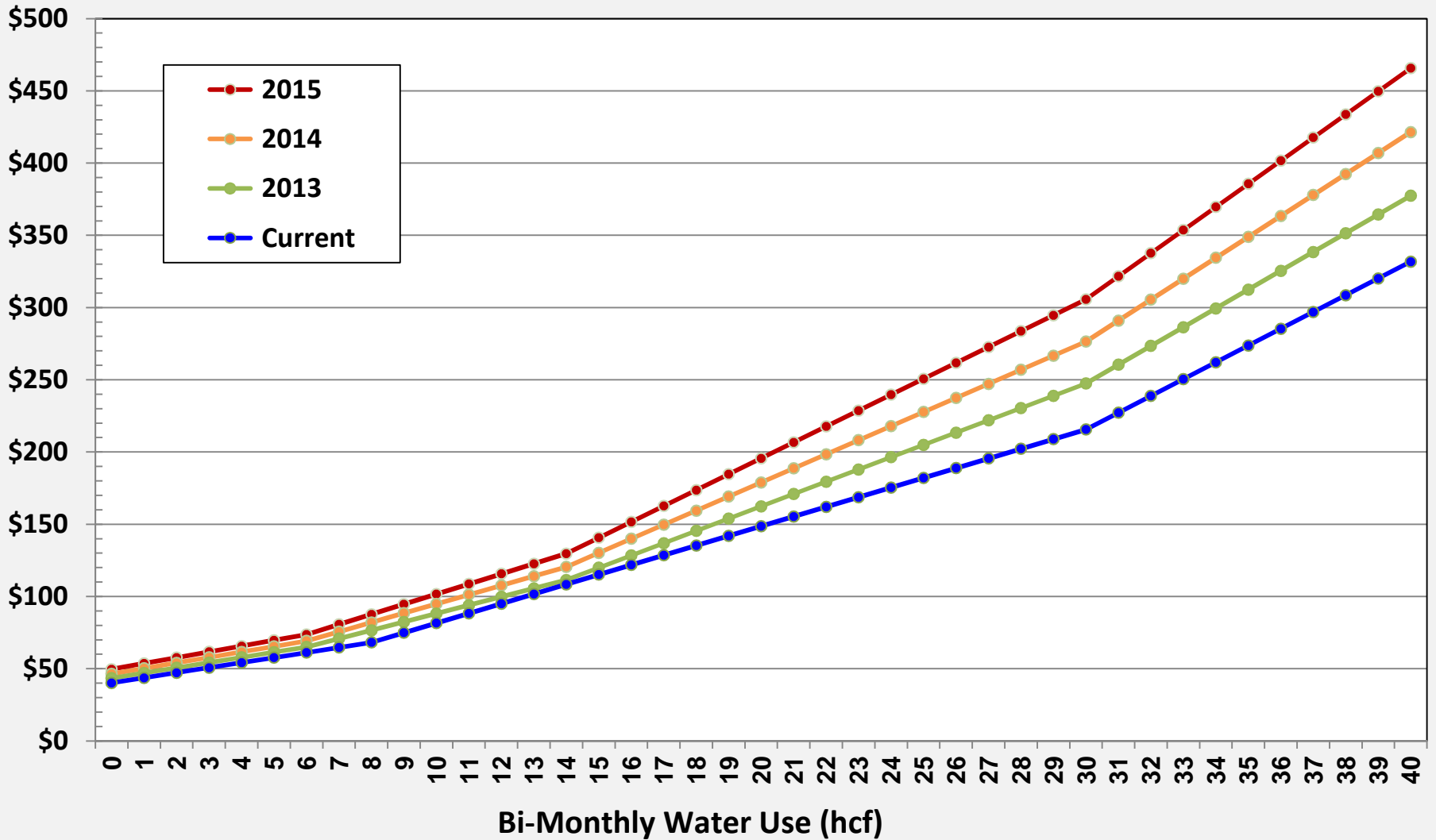


Table 15
Soquel Creek Water District
Sample Commercial Bill Impacts

Use (hcf)			Current	Projected			3-Year Impact
				03/01/13	01/01/14	01/01/15	
Overall Rate Increase				9%	9%	9%	29.5%
Commercial Account							
<u>Bi-Monthly Use</u>							
5/8" Meter	10 hcf	Bi-Monthly Bill	\$95.44	\$102.80	\$111.13	\$120.16	
	922 Accounts	\$ Increase		7.36	8.33	9.03	24.72
		% Increase		7.7%	8.1%	8.1%	25.9%
5/8" Meter	20 hcf	Bi-Monthly Bill	\$150.74	\$162.20	\$175.83	\$190.66	
	922 Accounts	\$ Increase		11.46	13.63	14.83	39.92
		% Increase		7.6%	8.4%	8.4%	26.5%
5/8" Meter	40 hcf	Bi-Monthly Bill	\$261.34	\$281.00	\$305.23	\$331.66	
	922 Accounts	\$ Increase		19.66	24.23	26.43	70.32
		% Increase		7.5%	8.6%	8.7%	26.9%
1" Meter	25 hcf	Bi-Monthly Bill	\$209.48	\$236.01	\$266.60	\$300.40	
	457 Accounts	\$ Increase		26.53	30.59	33.80	90.92
		% Increase		12.7%	13.0%	12.7%	43.4%
1" Meter	50 hcf	Bi-Monthly Bill	\$347.73	\$384.51	\$428.35	\$476.65	
	457 Accounts	\$ Increase		36.78	43.84	48.30	128.92
		% Increase		10.6%	11.4%	11.3%	37.1%
1" Meter	100 hcf	Bi-Monthly Bill	\$624.23	\$681.51	\$751.85	\$829.15	
	457 Accounts	\$ Increase		57.28	70.34	77.30	204.92
		% Increase		9.2%	10.3%	10.3%	32.8%
2" Meter	200 hcf	Bi-Monthly Bill	\$1,293.91	\$1,439.18	\$1,614.08	\$1,807.28	
	58 Accounts	\$ Increase		145.27	174.90	193.20	513.37
		% Increase		11.2%	12.2%	12.0%	39.7%
4" Meter	400 hcf	Bi-Monthly Bill	\$2,879.71	\$3,218.96	\$3,619.28	\$4,061.50	
	5 Accounts	\$ Increase		339.25	400.32	442.22	1,181.79
		% Increase		11.8%	12.4%	12.2%	41.0%

Table 16
Soquel Creek Water District
Multi-Family Dwelling Units & Use

Dwelling Units	Number of Accts	Total Dwelling Units	Total Use	Avg Bi-Mnthly Use Per Unit
1	47	47	25,886	91.8
2	202	404	25,519	10.5
3	44	132	7,187	9.1
4	205	820	57,791	11.7
5	17	85	3,863	7.6
6	8	48	4,019	14.0
7	4	28	1,766	10.5
8	14	112	7,147	10.6
9	4	36	1,798	8.3
10	7	70	4,524	10.8
11	4	44	1,422	5.4
12	3	36	2,006	9.3
13	0	0	0	-
14	4	56	3,031	9.0
15	3	45	3,017	11.2
16	3	48	3,633	12.6
17	0	0	0	-
18	4	72	2,965	6.9
19	3	57	3,078	9.0
20	4	80	2,721	5.7
21	3	63	1,833	4.8
22	1	22	1,303	9.9
23	1	23	414	3.0
24	1	24	0	0.0
25	1	25	28	0.2
26	0	0	0	-
27	5	135	4,261	5.3
28	4	112	2,527	3.8
29	0	0	0	-
30	2	60	2,314	6.4
31	1	31	1,703	9.2
32	1	32	174	0.9
33	1	33	1,458	7.4
34	0	0	0	-
35	1	35	0	0.0
36	2	72	6,662	15.4
37	0	0	0	-
38	0	0	0	-
39	1	39	2,155	9.2
40	0	0	0	-
41	0	0	0	-
42	1	42	2,826	11.2
43	0	0	0	-
44	0	0	0	-
45	1	45	0	0.0
46	0	0	0	-
47	0	0	0	-
48	0	0	0	-
49	0	0	0	-
50	0	0	0	-
51-75	12	761	20,573	4.5
76-100	8	690	23,162	5.6
101-200	3	388	4,816	2.1
201+	0	0	0	-
Total		4,852	237,582	353

Table 17
Soquel Creek Water District
Multi-Family Residential Consumption Block Analysis 2011/12

Use per Multi-Family Dwelling Unit
 Median Bi-Monthly Use: 8 hcf
 Average Bi-Monthly Use: 9.6 hcf

Bi-Monthly Use (hcf)	Number of Bills per Dwelling Unit				Water Use (hcf)		Use Through Break	
	In Block	% of Total	Cumulative	Cumulative %	In Block	% of Ttl	Use (hcf)	% of Ttl
0	112	0.4%	112	0.4%	0	0.0%	0	0.0%
1	2,079	8.0%	2,191	8.4%	2,079	0.8%	26,008	10.4%
2	1,841	7.0%	4,032	15.4%	3,682	1.5%	49,937	20.0%
3	999	3.8%	5,031	19.3%	2,997	1.2%	72,025	28.8%
4	1,715	6.6%	6,746	25.8%	6,860	2.7%	93,114	37.2%
5	1,508	5.8%	8,254	31.6%	7,540	3.0%	112,488	44.9%
6	2,192	8.4%	10,446	40.0%	13,152	5.3%	130,354	52.1%
7	1,600	6.1%	12,046	46.1%	11,200	4.5%	146,028	58.3%
8	1,727	6.6%	13,773	52.7%	13,816	5.5%	160,102	64.0%
9	1,616	6.2%	15,389	58.9%	14,544	5.8%	172,449	68.9%
10	2,138	8.2%	17,527	67.1%	21,380	8.5%	183,180	73.2%
11	2,078	8.0%	19,605	75.1%	22,858	9.1%	191,773	76.6%
12	994	3.8%	20,599	78.9%	11,928	4.8%	198,288	79.2%
13	1,136	4.3%	21,735	83.2%	14,768	5.9%	203,809	81.4%
14	785	3.0%	22,520	86.2%	10,990	4.4%	208,194	83.2%
15	629	2.4%	23,149	88.6%	9,435	3.8%	211,794	84.6%
16	576	2.2%	23,725	90.8%	9,216	3.7%	214,765	85.8%
17	483	1.8%	24,208	92.7%	8,211	3.3%	217,160	86.8%
18	318	1.2%	24,526	93.9%	5,724	2.3%	219,072	87.5%
19	274	1.0%	24,800	94.9%	5,206	2.1%	220,666	88.2%
20	173	0.7%	24,973	95.6%	3,460	1.4%	221,986	88.7%
21	209	0.8%	25,182	96.4%	4,389	1.8%	223,133	89.2%
22	146	0.6%	25,328	97.0%	3,212	1.3%	224,071	89.5%
23	109	0.4%	25,437	97.4%	2,507	1.0%	224,863	89.8%
24	98	0.4%	25,535	97.8%	2,352	0.9%	225,546	90.1%
25	76	0.3%	25,611	98.1%	1,900	0.8%	226,131	90.4%
26	30	0.1%	25,641	98.2%	780	0.3%	226,640	90.6%
27	33	0.1%	25,674	98.3%	891	0.4%	227,119	90.7%
28	32	0.1%	25,706	98.4%	896	0.4%	227,565	90.9%
29	46	0.2%	25,752	98.6%	1,334	0.5%	227,979	91.1%
30	9	0.0%	25,761	98.6%	270	0.1%	228,347	91.2%
31	21	0.1%	25,782	98.7%	651	0.3%	228,706	91.4%
32	19	0.1%	25,801	98.8%	608	0.2%	229,044	91.5%
33	19	0.1%	25,820	98.9%	627	0.3%	229,363	91.6%
34	20	0.1%	25,840	98.9%	680	0.3%	229,663	91.8%
35	9	0.0%	25,849	99.0%	315	0.1%	229,943	91.9%
36	16	0.1%	25,865	99.0%	576	0.2%	230,214	92.0%
37	37	0.1%	25,902	99.2%	1,369	0.5%	230,469	92.1%
38	3	0.0%	25,905	99.2%	114	0.0%	230,687	92.2%
39	11	0.0%	25,916	99.2%	429	0.2%	230,902	92.3%
40	18	0.1%	25,934	99.3%	720	0.3%	231,106	92.3%
41	9	0.0%	25,943	99.3%	369	0.1%	231,292	92.4%
42	10	0.0%	25,953	99.4%	420	0.2%	231,469	92.5%
43	4	0.0%	25,957	99.4%	172	0.1%	231,636	92.6%
44	14	0.1%	25,971	99.4%	616	0.2%	231,799	92.6%
45	4	0.0%	25,975	99.4%	180	0.1%	231,948	92.7%
46	8	0.0%	25,983	99.5%	368	0.1%	232,093	92.7%
47	2	0.0%	25,985	99.5%	94	0.0%	232,230	92.8%
48	13	0.0%	25,998	99.5%	624	0.2%	232,365	92.8%
49	2	0.0%	26,000	99.5%	98	0.0%	232,487	92.9%
50	0	0.0%	26,000	99.5%	0	0.0%	232,607	92.9%
51-75	41	0.2%	26,041	99.7%	2,415	1.0%	na	-
76-100	16	0.1%	26,057	99.8%	1,394	0.6%	na	-
101-200	24	0.1%	26,081	99.9%	3,623	1.4%	na	-
201+	39	0.1%	26,120	100.0%	16,231	6.5%	na	-
Total	26,120	100.0%			250,270	100.0%		

Soquel Creek Water District

Bi-Monthly Multi-Family Residential Water Use per Dwelling Unit 2011/12

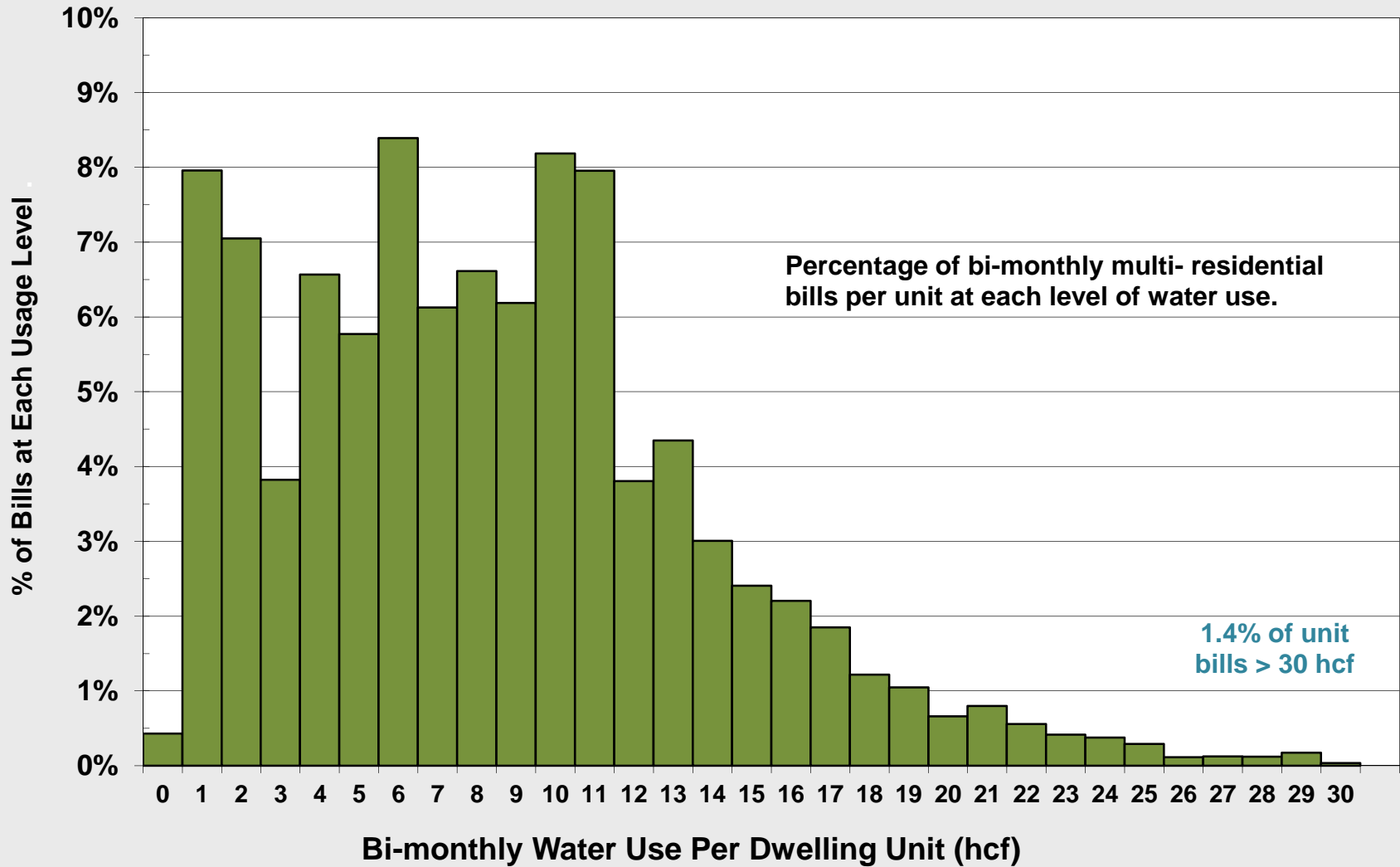


Table 18
Soquel Creek Water District
Multi-Family Residential Tiers

Multi-Family Tiered Rate Option

Tier breakpoints approximately 2/3 of single family tiers

Phase in from uniform block rate to moderate tiers

	% of Use in Tier	Quantity Charge per hcf			
		03/01/13	01/01/14	01/01/15	
Overall Rate Increase		9%	9%	9%	
Target Average Rate per hcf		\$5.94	\$6.47	\$7.05	
Water Use per Tier (hcf)					
<i>* Assumes water use billed in Tier 4 decreases by 2% per year for the next 3 years.</i>					
<i>** Assumes water use billed in Tier 4 decreases by 3% per year for the next 3 years.</i>					
Tier 1	0-4 hcf	93,114	93,114	93,114	93,114
Tier 2	5-10 hcf	90,066	90,066	90,066	90,066
Tier 3	11-20 hcf	38,806	38,806	38,806	38,806
Tier 4	21+ hcf	<u>28,284</u>	<u>28,284</u>	<u>28,284</u>	<u>28,284</u>
Total		250,270	250,270	250,270	250,270
Annual Change		0	0	0	0
Multi-Family Residential Tiers					
Tier 1	0-4 hcf	37.2%	\$5.00	\$5.30	\$5.60
Tier 2	5-10 hcf	36.0%	6.00	6.55	7.10
Tier 3	11-20 hcf	15.5%	7.00	7.80	8.60
Tier 4	21+ hcf	11.3%	8.00	9.10	10.20
Weighted SFR Average			6.01	6.57	7.12
Difference from Target \$			(0.07)	(0.09)	(0.07)
Difference from Target %			1.2%	1.5%	1.0%

** Assumes water use billed in Tier 3 decreases by 2% per year for the next 3 years.*

*** Assumes water use billed in Tier 4 decreases by 3% per year for the next 3 years.*

Table 19
Soquel Creek Water District
Comparison of Current vs. Proposed Tiers

Multi-Family Tiered Rates

CURRENT TIERS			PROPOSED TIERS PER DWELLING UNIT			
	Bills Ending in Tier %	Water Use in Tier			Bills Ending in Tier %	Water Use in Tier
All Water Use	100%	100%	Tier 1	0-4 hcf	25.8%	37.2%
			Tier 2	5-10 hcf	41.3%	36.0%
			Tier 3	11-20 hcf	28.5%	15.5%
			Tier 4	21+ hcf	4.4%	11.3%

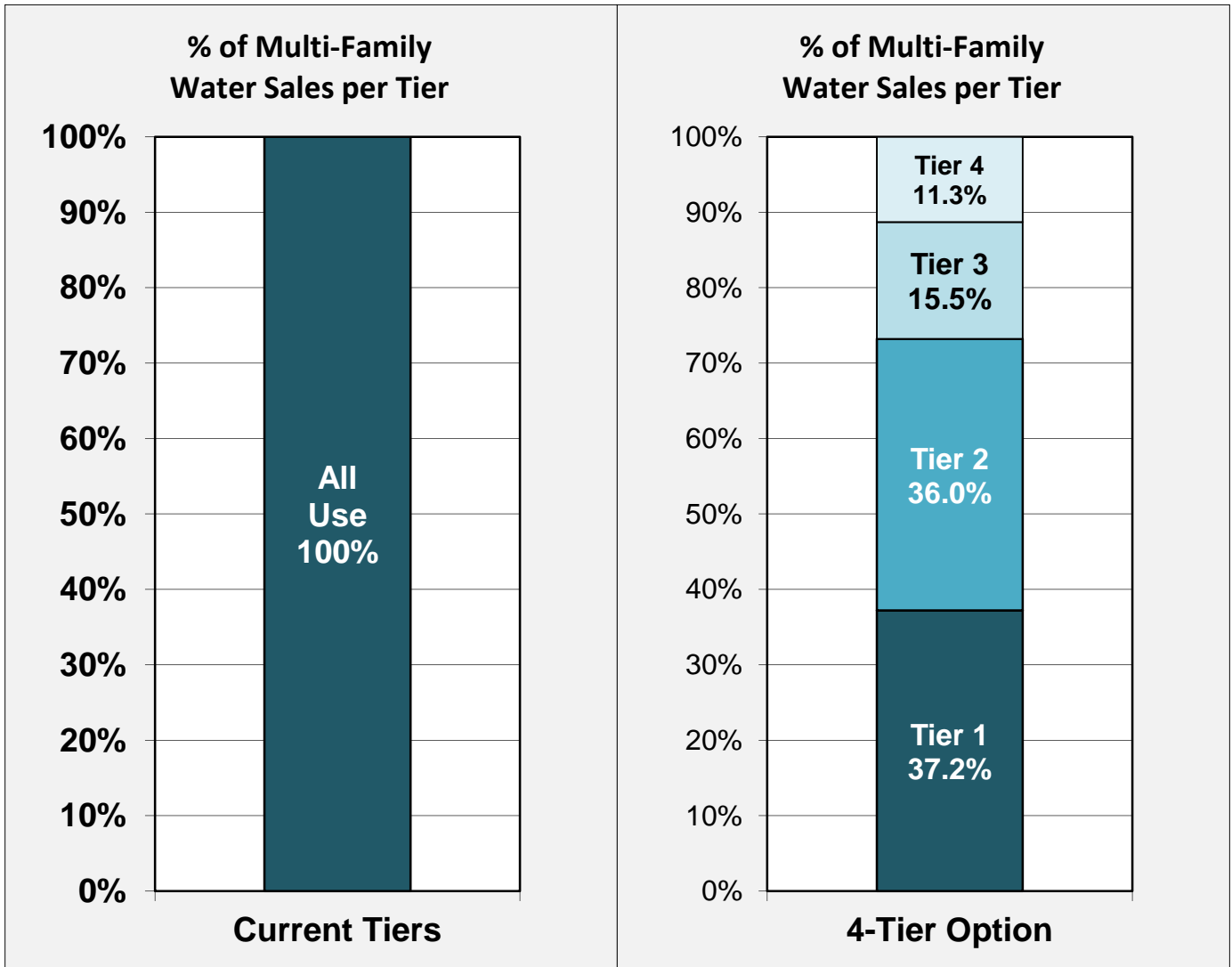


Table 20
Soquel Creek Water District
Rate Projections

	Current	Projected			
		03/01/13	01/01/14	01/01/15	
OVERALL RATE INCREASE		9%	9%	9%	
BI-MONTHLY SERVICE CHARGE					
Single-Family Residential	\$40.14	\$43.40	\$46.43	\$49.66	
<i>Applies to all accounts, regardless of meter size</i>					
All Other Accounts					
<u>Meter Size</u>					
5/8"	\$40.14	\$43.40	\$46.43	\$49.66	
3/4"	47.92	56.24	64.91	74.49	
1"	71.23	87.51	104.85	124.15	
1-1/2"	123.16	161.11	202.25	248.30	
2"	187.91	251.18	320.08	397.28	
3"	434.35	530.08	631.77	744.90	
4"	667.71	842.96	1,031.28	1,241.50	
6"	1,316.14	1,672.02	2,055.13	2,483.00	
QUANTITY CHARGE (PER HCF)					
	<u>Bi-Monthly Use</u>	<u>Current Tiers</u>			
Single-Family Residential					
Tier 1	0-6 hcf	0-8 hcf 3.51	\$3.60	\$3.80	\$4.00
Tier 2	7-14 hcf	9-30 hcf 6.70	5.80	6.40	7.00
Tier 3	16-30 hcf	31+ hcf 11.61	8.50	9.75	11.00
Tier 4	31+ hcf	-	13.00	14.50	16.00
Multi-Family Residential					
<i>Tiers apply per dwelling unit</i>					
Tier 1	0-4 hcf	All Use 5.53	\$5.00	\$5.30	\$5.60
Tier 2	5-10 hcf	-	6.00	6.55	7.10
Tier 3	11-20 hcf	-	7.00	7.80	8.60
Tier 4	21+ hcf	-	8.00	9.10	10.20
All Other Accounts	All Use	5.53	5.94	6.47	7.05

Table 21
Soquel Creek Water District
Multi-Family Residential Bill Impacts per Dwelling Unit

2-Unit Apartment
5/8" Meter

Bi-Monthly Use per Unit	% of Bills in Tier	% of Bills at or Below	Current Bill Per Unit	Projected Bi-Monthly Bill Per Unit			3-Year Impact	
				Mar-1, 2013	Jan-1, 2014	Jan-1, 2015	\$	%
Overall Rate Increase				9%	9%	9%		29.5%
Multi-Family Residential Bi-Monthly Bill per Dwelling Unit								
0	0.4%	0.4%	\$20.07	\$21.70	\$23.22	\$24.83	\$4.76	23.7%
1	8.0%	8.4%	25.60	26.70	28.52	30.43	4.83	18.9%
2	7.0%	15.4%	31.13	31.70	33.82	36.03	4.90	15.7%
3	3.8%	19.3%	36.66	36.70	39.12	41.63	4.97	13.6%
4	6.6%	25.8%	42.19	41.70	44.42	47.23	5.04	11.9%
5	5.8%	31.6%	47.72	47.70	50.97	54.33	6.61	13.9%
6	8.4%	40.0%	53.25	53.70	57.52	61.43	8.18	15.4%
7	6.1%	46.1%	58.78	59.70	64.07	68.53	9.75	16.6%
8	6.6%	52.7%	64.31	65.70	70.62	75.63	11.32	17.6%
9	6.2%	58.9%	69.84	71.70	77.17	82.73	12.89	18.5%
10	8.2%	67.1%	75.37	77.70	83.72	89.83	14.46	19.2%
11	8.0%	75.1%	80.90	83.70	90.27	96.93	16.03	19.8%
12	3.8%	78.9%	86.43	89.70	96.82	104.03	17.60	20.4%
13	4.3%	83.2%	91.96	96.70	104.62	112.63	20.67	22.5%
14	3.0%	86.2%	97.49	103.70	112.42	121.23	23.74	24.4%
15	2.4%	88.6%	103.02	110.70	120.22	129.83	26.81	26.0%
16	2.2%	90.8%	108.55	117.70	128.02	138.43	29.88	27.5%
17	1.8%	92.7%	114.08	124.70	135.82	147.03	32.95	28.9%
18	1.2%	93.9%	119.61	131.70	143.62	155.63	36.02	30.1%
19	1.0%	94.9%	125.14	138.70	151.42	164.23	39.09	31.2%
20	0.7%	95.6%	130.67	145.70	159.22	172.83	42.16	32.3%
21	0.8%	96.4%	136.20	153.70	168.32	183.03	46.83	34.4%
22	0.6%	97.0%	141.73	161.70	177.42	193.23	51.50	36.3%
23	0.4%	97.4%	147.26	169.70	186.52	203.43	56.17	38.1%
24	0.4%	97.8%	152.79	177.70	195.62	213.63	60.84	39.8%
25	0.3%	98.1%	158.32	185.70	204.72	223.83	65.51	41.4%
26	0.1%	98.2%	163.85	193.70	213.82	234.03	70.18	42.8%
27	0.1%	98.3%	169.38	201.70	222.92	244.23	74.85	44.2%
28	0.1%	98.4%	174.91	209.70	232.02	254.43	79.52	45.5%
29	0.2%	98.6%	180.44	217.70	241.12	264.63	84.19	46.7%
30	0.0%	98.6%	185.97	225.70	250.22	274.83	88.86	47.8%
31-40	0.7%	99.3%	241.27	305.70	341.22	376.83	135.56	56.2%
41-50	0.3%	99.5%	296.57	385.70	432.22	478.83	182.26	61.5%

Table 22
Soquel Creek Water District
Multi-Family Residential Bill Impacts per Dwelling Unit

10-Unit Apartment
1" Meter

Bi-Monthly Use per Unit	% of Bills in Tier	% of Bills at or Below	Current Bill Per Unit	Projected Bi-Monthly Bill Per Unit			3-Year Impact	
				Mar-1, 2013	Jan-1, 2014	Jan-1, 2015	\$	%
Overall Rate Increase				9%	9%	9%		29.5%
Multi-Family Residential Bi-Monthly Bill per Dwelling Unit								
0	0.4%	0.4%	\$4.01	\$4.34	\$4.64	\$4.97	\$0.95	23.7%
1	8.0%	8.4%	9.54	9.34	9.94	10.57	1.02	10.7%
2	7.0%	15.4%	15.07	14.34	15.24	16.17	1.09	7.2%
3	3.8%	19.3%	20.60	19.34	20.54	21.77	1.16	5.6%
4	6.6%	25.8%	26.13	24.34	25.84	27.37	1.23	4.7%
5	5.8%	31.6%	31.66	30.34	32.39	34.47	2.80	8.8%
6	8.4%	40.0%	37.19	36.34	38.94	41.57	4.37	11.8%
7	6.1%	46.1%	42.72	42.34	45.49	48.67	5.94	13.9%
8	6.6%	52.7%	48.25	48.34	52.04	55.77	7.51	15.6%
9	6.2%	58.9%	53.78	54.34	58.59	62.87	9.08	16.9%
10	8.2%	67.1%	59.31	60.34	65.14	69.97	10.65	18.0%
11	8.0%	75.1%	64.84	66.34	71.69	77.07	12.22	18.8%
12	3.8%	78.9%	70.37	72.34	78.24	84.17	13.79	19.6%
13	4.3%	83.2%	75.90	79.34	86.04	92.77	16.86	22.2%
14	3.0%	86.2%	81.43	86.34	93.84	101.37	19.93	24.5%
15	2.4%	88.6%	86.96	93.34	101.64	109.97	23.00	26.5%
16	2.2%	90.8%	92.49	100.34	109.44	118.57	26.07	28.2%
17	1.8%	92.7%	98.02	107.34	117.24	127.17	29.14	29.7%
18	1.2%	93.9%	103.55	114.34	125.04	135.77	32.21	31.1%
19	1.0%	94.9%	109.08	121.34	132.84	144.37	35.28	32.3%
20	0.7%	95.6%	114.61	128.34	140.64	152.97	38.35	33.5%
21	0.8%	96.4%	120.14	136.34	149.74	163.17	43.02	35.8%
22	0.6%	97.0%	125.67	144.34	158.84	173.37	47.69	37.9%
23	0.4%	97.4%	131.20	152.34	167.94	183.57	52.36	39.9%
24	0.4%	97.8%	136.73	160.34	177.04	193.77	57.03	41.7%
25	0.3%	98.1%	142.26	168.34	186.14	203.97	61.70	43.4%
26	0.1%	98.2%	147.79	176.34	195.24	214.17	66.37	44.9%
27	0.1%	98.3%	153.32	184.34	204.34	224.37	71.04	46.3%
28	0.1%	98.4%	158.85	192.34	213.44	234.57	75.71	47.7%
29	0.2%	98.6%	164.38	200.34	222.54	244.77	80.38	48.9%
30	0.0%	98.6%	169.91	208.34	231.64	254.97	85.05	50.1%
31-40	0.7%	99.3%	225.21	288.34	322.64	356.97	131.75	58.5%
41-50	0.3%	99.5%	280.51	368.34	413.64	458.97	178.45	63.6%



**SOQUEL CREEK
WATER DISTRICT**



Emergency Water Rates

11/15/2012



BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS



Soquel Creek Water District Water Shortage Emergency Rates November 15, 2012

Emergency Rates

- Trigger points
 - Preferable to have clear process and formula for implementing emergency rates
 - Pre-set trigger points correspond with UWMP curtailment stages
 - Board action required to initiate escalating rate response
 - Note: temporary penalty surcharges may not require Prop. 218 process
- Rates need to account for net revenue loss due to reduced water sales
 - Assume higher curtailment levels in higher tiers, and less in lower tiers
 - Small offset from reduced water production charges
- Rates can also account for increased conservation program costs (e.g. additional staff needed to achieve curtailment targets)
- Rate response options:
 - Increase water quantity charges
 - Can raise rates and/or reduce tier breakpoints
 - Increase fixed water meter charges
 - Rate incentives/disincentives based on changes from historical use
 - Potential exemption for customers with low levels of water use
 - Penalty surcharges on use over certain levels
 - Water budgets (water rationing via rates)
- Emergency rates can be adopted as part of the Prop. 218 process to give District legal authority to implement if needed (if District deems appropriate)

Table 1
Soquel Creek Water District
Water Curtailment Stages & Rate Requirements

		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	Base Assumptions	Water Shortage Alert	Water Shortage Warning	Emergency Water Shortage	Severe Water Shortage Emergency	Critical Water Shortage Emergency
Curtailment Target [1]	0%	5%	15%	25%	35%	50%
Water Sales Impact (hcf)						
Reduced Water Sales (hcf)	0	78,000	233,900	389,900	545,800	779,700
Water Sales with Curtailment (hcf)	1,559,400	1,481,400	1,325,500	1,169,500	1,013,600	779,700
Add'l Revenue Requirement						
Water Sales Revenue Loss [2]	\$0	\$597,000	\$1,791,000	\$2,986,000	\$4,180,000	\$5,971,000
Reduced O&M [3]	0	(32,000)	(97,000)	(161,000)	(226,000)	(322,000)
Add'l Conservation Program Costs	0	0	100,000	200,000	300,000	400,000
Total Add'l Revenue Requirement	0	565,000	1,794,000	3,025,000	4,254,000	6,049,000
Required Rate Adjustments						
Required Rate Increase %	0.0%	5.4%	19.2%	36.7%	59.5%	110.0%
Proposed Quantity Charges (\$/hcf)						
<i>With 3-year rate increases</i>						
<u>Single Family Residential</u>						
Tier 1 0-6 hcf	4.00	4.22	4.77	5.47	6.38	8.40
Tier 2 7-14 hcf	7.00	7.38	8.34	9.57	11.17	14.70
Tier 3 15-30 hcf	11.00	11.59	13.11	15.04	17.55	23.10
Tier 4 31+ hcf	16.00	16.86	19.07	21.87	25.52	33.60
<u>Multi-Family Residential (Per Dwelling)</u>						
Tier 1 0-4 hcf	5.60	5.90	6.68	7.66	8.93	11.76
Tier 2 5-10 hcf	7.10	7.48	8.46	9.71	11.32	14.91
Tier 3 11-20 hcf	8.60	9.06	10.25	11.76	13.72	18.06
Tier 4 21+ hcf	10.20	10.75	12.16	13.94	16.27	21.42
Non-Residential	7.05	7.43	8.40	9.64	11.24	14.81

1 Source: Urban Water Management Plan 2010

2 From Table 2; assumes lower levels of curtailment in lower tiers and a higher percentage of curtailment in higher tiers.

3 Estimated at \$180 per AF or approximately \$0.41 per hcf.

Table 2
Soquel Creek Water District
Projected Annual Water Sales

		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5		
% of Curtailment Target	Base Assumptions	Water Shortage Alert	Water Shortage Warning	Emergency Water Shortage	Severe Water Shortage Emergency	Critical Water Shortage Emergency		
Curtailment Target	0%	5%	15%	25%	35%	50%		
CURTAILMENT BY TIER								
Single-Family Residential								
Tier 1	0-6 hcf	75%	0.0%	-3.8%	-11.3%	-18.8%	-26.3%	-37.5%
Tier 2	7-14 hcf	110%	0.0%	-5.5%	-16.5%	-27.5%	-38.5%	-55.0%
Tier 3	15-30 hcf	120%	0.0%	-6.0%	-18.0%	-30.0%	-42.0%	-60.0%
Tier 4	31+ hcf	140%	0.0%	-7.0%	-21.0%	-35.0%	-49.0%	-70.0%
Multi-Family Residential								
Tier 1	0-4 hcf	75%	0.0%	-3.8%	-11.3%	-18.8%	-26.3%	-37.5%
Tier 2	5-10 hcf	105%	0.0%	-5.3%	-15.8%	-26.3%	-36.8%	-52.5%
Tier 3	11-20 hcf	120%	0.0%	-6.0%	-18.0%	-30.0%	-42.0%	-60.0%
Tier 4	21+ hcf	140%	0.0%	-7.0%	-21.0%	-35.0%	-49.0%	-70.0%
All Other Accounts	100%	0.0%	-5.0%	-15.0%	-25.0%	-35.0%	-50.0%	
WATER SALES WITH CURTAILMENT (HCF)								
Single-Family Residential								
Tier 1	0-6 hcf	398,700	383,750	353,850	323,940	294,040	249,190	
Tier 2	7-14 hcf	337,796	319,220	282,060	244,900	207,740	152,010	
Tier 3	15-30 hcf	207,632	195,170	170,260	145,340	120,430	83,050	
Tier 4	31+ hcf	<u>62,892</u>	<u>58,490</u>	<u>49,680</u>	<u>40,880</u>	<u>32,070</u>	<u>18,870</u>	
Subtotal		1,007,020	956,630	855,850	755,060	654,280	503,120	
<i>% Reduction from Base Year</i>		0.0%	-5.0%	-15.0%	-25.0%	-34.9%	-49.9%	
Multi-Family Residential								
Tier 1	0-4 hcf	92,400	88,940	82,010	75,080	68,150	57,750	
Tier 2	5-10 hcf	89,400	84,710	75,320	65,930	56,550	42,470	
Tier 3	11-20 hcf	38,500	36,190	31,570	26,950	22,330	15,400	
Tier 4	21+ hcf	<u>28,100</u>	<u>26,130</u>	<u>22,200</u>	<u>18,270</u>	<u>14,330</u>	<u>8,430</u>	
Subtotal		248,400	235,970	211,100	186,230	161,360	124,050	
<i>% Reduction from Base Year</i>		0.0%	-5.0%	-15.0%	-25.0%	-35.0%	-50.1%	
All Other Accounts		304,000	288,800	258,400	228,000	197,600	152,000	
<i>% Reduction from Base Year</i>		0.0%	-5.0%	-15.0%	-25.0%	-35.0%	-50.0%	
Total Water Sales		1,559,420	1,481,400	1,325,350	1,169,290	1,013,240	779,170	
<i>% Reduction from Base Year</i>		0.0%	-5.0%	-15.0%	-25.0%	-35.0%	-49.9%	

Table 3
Soquel Creek Water District
Projected Water Sales Revenues with Curtailment

		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
	Base Assumptions	Water Shortage Alert	Water Shortage Warning	Emergency Water Shortage	Severe Water Shortage Emergency	Critical Water Shortage Emergency
Curtailment Target	0%	5%	15%	25%	35%	50%
ANNUAL WATER SALES (HCF)						
Single-Family Residential						
Tier 1	398,700	383,750	353,850	323,940	294,040	249,190
Tier 2	337,796	319,220	282,060	244,900	207,740	152,010
Tier 3	207,632	195,170	170,260	145,340	120,430	83,050
Tier 4	<u>62,892</u>	<u>58,490</u>	<u>49,680</u>	<u>40,880</u>	<u>32,070</u>	<u>18,870</u>
Subtotal	1,007,020	956,630	855,850	755,060	654,280	503,120
Multi-Family Residential						
Tier 1	92,400	88,940	82,010	75,080	68,150	57,750
Tier 2	89,400	84,710	75,320	65,930	56,550	42,470
Tier 3	38,500	36,190	31,570	26,950	22,330	15,400
Tier 4	<u>28,100</u>	<u>26,130</u>	<u>22,200</u>	<u>18,270</u>	<u>14,330</u>	<u>8,430</u>
Subtotal	248,400	235,970	211,100	186,230	161,360	124,050
All Other Accounts	304,000	288,800	258,400	228,000	197,600	152,000
Total Water Sales	1,559,420	1,481,400	1,325,350	1,169,290	1,013,240	779,170
QUANTITY RATES						
Single-Family Residential						
Tier 1	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>	<u>Jan-1</u>
Tier 1	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00	\$4.00
Tier 2	7.00	7.00	7.00	7.00	7.00	7.00
Tier 3	11.00	11.00	11.00	11.00	11.00	11.00
Tier 4	16.00	16.00	16.00	16.00	16.00	16.00
Multi-Family Residential						
Tier 1	\$5.60	\$5.60	\$5.60	\$5.60	\$5.60	\$5.60
Tier 2	7.10	7.10	7.10	7.10	7.10	7.10
Tier 3	8.60	8.60	8.60	8.60	8.60	8.60
Tier 4	10.20	10.20	10.20	10.20	10.20	10.20
All Other Accounts	\$7.05	\$7.05	\$7.05	\$7.05	\$7.05	\$7.05
REVENUES WITH CURTAILMENT						
Single-Family Residential						
Tier 1	\$1,594,800	\$1,535,000	\$1,415,400	\$1,295,760	\$1,176,160	\$996,760
Tier 2	2,364,572	2,234,540	1,974,420	1,714,300	1,454,180	1,064,070
Tier 3	2,283,952	2,146,870	1,872,860	1,598,740	1,324,730	913,550
Tier 4	<u>1,006,272</u>	<u>935,840</u>	<u>794,880</u>	<u>654,080</u>	<u>513,120</u>	<u>301,920</u>
Subtotal	7,249,596	6,852,250	6,057,560	5,262,880	4,468,190	3,276,300
Multi-Family Residential						
Tier 1	\$517,440	\$498,064	\$459,256	\$420,448	\$381,640	\$323,400
Tier 2	634,740	601,441	534,772	468,103	401,505	301,537
Tier 3	331,100	311,234	271,502	231,770	192,038	132,440
Tier 4	<u>286,620</u>	<u>266,526</u>	<u>226,440</u>	<u>186,354</u>	<u>146,166</u>	<u>85,986</u>
Subtotal	1,769,900	1,677,265	1,491,970	1,306,675	1,121,349	843,363
All Other Accounts	\$2,143,200	\$2,036,040	\$1,821,720	\$1,607,400	\$1,393,080	\$1,071,600
Total	\$11,162,696	\$10,565,555	\$9,371,250	\$8,176,955	\$6,982,619	\$5,191,263
Revenue Loss with Curtailment	\$0	\$597,141	\$1,791,446	\$2,985,741	\$4,180,077	\$5,971,433