

Staff Report

In accordance with the District Act, District staff has prepared an annual report on the Protection and Augmentation of Water Supplies, which was filed with the Clerk of the Board on February 24, 2017.

The Report is the 46th annual report on the Santa Clara Valley Water District's (District) activities in the protection and augmentation of the water supplies. This Report is prepared in accordance with the requirements of the District Act, section 26.5. The Report provides information on water requirements and water supply availability, and financial analysis of the District's water utility system. The financial analysis includes future capital improvement and maintenance requirements, operating requirements, financing methods and staff's recommended groundwater production and other water charges by zone for fiscal year 2017–18.

The Rate Setting Process

According to Section 26.3 of the District Act, proceeds from groundwater production charges can be used for the following purposes:

1. Pay for construction, operation and maintenance of imported water facilities
2. Pay for imported water purchases
3. Pay for constructing, maintaining and operating facilities which will conserve or distribute water including facilities for groundwater recharge, surface distribution, and purification and treatment
4. Pay for debt incurred for purposes 1, 2 and 3.

This year, as in past years, staff has carefully evaluated the activities that can be paid for by groundwater production charges. The work of the district is divided into projects. Every project has a detailed description including objectives, milestones, and an estimate of resources needed to deliver the project. To ensure compliance with the District Act, each project manager must justify whether or not groundwater production charges can be used to pay for the activities associated with their project. The financial analysis presented in the annual report is based on these project plans.

Resolution 99-21 guides staff in the development of the overall pricing structure based on principles established in 1971. The general approach is to charge the recipients of the various benefits for the benefits received. More specifically, pricing is structured to manage surface water, groundwater supplies and recycled water conjunctively to prevent the over use or under use of the groundwater basin. Consequently, staff is very careful to recommend pricing for groundwater production charges, treated water charges, surface water charges and recycled water charges that work in concert to achieve the effective use of available resources.

This year's rate setting process is being conducted consistent with Board Resolutions 99-21, 12-10 and 12-11, as well as Proposition 218's requirements for property-related fees for water services. As in the past, the Board will continue to hold public hearings and seek input from its advisory committees and the public before rendering a final decision on groundwater production and other water charges for FY 2017–18.

Staff Recommendations

Exhibit 1 shows the proposed groundwater production charges and other charges for FY 2017–18. Since the publishing of the District’s Annual Report on the Protection and Augmentation of Water Supplies (PAWS), staff has extended the schedule for the Expedited Purified Water Program. Consequently, the following staff proposed charges are lower than the proposed maximum charges shown in the published annual PAWS report.

Exhibit 1
Summary of Charges
(Dollars Per Acre Foot, \$/AF)

	Dollars Per Acre Foot		Proposed FY 2017–18
	FY 2015–16	FY 2016–17	
Zone W-2 (North County)			
Basic User/Groundwater Production Charge			
Municipal & Industrial	894.00	1,072.00	1,175.00
Agricultural	21.36	23.59	25.09
Surface Water Charge			
Surface Water Master Charge	22.60	27.46	33.36
Total Surface Water, Municipal & Industrial*	916.60	1,099.46	1,208.36
Total Surface Water, Agricultural*	43.96	51.05	58.45
Treated Water Charges			
Contract Surcharge	100.00	100.00	100.00
Total Treated Water Contract Charge**	994.00	1,172.00	1,275.00
Non-Contract Surcharge	200.00	50.00	100.00
Total Treated Water Non-Contract Charge***	1,094.00	1,122.00	1,275.00
Zone W-5 (South County)			
Basic User/Groundwater Production Charge			
Municipal & Industrial	356.00	393.00	418.00
Agricultural	21.36	23.59	25.09
Surface Water Charge			
Surface Water Master Charge	22.60	27.46	33.36
Total Surface Water, Municipal & Industrial*	378.60	420.46	451.36
Total Surface Water, Agricultural*	43.96	51.05	58.45
Recycled Water Charges			
Municipal & Industrial	336.00	373.00	398.00
Agricultural	45.16	47.38	48.88
*Note: The total surface water charge is the sum of the basic user charge (which equals the groundwater production charge) plus the water master charge			
**Note: The total treated water contract charge is the sum of the basic user charge (which equals the groundwater production charge) plus the contract surcharge			
***Note: The total treated water non-contract charge is the sum of the basic user charge (which equals the groundwater production charge) plus the non-contract surcharge			

The proposed increases in water charges are necessary to pay for critical investments in water supply infrastructure rehabilitation and upgrades, and the development of future drought-proof supplies, most notably purified water. Additionally, we are projecting lower water usage than pre-drought averages, which results in lower revenue.

Given the financial needs summarized above, staff proposes a 9.6% increase in the North County (Zone W-2) Municipal and Industrial groundwater production charge from \$1,072/AF to \$1,175/AF. Staff recommends maintaining the treated water surcharge at \$100/AF, and increasing the non-contract treated water surcharge to \$100/AF. The proposal equates to a monthly bill increase for the average household of \$3.55 or about 12 cents a day.

In the South County (Zone W-5), staff proposes a 6.4% increase in the M&I groundwater production charge from \$393/AF to \$418/AF. The proposal equates to a monthly bill increase for the average household of \$0.86 or about 3 cents per day.

Staff recommends a 6.4% increase in the agricultural groundwater production charge in both zones from \$23.59/AF to \$25.09/AF. The staff recommendation equates to a \$0.25 increase per month per acre for an agricultural water user who pumps 2 acre-feet per acre per year.

Staff recommends a 21.5% increase to the surface water master charge from \$27.46/AF to \$33.36/AF to bring revenues in line with costs related to managing, operating and billing for surface water diversions. This increase results in a 9.9% increase in the overall North County municipal and industrial surface water charge and 7.3% increase in the overall South County municipal and industrial surface water charge. The overall agricultural surface water charge in either zone would increase by 14.5%. Due to the severity of the drought, the water district suspended nearly all raw surface water deliveries in 2014. Many raw surface water users were forced to find an alternative source of water, primarily the groundwater basin. However, the district intends to reinstate untreated surface water users due to much improved water supply conditions.

For recycled water, staff recommends increasing the M&I charge by 6.7% to \$398/AF. For agricultural recycled water, staff recommends a 3.2% increase to \$48.88/AF. The increase maximizes cost recovery while concurrently providing an economic incentive to use recycled water. This pricing is consistent with the provisions of the "Wholesale-Retailer Agreement for Supply of Recycled Water Between Santa Clara Valley Water District and City of Gilroy."

Staff recommends setting the State Water Project Tax at \$26 million for FY 2017–18. This translates to a property tax bill for the average single family residence of roughly \$44.00 per year. The District incurs an annual indebtedness to the State of California pursuant to its Water Supply Contract dated November 20, 1961. Such indebtedness is proportional to the District's allocation of water from the State Water Project and pays for construction, maintenance and operation of state water project infrastructure and facilities. Staff anticipates that the District's contractual indebtedness to the State under the State Water Supply Contract for FY 2017–18 will be at least \$28 million. Staff's recommendation regarding the State Water Project tax is consistent with the District's past practice and with the approach of other water districts and agencies that maintain State water supply contracts.

Projections

Exhibit 2 shows actual and projected District-managed water use. FY 2015–16 water usage came in at roughly 200,000 AF. For the current year, FY 2016–17, staff estimates that water usage will be approximately 205,000 AF or flat to the FY 2016-17 budget, and roughly a 28%

reduction versus calendar year 2013. For FY 2017–18, total District-managed water use is projected at 217,000 AF, which is a 6% increase relative to the FY 2016-17 estimated actual, and consistent with water usage patterns during the last drought that occurred between 2007 and 2011. The FY 2017-18 water usage estimate represents a 24 percent reduction relative to calendar year 2013. Water use is projected to ramp up to 253,000 AF by FY 2025-26.

Exhibit 2
District-managed Water Use Projection (1,000's AF)

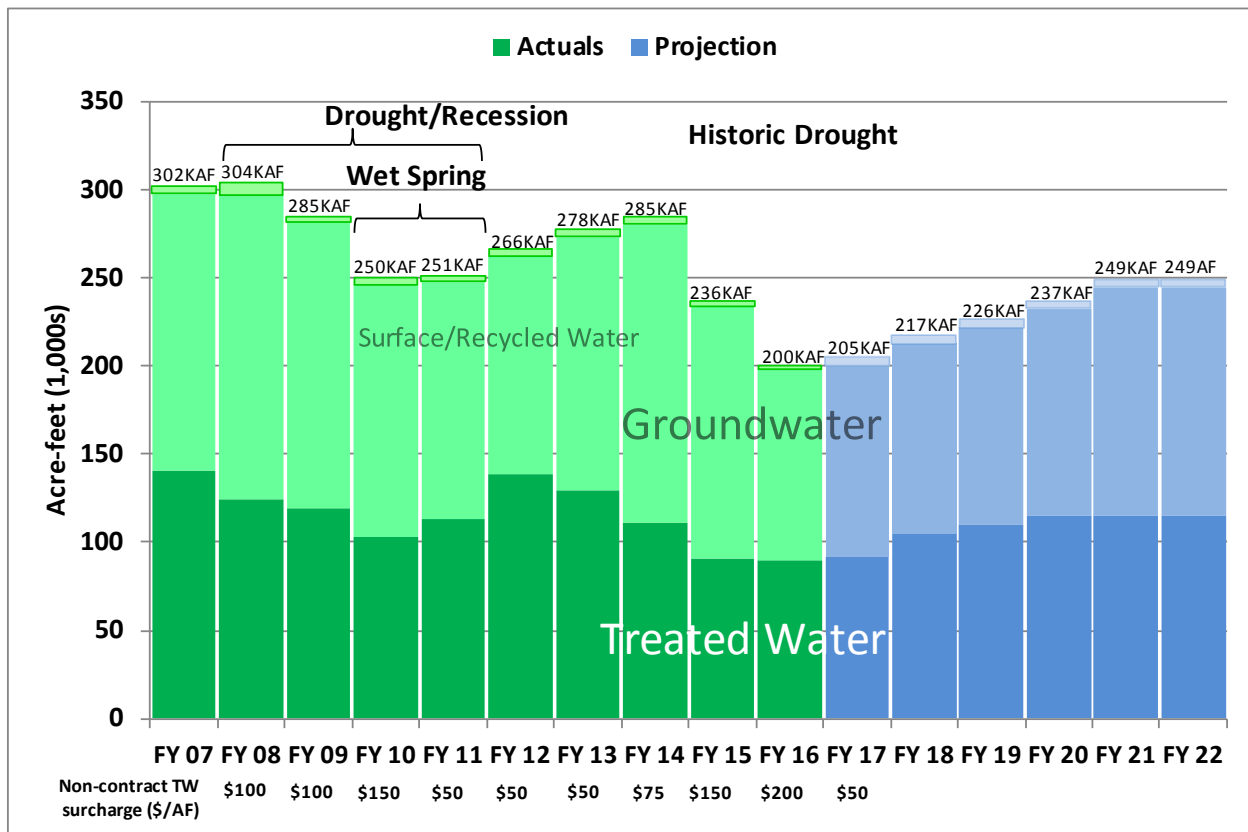


Exhibit 3 shows key financial indicators with staff's recommendation projected to FY 2021-22. The debt service coverage ratio, which is a ratio of revenue less operations expenses divided by annual debt service, is targeted at 2.0 or better which helps to ensure financial stability and continued high credit ratings keeping cost to borrow low.

Exhibit 3

5 Year Charge and Financial Indicator Projection

Adjusted Proposal	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
No. County (W-2) M&I GWP charge (\$/AF)	\$1,072	\$1,175	\$1,288	\$1,412	\$1,547	\$1,695
Y-Y Growth %	19.9%	9.6%	9.6%	9.6%	9.6%	9.6%
So. County (W-5) M&I GWP charge (\$/AF)	\$393	\$418	\$442	\$467	\$494	\$522
Y-Y Growth %	10.4%	6.4%	5.7%	5.7%	5.8%	5.7%
Ag GWP charge (\$/AF)	\$23.59	\$25.09	\$26.53	\$28.03	\$29.65	\$31.33
Y-Y Growth %	10.4%	6.4%	5.7%	5.7%	5.8%	5.7%
Operating & Capital Reserve	\$51,025	\$36,709	\$46,179	\$40,801	\$48,018	\$51,618
Supplemental Water Supply Reserve (\$K)	\$14,277	\$14,677	\$15,077	\$15,477	\$15,877	\$16,277
Sr. Lien Debt Svc Cov Ratio (1.25 min)	1.89	2.14	2.52	2.59	2.36	2.26
South County (Deficit)/Reserves (\$K)	\$7,886	\$7,214	\$6,932	\$7,893	\$9,551	\$10,968

A portion of the projected increases in the groundwater production charge are driven by the capital improvement program as shown in Exhibit 4. Over \$2.3 billion in capital investments, primarily to repair and rehabilitate aging infrastructure, are planned for the next 10 years. FY 2017-18 operations and operating project costs are projected to decrease by 8.1% versus the FY 2016-17 adjusted budget, due primarily to reduced imported water costs. On a longer term basis, operating outlays are projected to increase an average of 4.5% per year for the next 10 years due to anticipated inflation, the California Water Fix, and new operations costs related to the expansion of purified water facilities. Debt service is projected to rise from \$37.1 million in FY 2017-18 to \$148.6 million in FY 2026-27 as a result of periodic debt issuances to fund the capital program.

Exhibit 4

Cost Projection by Cost Center (\$M)

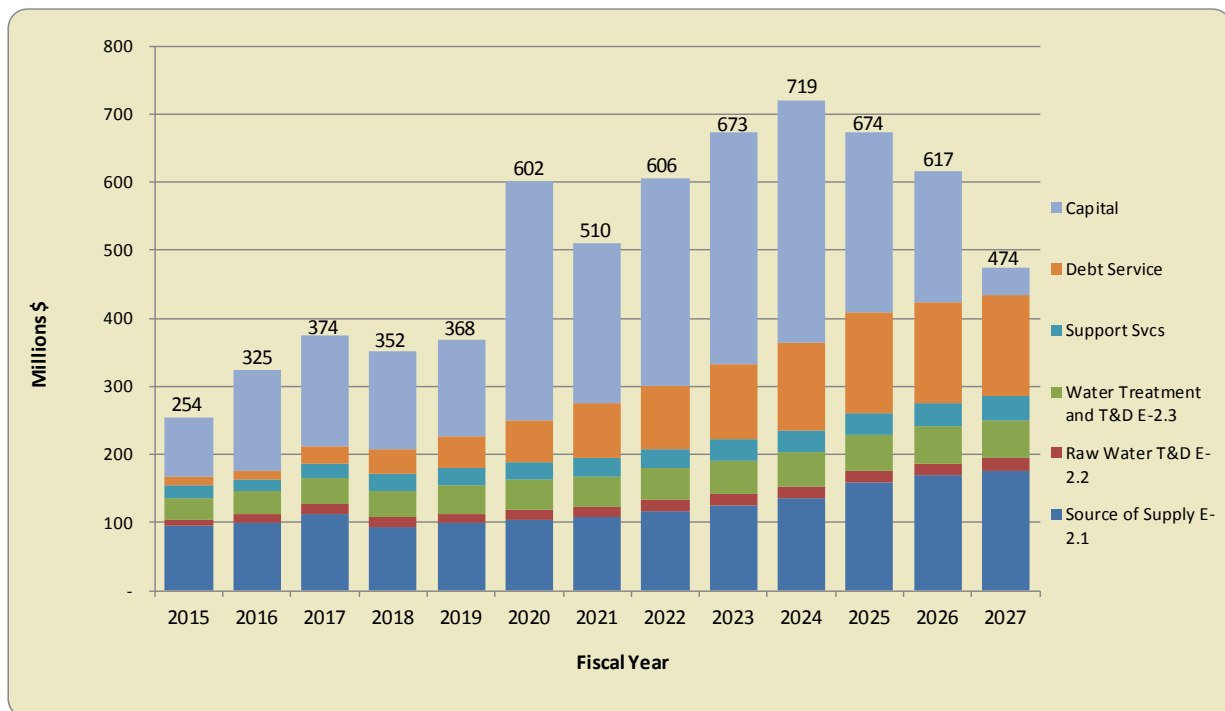


Exhibit 5 shows the groundwater production charge projection for the next 10 years and assumes a continuation of the level of service provided in FY 2016–17 and funding of the preliminary FY 2018-2027 Capital Improvement Program (CIP). Note that there are initiatives and potential uncertainties that could result in the identification of additional capital or operations projects that are not reflected in projection.

Exhibit 5
10 Year Groundwater Charge Projection

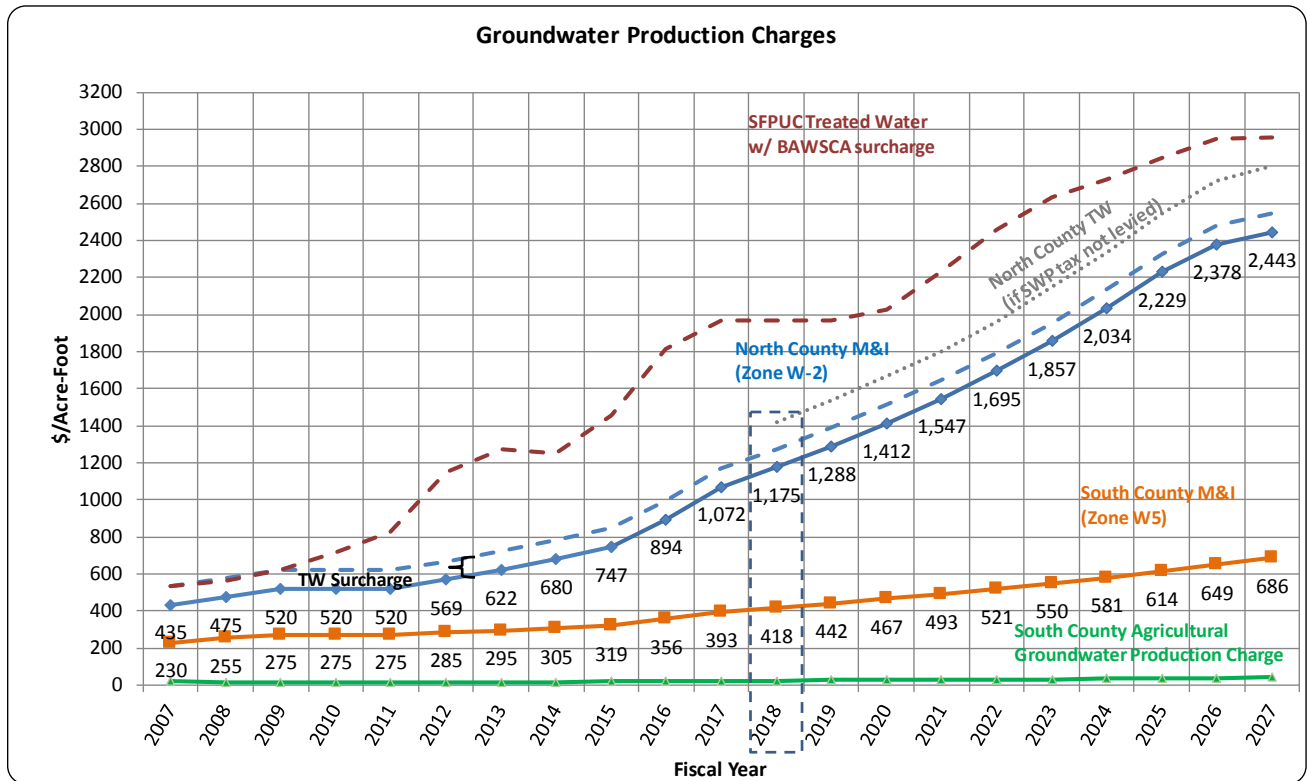


Exhibit 6 shows a comparison of the adjusted proposed groundwater production and treated water charges relative to the anticipated increases for the following similar agencies: Metropolitan Water District, Orange County Water District, San Diego County Water Authority, San Francisco PUC (Hetch Hetchy), and Zone 7 .

Exhibit 6

Anticipated FY 2017–18 Water Charge Increases for Similar Agencies

	% inc. '14 to '15	% inc. '15 to '16	% inc. '16 to '17	FY 17	Projection FY 18 ³
SCVWD North W-2 (Groundwater prdctn per AF)	10%	20%	20%	\$1,072	9.6%
SCVWD North W-2 (Treated Water per AF)	9%	17%	18%	\$1,172	8.8%
SCVWD South W-5 (Groundwater prdctn per AF)	5%	12%	10%	\$393	6.4%
Metropolitan WD (Untreated Water per AF) ¹	-1%	1%	8%	\$762	4.4%
Metropolitan WD (Treated Water per AF) ¹	3%	1%	2%	\$1,075	3.8%
Orange County WD (Groundwater per AF)	7%	10%	25%	\$402	TBD
San Diego County WA (Treated Water per AF) ¹	3%	6%	1%	\$1,531	TBD
San Francisco PUC (Treated Water per AF) ²	17%	25%	8%	\$1,969	0.0%
Zone 7 (Treated Water per AF) ¹	3%	37%	15%	\$1,575	-13.2%

1) MWD, SDCWA and Zone 7 rates based on calendar year (i.e. 2018 rate would be effective on 1/1/2018)

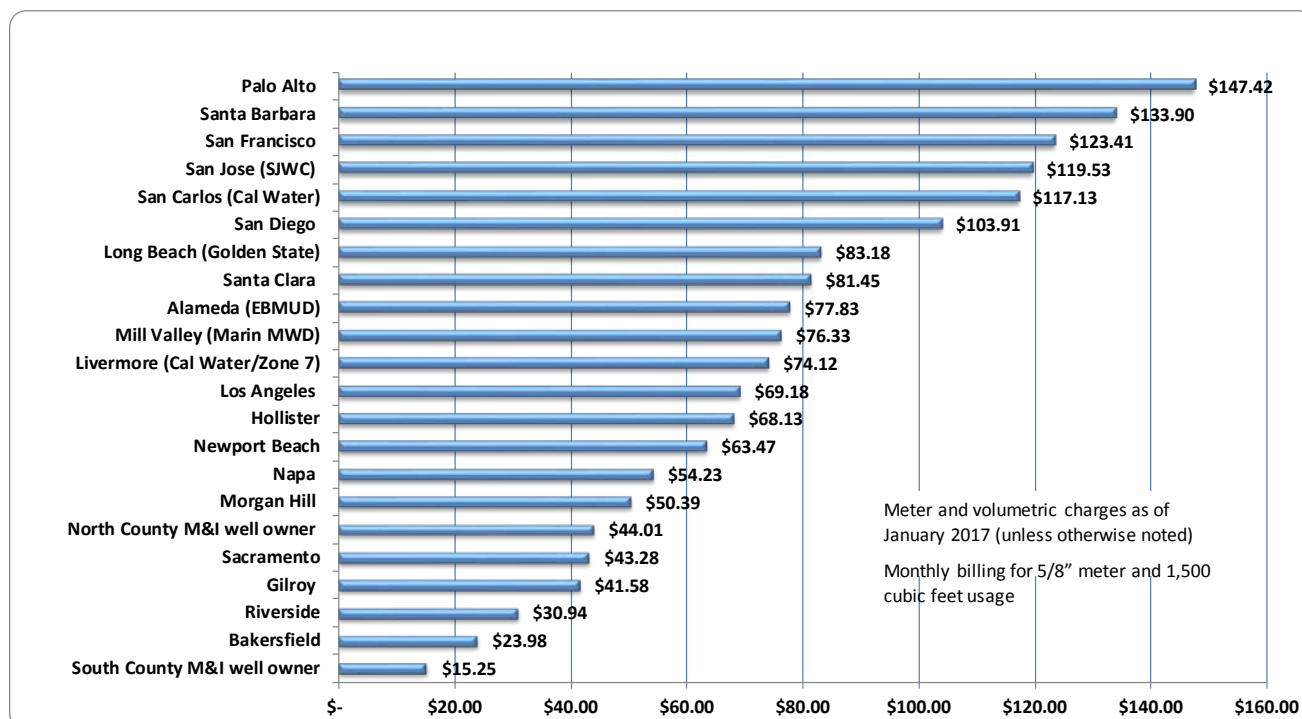
2) SFPUC rates include BAWSCA bond surcharge estimate of \$183/AF

3) SCVWD FY 18 projection includes staff proposed adjustments to proposed maximum

Exhibit 7 shows a comparison of the average monthly bill for several of the District's retail customers (e.g. SJWC, City of Santa Clara, City of Morgan Hill, and City of Gilroy) relative to the District's perennial list of retail agency comparators across the state. SCVWD retailer rates shown include the SCVWD proposed adjusted increase for FY 2017-18. North County and South County well owner rates are also shown, which exclude pumping costs (e.g. electricity) and well maintenance costs.

Exhibit 7

Retail Agency Benchmarks



Cost of Service

The cost of service analyses for FY 2017–18 is shown in Exhibit 8 for North County and Exhibit 9 for South County. The exhibits are laid out in a format that follows six industry standard rate making steps.

1. Identify utility pricing objectives and constraints
2. Identify revenue requirements
3. Allocate costs to customer classes
4. Reduce costs by revenue offsets or non-rate related funding sources
5. Develop unit costs by customer class or net revenue requirements by customer class
6. Develop unit rates by customer class

Step 2 includes identifying and segregating Water Utility Fund costs from Watershed and Administrative Funds and allocating Water Utility costs between zones W-2 (North) and W-5 (South) according to benefit provided. Step 3 involves allocating costs by customer class either directly or based on water usage. Steps 4 and 5 result in unit costs by customer class after applying non-rate related offsets.

Step 6 includes two adjustments. The first adjustment is the application of fungible revenue, in this case 1% ad valorem property taxes, to offset the costs of agricultural water in accordance with Board Resolution 99-21. For FY 2017-18, staff is proposing a \$1.6M transfer of 1% ad valorem property taxes from the General Fund and \$1.6M from the Watershed Stream Stewardship Fund as sources for this adjustment also known as the “Open Space Credit.”

The second adjustment involves reallocating a portion of the cost of treated water (or recycled water in the case of South County) to groundwater and surface water users. Treated and recycled water offsets the need to pump groundwater and therefore increases the volume of stored groundwater and improves reliability. The reallocation of a portion of the treated water cost for example represents the value of treated water to groundwater and surface water users and facilitates a pricing structure that prevents the over use of the groundwater basin. Preventing over use not only preserves groundwater for use in times of drought, but also prevents land subsidence or sinking of the land, which can cause serious infrastructure issues.

Another aspect of the second adjustment is related to setting the basic user charge for surface water equal to the groundwater production charge. Surface water use is effectively in-lieu groundwater use permitted by the District to help preserve the groundwater basin. As such, the costs related to preserving the groundwater basin provide value to surface water users because it makes available District surface water, which otherwise would only be used for groundwater recharge. Similarly, the costs related to providing surface water benefit groundwater users because surface water usage helps preserve the groundwater basin. The second adjustment reallocates costs between surface water and groundwater customers in order to set the basic user charge for surface water equal to the groundwater production charge in recognition of this conjunctive use relationship, and in accordance with board policy. A 2015 study was conducted by Raftelis Financial Consultants, Inc (RFC) that confirms the reasonableness of such an adjustment. The report titled “Report Documenting the Reasonableness of the Conjunctive Use Benefit of Surface Water and Recycled Water to Groundwater Customers” documents the support and justification for the water district’s cost of service methodology and can be found on the District’s website.

Exhibit 8
Cost of Service North County Zone W-2 (\$K)

FY '18 Projection (\$K)		Zone W-2					Total W-2
		GW		TW	SW		
		M&I	AG	M&I	M&I	Ag	
1	Operating Outlays						
2	Operations/Operating Projects	39,739	438	84,288	715	17	125,196
3	SWP Imported Water Costs	6,771	76	21,042	390	10	28,288
4	Debt Service	8,538	96	28,287	115	3	37,038
5	Total Operating Outlays	55,047	609	133,616	1,220	30	190,522
6							
7	Capital & Transfers						
8	Operating Transfers Out	3,286	37	5,939	85	2	9,349
9	Capital Outlays excl. carryforward	19,374	217	109,635	467	11	129,705
10	Total Capital & Transfers	22,661	254	115,574	552	13	139,054
11	Total Annual Program Costs	77,708	863	249,191	1,772	43	329,576
12	Step 3 - Allocate costs to customer classes						
13	Revenue Requirement Offsets						
14	Capital Cost Recovery	(1,730)	(19)	(3,127)	(45)	(1)	(4,923)
15	Debt Proceeds	(11,504)	(129)	(65,100)	(277)	(7)	(77,017)
16	Inter-governmental Services	(395)	(4)	(713)	(10)	(0)	(1,123)
17	SWP Property Tax	(5,565)	(62)	(18,490)	(315)	(8)	(24,440)
18	South County Deficit/Reserve	(87)	(1)	(157)	(2)	(0)	(248)
19	Interest Earnings	(254)	(3)	(460)	(7)	(0)	(723)
20	Inter-zone Interest	20	0	37	1	0	58
21	Capital Contributions	(945)	(11)	(1,708)	(24)	(1)	(2,688)
22	Other	(966)	(11)	(911)	(15)	(0)	(1,903)
23	Reserve Requirements	(4,539)	(21)	(24,765)	(109)	(1)	(29,435)
24	Adjusted Revenue Requirement (FY 18)	51,744	602	133,797	968	25	187,134
25	Adjusted Revenue Requirement (FY 15 adj)	12,633	56	4,657	158	84	17,587
26	Total Adjusted Revenue Requirement	64,376	657	138,453	1,125	109	204,721
27	Volume (KAF)	58.1	0.7	105.0	1.5	0.0	165.3
28							
29	Revenue Requirement per AF	\$ 1,108	\$ 1,012	\$ 1,319	\$ 750	\$ 2,978	
30	Step 5 - Develop unit costs by customer class						
31	Adjustments for Agricultural Preservation						
32	Allocate WU 1% Ad Valorem Prop Tax	-	(641)	-	-	(107)	(748)
33	Transfer GF 1% Ad valorem Prop Tax	-	-	-	-	-	-
34	Transfer WS 1% Ad Valorem Prop Tax	-	-	-	-	-	-
35	Revenue Requirement per AF	\$ 1,108.0	\$ 25.1	\$ 1,319	\$ 750	\$ 58.4	
36	Step 6 - Rate Design						
37	Adjustments to Facilitate Conjunctive Use						
38	Reallocate TW/SW/RW costs	3,891	-	(4,578)	687	-	(0)
39	Charge per AF	\$ 1,175	\$ 25.1	\$ 1,275	\$ 1,208	\$ 58.4	
40	Total Revenue (\$K)	\$68,268	\$16	\$133,875	\$1,813	\$2	\$203,974

Exhibit 9
Cost of Service South County Zone W-5 (\$K)

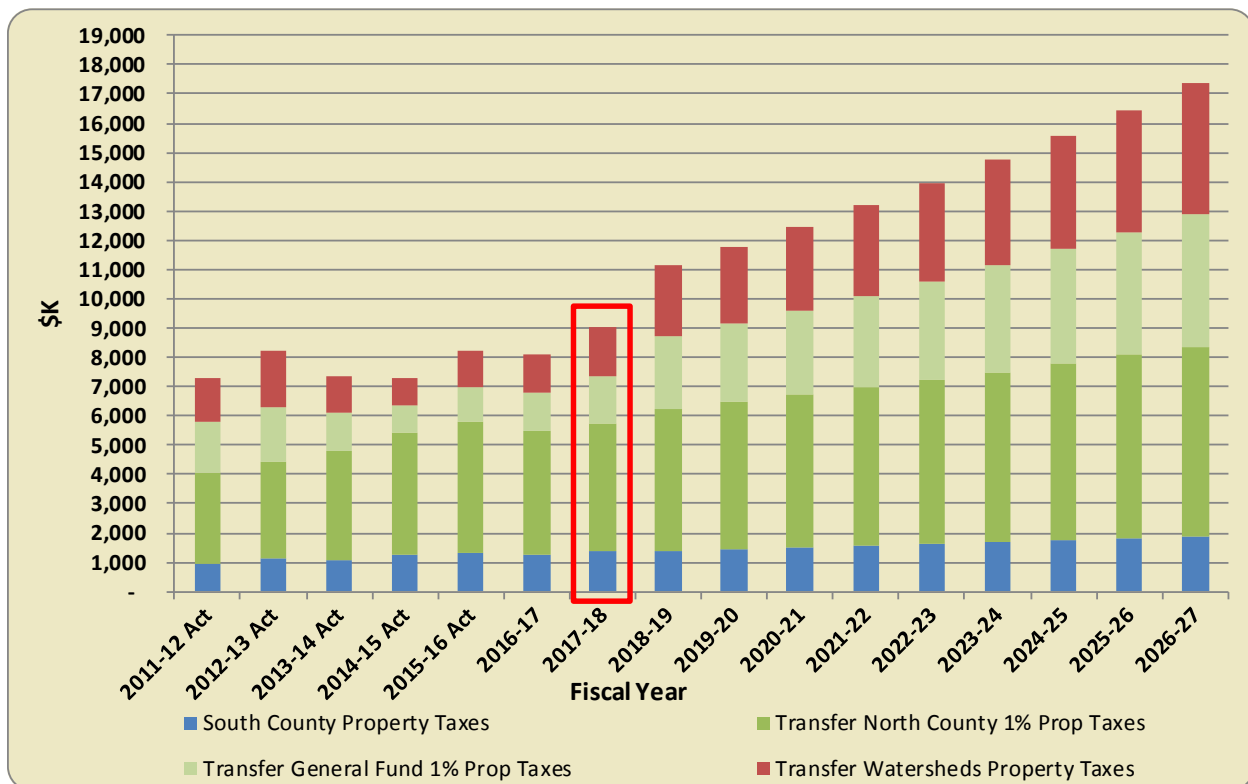
FY '18 Projection (\$K)		Zone W-5						Total W-5
		GW		SW		RW		
		M&I	AG	M&I	AG	M&I	AG	
1	Operating Outlays							
2	Operations/Operating Projects	8,450	8,553	212	541	83	71	17,910
3	SWP Imported Water Costs	-	-	-	-	-	-	-
4	Debt Service	-	-	-	-	-	-	-
5	Total Operating Outlays	8,450	8,553	212	541	83	71	17,910
6								
7	Capital & Transfers							
8	Operating Transfers Out	-	-	-	-	-	-	-
9	Capital Outlays excl. carryforward	-	-	-	-	-	-	-
10	Total Capital & Transfers	-	-	-	-	-	-	-
11	Total Annual Program Costs	8,450	8,553	212	541	83	71	17,910
12		Step 3 - Allocate costs to customer classes						
13	Revenue Requirement Offsets							
14	Capital Cost Recovery	1,803	1,878	38	98	595	510	4,923
15	Debt Proceeds	-	-	-	-	-	-	-
16	Inter-governmental Services	(67)	(69)	(1)	(4)	-	-	(141)
17	SWP Property Tax	(719)	(749)	(15)	(39)	(21)	(18)	(1,560)
18	South County Deficit/Reserve	(37)	269	(20)	14	15	6	248
19	Interest Earnings	-	-	-	-	-	-	-
20	Inter-zone Interest	(27)	(28)	(1)	(1)	(1)	(1)	(58)
21	Capital Contributions	-	-	-	-	-	-	-
22	Other	(65)	(68)	(1)	(2)	-	-	(136)
23	Reserve Requirements	-	-	-	-	-	-	-
24	Adjusted Revenue Requirement (FY 18)	9,339	9,786	212	607	672	569	21,185
25	Adjusted Revenue Requirement (FY 15 adj)	296	(764)	25	(177)	(8)	(291)	(918)
26	Total Adjusted Revenue Requirement	9,635	9,023	237	430	664	278	20,267
27	Volume (KAF)	24.0	25.0	0.5	1.3	0.7	0.6	52.1
28								
29	Revenue Requirement per AF	\$ 401	\$ 361	\$ 474	\$ 331	\$ 949	\$ 464	
30		Step 5 - Develop unit costs by customer class						
31	Adjustments for Agricultural Preservation							
32	Allocate WU 1% Ad Valorem Prop Tax	-	(5,761)	-	-	-	-	(5,761)
33	Transfer GF 1% Ad valorem Prop Tax	-	(1,626)	-	-	-	-	(1,626)
34	Transfer WS 1% Ad Valorem Prop Tax	-	(1,023)	-	(354)	-	(249)	(1,626)
35	Revenue Requirement per AF	\$ 401	\$ 24.5	\$ 474	\$ 58.4	\$ 949	\$ 48.9	
36		Step 6 - Rate Design						
37	Adjustments to Facilitate Conjunctive Use							
38	Reallocate TW/SW/RW costs	397	-	(11)	-	(386)	-	-
39	Charge per AF	\$ 418	\$ 24.5	\$ 451	\$ 58	\$ 398	\$ 48.9	
40	Total Revenue (\$K)	\$10,032	\$613	\$226	\$76	\$279	\$29	\$11,254

Open Space Credit

The District Act limits agricultural groundwater production charges to a maximum of 25 percent of the M&I groundwater production charges. Current board policy adds an “open space” credit to agricultural revenues. The purpose of the credit is to preserve the open space benefits provided by agricultural lands by keeping agricultural groundwater production charges low. To the extent that Proposition 218 applies to the groundwater production charge, it requires that costs to end users be proportional such that one class of users is not subsidizing another.

The recommended agricultural groundwater production charge for FY 2017–18 is \$25.09 per acre foot, which is 6 percent of the proposed M&I groundwater production charge in South County. To comply with the current agricultural groundwater production charge setting policy, staff recommends the open space credit received by South County be \$9.0 million in FY 2017-18 (funded by 1 percent ad valorem property taxes). This includes an adjustment that reconciles FY 2014–15 actuals against what was projected. The \$9.0 million is comprised of a \$4.4 million transfer from North County Water Utility 1% ad valorem property taxes, a \$1.4 million contribution from South County Water Utility 1% ad valorem property taxes, a \$1.6 million transfer of 1% ad valorem property taxes from the General Fund and \$1.6 million from the Watershed Stream Stewardship Fund. As shown in Exhibit 10, the Open Space Credit is projected to grow to over \$17.4 million by FY 2026-27.

Exhibit 10
Open Space Credit Trend



Hearings and Meetings Schedule

Exhibit 11 presents the schedule for the annual groundwater production charge setting process.

Exhibit 11 Hearings and Meetings Schedule – 2017

Date	Hearing/Meeting
December 13	Board Workshop: Planning for FY 18 Groundwater Production Charges
January 10	Board Meeting on Preliminary Groundwater Production Charge Analysis
February 24	Mail notice of public hearing and file PAWS report
March 15	Water Retailers Meeting
April 3	Agricultural Water Advisory Committee Meeting
April 4	Landscape Committee Meeting
April 11	Open Public Hearing
April 13	Continue Public Hearing in Morgan Hill (Informational Open House)
April 17	Environmental & Water Resources Committee
April 19	Water Commission Meeting
April 25	Conclude Public Hearing
May 9	Adopt Budget & Groundwater Production and Other Water Charges