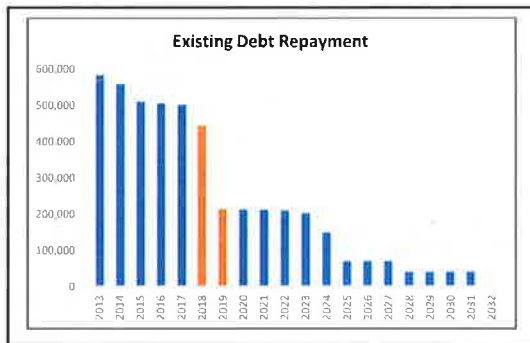
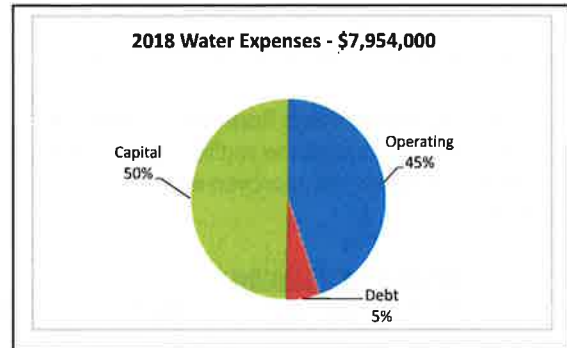




CROSS VALLEY WATER DISTRICT 2018-19 WATER RATE OUTLOOK (Board Adopted Rates on 2/20/18)

The Water Rate Outlook has been updated to reflect 2018-19 costs and revenue, along with anticipated changes to ensure that the water rates are sufficient to meet the operating, debt and the capital expenditures over the next six years. The first pie chart shows the anticipated 2018 water expenses in three slices. The operating and debt slices are 50% of the nearly \$8 million in expenses, with capital investment in the system is a similar amount. A six-year outlook was prepared and rates are focused on 2018-19.

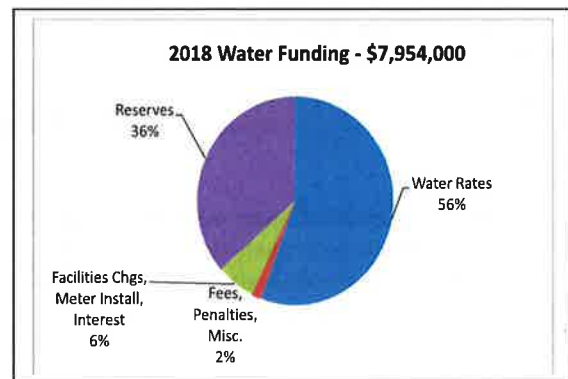
Operations – The operating expenses are expected to increase over the next two years to include inflation in costs, purchased water, meter communications for the meter replacement program, new leak detection equipment to identify leaks more quickly to save lost revenue, and equipment replacement funding. In addition to water from Cross Valley wells, the District purchases water from the joint Clearview Water Supply Agency (CWSA) of which they are an owner, the City of Everett and a small amount from Silver Lake. CWSA also purchases water from the City of Everett at a lower rate.



Debt Repayment – Cross Valley has been successful in obtaining low-interest loans from Washington State’s Public Works Trust Fund (PWTF) to complete major projects. These loans are being paid off over 20-years and the current outstanding debt averages less than 1.0% interest. As the District looks at the existing debt chart (2018-19 in orange), the plan is to increase funding toward annual system replacement to continue to provide high-quality water and manage the system for future generations.

Increase Focus on System Replacement - The rates will provide funding in every year to chip away at the highest priority needs, invest in the long-term sustainability of the water system and avoid drastic impacts on customers.

Capital Investment Program – As the system ages, the goal is to manage the system for continued safe, reliable water service, avoid large unplanned projects, and maintain stability in rates and revenues. Reserves have built up from new customers paying connection fees and from savings, The District has been using reserves to fund the Echo Lake improvements, seismic and recoating of the Lee Forest reservoir, Fobes Hill and Broadway main replacement and coordinated projects with the County and State Highways. Rates are funding the meter replacement project for updated meters to accurately measure usage and on-going programs for pressure reducing valves, replacing asbestos cement and undersized mains, and CWSA system improvements.



Rate Outlook & Recommendation: 6.0% Annual Increase for 2018 & 2019

After reviewing the expense projections for savings, considering the anticipated increases in costs and the need to continue funding system replacement, a 6.0% annual rate increase is recommended to meet planned water expenses for 2018 & 2019.



Impact on Average Single Family 2-Month Bill

The average residential customer uses 1,600 cubic feet in two months. The impact of the adopted rates will be an increase of about \$5.00 per 2-month bill, or about \$2.50 per month.

Water Rate Recommendation	2017	2018	2019
Average Single Family 2-Mo. Bill	\$84.96	\$90.03	\$95.46
<i>\$ Increase per 2-Mo. Bill</i>		<i>\$5.07</i>	<i>\$5.43</i>

See Recommended Rates on page 4 for details.

Capital Improvements Funded for 2018-19

The table below shows the capital improvements by funding source in the two-year rate period. No new borrowing is anticipated and the improvements will be either funded by drawing down on reserves or funded by rates as shown.

WATER CIP FUNDING:

The following projects are included by identified funding source.

#	Cross Valley Water Capital Improvements	Subtotal 2018-19	2018	2019
Reserves				
3c	Echo Lake Standpipe and 700 Zone Creation		2,000,000	-
4	Storage Tank Seismic Retrofit & ReCoating-Lee Forest		100,000	1,000,000
8	SCADA System Upgrade		270,000	145,000
18	AC Water Main Replacement, \$500k/yr reserves and rates		-	250,000
	Misc. Snohomish Co. and WSDOT Road/Culvert Improv.		303,877	319,070
NEW	Vehicle Storage Addition		225,000	-
	Subtotal Reserves	\$4,612,947	\$2,898,877	\$1,714,070
Rates				
1	Financial Plan, Connection Charges, Rates		28,000	12,000
5	Well Head Protection Program Implementation		11,025	11,576
20	PRV Replacements		88,200	92,610
NEW	Meter Replacement Program		484,000	484,000
NEW	111th St - Undersized Main Replacement		225,000	-
18	AC Water Main Replacement Program		75,000	450,000
New	CWSA System Improvements		121,551	127,628
	Subtotal Rates	\$2,210,590	\$1,032,776	\$1,177,814
	Total CIP Planned for 2018-19	\$6,823,537	\$3,931,652	\$2,891,885

Growth

There are a number of small, medium and large scale projects being planned within the District boundaries. Because there is no certainty on the timing of the development, the rate outlook is conservative in the growth assumption with the equivalent of 40 new homes in 2018 and 30 in 2019. Additional new connections will improve the financial outlook.

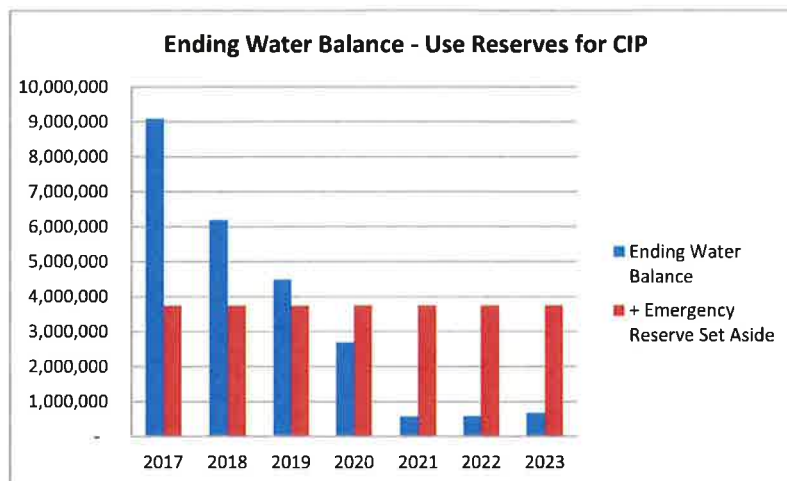


Six-Year Outlook - This water outlook demonstrates the impact on rates and reserves for completing the six-year capital improvement program. After a 6.0% increase in 2018 and in 2019, it appears that a continued 6.0% annual increase for 2020-2023 will be necessary to fund the system replacement and recommended CIP. Of course the District will revisit the financial outlook and capital improvements scheduled in two years before any future increases are considered. Other notable items:

- A new 1.9 MG reservoir at Lee Forest is identified for approximately \$3.1 million in 2022. Borrowing will be necessary and is included in the six-year outlook.
- A new 640 water zone, estimated at \$6 million, has been moved out of this six-year window and will be reviewed with the water system plan. Additional borrowing appears to be necessary.
- The District will be updating the water system plan in 2020. This effort will include a review of the system, potential growth, capital improvements to be scheduled and system replacement needs.

CAPITAL: Borrow for \$3M Reservoir	2017	2018	2019	2020	2021	2022	2023	Board Adopted, 2/28/18
Additional Revenue for Capital	503,440	376,080	358,080	224,720	224,720	226,720	226,720	
Total Available for Capital	851,287	759,300	618,567	342,657	(6,683)	(155,986)		
Capital Improvements Funded								
Special Projects	13,386	20,000	20,000	20,000	20,000	20,000	20,000	
Capital Funded by Rates	1,032,776	1,177,814	1,270,905	1,131,200	1,153,824	1,176,901	1,176,901	from CIP
Add'l Revenue from Rate Increase	205,369	452,385	699,945	948,020	1,196,468	1,445,260		
Annual Increase/(Use) of Reserves	3,880	13,871	27,607	139,477	15,960	92,373	WITH CAPITAL	
Rate Increase This Scenario								
Rate Increase	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	6.00%	
Single Family Base Rate 2-Mo. Bill	\$47.10	\$2.83	\$3.00	\$3.18	\$3.37	\$3.57	\$3.78	
	\$49.93	\$52.92	\$56.10	\$59.46	\$63.03	\$66.81		
Water Reserve Balance								
Capital Funded by Reserves	(2,898,877)	(1,714,070)	(1,834,229)	(2,255,898)	(3,102,656)	-	-	from CIP
Borrow for LF Reservoir \$3M						3,102,656		
Annual Increase/(Use) of Reserves from Rates	3,880	13,871	27,607	139,477	15,960	86,373		
Ending Water Balance	9,081,553	6,186,557	4,486,357	2,679,736	563,316	579,276	671,649	

Ending Water Balance – The six-year outlook shows the ending water balance is reduced from \$9.1 million to be about \$670,000 at the end of 2023, plus an emergency reserve of \$3.7 million. The chart below demonstrates the impact on the reserves as the outlook uses the ending water balance to fund improvements. The blue bars indicate the available water balance as it is spent down. The red bars represent the emergency set aside as it remains constant from 2018-2023. This scenario spends \$8.7 million in reserves over the six years for capital improvements and requires \$3.1 million to be borrowed in 2022 for the new 1.9 MG Reservoir at Lee Forest. Future improvements will likely require borrowing, such as the \$6 million new zone, however additional new connections will improve then ending balance with connection charges.



Recommended Water

Cross Valley Water District
Water Rate Study

Board Adopted
3/2/2018

RECOMMENDED WATER RATES - 6.0% Increase in March 2018 & January 2019

a. RESIDENTIAL customers to pay a base rate per dwelling unit.

Bimonthly	2018	2019
Base Rate per Unit	\$49.90	\$52.90

x number of dwelling units

b. NON-RESIDENTIAL (Commercial, Agriculture, Public, Industrial, Irrigation, etc.) to pay a base rate by meter

The differential between meter sizes adjusted to be 60% of AWWA Industry Standard meter capacity factors..

Bimonthly Base Rates	Meter Factor*	2018	2019
5/8" x 3/4" meter	1.00	\$49.90	\$52.90
3/4" x 3/4" meter	1.00	\$49.90	\$52.90
1" meter	1.50	\$74.90	\$79.40
1 1/2" meter	3.00	\$149.70	\$158.70
2" meter	4.80	\$239.50	\$253.90
3" meter	9.00	\$449.10	\$476.10
4" meter	15.00	\$748.50	\$793.50
6" meter	30.00	\$1,497.00	\$1,587.00

*Meter factors for base rates are based on 60% of AWWA meter factors

c. OTHER/MIXED-USE to pay a base rate combination of meter size and number of units.

A base rate by meter size as shown in Non-residential, plus a base rate for each additional unit.

Bimonthly Base Rates	Meter Factor*	2018	2019
5/8" x 3/4" meter	1.00	\$49.90	\$52.90
3/4" x 3/4" meter	1.00	\$49.90	\$52.90
1" meter	1.50	\$74.90	\$79.40
1 1/2" meter	3.00	\$149.70	\$158.70
2" meter	4.80	\$239.50	\$253.90
3" meter	9.00	\$449.10	\$476.10
4" meter	15.00	\$748.50	\$793.50
6" meter	30.00	\$1,497.00	\$1,587.00
Plus a per unit charge	1.00	\$49.90	\$52.90

*Meter factors for base rates are based on 60% of AWWA meter factors

d. WATER CONSUMPTION CHARGES per 100 cubic feet on all metered water usage per bimonthly period.

Usage Tier		2018	2019
0-1,500 cf	per 100 cf	\$2.47	\$2.62
1,501-3,000 cf	"	\$2.92	\$3.10
3,001-6,000 cf	"	\$3.82	\$4.05
6,001+ cf	"	\$4.98	\$5.28

1 cf = 7.48 gallons
100 cf = 748 gallons

e. Other adjustments:

Current locked off rates will be replaced by base rate.

f. Detector check rates per bimonthly period:

Bi-monthly Rate Detector Checks	Meter Factor**	2018	2019
2" DC	0.40	\$20.00	\$21.20
2.5"-3" D.C.	0.75	\$37.40	\$39.70
4" D.C.	1.25	\$62.40	\$66.10
6" D.C.	2.50	\$124.80	\$132.30
8" D.C.	4.00	\$199.60	\$211.60
10" D.C.	5.75	\$286.90	\$304.20

**Meter factors for detector checks are based on 5% of AWWA meter factors



How do Cross Valley water rates compare? While it is nice to know what others are paying for water, it is important to remember that each water system must be self-sufficient. The costs will vary depending on the type and source of water, treatment and storage requirements, transmission and distribution systems, number/type of customers and other factors.

This chart compares an average single family customer using 800 cubic feet of water in one month. Note that Cross Valley bills for two months but the typical industry comparison is on a monthly basis. The rate information used was available on websites as of February, 2018.

