



2019-2020 Adopted Budget

November 15, 2018



Water for today...
and tomorrow

2017-2018 ADOPTED BUDGET

NOVEMBER 15, 2018

2019 Board Members

John Stokes, Board Chair
Councilmember, City of Bellevue

Penny Sweet, Vice Chair
Councilmember, City of Kirkland

Angela Birney, Secretary/Treasurer
Council President, City of Redmond

Mary Lou Pauly, Director
Mayor, City of Issaquah

Lloyd Warren, Director
President, Sammamish Plateau Water

Jon Ault, Director
President, Skyway Water & Sewer District

Allan Ekberg, Director
Mayor, City of Tukwila

2019 Alternate Board Members

Jared Nieuwenhuis
Councilmember, City of Bellevue

Jon Pascal
Councilmember, City of Kirkland

John Marchione
Mayor, City of Redmond

Victoria Hunt
Councilmember, City of Issaquah

Mahbubul Islam
Commissioner, Sammamish Plateau Water

C. Gary Schulz
Commission Vice President, Skyway Water & Sewer District

Verna Seal
Councilmember, City of Tukwila

CASCADe WATER ALLIANCE AT A GLANCE

The Cascade Water Alliance (Cascade) is a municipal corporation comprised of five member cities (City of Bellevue, City of Issaquah, City of Kirkland, City of Redmond, City of Tukwila) and two water and sewer districts (Sammamish Plateau Water, and Skyway Water and Sewer District). These cities and districts have joined together with the goal of bringing a regional approach to providing a safe, clean, and reliable water supply to over 350,000 residents and 26,000 businesses.

Cascade is governed by a board of directors consisting of representatives appointed by resolution from each member's legislative authority. Members may similarly appoint alternate board members. Additionally, each board member and each alternate board member must be elected officials of the members.





This document was prepared by Christopher Paulucci, Finance and Administration Manager. With special thanks to the following for their efforts in producing this document: Chuck Clarke, Ed Cebron, Paula Anderson, Linda Moreno, Joe Mickelson and Henry Chen. Questions or requests for information should be addressed to:

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INTRODUCTORY SECTION

TRANSMITTAL LETTER

November 15, 2018

Cascade Water Alliance Members, Board Members and Alternate Board Members:

We are pleased to present to you the 2019-2020 Cascade Water Alliance Budget that was adopted by the Cascade Board on September 26, 2018, by Resolution No. 2018-16. The 2019-2020 Budget establishes the financial plan to provide for continued improvement in the delivery of safe, reliable and clean water to Cascade's Members. The Budget will enable the provision of all Cascade services, as well as the operations, maintenance, planning, and infrastructure improvements needed for Cascade's water transmission and supply system.

Cascade's 2019-2020 budget was built from the "ground up," starting with the Board-approved strategic goals listed in Cascade's Strategic Plan. After identifying targets, measures, and strategies to achieve the goals, staff allocated appropriate budget resources to ensure their success. Other work plan resources, not specifically listed in the strategic plan, were added after review of short-term operational needs at the White River project and other exigencies. The final layer of budget resources was added for overhead required to support the programmatic functions. The Performance Measures section of this Budget Book describes the interconnection of strategic goals, targets, measures, strategies, budget, and performance reporting.

The 2019-2020 Budget positions Cascade well to advance several key initiatives in 2019 and 2020:

Cascade's conservation program continues to provide opportunities for customers to conserve water and to lower utility bills through activities such as gardening classes, commercial irrigation audits, the Conservation Road Show, showerhead and aerator installations at apartment complexes, and a conservation item order page on Cascade's website. Cascade is also evaluating strategies to manage peak-season demand using new technologies and best practices. Cascade evaluates the conservation programs offered with a focus on cost-effective investments and reducing peak demands. Conservation reduces demand thereby delaying the need to develop costly new water supplies.

The 2019-2020 Budget estimated resources and expenditure authority of Cascade Water Alliance is as follows:

<i>Fund</i>	<i>Appropriation authority</i>	
	<i>2019</i>	<i>2020</i>
Operating	\$50,936,632	\$51,414,811
Regional Capital Facilities Charge	\$9,624,368	\$9,624,279
Rate Stabilization	\$1,493,595	\$1,707,335
Construction	\$16,317,109	\$17,389,791
Bond	\$30,279,455	\$30,254,816
Total	\$108,651,159	\$110,391,032

Cascade has a biennial budget, and adopts biennial Member rates and charges.

In 2019 and 2020, Cascade will collect **\$40,520,476** and **\$41,736,090** respectively from its Members (excluding RCFC's, which are variable).

Major budgeted operating expenses in 2019 and 2020 include:

	<i>2019</i>	<i>2020</i>
Water contracts	\$24,069,524	\$24,111,499
Lake Tapps operations and maintenance	3,535,650	3,615,764
Cascade staff salary & benefits	1,989,642	2,065,255
Other professional services	1,291,000	1,374,500
Conservation program	621,000	621,000
Communications & intergovernmental	535,000	460,000
<u>Other, miscellaneous</u>	<u>1,234,753</u>	<u>1,450,521</u>
Total	\$33,276,569	\$33,698,539

The budgeted expenditures above do not include interfund transfers, debt service, and Capital Improvement Program (CIP) costs. Also, due to rate smoothing, reserve requirements, and prior year adjustments, member charges in any year will not exactly match budgeted operating expenses. The figures above are meant to provide an approximate correlation of member charges and operating expenses.

The 2019-2020 CIP is \$7,360,812 (2019) and \$8,648,428 (2020), which includes security improvements, piezometers and dike improvements, and various Lake Tapps projects. It also includes minor improvements to the Bellevue-Issaquah Pipeline and a line for capital risk. The largest CIP projects will be payments to Tacoma Public Utilities for water supply contracts.



The Debt Service budget in 2019 and 2020 is \$11,878,147 and \$11,835,253, respectively is for bonds issued in 2009, 2012, and 2014. Other outstanding debt includes a Public Works Trust Fund loan.

Funding for the 2019-2020 Budget reflects an average 4.5% increase in Member water charges in 2019 and 3.0% in 2020. Capital projects are funded by Cascade’s 2012 bond proceeds and RCFC revenue.

The 2019 and 2020 Regional Capital Facilities Charge (RCFC) have increased from \$6,005 to \$6,416 and \$6,607 respectively and are forecast to increase at an inflationary rate going forward.

At the beginning of 2019, staffing will be at the level (eleven positions) authorized by the Board on March 18, 2008, and on December 15, 2010 but below the number of FTE’s authorized due to a number of employees working modified schedules:

- | | |
|-------------------------------|--|
| 1. Chief Executive Officer | 7. Intergovernmental & Communications Director |
| 2. Program & Policy Assistant | 8. Management Assistant |
| 3. Capital Projects Director | 9. Strategic Policy Advisor |
| 4. Director of Planning | 10. Water Resources Manager |
| 5. Economist/Treasurer | 11. Finance & Administration Manager |
| 6. Operations Manager | |

Cascade’s budget development process and documentation continues to improve. It is Cascade’s goal to pursue the Government Finance Officers Association of the United States and Canada (GFOA) Distinguished Budget Presentation Award this year. This program establishes criteria that have helped improve Cascade’s Budget in a manner that enables the document to serve as a policy document, an operations guide, a financial plan, and a communications device. In an effort to build a budget document that meets recognized quality indicators, Cascade intends to apply the GFOA criteria to budgets, with the goal of receiving the GFOA Distinguished Budget Presentation Award.

Preparation of the budget is a complex task. We would like to thank Member staff and Cascade staff for their role in identification and discussion of policy issues embodied in the 2019-2020 Budget and the Board of Directors for its careful review and thoughtful participation throughout the budget development process.

Respectfully submitted,

Chuck Clarke
Chief Executive Officer

Christopher N. Paulucci CPA CGMA
Finance and Administration Manager

CASCADE'S VISION

Create a lasting legacy by establishing a model for regional cooperation and effective public resource management.

CASCADE'S MISSION

Cascade provides safe, clean and reliable water to our members in a cost-effective and environmentally responsible manner. We accomplish our mission by:

- Constructing, managing and operating water supply infrastructure
- Fostering flexible long-range supply and demand planning for the region
- Supporting the water needs of people and fish
- Building partnerships and regional collaboration
- Maintaining "One Cascade" comprised of diverse members that share common mission and values

ABOUT CASCADE

Cascade Water Alliance is a joint municipal utility services authority composed of cities and water districts working together to ensure a clean, safe and reliable water supply today and well into the future. Cascade supplies approximately 350,000 residents and 22,000 businesses in Bellevue, Kirkland, Redmond, Issaquah, Sammamish, Tukwila and Skyway - nearly 50 percent of retail water sales in King County outside of Seattle.

The Interlocal Contract that established Cascade in 1999 (amended in 2004 and superseded by a Joint Municipal Utilities Services Agreement in 2012) gives it the responsibility to:

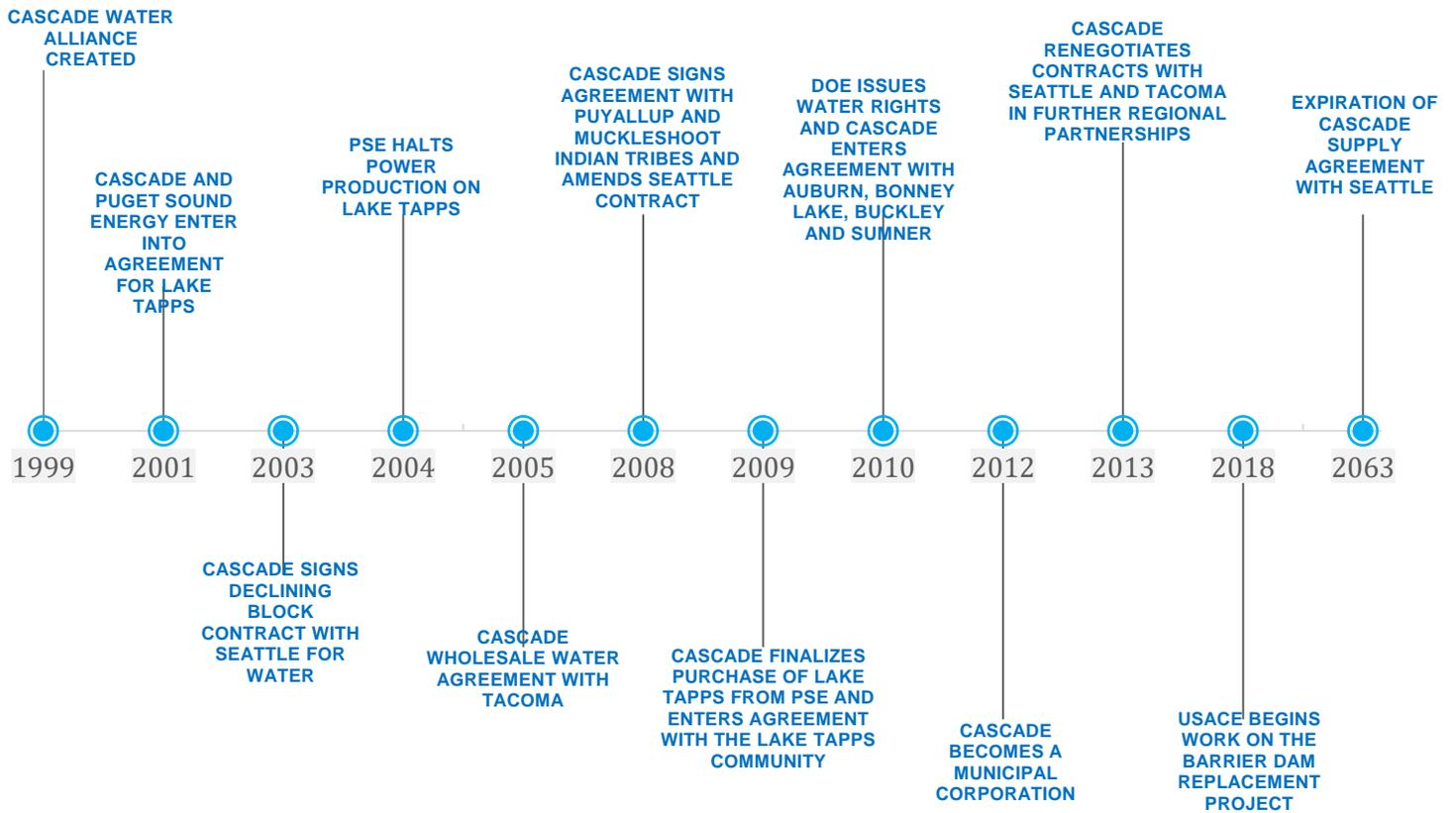
- Purchase wholesale water from other regional suppliers
- Coordinate conservation and supply management
- Acquire, construct, and manage water supply infrastructure
- Foster regional water planning that provides adequate water for both people and fish

Cascade's 2012 Transmission and Supply Plan describes four major programs that will be the Cascade Water system:

- The Block Contract with Seattle
- Purchase of water from Tacoma
- Development of the Lake Tapps Reservoir as a municipal water supply source
- Independent water supplies

Cost-effective conservation efforts to reduce regional demand and the development of new water sources are both important elements of Cascade's long-term water supply plan.

CASCADe HISTORY



CASCADe WATER ALLIANCE BOARD



John Stokes
Board Chair
Councilmember,
City of Bellevue



Penny Sweet
Vice Chair
Councilmember,
City of Kirkland



Angela Birney
Secretary/Treasurer
Council President,
City of Redmond



Mary Lou Pauly
Mayor,
City of Issaquah



Lloyd Warren
President,
Sammamish Plateau Water



Jon Ault
President,
Skyway Water & Sewer District

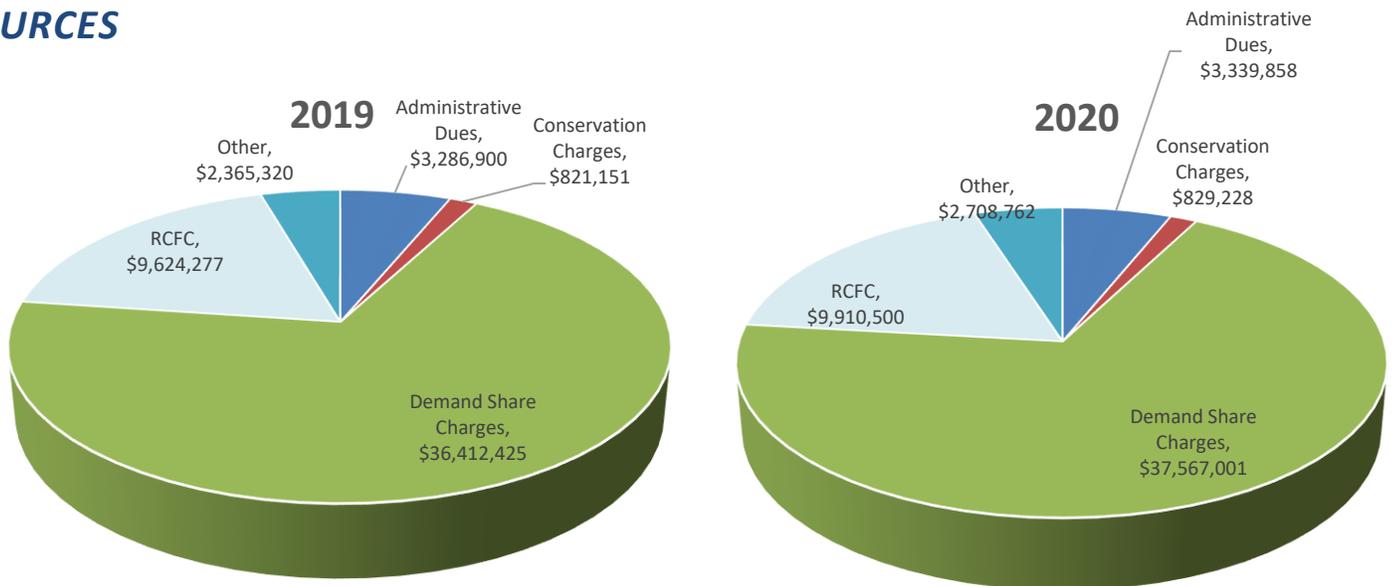


Allan Ekberg
Mayor,
City of Tukwila

*Cascade is governed by a Board of Directors that consists of elected officials from our Members. Officials are appointed to the Cascade Board by their fellow Councilmembers or Commissioners. Officers and Committee Chairs are appointed by the Board. Cascade's Board of Directors for 2017 is shown here.
(Board Alternates are listed on inside cover)*

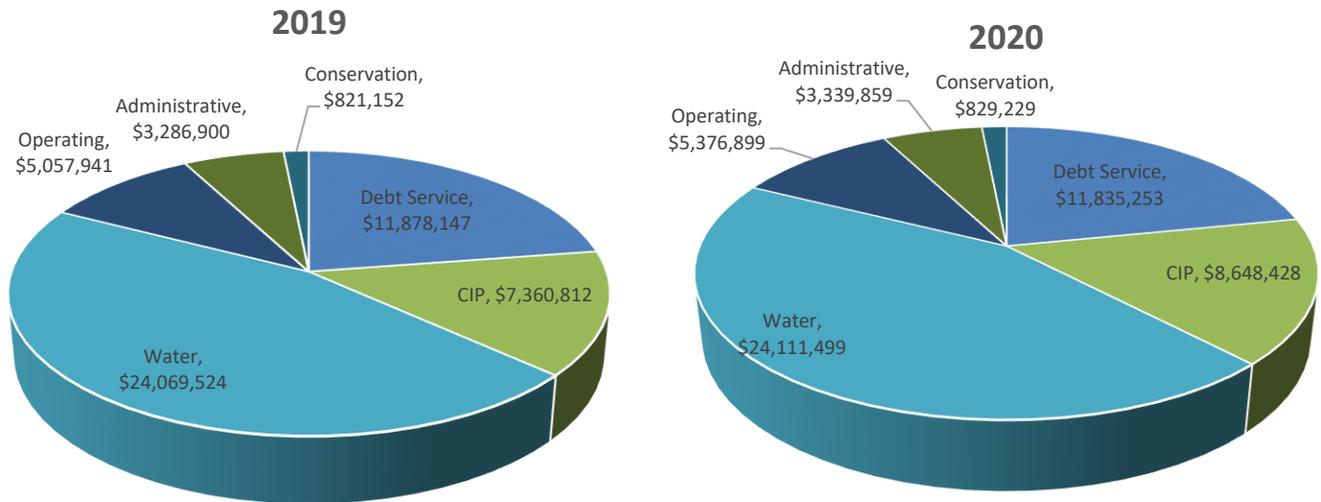
BUDGET IN BRIEF

SOURCES



Revenue	2019	2020
Administrative Dues	\$3,286,900	\$3,339,858
Conservation Charges	\$821,151	\$829,228
Demand Share Charges	\$36,412,425	\$37,567,001
RCFC	\$9,624,277	\$9,910,500
Other	\$2,365,320	\$2,708,762
Total	\$52,510,073	\$54,355,349

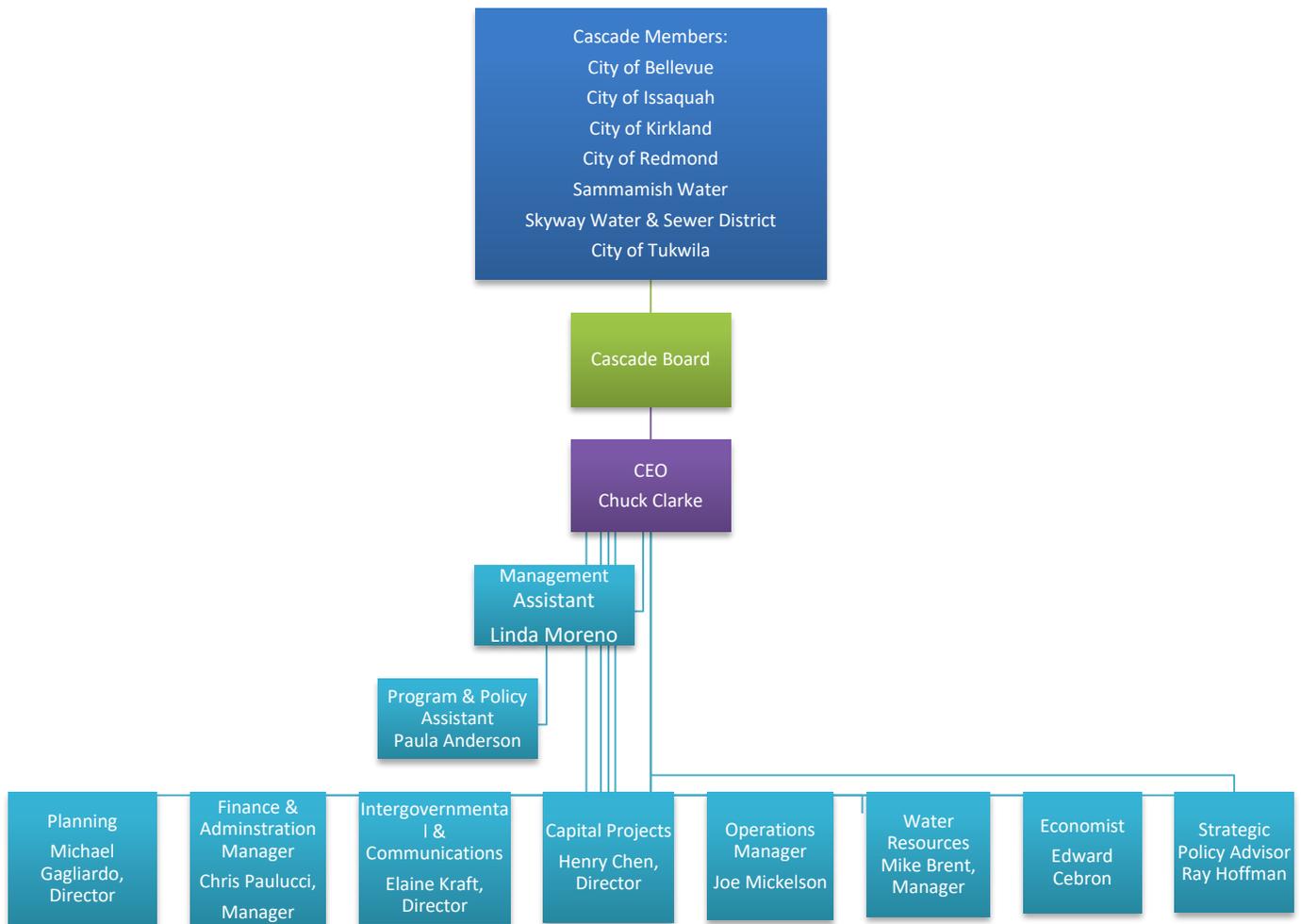
USES



Expenditure	2019	2020
Debt Service	\$11,878,147	\$11,835,253
CIP	\$7,360,812	\$8,648,428
Water	\$24,069,524	\$24,111,499
Operating	\$5,057,941	\$5,376,899
Administrative	\$3,286,900	\$3,339,859
Conservation	\$821,152	\$829,229
Total	\$52,474,475	\$54,141,167

FINANCIAL STRUCTURE, POLICY AND PROCESS

2019-2020 ORGANIZATION CHART



2019-2020 BUDGET PROCESS AND TIMELINE

The 2019-2020 budget process began in January 2018 with Cascade staff updating its strategic goals internally. On April 3, 2018, Cascade had a board retreat and affirmed Cascade's mission and established priorities and direction. The retreat, open to the public, was attended by the Board, Cascade staff, and member utility staff. Cascade's Board confirmed its priorities and directed Cascade staff to incorporate the retreat results into the 2019-2020 budget, including:

- Providing for certainty of water supply while assuring future Boards have the flexibility to change direction if necessary to optimize the best solution for Cascade and its members;
- Continuing to protect current assets so they will be available when needed in the future;
- Continuing to take a leadership role in local, regional, and national issues when and where appropriate (e.g., reclaimed water and resiliency); and
- Continuing to refine the Cascade governance model to ensure that all members have a voice and a vote in determining their water future.

After the retreat, Cascade began a zero-based budget process, starting with the Board-approved strategic goals. Budget resources were allocated to ensure their success, and other work plan resources, not specifically listed in the strategic plan, were added after review of short-term operational needs at the White River project and other exigencies. The final layer of budget resources was added for overhead required to support the programmatic functions. The Performance Measures section of this Budget Book describes the interconnection of strategic goals, targets, measures, strategies, budget, and performance reporting.

Cascade staff refined the budget and discussed it with the Board, finance committee, member staff, and the public, multiple times during the spring and summer. A draft was presented to the Board and committees in June and by July the budget was in its final form and was again presented at the committees and Board meeting. Between July and September Cascade visited the councils of several board members to answer questions. Meanwhile, several factors occurred during this time that allowed Cascade to reduce the proposed member charges while keeping the budget the same. These factors included a higher-than-anticipated current RCFC growth, an agreement to increase the RCFC rate in both years of the biennium, and a proposed new fund management rule for the Rate Stabilization fund. On September 26, 2018, Cascade's Board adopted the 2019-2020 budget and the revised Member Charges and RCFC rates.

If necessary after adoption, Cascade's Board shall amend the budget by Board action to reflect material changes in anticipated revenues or expenditures.



January	February	March	April	May	June	July	August	September
2017 through Feb. 2018: update of strategic goals & performance measures		Staff identifies budget drivers and prepares draft budget			Presentation to Board of policies, forecast, and high-level budget & rates	Reviews and refinements with member staff; budget & rates “locked in” July 1		Budget & rates adoption
		Strategic plan review with Board; set general policy directions	Finance & Management Committee and member staff budget & rates reviews			Finance & Management Committee final review and Board update		
		Member data due March 15						

FUND DESCRIPTIONS

Cascade’s board has established five funds. Below is a matrix that guides the management and planning of fund balances for Cascade’s financial resources.

Fund / Purpose	Target	Minimum	Maximum	Causes of Variations	Response to Replenish Deficiency	Response to Draw Down Surplus
Operating Fund <i>Reserve to provide cash flow liquidity and cushion against budget deviation</i>	50 days* of budgeted operating expense *We target 55 days to that the SPU true-up can be absorbed without rate impacts (we used it in 2018, so it is not available in 2019).	n/a	n/a	1) Variations in revenues, expenses or transfers 2) Rate Smoothing	Continue rate planning to target fund balance, contingent on 5-year rate smoothing (max. of 5 years to recover)	Budgeted transfers to construction fund, contingent on requirements for projected 5-year rate smoothing
Rate Stabilization Fund <i>Reserve to provide source of revenues to offset significant budget deviation and satisfy cash flow, coverage requirements</i>	5% of budgeted operating revenues (excluding RCFCs)	n/a	n/a	1) Fund earnings 2) Use of RSF	Continue rate planning to target fund balance, contingent on 5-year rate smoothing (max. of 5 years to recover)	No additions to fund; if excess is projected for more than 5 years, budget transfer to construction (subject to meeting coverage policy)
RCFC Fund <i>RCFC receipts until transferred to debt repayment and construction funds per policy and budget</i>	No target	n/a	n/a	RCFC revenues (remainder) not transferred	n/a	Transfer balance to debt and construction funds in accordance with policy direction for funds
Construction Fund <i>CIP funding and bond proceeds until expended on projects</i>	No specific target except to provide adequate funds for ongoing construction projects and obligations	Based on January capital payment due to TPU	Long-term CIP funding needs (as approved by Cascade’s Board)	1) Project costs in excess of budget 2) Delay in bond proceeds or other funding sources 3) Project schedule delays	1) Transfer from RCFC, Operating or other funds 2) Debt issuance	1) Debt Retirement 2) Reduce capital funding from RCFCs 3) Transfer to other funds
Bond Fund <i>Accumulate funds for scheduled bond principal and interest payments and a bond reserves to comply with bond covenants and provide a safeguard against shortfall when payments are due</i>	Accrued principal and interest on outstanding bonds and bond reserves	Same as Target	Accrued principal and interest on outstanding bonds Maximum annual debt	Inadequate or delayed transfer of funds from Operating or RCFC Funds	Immediate transfer from RCFC or Operating Fund Immediate transfer from RCFC or Operating Fund	Reduce transfers from RCFC or Operating Fund until target restored Transfer to Bond Repayment Account

BASIS OF ACCOUNTING AND BUDGETING

Cascade uses the accrual basis of accounting and the total economic resources measurement focus. Expenses are recorded at the time liabilities are incurred, and revenues are recorded when earned.

Cascade uses a budget basis for expenditures that differs from the basis used in financial reporting in the following ways:

- Depreciation and amortization are considered expenses on an accrual basis of accounting but are ignored under the budget basis because these items do not require an expenditure of funds.
- Capital outlays are not considered expenses on an accrual basis of accounting but are considered expenditures on a budget basis.



FINANCIAL POLICY REVIEW

Cascade’s Board has determined that Cascade shall maintain fiscal policies that promote:	
Financial integrity and stability	Cascade will provide a stable financial structure that enables it to fulfill its mission to provide regional water supply and transmission services in an efficient and cost-effective manner.
Rate equity	Members shall not enjoy or suffer from geographic advantage as an element of the allocation of regional water resources or their costs.
Efficiency and conservation	Cascade is committed to efficient and responsible use and stewardship of water resources. Water efficiency and conservation provide cost-effective means to avoid or delay costly system expansions while reducing environmental impacts on water systems.
Balanced Budget	Total resources equal to total uses.

Cascade staff preformed a review of existing fiscal policies in early 2018. The review was done as part of the normal biennium budget process intended to confirm applicability and update policies to keep current with practices and prudent financial management. In June 2018, the Finance and Management Committee reviewed proposed revisions and in September the Board adopted the revisions.

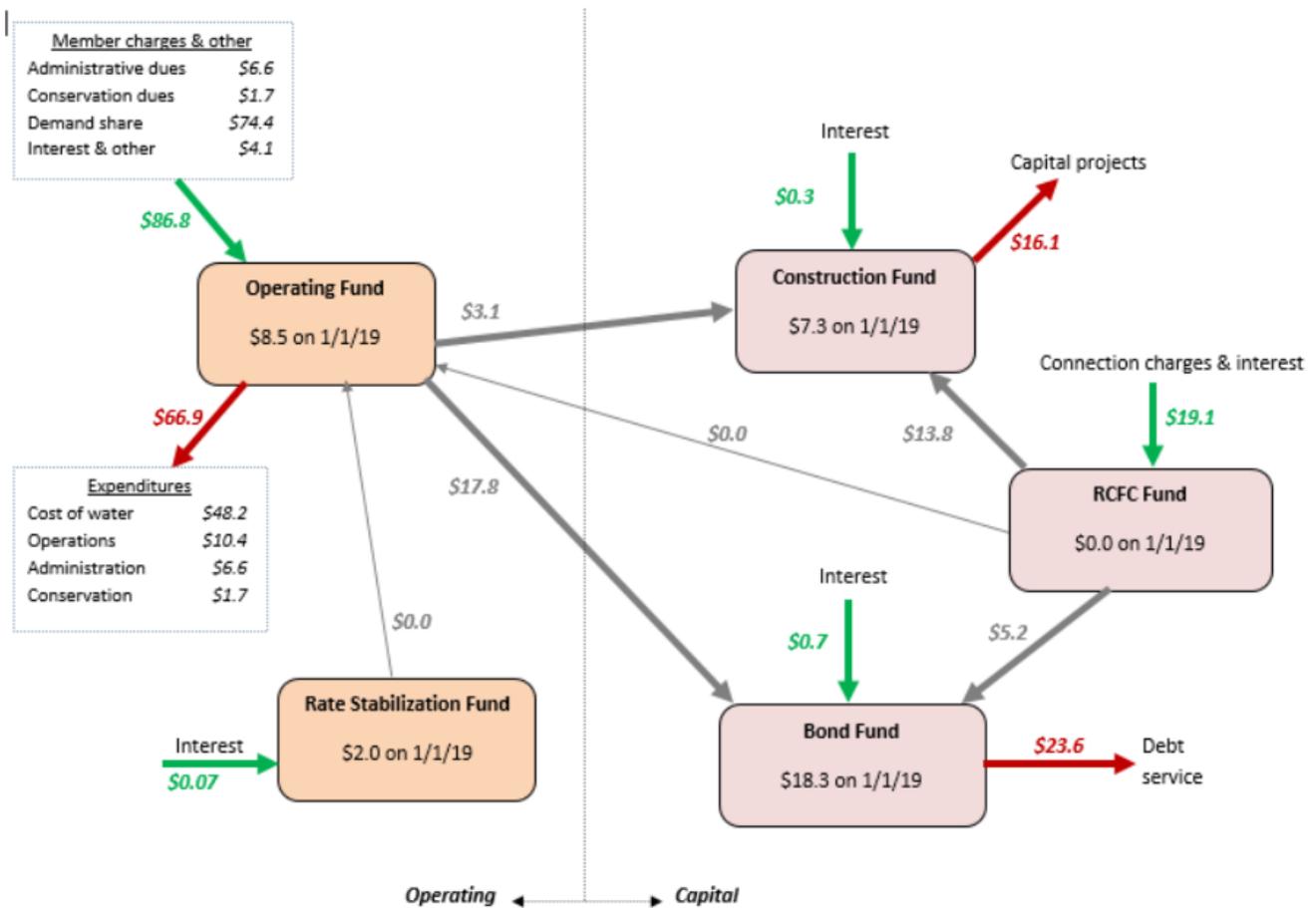
The revised fiscal policies enhanced Cascade’s ability to maintain a strong bond rating by codifying the budgeting for capital risk and clarified the reconciliations necessary in setting biennium rates.

The Fiscal Policies are included as an appendix with the changes made in 2018 highlighted in blue.

FINANCIAL SUMMARIES

COMBINED 2019-2020 FINANCIAL STRUCTURE SUMMARY (\$MILLIONS)

Combined 2019-2020 Cascade Water Alliance Financial Structure Summary (\$ in millions)



2019 FUND ACTIVITY SUMMARY

	Operating	Regional Capital Facilities Charge	Rate Stabilization	Construction	Bond	Total
Estimated beginning balance January 1, 2019	\$8,484,671	\$89	\$1,467,907	\$8,045,261	\$18,315,243	\$36,313,172
Revenue	42,451,960	9,624,279	25,688	127,004	321,121	\$52,550,053
Transfers in	0	0	0	8,144,844	11,643,091	\$19,787,935
Total resources	\$50,936,632	\$9,624,368	\$1,493,595	\$16,317,109	\$30,279,455	\$108,651,159
Expenditures	33,276,569	0	0	7,360,812	11,878,147	52,515,528
Transfers out	10,163,568	9,624,366	0	0	0	19,787,935
Ending balance December 31, 2019	7,496,494	2	1,493,595	8,956,297	18,401,308	36,347,696
Total uses	\$50,936,632	\$9,624,368	\$1,493,595	\$16,317,109	\$30,279,455	\$108,651,159

2020 FUND ACTIVITY SUMMARY

	Operating	Regional Capital Facilities Charge	Rate Stabilization	Construction	Bond	Total
Estimated beginning balance January 1, 2020	\$7,496,494	\$2	\$1,493,595	\$8,956,297	\$18,401,308	\$36,347,696
Revenue	43,918,317	9,624,277	213,740	236,435	251,969	\$54,244,738
Transfers in	0	0	0	8,197,059	11,601,539	\$19,798,598
Total resources	\$51,414,811	\$9,624,279	\$1,707,335	\$17,389,791	\$30,254,816	\$110,391,032
Expenditures	33,698,539	0	0	8,648,428	11,835,253	54,182,221
Transfers out	10,174,319	9,624,279	0	0	0	19,798,598
Ending balance December 31, 2020	7,541,953	0	1,707,335	8,741,363	18,419,563	36,410,214
Total uses	\$51,414,811	\$9,624,279	\$1,707,335	\$17,389,791	\$30,254,816	\$110,391,032

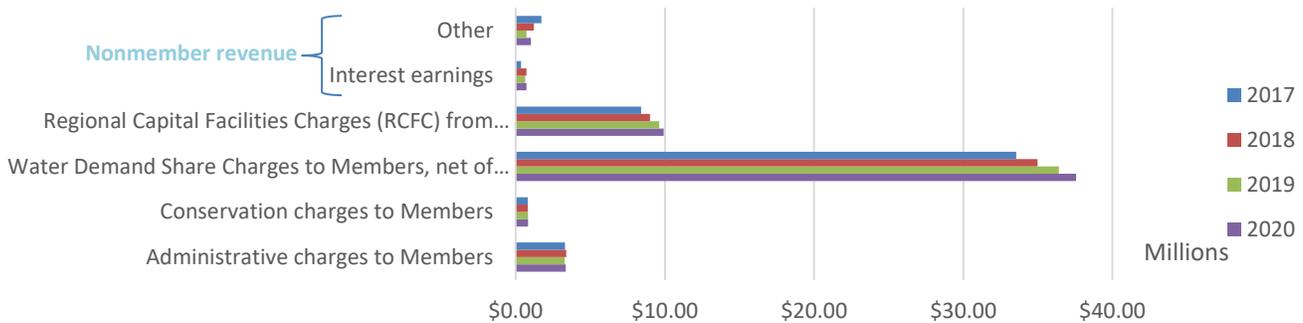
2019-2020 REVENUE SUMMARY

Overall Revenue

The 2018, 2019 and 2020 adopted estimated revenue amounts, excluding bond debt proceeds and BABs reimbursements, are as follows:

Revenue Sources	2017	2018	2019	2020	% Change from 2018 to 2019	% Change from 2019 to 2020
Administrative charges to Members	\$3,303,660	\$3,378,266	\$3,286,900	\$3,339,859	-2.70%	1.61%
Conservation charges to Members	799,767	801,663	821,152	829,230	2.43%	0.98%
Water Demand Share Charges to Members, net of adjustments and reimbursements	33,542,761	34,972,107	36,412,424	37,567,001	4.12%	3.17%
Regional Capital Facilities Charges (RCFC) from Members	\$8,407,000	\$9,007,500	\$9,624,277	\$9,910,500	6.85%	2.97%
Interest earnings	\$350,664	\$718,313	\$632,316	\$726,464	-11.97%	14.89%
Other	\$1,720,762	\$1,205,409	\$1,733,004	\$1,982,298	43.77%	14.39%
Total	\$48,124,614	\$50,083,258	\$52,510,073	\$54,355,352	4.85%	3.51%

Administrative charges to Members will decrease by 2.7% in 2019 and increase by 1.61% in 2020 and Conservation charges to Members will increase 2.43% in 2019 and 0.98% in 2020. Water demand share charges will increase by 4.12% in 2019 and 3.17% in 2020. Overall, the set charges to members will increase by 4.5% in 2019 and 3.0% in 2020. RCFC revenues improved in 2018 and are anticipated to remain slightly above normal levels. Interest revenue will decrease in 2019 because of a large Seattle payment at the end of 2018, which will lower the beginning fund balances in 2019, though interest earnings should recover in 2020. The chart below shows how much members contribute to overall revenue.



2019 AND 2020 MEMBER RATES AND CHARGES

Note: The Member Rates and Charges tables that follow below are presented as adopted by the Board on September 26, 2018.

CERU

Cascade Equivalent Residential Units (CERUs) projected for each Member in 2016-2020 are:

Member	2016	2017	2018	2019	2020
Bellevue	67,377	66,046	66,494	66,874	67,224
Issaquah	14,230	14,563	14,883	15,158	15,358
Kirkland	19,206	19,482	19,597	19,747	19,927
Redmond	32,301	32,809	32,898	33,298	33,648
Sammamish Water	22,916	23,491	24,043	24,418	24,818
Skyway WSD	3,846	3,851	3,891	3,896	3,901
Tukwila	8,116	8,379	8,420	8,435	8,450
Total	167,992	168,619	170,224	171,824	173,324

DEMAND SHARE

Demand Shares projected for each Member in 2016-2020 are:

Member	2016	2017	2018	2019	2020
Bellevue	19.3595	19.5152	19.2118	19.7977	19.7824
Issaquah	1.0574	1.4980	1.6415	1.8070	1.8630
Kirkland	5.0889	5.2762	5.2479	5.3584	5.2999
Redmond	6.1327	6.5257	6.4401	6.7516	6.5895
Sammamish Water	1.0135	1.0361	1.0337	1.1401	1.1397
Skyway WSD	0.3731	0.4047	0.3999	0.4037	0.3993
Tukwila	2.5498	2.6296	2.6289	2.6032	2.5524
Total	35.5749	36.8855	36.6038	37.8615	37.6263

DEMAND SHARE PERCENTAGES

Demand Shares percentages projected for each Member in 2016-2020 are:

Member	2016	2017	2018	2019	2020
Bellevue	54.42%	52.91%	52.49%	52.29%	52.58%
Issaquah	2.97%	4.06%	4.48%	4.77%	4.95%
Kirkland	14.30%	14.30%	14.34%	14.15%	14.09%
Redmond	17.24%	17.69%	17.59%	17.83%	17.51%
Sammamish Water	2.85%	2.81%	2.82%	3.01%	3.03%
Skyway WSD	1.05%	1.10%	1.09%	1.07%	1.06%
Tukwila	7.17%	7.13%	7.18%	6.88%	6.78%
Total	100.00%	100.00%	100.00%	100.00%	100.00%

PROJECTED PERCENTAGE OF OVERALL MEMBER PAYMENTS

The table below shows the projected share of member payments for each member (excluding RCFC's) for 2019-2020:

Member	2019	2020
Bellevue	45.65%	45.86%
Issaquah	6.74%	6.87%
Kirkland	13.52%	13.48%
Redmond	19.03%	18.80%
Sammamish Water	8.45%	8.46%
Skyway WSD	1.02%	1.02%
Tukwila	5.59%	5.52%
Total	100.00%	100.00%

MEMBER RATE REVENUE

2019 and 2020 Adopted Member Charges (excluding Regional Capital Facilities Charges) are shown below. Administrative dues shall be assessed against each Member for the years 2019 and 2020 at the rates of \$19.31 and \$19.44 per CERU respectively multiplied by 100% of that Member's CERUs. The demand share charge for the years 2019 and 2020 shall be \$364,124 and \$375,670 respectively per Demand Share percentage. The conservation program charge for the years 2019 and 2020 shall be \$4.82 and \$4.83 respectively per CERU. The charge is applicable to 100% of a Member's CERUs.

Below is a summary of the adopted member rates.

2018 Member Charges (Per 2018 Budget)	Administrative Dues	Conservation Charges	Demand Share Charges	Total
Bellevue	\$ 1,355,360	\$ 321,628	\$ 18,157,825	\$ 19,834,813
Issaquah	\$ 289,247	\$ 68,638	\$ 1,551,469	\$ 1,909,354
Kirkland	\$ 384,389	\$ 91,216	\$ 4,959,980	\$ 5,435,585
Redmond	\$ 649,009	\$ 154,010	\$ 6,086,748	\$ 6,889,767
Sammamish Plateau Water	\$ 459,730	\$ 109,094	\$ 976,988	\$ 1,545,812
Skyway Water & Sewer District	\$ 76,496	\$ 18,152	\$ 377,939	\$ 472,587
Tukwila	\$ 164,036	\$ 38,926	\$ 2,484,694	\$ 2,687,656
Total	\$ 3,378,267	\$ 801,664	\$ 34,595,643	\$ 38,775,574

2019 Member Charges	Administrative Dues	Conservation Charges	Demand Share Charges	Total	Increase Over 2018 Charges
Bellevue	\$ 1,283,940	\$ 320,761	\$ 19,039,956	\$ 20,644,657	4.08%
Issaquah	\$ 287,370	\$ 71,792	\$ 1,737,818	\$ 2,096,980	9.83%
Kirkland	\$ 378,404	\$ 94,535	\$ 5,153,278	\$ 5,626,217	3.51%
Redmond	\$ 635,226	\$ 158,696	\$ 6,493,173	\$ 7,287,095	5.77%
Sammamish Plateau Water	\$ 464,243	\$ 115,980	\$ 1,096,443	\$ 1,676,666	8.47%
Skyway Water & Sewer District	\$ 75,132	\$ 18,770	\$ 388,227	\$ 482,129	2.02%
Tukwila	\$ 162,584	\$ 40,618	\$ 2,503,529	\$ 2,706,731	0.71%
Total	\$ 3,286,900	\$ 821,152	\$ 36,412,424	\$ 40,520,476	4.50%

2020 Member Charges	Administrative Dues	Conservation Charges	Demand Share Charges	Total	Increase Over 2019 Charges
Bellevue	\$ 1,299,865	\$ 322,734	\$ 19,751,277	\$ 21,373,876	3.53%
Issaquah	\$ 294,627	\$ 73,151	\$ 1,860,105	\$ 2,227,883	6.24%
Kirkland	\$ 383,836	\$ 95,300	\$ 5,291,538	\$ 5,770,674	2.57%
Redmond	\$ 647,226	\$ 160,695	\$ 6,579,129	\$ 7,387,050	1.37%
Sammamish Plateau Water	\$ 474,619	\$ 117,840	\$ 1,137,858	\$ 1,730,317	3.20%
Skyway Water & Sewer District	\$ 75,729	\$ 18,802	\$ 398,709	\$ 493,240	2.30%
Tukwila	\$ 163,957	\$ 40,708	\$ 2,548,385	\$ 2,753,050	1.71%
Total	\$ 3,339,859	\$ 829,230	\$ 37,567,001	\$ 41,736,090	3.00%



Cascade Member rates have different impacts on Member rates to their customers, with rate impacts for Members dependent upon the Members level of independent supply. Below is a projected impact of a 1% change on Member rates. Please note that this only an estimate.

Member	2018 Cascade Cost	Total 2018 Retail Rate Revenue (reported or estimated)	Cascade as % of Rates	Average Monthly Bill (SFR 8 ccf)	Monthly Cost of 1% Cascade Increase	Source:
Bellevue	\$21,151,549	\$50,269,495	42.1%	\$54.77	\$0.23	City of Bellevue website: 2018 rates and budget
Issaquah	\$2,143,245	\$9,341,500	22.9%	\$50.51	\$0.12	City of Issaquah website: 2018 rates and budget
Kirkland	\$5,763,410	\$11,182,134	51.5%	\$48.82	\$0.25	City of Kirkland website; 2018 rates, revenues estimated from budget
Redmond (City service area)	\$7,459,959	\$22,094,010	33.8%	\$45.79	\$0.15	City of Redmond website: 2018 water rates (City); revenues estimated from budget
Sammamish Plateau W&SD	\$1,705,856	\$15,054,980	11.3%	\$46.19	\$0.05	SPWSD website: 2018 rates and budget
Skyway W&SD	\$492,464	\$2,500,000	19.7%	\$60.78	\$0.12	Skyway website: 2018 water rates; revenues estimated
Tukwila	\$2,773,381	\$6,997,000	39.6%	\$43.33	\$0.17	Tukwila website: rates and revenues; average winter/summer bill
	Source: Cascade adopted Charges			e.g. difference between 6.0% and 7.0% per year		

Member rate increases for 2009-2025 are shown and projected in the chart below. From 2009 through 2011, Cascade experienced lower-than-anticipated growth with the housing market crisis, which led to a needed increase in member rates to make up the difference in revenue dedicated to debt service. As a result of this, Cascade made a policy change at the time that moved a higher percentage of RCFC to capital expenditures and made member rate increases less dependent on RCFC revenue. This has led to an increase in the stability of member rates and ensures member equity.

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021-2022	2023-2025
Actual	7.50%	7.50%	6.00%	6.00%	3.75%	3.00%	2.75%	2.75%	3.00%	3.00%				
Projected											4.50%	3.00%	3.00%	4.0%



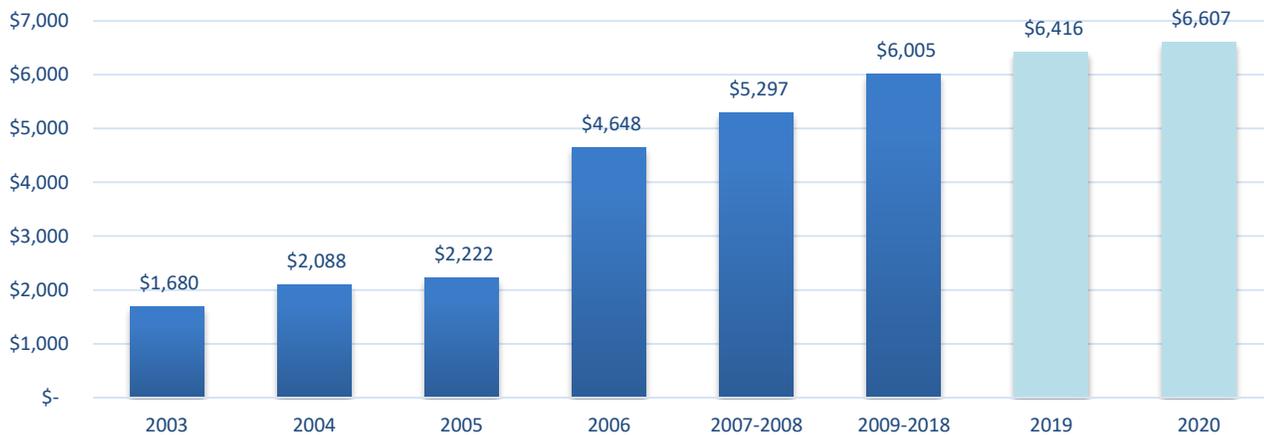
Administrative charges are based on budgeted administrative costs for, and actual CERU counts, as of January 1st of each year. There is a contractual limit of 9% of total revenue requirements for administrative dues. Administrative charges as a percent of all charges (except RCFC) are shown below.

2013	2014	2015	2016	2017	2018	2019	2020
8.20%	8.70%	8.50%	8.30%	8.80%	8.70%	8.11%	8.00%

REGIONAL CAPITAL FACILITIES CHARGE

Regional Capital Facilities Charges (RCFC's) are charges for new water connections and are based on a pro rata share of Cascade's Capital Investment Program costs. RCFC revenues are used to repay debt and to fund capital projects. A history of RCFC rates are shown below:

Regional Capital Facilities Charge



During the 2019 - 2020 budget development process, Cascade analyzed its capital projects requirements and rate structure and developed RCFC rates for the current biennium.

RCFC charges increased to \$6,416 per CERU in 2019 and to \$6,607 per CERU in 2020. The RCFC charge is based on existing and future infrastructure divided by the customer base. A more realistic customer base projection based on CERU growth history is the primary reason the RCFC rate increased (see charts on the next page). RCFC revenue contributes to Cascade's infrastructure capital funding and debt service for existing infrastructure and the proposed increases were factored into the budget biennium budget for 2019-2020.

RCFC charges were increased to improve equity, increase growth revenue reducing the burden on rates, create more robust funding for the capital program, recognize increasing construction costs, and remain consistent with longer term trends. During the budget development process, Cascade analyzes its capital projects requirements and rate structure to develop a RCFC recommendation for the coming biennium. The RCFC revenue stream, is important because Cascade's debt service is a real expense that rates would have to cover to the extent that RCFCs do not. By policy, no more than 25% of RCFC revenues may be relied upon for debt service by 2020.

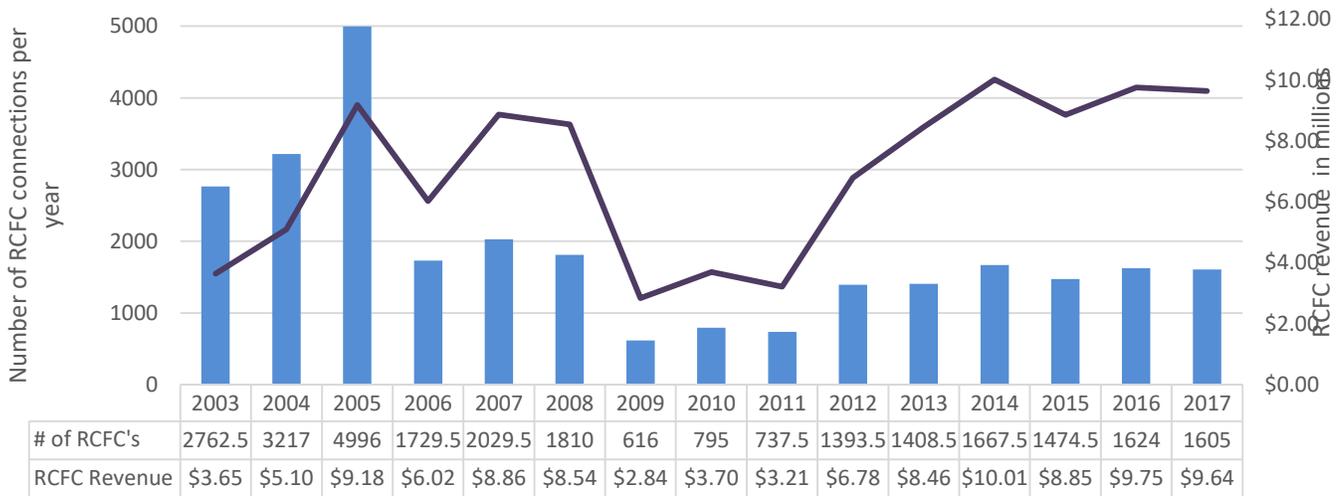
Cascade adopts biennial budgets and RCFC rates in accordance with Resolution No. 2018-13. The Board adopted biennial RCFC rates with Resolution No. 2018-15.

Why the RCFC rate is changing this year and how it is calculated.

	Estimate for 2018	New Calculation for 2019
Existing Assets	\$ 228 million	\$276 million
Interest on Existing Assets	\$ 94 million	\$111 million
30 Year CIP (in current \$)	\$1,053 million	\$986 million
Total System Cost	\$1,375 million	\$1,373 million
CERU Basis	229,514	213,924
RCFC per CERU	\$5,969	\$6,416

More realistic growth forecast: 1400 per year vs 1900 per year

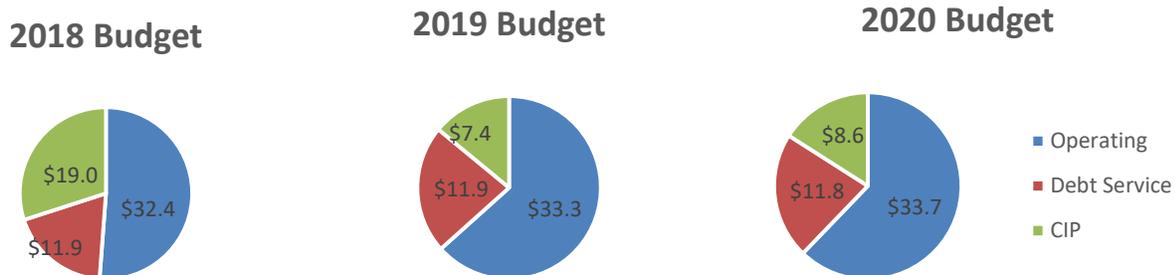
A history of RCFC growth and revenue: For the 2019-2020 budget, the RCFC growth is projected to be 1,500 CERU's because growth has been steady in recent years and then the growth rate is forecasted to be 1,400 going forward (the average of the last 12 years is 1407).



2019-2020 EXPENDITURE SUMMARY

Expenditures

Cascade’s 2018, 2019 and 2020 adopted total expenditure budgets are shown here (in \$ millions):



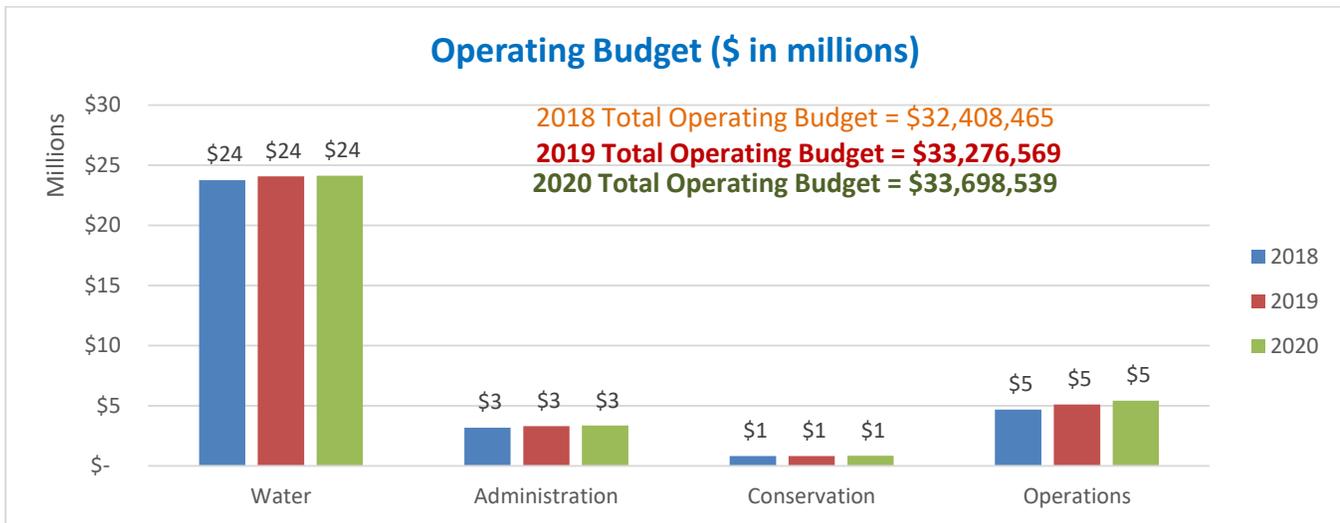
Total

2018, 2019 and 2020 adopted Operating (non-CIP or debt service) expenditure budgets are as follows:

Expenditures	2018	2019	2020	% Change 18 to 19	% Change 19 to 20
Purchased water, net of adjustments	\$23,763,609	\$24,069,524	\$24,111,499	1.29%	0.17%
Operating expenditures	4,664,925	5,098,994	5,417,952	9.30%	6.26%
Administrative expenditures	3,178,267	3,286,900	3,339,859	3.42%	1.61%
Conservation expenditures	801,664	821,152	829,229	2.43%	0.98%
Total	\$32,408,465	\$33,276,569	\$33,698,539	2.68%	1.27%

**see chart on next page for descriptions of major expenditure changes for 2019 and 2020.*

Increases in the 2019-2020 Operating budgets over 2018 are driven in large part by Seattle water cost increases and increases to operating expenditures, including new water quality programs and increases in milfoil control (see operating budget trends for a more detailed breakdown). Other increases include anticipated higher Lake Tapps operator contract costs and wage contingency funding for anticipated staff turnover in 2019 and 2020. Also, there was a slight increase in Conservation expenditures and a decrease in debt service costs.



The chart above is a graphical reminder of how outsized the Seattle costs are to Cascade’s overall operating budget. Seattle water costs will increase in 2019 over 2018. The Seattle block contract amounts in 2019 and 2020 are the same as in 2018: 33.3 mgd.

Net changes in other significant expenditures in 2019-2020 include (dollar amounts are estimates and may differ from actual amounts expended):

2019	2020		
\$305,915	\$347,890	Water contracts	(Operations)
\$150,000	\$350,000	WQ Management Plan	(Operations)
\$100,000	\$100,000	TPC Health for TappsWise program-Operations	(Operations)
\$100,000	\$100,000	Milfoil Control	(Operations)
\$66,000	\$67,980	Lake Tapps Operator	(Operations)
\$65,000	\$65,000	Security Maintenance	(Operations)
(\$50,000)	\$100,000	Contingency	(Operations)
\$128,120	\$159,204	Misc.	(Administrative)
\$865,035	\$1,290,074	Net increase in Operating budget over 2018	

The debt service budget is \$11,878,147 and \$11,835,253 for 2019 and 2020, respectively.

The 2019-2020 budget will meet cash flow, debt coverage and reserve requirements as mandated by Cascade’s fiscal policies.

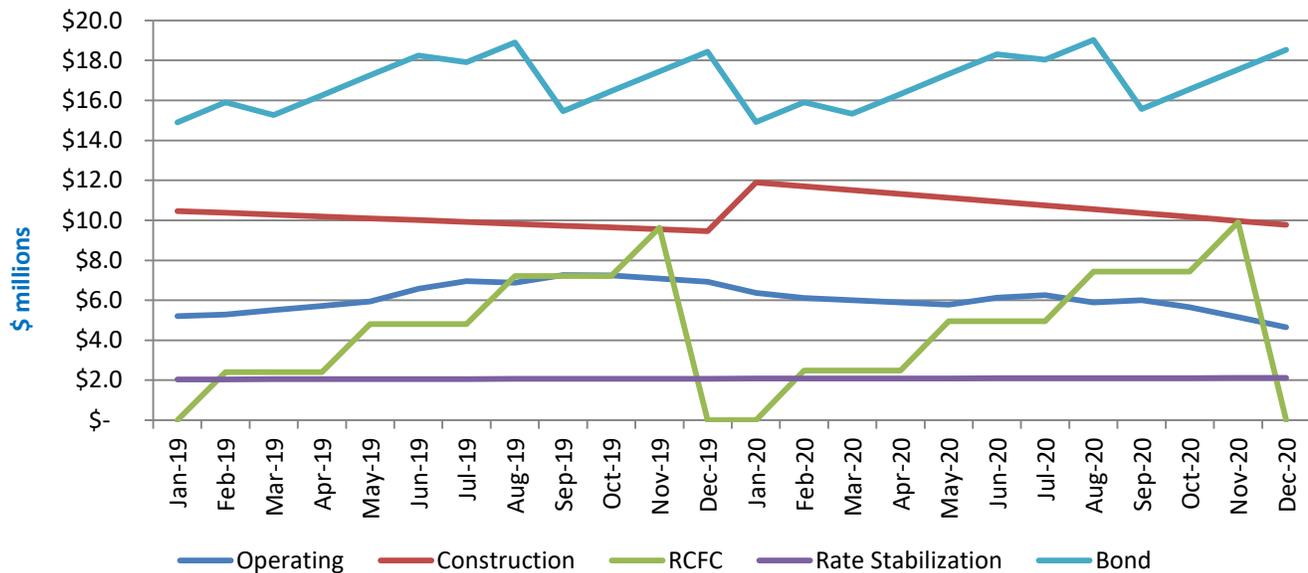
REVENUES, EXPENDITURES, AND CHANGES IN NET ASSETS: 2016 – 2020

	2016 actual	2017 actual	2018 est.	2019 budget	2020 budget
Operating Revenue:					
Water sales	\$ 32,600,142	\$ 33,542,761	\$34,595,643	\$36,412,424	\$37,567,001
Administrative dues	3,103,512	3,303,660	3,378,267	3,286,900	3,339,859
Conservation program	1,062,670	991,476	801,664	821,152	829,230
Total Operating Revenue	36,766,324	37,837,897	38,775,574	40,520,476	41,736,090
Operating Expenses:					
Cost of water sold	21,451,656	23,025,616	23,763,609	24,069,524	24,111,499
Salaries and benefits	1,846,728	1,798,016	2,152,803	1,989,642	2,065,255
Lake Tapps asset management	2,258,840	2,439,263	2,506,000	2,582,000	2,659,980
Professional services	1,524,482	1,619,771	1,836,000	2,176,000	2,259,500
Conservation program	175,031	125,895	240,000	125,000	125,000
Depreciation and amortization	4,473,988	4,594,420	4,777,380	4,801,267	5,041,330
Communication and public information	295,331	391,925	255,000	315,000	275,000
Office expenses	81,993	119,247	111,300	146,600	150,600
Insurance	177,420	119,530	100,000	122,100	131,868
Rent	154,491	225,469	240,000	230,000	240,000
Maintenance	203,060	348,161	318,000	608,000	758,000
Dues and subscriptions	35,212	55,318	42,000	51,000	51,000
Miscellaneous	167,945	153,559	843,753	861,703	870,837
Total Operating Expenses	32,846,177	35,016,190	37,185,844	38,077,836	38,739,869
Operating Income	3,920,147	2,821,707	1,589,730	2,442,640	2,996,221
Non-Operating Revenue (Expenses)					
BAB rebate	1,137,660	1,125,861	1,092,179	1,066,567	1,033,252
Interest income	460,926	744,968	1,103,891	1,064,196	1,022,493
Interest expense, net of amount capitalized	(6,930,627)	(6,618,925)	(6,277,801)	(6,008,673)	(5,725,780)
Loss on disposition of assets		(354,649)	(262,567)		
Total Non-Operating Revenue (Expenses)	(5,332,041)	(5,102,745)	(4,344,298)	(3,877,911)	(3,670,035)
Capital Contributions					
Regional Capital Facilities Charge	9,752,122	9,638,026	9,007,500	9,624,000	9,910,500
Increase in Net Assets	8,340,228	7,356,988	6,252,932	8,188,729	9,236,686
Net Assets, beginning of year	66,461,472	74,801,700	82,158,688	88,411,620	96,600,349
Net Assets, end of year	\$74,801,700	\$82,158,688	\$88,411,620	\$96,600,349	\$105,837,035

2019 AND 2020 CASH FLOW SUMMARY

Fund balances will remain positive for each month of 2019 and 2020, as illustrated in this chart:

Cash flow: 2019-2020 month-end balances, by fund



Cash flow balances shown above are estimated in timing and amount.

The capital payments for the water contracts with Tacoma are the reason for the variability in the construction fund cash flow. For the Bond fund, the large variability is caused by the debt service payments and fund transfers from the RCFC and Operating funds to meet sufficiency needs. Transfers to the Construction and Bond funds and the quarterly billing of RCFC invoices are the cause of the variability in the RCFC fund.

The Rate Stabilization fund will maintain a relatively smooth fund balance throughout 2019 and 2020.

CAPITAL AND DEBT

CAPITAL IMPROVEMENT PROGRAM

The 2019-2020 Capital Improvement Program (CIP) is funded at \$7,360,812 in 2019, and \$8,648,428 in 2020, and includes fourteen active projects. Eight of the active projects are associated with the White River - Lake Tapps system, which Cascade acquired from Puget Sound Energy in December 2009. Other projects include minor capital improvements to the Bellevue-Issaquah Pipeline, an upgrade to Cascade's GIS capabilities, and minor IT infrastructure upgrades. Water contracts with Tacoma and Seattle comprise the final two capital projects. Cascade's 2019-2020 CIP expenditures are funded by RCFC revenues and proceeds from bond debt issued in 2006 (refinanced in 2014), 2009, 2012, and an anticipated issuance in 2019.

The CIP summary table below displays the current seven-year CIP and the 2018-2024 CIP:

CIP Projects	2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
Upper conveyance projects		\$ 45,000	\$ 625,000	\$ 550,000	\$ 285,000		\$ 300,000	\$ 1,805,000
Lake Tapps reservoir ongoing piezometers & dike improvements	\$ 200,000	\$ 150,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 850,000
Lower conveyance projects	\$ 240,000	\$ 485,000	\$ 500,000	\$ 265,000	\$ 500,000	\$ 205,000	\$ 800,000	\$ 2,995,000
Security and SCADA	\$ 100,000	\$ 100,000	\$ 500,000	\$ 100,000			\$ 100,000	\$ 900,000
Cascade Intake Modifications	\$ 150,000	\$ 50,000	\$ 100,000	\$ 2,000,000	\$ 1,000,000			\$ 3,300,000
Facilities: roofs, planking, decking, etc.	\$ 20,000	\$ 75,000	\$ 120,000	\$ -	\$ 300,000	\$ 1,000,000	\$ 100,000	\$ 1,615,000
Equipment	\$ 50,000	\$ 50,000		\$ 40,000		\$ 40,000		\$ 180,000
Seismic Resiliency		\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,200,000
Bellevue-Issaquah Pipeline improvements	\$ 100,000		\$ 100,000		\$ 100,000		\$ 110,000	\$ 410,000
GIS Implementation		\$ 50,000	\$ 25,000			\$ 20,000		\$ 95,000
IT Infrastructure		\$ 25,000	\$ 35,000		\$ 50,000		\$ 50,000	\$ 160,000
Capital risk	\$ 600,000	\$ 500,000	\$ 600,000	\$ 700,000	\$ 800,000	\$ 900,000	\$ 1,000,000	\$ 5,100,000
SUBTOTAL	\$ 1,460,000	\$ 1,730,000	\$ 2,905,000	\$ 3,955,000	\$ 3,335,000	\$ 2,465,000	\$ 2,760,000	\$ 18,610,000
Tacoma agreement	\$ 5,520,404	\$ 5,630,812	\$ 5,743,428	\$ 5,858,297	\$ 5,975,463	\$ 6,094,972	\$ 6,216,872	\$ 41,040,248
Seattle contract	\$ 12,000,000						\$ 5,000,000	\$ 17,000,000
TOTAL CIP	\$ 18,980,404	\$ 7,360,812	\$ 8,648,428	\$ 9,813,297	\$ 9,310,463	\$ 8,559,972	\$ 13,976,872	\$ 76,650,248

The seven-year CIP includes projects that were included in the 2012 Transmission & Supply Plan (TSP). The 2012 TSP has delayed Lake Tapps water treatment and transmission (pipeline) projects farther into the future than projected in the 2004 TSP, due to the execution of continuing water supply contracts with Tacoma and Seattle.

More detailed information for each project is shown in the tables that follow:

Project Name: Upper Conveyance System Improvements

Program: White River - Lake Tapps

Estimated Start Date: 2019

Estimated Completion Date: Ongoing

2019 Budget: \$45,000

2020 Budget: \$625,000

Total Project Budget: \$1,805,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 0	\$ 45,000	\$ 625,000	\$ 550,000	\$ 285,000	\$ 0	\$ 300,000	\$ 1,805,000

Project Description: Placeholder program for capital improvement projects needed in the upper conveyance system of the White River - Lake Tapps Project. In 2019, minor improvements to the gatehouse are anticipated. The larger projects include a new plunger valve (pictured below) installed at the Valvehouse facility in 2020, a Headworks Communications Room in 2021, and improvements to the Wolslegal Basin 6-foot valve in 2022.



Project Name: Lake Tapps Reservoir Ongoing Piezometers and Dike Improvements

Program: White River - Lake Tapps

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$150,000

2020 Budget: \$100,000

Total Project Budget: \$850,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 200,000	\$ 150,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 850,000

Project Description: Placeholder program for capital improvements related to the Lake Tapps Reservoir dikes and piezometers. In 2019 and 2020, the funding will pay for adjustments necessary to the piezometers and weirs needed to monitor seepage through the dikes.

Pictured to the right is a weir, which measures the level of seepage through earthen dikes and helps Cascade to monitor the integrity and safety of the dikes.



Project Name: Lower Conveyance System Improvements

Program: White River - Lake Tapps

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$485,000

2020 Budget: \$500,000

Total Project Budget: \$2,995,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 240,000	\$ 485,000	\$ 500,000	\$ 265,000	\$ 500,000	\$ 205,000	\$ 800,000	\$ 2,995,000

Project Description: Placeholder program for capital improvements needed to address the lower conveyance system of the White River - Lake Tapps project. In 2019, Cascade plans to replace the Bear Trap Cover, which was removed to use as an entry point for the Condition Assessment in 2014-15. In 2020, it is anticipated that the plunge pool south timber wall (pictured below) will need to be improved.



Project Name: Security and SCADA Improvements

Program: White River - Lake Tapps

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$100,000

2020 Budget: \$500,000

Total Project Budget: \$900,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 100,000	\$ 100,000	\$ 500,000	\$ 100,000	\$0	\$0	\$ 100,000	\$ 900,000

Project Description: When Cascade purchased the White River Project from PSE, it included an existing security system and Supervisory Control and Data Acquisition System (SCADA). In 2014, Cascade hired a consultant to develop a long term strategic plan for the White River Project security needs. In 2018, Cascade finished Phase 1 improvements of the strategic plan. In 2019 and 2020, funds will be used to finish construction of Phase 2, and to perform some upgrades to the SCADA system at the fish screens.



Project Name: Cascade Intake Modifications

Program: White River - Lake Tapps

Estimated Start Date: 2018

Estimated Completion Date: 2022

2019 Budget: \$50,000

2020 Budget: \$100,000

Total Project Budget: \$3,300,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 150,000	\$ 50,000	\$ 100,000	\$ 2,000,000	\$ 1,000,000	\$0	\$0	\$ 3,300,000

Project Description: Cascade, working with the U.S. Army Corps of Engineers (USACE), to replace the 100 plus year old barrier dam with a more effective dam. Cascade hired an engineer to initially review the USACE’s plans and then later to design the appropriate modifications. In 2018, the USACE began construction of the new dam. In 2019 and 2020, legal work and refinement of the design modifications is anticipated. With construction of Cascade’s facilities scheduled to begin in 2021. Below is a picture of the dam under construction during October 2018.





Project Name: Facility Improvements

Program: White River - Lake Tapps

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$75,000

2020 Budget: \$120,000

Total Project Budget: \$1,615,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 20,000	\$ 75,000	\$ 120,000	\$0	\$ 300,000	\$ 1,000,000	\$ 100,000	\$ 1,615,000

Project Description: Placeholder program for capital improvements necessary for facilities needed for operations and maintenance of the White River - Lake Tapps project. In 2019 and 2020, Cascade plans to begin a headworks facilities consolidation design study and a boat house office. In the future, other facility improvements will be made, including tunnel intake facility improvements, a powerhouse drain system, and powerhouse battery removal.

Project Name: White River - Lake Tapps Equipment

Program: White River - Lake Tapps

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$50,000

2020 Budget: \$0

Total Project Budget: \$180,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 50,000	\$ 50,000	\$0	\$ 40,000	\$0	\$ 40,000	\$0	\$ 180,000

Project Description: Placeholder program for the purchase of equipment necessary for operations and maintenance of the White River - Lake Tapps project. This may include marine and land vehicles (boats, backhoes, trucks, cranes, etc.), USGS gauges, new generators, trailers, mobile housing, etc.





Project Name: Seismic Resiliency

Program: Capital Projects

Estimated Start Date: 2019

Estimated Completion Date: Ongoing

2019 Budget: \$200,000

2020 Budget: \$200,000

Total Project Budget: \$1,200,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 0	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,200,000

Project Description: Placeholder for seismic resiliency projects that will help Cascade and members increase regional water supply resiliency and reduce risks of water supply failure during an emergency, such as an earthquake.



Project Name: Bellevue Issaquah Pipeline Improvements

Program: Bellevue Issaquah Pipeline

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$0

2020 Budget: \$100,000

Total Project Budget: \$430,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 100,000	\$ 0	\$ 100,000	\$ 0	\$ 100,000	\$ 0	\$ 110,000	\$ 410,000

Project Description: Placeholder program for capital improvements necessary for the Bellevue Issaquah Pipeline. Placeholder amounts of \$100,000 are budgeted every other year in case of needed repairs or upgrades.

Project Name: GIS Implementation

Program: White River - Lake Tapps

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$50,000

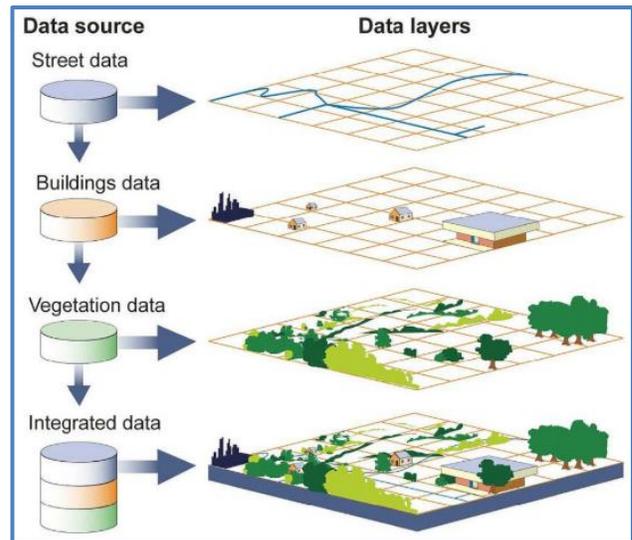
2020 Budget: \$25,000

Total Project Budget: \$250,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$0	\$ 50,000	\$ 25,000	\$0	\$0	\$ 20,000	\$0	\$ 95,000

Project Description: Cascade Water Alliance is implementing a new GIS program that will improve Cascade’s work and its decision making on assets, operations stakeholder management, and communications. It is Cascade’s goal to maintain and utilize updated software for asset management, data collaboration, public outreach and daily operations. Cascade intends to have staff that are educated in the functionality and resourcefulness of GIS in their daily work, as well as designate a GIS lead that will be in charge of maintaining Cascade’s geographic database. This project is necessary for having interactive and reliable Emergency Action Plan (EAP) inundation data, bathymetry data, storm water and water quality control, easement and infrastructure locations, asset management analysis, and more.



Project Name: IT Infrastructure

Program: Administration

Estimated Start Date: 2019

Estimated Completion Date: Ongoing

2019 Budget: \$25,000

2020 Budget: \$35,000

Total Project Budget: \$160,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$0	\$ 25,000	\$ 35,000	\$0	\$ 50,000	\$0	\$ 50,000	\$ 160,000

Project Description: Placeholder program for the purchase of equipment necessary for a reliable IT infrastructure ensuring that sensitive data is protected and Cascade can continue to run smoothly and provide excellent customer service.





Project Name: Capital Risk

Program: Capital Projects

Estimated Start Date: 2018

Estimated Completion Date: Ongoing

2019 Budget: \$500,000

2020 Budget: \$600,000

Total Project Budget: \$5,100,000

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 600,000	\$ 500,000	\$ 600,000	\$ 700,000	\$ 800,000	\$ 900,000	\$ 1,000,000	\$ 5,100,000

Project Description: The contingency line in Cascade’s adopted CIP budget reduces provides a reserve for unforeseen and/or emergency needs that are likely to occur with the 113-year old infrastructure that Cascade owns. It also reduces the financial risk associated with possible budget shortages and helps maintain Cascade’s AAA bond rating. These funds will not be spent if they are not needed. The amount set aside for capital risk increases over time because uncertainty over what may be needed increases with time.

Project Name: New Tacoma Agreement

Program: Water Supply Contracting

Start Date: 2013

Estimated Completion Date: Ongoing

2019 Budget: \$5,630,812

2020 Budget: \$5,743,428

Total Project Budget: \$119,740,686 (through 2042)



7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 5,520,404	\$ 5,630,812	\$ 5,743,428	\$ 5,858,297	\$ 5,975,463	\$ 6,094,972	\$ 6,216,872	\$ 41,040,248

Project Description: An agreement has been reached that restructures the current Tacoma Agreement. Cascade’s rights and responsibilities for the existing capacity have been clarified to enable and regulate transfer to specific third parties through a joint offering. Minimum volumes are to be replaced by a structured capacity reservation schedule. A new capacity commitment of 8 mgd is to be provided to Cascade through 2042. Cascade is financing initial payments totaling \$20 million under the amended structure with bond proceeds.



Project Name: Seattle Extension Contract

Program: Water Supply Contracting

Start Date: 2013

Estimated Completion Date: Ongoing

2019 Budget: \$0

2020 Budget: \$0

Total Project Budget: \$22,000,000 (through 2024)

7-Year CIP

2018	2019	2020	2021	2022	2023	2024	2018 - 2024 Total
\$ 12,000,000	\$0	\$0	\$0	\$0	\$0	\$ 5,000,000	\$ 17,000,000

Project Description: An agreement has been reached to amend the current Seattle Agreement. The existing capacity of 33.3 mgd was extended through 2039, then ramped down, and the contract term is to be extended to 2063. Cascade is to make three capacity reservation payments related to the amendment, the last of which is due in 2024. The amendment was ratified in 2013.

DEBT OVERVIEW

Major debt financing to date includes:

- \$10,000,000 borrowed in 2004 from member Sammamish Plateau Water and Sewer District for acquisition of water supply sources and water systems (repaid from bond proceeds in 2006);
- \$25,904,442 owed to the City of Tacoma for acquisition of water supply sources and water systems (repaid from bond proceeds in 2006);
- Twenty-five year \$55,230,000 revenue bond proceeds (2006 revenue bonds) to pay the Sammamish Plateau Water and Sewer District and City of Tacoma and to finance system development (refunded by 2014 revenue bonds);
- Twenty-five year \$80,095,000 revenue bond proceeds (2009 revenue bonds) to acquire the Lake Tapps system from Puget Sound Energy (PSE) and to fund property acquisitions and pipeline construction along a potential water transmission corridor;
- Twenty-five year \$42,695,000 revenue bond proceeds (2012 revenue bonds) to acquire independent supply production capacity, to restructure the Tacoma Water Contract, to extend the Seattle Water Contract, and to fund Lake Tapps capital improvements; and
- Fifteen year \$29,220,000 refunding revenue bonds (2014 revenue bonds) to pay a portion of the cost of refunding the callable portion of the outstanding 2006 Bonds. The net proceeds were placed in an irrevocable trust with an escrow agent to provide funds for the future debt service payment on the refunded bonds. As a result, a portion of the 2006 bonds are considered defeased and the liability for those bonds has been removed from the statement of net position. The reacquisition price exceeded the net carrying amount of the old debt by \$2,692,477. This amount is being netted against the new debt and amortized over the remaining life of the refunding debt. The government advance refunded the 2006 revenue bonds to reduce its total debt service payments over 14 years by \$6,270,530 and to obtain an economic gain (difference between the present values of the debt service payments on the old and new debt) of \$5,462,625. None of the defeased bonds remain outstanding.

COVERAGE RATIO AND DEBT CAPACITY

Cascade’s fiscal policies require that Cascade comply with bond covenants and satisfy related coverage requirements. In addition, the fiscal policies require that Cascade establish member charges sufficient to maintain net revenues that provide a debt coverage ratio of no less than 1.25 times total annual debt service. For this purpose, available revenues shall include member charges, interest earnings, miscellaneous revenues, and transfer to the operating fund from the rate stabilization fund. Expenses shall include operating expenses and transfers from the operating fund into the rate stabilization fund. Expenses shall not include capital expenditures, capacity investments such supply acquisition investments or conservation investments with quantifiable return in reduced water demand, or minimum payment obligations related to maintaining unused capacity rights. The following table shows Cascade’s actual debt coverage ratio since 2014, and the projected ratios for 2019 and 2020:

	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Ratio	1.76	1.63	1.61	1.61	1.56	1.53	1.34

The 2019-2020 Budget has been developed to ensure that Cascade’s coverage ratio remains in compliance with fiscal policies.

Cascade’s fiscal policies provide guidance on debt management. In accordance with the policies, Cascade will issue debt for investments in system infrastructure that provides tangible or intangible assets. Debt will not be used to fund ongoing operating and maintenance costs that cannot be capitalized. When debt is used for capital investment, the term of debt shall not exceed the reasonable useful life of the asset being acquired, constructed or enhanced. The Board shall determine the term and structure of debt issued by Cascade. In determining debt structure, the Board shall consider the useful life of assets, existing debt and debt service load, plans for future debt issuance, market conditions, impacts on rates and charges, potential effect on Cascade’s credit-worthiness, and other factors that the Board deems relevant. Cascade will not use nontraditional debt, such as derivatives, swaps, variable rate obligations or other financial mechanisms, unless such instruments are allowable under Washington law, determined by the Board to be in the best interest of Cascade, and found by the Board to provide financial benefit to Cascade without undue risk. Cascade will not use derivatives or swaps without the Board first adopting policy by resolution on the use of such mechanisms and approval by a 65 percent dual majority vote. Cascade will also provide in payment agreements for derivatives or swaps that termination payments to a provider will be subordinate to debt service on a member’s bond obligations. Cascade may consider debt refunding, defeasance or restructuring when demonstrated to be financially advantageous. When Cascade accumulates cash and investments in excess of identified near-term requirements, Cascade will consider debt reduction as one of the potential uses for such



resources. Cascade shall make timely filings of regular disclosures of information required by its bond covenants to the Municipal Securities Rulemaking Board (MSRB), including certain financial information and operating data of Cascade and of its Members and notices of the occurrence of certain enumerated events, if material. The specific nature of the information to be contained in the annual disclosure report and in notices of material events is set forth in the continuing disclosure certificates of Cascade's bonds. The CEO will be responsible to execute the disclosures and notify the Board of such reports.

Cascade's outstanding debt as of December 31, 2018, is \$121,795,000. The percentage of Cascade's forecasted revenues committed to debt repayment is 23.69% in 2019 and 22.97% in 2020.

DEPARTMENTAL INFORMATION

2019-2020 STAFF SALARY SCALE

Position	Grade	2018		2019 and 2020	
		Min.	Max.	Min.	Max.
No current position	1	\$3,730	\$5,670	\$3,851	\$5,854
No current position	2	\$4,290	\$6,521	\$4,429	\$6,732
Program & Policy Assistant	3	\$4,938	\$7,505	\$5,098	\$7,748
Management Assistant	4	\$5,686	\$8,645	\$5,870	\$8,925
Business Manager and Water Resources Manager	5	\$6,539	\$9,940	\$6,751	\$10,262
No current position	6	\$7,528	\$11,444	\$7,772	\$11,815
Finance and Administration Manager	7	\$8,661	\$13,166	\$8,942	\$13,593
Directors, and Operations Manager	8	\$9,966	\$15,145	\$10,289	\$15,636
Economist, Strategic Policy Advisor	9	\$11,460	\$17,418	\$11,831	\$17,982

As guided by Cascade's Human Resources Policies & Procedures Manual, salary scale increases are based on 90% of the Seattle-Tacoma Consumer Price Index for Urban Wage Earners (CPI-W) for the twelve-month period ended June 30. The COLA amount is subject to approval by the Board. For 2019, a 3.24% COLA was granted to all regular staff.

Cascade staffing for 2019-2020 is projected to remain at the 2018 level of 11 employees 9.65 Full Time Equivalent (FTEs) of which 5.55 FTEs are Administration, 2.6 FTEs are Operations and 1.5 FTEs are Conservation.

Staffing level from 2017-2020				
Grade	2017	2018	2019	2020
1	0	0	0	0
2	0	0	0	0
3	1	1	1	1
4	1	1	1	1
5	2	1	1	1
6	0	0	0	0
7	0	1	1	1
8	4.6	3.6	3.6	3.6
9	0.75	1.05	1.05	1.05
CEO	1	1	1	1
	10.35	9.65	9.65	9.65

OPERATING BUDGET SUMMARY BY GROUP 2017-2020

	Adopted		Adopted	
	2017	2018	2019	2020
Administration	\$3,039,911	\$3,178,267	\$3,286,900	\$3,339,859
Conservation	\$799,767	\$801,664	\$821,152	\$829,229
Debt Service	\$11,953,212	\$11,912,472	\$11,878,147	\$11,835,253
Operations	\$4,393,739	\$4,664,925	\$5,098,994	\$5,417,952
Water	\$23,025,616	\$23,763,609	\$24,069,524	\$24,111,499
Grand Total	\$43,212,245	\$44,320,937	\$45,154,716	\$45,533,792

Cascade expenditures are tracked using the groups above for the purposes of assigning member charges.

Administration is the general overhead costs. Administrative Dues are imposed on members, such as office rent, salaries and benefits, legal, etc. There is a cap (9%) on the administration charge that Cascade charges members.

Conservation expenses are those related to Cascade's water efficiency program.

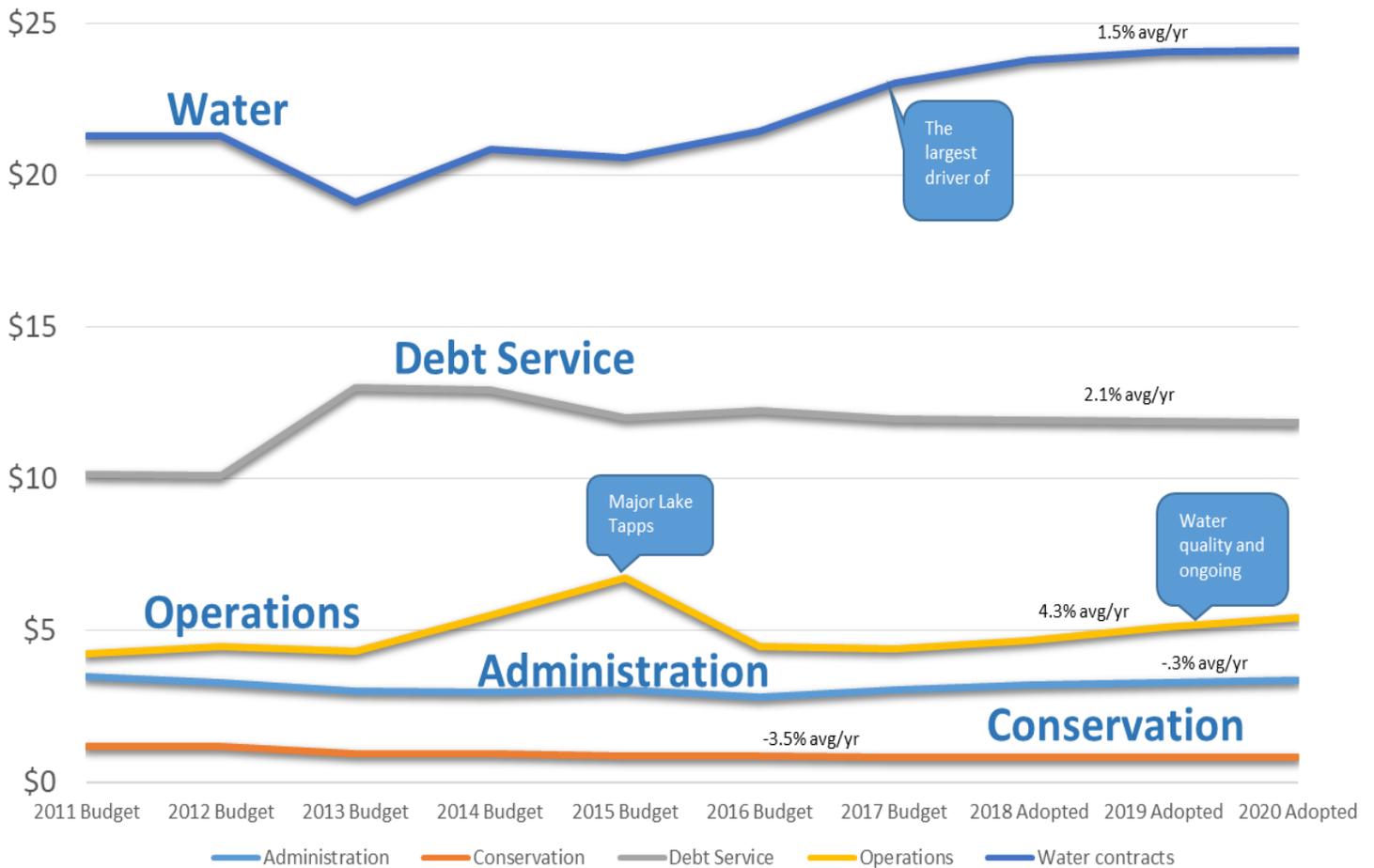
Debt service is amount necessary to make principal and interest payments.

Operations expenses refer to the charges necessary to operate Cascade's operations including those related to Lake Tapps and the Bellevue Issaquah Pipeline.

Water is the cost of water paid to Seattle.

OPERATING BUDGET TRENDS

The chart below shows the budgeting trends from 2011-2020. It graphically represents the large impact Seattle water costs and debt service has on Cascade’s overall all budget.





SEATTLE WATER COSTS

Seattle water cost represent such a significant portion of the operating budget below is a breakdown of Seattle costs from 2011-2020.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Block	\$16,561,301	\$16,510,084	\$16,694,056	\$17,089,193	\$17,644,897	\$18,387,999	\$18,837,791	\$20,231,152	\$20,611,575	\$21,028,213
Sub-Regional	\$0	\$0	\$0	\$0	\$0	\$0	\$17,851	\$12,744	\$6,131	\$35,946
Supplemental	\$2,176,166	\$2,779,050	\$2,793,690	\$2,801,277	\$2,572,457	\$2,572,457	\$2,572,457	\$2,718,611	\$2,879,286	\$3,047,340
True-up	(\$639,448)	\$46,403	(\$361,159)	\$879,840	\$320,970	\$459,578	\$1,496,766	\$735,125	\$542,532	\$0
Interest on True-up	(\$45,912)	\$3,262	(\$25,391)	\$60,540	\$22,085	\$31,623	\$100,751	\$65,977	\$30,000	\$0
Total Cost	\$18,052,107	\$19,338,799	\$19,101,196	\$20,830,850	\$20,560,409	\$21,451,656	\$23,025,616	\$23,763,609	\$24,069,524	\$24,111,499
\$ Change		\$1,286,692	(\$237,603)	\$1,729,654	(\$270,441)	\$891,247	\$1,573,960	\$737,993	\$305,915	\$41,975

OPERATIONAL CHANGES TO THE 2019 AND 2020 BUDGETS

Cascade operations are all geared to supporting its mission of providing safe, clean, reliable water supply to its members in an environmentally and fiscally sound manner. The following key changes to operations planned for the upcoming biennium support Cascade's mission in ensuring that Lake Tapps water quality will be sufficiently protected so that it is ready when the region's need for water arises. Maintaining Lake Tapps now ensures readiness for all of our customers and ratepayers in the future.

- **Milfoil:** The spread of milfoil can significantly degrade water quality over time by increasing reservoir nutrient loading. There is a proposed increase of \$100,000 in 2019, which raises the total to \$200,000 in 2019, which is continued in 2020. This proposed change more accurately reflects what Cascade believes to be the appropriate treatment level, including a shift to a new herbicide (if approved by Ecology), which is much more effective than existing herbicides Cascade has been using. The herbicide also promises to be more efficient, providing a treatment life of up to three years compared to annual treatments. If the treatment cycle lasts longer, it is possible that future milfoil budgets may be reduced, reflecting the efficiency and effectiveness of the new herbicide.

2019 \$100,000 increase 2020 \$0 increase

- **Water Quality Program:** Without baseline water quality data for Lake Tapps, it will be impossible for Cascade to determine the short and long-term water quality risks it faces at Lake Tapps. A water quality management plan is a contractual requirement of our White River Management Agreement, which was executed between Cascade and the Puyallup and Muckleshoot Tribes in 2008 (Section K.1.a.). The budget increases the water quality allocation from \$50,000 in 2018 to \$200,000 in 2019 (increase of \$150,000) and an additional increase of \$200,000 in 2020 to \$400,000. To begin answering the questions asked by the Board and to enable them to make future water quality investment decisions. This increase begins implementing the work plan developed by the Resource Management Committee and approved by the Board in 2017, and implementing the Water Quality Management Plan from 2018. The 2019 activities will establish an initial monitoring and sampling program as recommended by Aspect Consulting. This monitoring and sampling program will also help determine the frequency and magnitude of future water quality investments. This will continue in 2020. In addition, short-term/adaptive investigations will be initiated in 2020.

2019 \$150,000 increase 2020 \$200,000 increase

- **Tacoma-Pierce County Health Department Partnership:** The 2019-20 budget extends the successful 2018 pilot program that provides current day-to-day, on-the-ground critical public health and safety sampling of algae blooms and other health issues as they occur. The \$100,000 per year allocation



provides for half of one dedicated staff person and the other half of the staff costs is paid by TPCHD. The staff person proactively samples and tests water quality, as well as dealing with failing septic tanks, enforcing septic tank maintenance and addressing critical water quality issues. Staff also coordinates health and safety information regarding algae, bacteria testing, swimmer safety and public education programs on herbicides and pesticides to homeowners which affect water quality.

2019 \$100,000 increase 2020 \$0 increase

- Operations Contingency: 2020 includes a \$150,000 increase for a contingency to deal with the ongoing “aging” issues associated with the 113-year-old White River project infrastructure. In 2018, Cascade began to see increasing problems from leaks and other structural issues which are very difficult to predict, but which must be addressed when they occur. These do not qualify for the capital risk pool since they are defined as ongoing maintenance.

2019 \$0 2020 \$150,000 increase

- Independent Supply Audits: Cascade proposed spending \$75,000 in 2019 to perform audits of members’ independent supplies. The purpose is to confirm supply capacities and members’ ability to meet production requirements. Reliability of these supplies is essential to Cascade’s supply planning, wholesale demand forecasting, CIP scheduling, and cost allocations.

2019 \$75,000 increase 2020 (\$75,000) decrease

- Miscellaneous changes in expenses and revenues: This reflected various small additions, deletions, and adjustments to reflect ongoing experience.

2019 \$9,069 increase 2020 \$43,959 increase

APPENDIX

2019-2020 PERFORMANCE MEASURES

Cascade’s performance measures are based on Cascade’s Strategic Plan (as adopted in 2010 and updated by the Board in 2011 and 2013). Achievement of performance measures, in turn, is the basis for assigning strategies and budget resources for the 2019-2020 biennium. All performance measures were reviewed and updated in 2015, 2016 and 2018. Some previous measures were revised or deleted, and others were added. The tables below show the connections among the Strategic Plan, performance measures, work strategies, and budget.

Management Efficiency and Organizational Development						
<i>Strategic Direction: Strive for effective utility management through variety of organizational efficiency approaches</i>						
Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Document knowledge of departers	Percentage of unique activity areas identified and documented	<ul style="list-style-type: none"> • Create and organize an evolving library of important facts and observations for Cascade activities and programs • Continue development of library, including organizational structure / template 	2017: 100% of three project areas 2018: 100% of three project areas 2019: 100% of three project areas 2020: 100% of three project areas	2017: Lake Tapps project book completed 2018: DocuWare manual completed	N/A	N/A

Management Efficiency and Organizational Development						
<i>Strategic Direction: Strive for effective utility management through variety of organizational efficiency approaches</i>						
Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Develop a succession plan for Cascade staff members	Percentage of applicable staff with completed succession plans	<ul style="list-style-type: none"> Develop and distribute template for staff to use to create succession plans Update job descriptions Do recruitment spreadsheets Put a strategy in place for replacement of individuals Cross-train Worked with Van Ness to develop a Cascade history session for new Cascade employees 	2017: 100% 2018: 100% 2019: 100% 2020: 100%	2017: 90% 2018: Develop historical Cascade session and presented to Ray and Henry 2018: Transitional new Capital Projects Director with 2-month overlap	N/A	N/A
Develop mechanisms to evaluate and control Cascade's strategic plan implementation	<ul style="list-style-type: none"> Number of strategic goals with performance measures: 1) established 2) met Annual Committee of the Whole (COW) meeting to review strategic goals and performance measures 	<ul style="list-style-type: none"> Develop timeline and plan to create and evaluate measures Ensure that performance measures data are being collected in all areas Review by COW 	2017: <ul style="list-style-type: none"> 85% established COW review and update 2018: <ul style="list-style-type: none"> 90% completed or established COW review and update 2019: 90% completed or established	2018: Board retreat in April	N/A	N/A
Promote professional and personal development for Cascade staff members	Number of completed individual staff development activities	Identify professional development opportunities and provide encouragement and funding	2017: 2 per person* 2018: 2 per person* 2020: 2 per person* (*or as agreed-upon during performance review)	2017: as agreed-upon 100%	\$18,000	\$18,000

Management Efficiency and Organizational Development						
<i>Strategic Direction: Strive for effective utility management through variety of organizational efficiency approaches</i>						
Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Improve storage, retrieval and analysis of asset information	<ul style="list-style-type: none"> • Develop standard for storage and retrieval of asset information • Develop asset on-boarding standard • Asset hierarchy for the White-River Lake Tapps Project developed • Number of major asset as-builds categorized and stored for completed projects 	<ul style="list-style-type: none"> • Research and develop standards that are suitable for Cascade’s operating context • Partner with Contract Operator and consult with Cascade member organization in the evaluation and selection of standards • Migrate/populate existing and new asset data to follow standards 	2018 Standard for file naming and storage developed and implemented for capital programs and projects 2019 90% of projects completed within 90 days has as-builds properly stored 2019 Asset hierarchy developed 2019 Asset On-Boarding standard developed 2020 90% of all new asset follow the asset on-boarding standard		\$50,000	\$50,000
Optimize management of assets	<ul style="list-style-type: none"> • % of Asset has definitive grouping • Number of critical asset operating context and performance requirements documented • Number of Asset Management Plans (AMP) developed for each major asset class • Number of tactical action items from the asset plan implemented 	<ul style="list-style-type: none"> • Define logical grouping of asset classes • Document existing operating context and performance requirement(s) for each asset class • Develop Asset Management Plan (AMP) • Implement tactical action items from AMP 	2018 Asset Class defined 2019 Operating context and performance requirements documented. 1 AMP developed 2020 2AMP developed		\$80,000	\$80,000

Management Efficiency and Organizational Development						
<i>Strategic Direction: Strive for effective utility management through variety of organizational efficiency approaches</i>						
Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
<p>Improve teamwork through fostering internal and external communication of issues, ideas and purpose</p>	<ul style="list-style-type: none"> • Number of staff meetings • Number of scheduled team events • Number of formal annual teambuilding events 	<ul style="list-style-type: none"> • Conduct teambuilding activities and improve communication and expectations 	<p>2017:</p> <ul style="list-style-type: none"> • 40 • 12 • 1 <p>2018:</p> <ul style="list-style-type: none"> • 40 • 12 • 1 <p>2019:</p> <ul style="list-style-type: none"> • 40 • 12 • 1 <p>2020:</p> <ul style="list-style-type: none"> • 40 • 12 • 1 	<p>2017:</p> <ul style="list-style-type: none"> • 42 • 13 • 1 	N/A	N/A
<p>Enhance collaboration with members, in the areas of:</p> <ul style="list-style-type: none"> • non-drinking water services • expand drinking water services (e.g., low-income programs, member asset management programs, etc.) • rate structure assessment and development, supply and demand modeling, emergency management, communications, etc. 	<ul style="list-style-type: none"> • Number of topical training sessions • Number of outreach opportunities for consultation with members 	<ul style="list-style-type: none"> • Use on-call engineering contract for audits, service area analysis • Policy and options analysis for possible service packages • Review and evaluation with Board and member staff • Refinement until Board direction on further activity • Implement if and when directed 	<p>2017: none</p> <p>2018: workshop on demand forecasting</p>		N/A	\$10,000

Management Efficiency and Organizational Development						
<i>Strategic Direction: Strive for effective utility management through variety of organizational efficiency approaches</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
Increase Cascade revenues other than rates	<ul style="list-style-type: none"> Revenue increase amount Number of opportunities evaluated 	Identify revenue-enhancing opportunities	2017: <ul style="list-style-type: none"> revised investment strategy 2018: <ul style="list-style-type: none"> hydro implementation decision Cell tower rental evaluation Sale of excess block water in lieu of independent sources 	2017: <ul style="list-style-type: none"> implemented Pool Plus investment strategy Continued hydro exploration 	\$0	\$0

Finance and Administration						
<i>Strategic Direction: Maintain Cascade’s financial efficiency and stability</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
Continually improve Cascade’s rate structure to ensure fair and equitable cost allocation model	<ul style="list-style-type: none"> Review and validation of rate structure and payments 	<ul style="list-style-type: none"> Periodically review and assess Determine what equitable means Review member equity 	2018: All add'l RCFC audits Review member cost allocations for fairness 2019: review of member equity effectiveness	2017: first 2 RCFC audits 2018: remaining agencies	N/A	N/A

Finance and Administration						
<i>Strategic Direction: Maintain Cascade’s financial efficiency and stability</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020Budget</i>
Pursue the Government Finance Officers Association (GFOA) Distinguished Budget Presentation Award by following the established criteria for budget documentation development.	<ul style="list-style-type: none"> Additional criteria met toward achieving GFOA award Achievement of GFOA award 	Review successful organizations’ documents and GFOA criteria guidelines; training as necessary	2017: 3 2018: final criteria performance measures 2019: achievement of GFOA award for 2019-2020 budget book 2020: maintain award	2017: 3 2018: attended GFOA budget presentation training	N/A	N/A
Perform continuing reassessment of Cascade’s financial structure (e.g., capital funding strategy)	<ul style="list-style-type: none"> Maintain simplified rate model Cascade fiscal policies reviewed and updated Cascade rate methodology reviewed Evaluate surplus water sales strategies Portion of RCFC revenue to Construction fund 	Collaborate with CEO and others to review and revise fiscal policies; measure and report progress on capital strategy Coordinate with committees, member staff to evaluate enhancements	2019: 70% of RCFC to Construction 2020: 75% of RCFC to Construction 2021: 80% 2022: 85%	2018: Updated fiscal policies 2018: 65% Pool Plus enhanced returns	N/A	N/A
Maintain adequate bond structure and financing to reduce cost to Cascade Members; optimize long-term capital strategy through the use of both debt and equity at appropriate levels	<ul style="list-style-type: none"> Present value reduction in debt service Continuation of fiscal policy transition 	Assess market conditions	2019: evaluate & pursue refunding Maintain AAA rating	2018: received upgrade to AAA from S&P	\$20,000	\$0

Regional, Policy, and Intergovernmental Relationships

Strategic Direction: Participate proactively in policy, legal, and regulatory issues

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Ensure continued regional leadership by participating in regional planning and community service initiatives as appropriate	<ul style="list-style-type: none"> Number of staff or board members named to represent, attend or speak at regional initiatives or events Attendance and participation at meetings and events of: Forum, WWUC 	<ul style="list-style-type: none"> Identify appropriate boards, panels, activities for Cascade to be at table and get appointed or attend Find opportunities to be a presence at programs, chambers, etc. Prioritize time to allow attendance at meetings Communicate duties as required 	<p>2017 – 2018:</p> <ul style="list-style-type: none"> 2 events per year 80% attendance at Forum 50% attendance at WWUC <p>2019-2020:</p> <ul style="list-style-type: none"> 2 events per year 80% attendance at Forum 50% attendance at WWUC 	<p>2017: 10 events, 100% attendance</p> <p>2018: 10 events, 100% attendance.</p> <p>2019 – 2020: 10 events, 100% attendance.</p>	\$5,000	\$5,000
Ensure continuous communication with member agencies' governing bodies	<ul style="list-style-type: none"> Number of meetings with each member board, presentations to governing bodies, appearances, newsletters, and implemented communication and outreach plans A completed annual report Committee, staff, and Board meeting presentations Number of monthly member updates 	<ul style="list-style-type: none"> Determine each members' needs and wants Develop and implement individual communication & outreach plans for members Update vehicles and amounts as needed 	<p>2017 - 2018: 2 meeting with Board members, 1 meeting with governing bodies, 1 annual report, 4 newsletters, 2 member updates</p> <p>2017 – 2018: 2 meeting with Board members, 1 meeting with governing bodies, 1 annual report, 4 newsletters, 12 member updates</p> <p>2019 – 2020: Two meetings with Board members; 1 with governing body, quarterly newsletters, 12 member updates.</p>	<p>2017: met all targets as listed</p> <p>2018: met all targets as listed</p>	\$5,000	\$5,000

Regional, Policy, and Intergovernmental Relationships

Strategic Direction: Participate proactively in policy, legal, and regulatory issues

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Maintain Cascade on-going legislative agenda to advance Cascade’s overall mission	<ul style="list-style-type: none"> • An approved legislative agenda • Number of meetings with state, federal lawmakers and regional decision makers on Cascade agenda • Number of newsletters • Completed annual report • Number of press releases 	<ul style="list-style-type: none"> • Twice yearly meetings • Create legislative agenda and get adopted by PAC and Board • Have an active presence in Olympia, Washington DC • Lobby as needed • Prepare board members to lobby as needed • Prepare materials • Quarterly newsletters 	2017: approved by November 2016, meet twice 2018: approved by November 2017, meet twice 2019-2020: approve by Nov 18 and 19; meet twice	2017: approved November 2013, met twice 2017 – ok; November 2016; 2018 – ok, November 2017; 2019 – ok November 2018; 2020 – ok November 2019.	\$50,000	\$50,000
Continue reassessing and updating Cascade’s stakeholder involvement strategy	<ul style="list-style-type: none"> • Number of groups listed • Input received from all Members, member staff to identify and assess additional stakeholders to add • Percentage of new callers, visitors and attendees at events added to lists • Updated strategies 	<ul style="list-style-type: none"> • Ask Members and Forum for input • Identify best ways to reach all • Develop and follow plan in conjunction with other outreach • Develop and implement annual Lake Tapps outreach plan 	2017 - 2018: <ul style="list-style-type: none"> • two updated strategies 2017: <ul style="list-style-type: none"> • input received by October 2016 for 2017 planning 2018: <ul style="list-style-type: none"> • two updated strategies 2018: <ul style="list-style-type: none"> • input received by October 2017 for 2018 planning 2019: <ul style="list-style-type: none"> • two updated strategies 2019: <ul style="list-style-type: none"> • input received by October 2018 for 2019 planning 2020: <ul style="list-style-type: none"> • two updated strategies 2020: <ul style="list-style-type: none"> • input received by October 2019 for 2020 planning 2020: <ul style="list-style-type: none"> • two updated strategies 	2017: input received in 2016 2018 – received input in 2017; 2019 – will receive input by October 2018; 2020 – will receive input by October 2019.	\$10,000	\$10,000
Continue Cascade presence and involvement in the national policy, legal, and regulatory arena	Number of Cascade staff or board members on panels, speak, author articles etc. in national arena	Identify opportunities; select presenter; prepare materials	2017: 2 2018: 2 2019: 2 2020: 2	2017: 2 2018: 2	\$5,000	\$5,000

Regional, Policy, and Intergovernmental Relationships

Strategic Direction: Participate proactively in policy, legal, and regulatory issues

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Document member low income programs and evaluate potential Cascade assistance or role	<ul style="list-style-type: none"> Completed documentation of member low income programs Completed summary of member low income demographics Completed pilot low income conservation assistance program Completed evaluation of low income assistance cost-effectiveness 	<ul style="list-style-type: none"> Undertake studies Evaluate results Develop recommendations Communicate with members 	2018: undertake affordability study 2019: complete study and inform members Consider pilot program for Low Income MF households	2017: completed pilot LI conservation program and reported to Board	\$50,000	\$100,000
Initiate and develop a Cascade Water Resiliency program and participate in a regional resiliency effort being undertaken by the Water Supply Forum and led by Seattle	A regional resiliency plan drafted, covering the areas of earthquake, water quality, drought, and climate change	Establish four work groups composed of staff and consultants to address challenges facing the region in assuring a sustainable water supply Henry serve on WQ Resiliency Committee?	2019: Cascade further implements Cascade and coordinated resiliency measures 2020: Cascade further implements and coordinates resiliency measures	2017: workshop held. Jon's participation on WQ Resiliency Committee 2018: Completed Phase 2 at Forum ; implemented for Cascade	N/A	N/A

Regional, Policy, and Intergovernmental Relationships

Strategic Direction: Participate proactively in policy, legal, and regulatory issues

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
An annual targeted communications and outreach plan that addresses members' needs and provides outreach to community partners and stakeholders	A plan developed and approved by the Public Affairs Committee and the Board	<ul style="list-style-type: none"> • Seek input from members and staff • Create and implement plan 	2017: PAC approval by October 2016, implementation begun by November 2016 2018: PAC approval by October 2017, implementation begun by November 2017. 2019: PAC ok by November 2018. 2020: PAC ok by November 2019.	2017: met both targets 2018: met both targets	\$15,000	\$15,000

Communications and Outreach

Strategic Direction: Advance Cascade's ability to provide effective public services through relationship building, information sharing, and effective marketing and branding

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Implement effective communication approaches to disseminate Cascade news and water efficiency information to appropriate stakeholders in a timely and efficient manner	Number of communications vehicles for each message distributed	Disseminate information via news release, web posting, social media, advertising, etc.	2017: 4 2018: 4 2019: 4 2020: 4	2017: 4 2018: 4 2019: 2020:	\$10,000	\$10,000

Communications and Outreach

Strategic Direction: Advance Cascade’s ability to provide effective public services through relationship building, information sharing, and effective marketing and branding

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Develop individualized co-messaging strategies with each member	Number of outreach meetings with members on co-messaging	Part of annual planning new focus only	2017: 2 2018: 2 2019: 2 2020: 2	2017: 2 2018: 2 2019–2020:	N/A N/A	N/A N/A
Create water efficiency communication strategies	Number of water efficiency outreach efforts	Work with members to set plan	2017: created and implemented web outreach plan 2018: created and implemented web outreach plan. 2019-2020: quarterly meetings/continue to create and implement outreach activities.	2017: 4 meetings 2018: 4 meetings	N/A	N/A
Create Cascade video celebrating beginning 20 th Year	<ul style="list-style-type: none"> Interviews conducted Write and create film video 	Write, edit, design, print, and disseminate a Cascade history Reflect legacy; look ahead for Cascade	Delivery: 2018 To be shown 2019	2018: in production	N/A	\$35,000

Environmental Protection and Water Quality

Strategic Direction: Strive for sustainability by managing water resources, infrastructure, and investments while protecting the natural environment

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Participate in regional water emergency response cooperation efforts, to be led by Joe and consultant, with Elaine’s support for communication and outreach	<ul style="list-style-type: none"> Completed Water System Response Plan (WSRP) Completed <i>Cascadia Rising</i> exercise Implemented member emergency response effort 	<ul style="list-style-type: none"> Review by SPU in September 2011 Final Draft to Board and Members in October 2011 Adopt as part of TSP <i>Cascadia Rising</i>; coordinate Cascade and members’ participation (2016) 	2017: completed table-top exercise with members 2018: plan updated	2017: Current	N/A	N/A

Environmental Protection and Water Quality

Strategic Direction: Strive for sustainability by managing water resources, infrastructure, and investments while protecting the natural environment

Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Continue long-term river flow monitoring	Continuation and expansion of USGS cooperative gaging and monitoring programs	<ul style="list-style-type: none"> • Close out annual agreements • Renew and manage annual USGS contracts • Approve proposal for additional gage station in 2016 • Develop proposal for relocated gage above the barrier structure (2020) • Identify additional sponsors for funding stations • Consultation and coordination with Tribes • Participate in Pierce County Rivers Flood Hazard Management Plan update 	2017: continued USGS cooperative gaging and monitoring program 2018: continue USGS cooperative gaging and monitoring programs. Provide input to White River Flood Hazard Plan update 2019: Continue USGS gaging and monitoring programs and Identify / prioritize need for short-term / special studies. 2020: same as 2019.	2017: target met	\$285,000 operating; \$98,000 CIP	\$300,000 gage program, operating
Analyze Lake Tapps watershed basin planning and regulatory needs	<ul style="list-style-type: none"> • Completed review and comment on Shoreline Management Plans amended / adopted by Pierce County, Sumner, Bonney Lake, and Buckley • Decision on State Forest Practices Act (SFPA) 	<ul style="list-style-type: none"> • Monitor updates to Pierce County, Bonney Lake, and Buckley SMP's and comment on programs • Determine whether to add examination of SFPA to regular reviews 	2017: <ul style="list-style-type: none"> • completed review and comment on SMP amendments as proposed • completed review and comment on shoreline permit applications, as necessary • sign up to receive SFPA notices; review and comment on applications as necessary 2018: same as 2017	2017: all targets met	N/A	N/A

Environmental Protection and Water Quality

Strategic Direction: Strive for sustainability by managing water resources, infrastructure, and investments while protecting the natural environment

<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
Establish invasive species (e.g., milfoil) identification, evaluation, and control targets	Rate of control of invasive species	<ul style="list-style-type: none"> • Perform yearly survey to establish target treatment areas and levels • Chemical treatment • Lake drawdown • Hand-pulling of vegetation • TappsWise program targeting prevention • Community meeting(s) to educate residents 	2017: 80%-90% controlled 2018: 80%-90% controlled Pilot projects: <ul style="list-style-type: none"> • dry land herbicides • bottom barriers • early chemical treatment 	2017: targets met	\$200,000	\$200,000
				2018: April 26, 2018 community meeting held; pilot projects implemented	\$200,000	\$100,000

Environmental Protection and Water Quality

Strategic Direction: Strive for sustainability by managing water resources, infrastructure, and investments while protecting the natural environment

<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
<p>Development of a long-term water quality management policy for the Lake Tapps / White River Project which provides long-term protection for its use as a municipal water supply system. Continue the long-term water quality monitoring program for White River and Lake Tapps</p>	<p>Board adoption of a Lake Tapps / White River Project water quality management policy. Develop comprehensive lake water quality study scope and schedule</p>	<ul style="list-style-type: none"> • Design lake water quality study for 2017 in 2016 • Prepare background material and policy options for the Resource Management Committee • Determine consultant assistance needed; scope and budget activity; select consultant • Develop draft policy options and recommendation for the Committee of the Whole • Accomplish tasks from Resource Management Committee WQ work plan 	<ul style="list-style-type: none"> • 2017: consultant selected; policy options and recommendations prepared; Draft WQ Program Plan completed <p>2018:</p> <ul style="list-style-type: none"> • Final WQ Program Plan presented to Committee; prepare cost estimates for plan activities; develop policy for Board consideration • Conclude first shoreline septic survey • Issue RFP for water quality monitoring and sampling • 2019: Implement Lake Tapps baseline Water Quality monitoring program; • Assess needs for special studies / adaptive management based on monitoring results. • Herrera results <p>2020:</p> <ul style="list-style-type: none"> • Continue Lake Tapps WQ baseline monitoring program; • Conduct special short term studies 	<p>2017: target met</p>	<p>\$200,000</p>	<p>\$400,000</p> <p>Herrera \$75,000 for 2018 and 2019</p>

Environmental Protection and Water Quality

Strategic Direction: Strive for sustainability by managing water resources, infrastructure, and investments while protecting the natural environment

<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
<p>Effective management of Cascade property around Lake Tapps Reservoir (below the 545.0 foot elevation line) to keep Cascade’s property free of any obstructions and unauthorized structures and to ensure that (A) existing improvements do not compromise dike integrity, water quality, environmental health or safety, and public enjoyment; and/or (B) any modifications or new improvements are licensed by Cascade and permitted by other agencies.</p>	<p>Board adoption of the Lake Tapps Reservoir Property Management Policy, issuance of Licenses and review of proposed improvements and code violation actions; issuance of Right of Entry Permits/Agreements</p>	<ul style="list-style-type: none"> • Develop and modify as necessary, the Lake Tapps Reservoir Property Management Policy; • Develop and modify as necessary, License requirements • Develop and modify as necessary, Right of Entry Permit/Agreement requirements • Report code violations to City of Bonney Lake and/or Pierce County • Cooperate with City of Bonney Lake and Pierce County to ensure that new/modified improvements are Licensed and have all appropriate permits/approvals 	<p>2017: Process License applications and issue Licenses; process Right of Entry applications and issue Right of Entry Permits/Agreements 2018: Same as 2017; Develop modifications to Property Management Policy for Board adoption 2019: Same as 2017 2020: Same as 2017</p>	<p>2017: all targets met 2018: all targets met</p>	N/A	N/A



Water Efficiency						
<i>Strategic Direction: Utilize conservation as a cost-effective water supply and demand planning tool and develop a well-defined water conservation program</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020Budget</i>
Develop water efficiency program goals with Cascade’s members and establish baselines to measure Program’s effectiveness	Adopted water conservation savings goals	<ul style="list-style-type: none"> • Provide water efficiency programs and services that provide quantifiable water savings • Establish baselines for achievement 	2017 – 2019: 0.6 cumulative savings, 1.0 mgd peak season savings		N/A	N/A
Optimize cost-effective water efficiency measures	<ul style="list-style-type: none"> • Cost per gallon savings per measure • Marginal cost of water supply or savings per measure 	Annual comparative analysis that reviews market and determines how much water to buy or build	2019 perform within cost-effectiveness range 2020: same	2018: updated effectiveness threshold to \$10 per gallon (gpd)	N/A	N/A
Water Efficiency						
<i>Strategic Direction: Utilize conservation as a cost-effective water supply and demand planning tool and develop a well-defined water conservation program</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020Budget</i>
Establish new water use efficiency savings goal	Board adoption of savings goals	<ul style="list-style-type: none"> • Incorporate member input • Align conservation savings with schedule of the development of the White River Project 	Adopted goal by April 2019		NA	NA



Water Efficiency						
<i>Strategic Direction: Utilize conservation as a cost-effective water supply and demand planning tool and develop a well-defined water conservation program</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020Budget</i>
Create water education programs designed for long-term impact	<ul style="list-style-type: none"> • Activity in all member areas • Measurable change • Adoption or incorporation from the respective school district 	<ul style="list-style-type: none"> • Programs will include outcomes such as student actions, new curricula and other education products, and student presentations • Programs will include examples of regional and global problems and solutions to water issues 	Programs operating by January 2019		\$180,000	\$180,000
New Technologies			Program operating by June 2019		\$50,000	\$50,000

Long Term Water Supply						
<i>Strategic Direction: Ensure flexibility when providing safe, clean and reliable water supply to Cascade’s customers</i>						
Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Develop a collaborative strategy regionally for the impact of earthquakes, climate change, drought, and water quality	<ul style="list-style-type: none"> Completed Cascade draft assessment of its resiliency Developed Cascade action plan Earthquake workshop conducted 	In 2017-2018, conduct Phase 2 of the regional resiliency plan, to include: <ul style="list-style-type: none"> Addressing earthquake risks and water quality risks as a high priority in 2017-2018 Translating the regional resiliency work to Cascade and its members Conducting an earthquake workshop by 2017 (in 2017, the primary focus will be the development of Cascade’s role, if any, on addressing earthquakes) Exploring measures that Cascade members can use to mitigate risks and tools to respond to an emergency. 	2017: <ul style="list-style-type: none"> completed refinement of risk and consequences developed mitigation and response strategies to lower risk consequences earthquake workshop completed 2018: continued development of risk mitigation strategies 2018: Review phase 2 report with member staff 2019: Jointly recommend actions steps with member staff for Cascade board approval 2020: Begin implementation of action stpes		\$100,000	\$100,000
Develop a demand forecast model as the basis for the 2023 TSP update	Developed Cascade demand forecast model	Update demand forecast model Maintain flexibility through constant monitoring and modification of both the supply and demand sides of water services	2019: Develop scope for updated demand forecast	Calibrated demand forecast in rate model		\$10,000
Effective and efficient long-term water supply strategy	A strategy in place	<ul style="list-style-type: none"> Initiate Seattle contract discussions Explore potential contracts with Seattle Consider reclaimed water 	2018: start discussions 2019: supply negotiations 2020: <i>strategy in place</i> 2021: <i>evaluate/develop supply development strategy</i>		N/A	N/A
Ensure safe operations of the White River Project	Days of Injury loss time	Operator and Cascade to develop and implement safety program	2019: 0 2020: 0		N/A	N/A

Long Term Water Supply						
<i>Strategic Direction: Ensure flexibility when providing safe, clean and reliable water supply to Cascade’s customers</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
Maintain long-term ability to meet water right operations agreement obligations	<ul style="list-style-type: none"> • New cooperative agreement with US Army Corps of Engineers (USACE) for operations • Completed real estate transfer agreements for Mud Mountain Dam (MMD) fish passage project (FPP) • Completed long-term operation agreement with USACE • Progress on design/construction of Cascade intake modifications 	<ul style="list-style-type: none"> • Monitor MMD fish passage project construction • Implement real estate and operational agreements • Manage implementation of Cascade intake modifications • Observe MMD FPP construction 	2017: <ul style="list-style-type: none"> • Developed real estate and operational agreements • inclusion of Cascade intake modifications in final construction contract secured 2018: Executed agreements for Cascade Intake Improvements; monitor construction of MMD FPP; implement construction phase operating protocols. Monitor construction of MMD FPP. 2019: implement construction phase operating protocols. Monitor construction of MMD FPP. 2020: same as 2019. Develop long-term operation protocols for Cascade intake improvements	2017: met 2018: met	\$200,000	\$200,000
Obtain secure access points to Lake Tapps for Cascade and its contractors	Number and nature of access points	<ul style="list-style-type: none"> • Obtain permanent easement for use of Tapps Island boat launch • Investigate purchase of private property and/or building facility on Cascade property to provide a secure access and moorage points to Lake Tapps 	2018 Easement obtained for Tapps Island boat launch 2019 and 2020: new boat mooring location identified		N/A	N/A

Long Term Water Supply						
<i>Strategic Direction: Ensure flexibility when providing safe, clean and reliable water supply to Cascade’s customers</i>						
Strategic Goals	Measures	Strategies	Targets	Achieved	2019 Budget	2020 Budget
Maximize the value of Lake Tapps, e.g., by power generation, sale of some assets, etc.	Number of sources of new revenue identified	<ul style="list-style-type: none"> Do a hydrofeasibility study Evaluate wholesale irrigation 	2017: hydropower investment decision 2018: hydro investment decision Evaluate telecom leasing 2019: initiate hydro project if approved	2017: continued negotiation & evaluation re: hydro 2018: hydro power investment decision	\$0	\$1 million (design)
Complete the Lake Tapps system condition assessment	Completed condition assessment for buildings and valve house operations	Hire consultant to perform building condition assessment and develop a facility master plan	2019: Hire consultant 2020: completed buildings condition assessment and master plan		TBD	TBD
Adopt and implement a long-term strategy for the powerhouse	Adopted and implemented strategy	<ul style="list-style-type: none"> Determine long-term valving system for the Powerhouse Implement intermediate strategy 	2019 and 2020: Develop a long term valve reliability strategy		\$760,000 (CIP Capital Risk)	\$750,000 (CIP Capital Risk)
Implement a security program for all Cascade assets	Implemented strategic plan	Implement the recommendations in the Carollo plan in three phases	2018: phase I completed; test period for Phase I 2019: Procure design firm and begin design 2020: Complete design and begin construction	If budget available next phase, probably for Fish Screen facility, valve house, forebay \$500,000	In CIP	In CIP

Information Technology						
<i>Strategic Direction: Maintain appropriate IT infrastructure that supports Cascade vision and mission</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
Develop IT strategy implementation plan, including document management	A completed IT strategy implementation plan with a specific timeline for implementation	Develop plan in collaboration with IT consultants. Develop project document strategy. Develop document naming practice. Determine “owner” of document. Develop protocol for what goes into Docuware and what stays in “U” drive.	2017: implemented and updated IT strategic plan, including document management 2018: new IT criteria added, IT strategy evaluation and changeover 2019: Implement new IT strategic plan 2020: Evaluate IT strategy	2017: 7 of 14 recommendations implemented 2018: New IT consultant evaluated IT strategy and recommended improvements	N/A	N/A
Leverage Cascade office technology to ensure better customer service	<ul style="list-style-type: none"> A completed IT satisfaction survey to determine where IT improvements should be made Staff training program in place 	<ul style="list-style-type: none"> Develop and administer IT satisfaction survey of all Cascade staff Implement staff training as outlined in IT strategic plan 	2017: DocuWare staff training 2018: follow-up survey and staff training plan developed 2019: follow-up staff training 2020: follow-up survey and staff training	2017: achieved 2018: training plan developed	N/A	N/A
Develop a long-term SCADA system plan	Completed long-term strategic plan	Hire a consultant to develop a long-term SCADA strategic plan	2018: Procure consultant 2019: Complete SCADA strategic plan and begin construction		In CIP	In CIP

Information Technology						
<i>Strategic Direction: Maintain appropriate IT infrastructure that supports Cascade vision and mission</i>						
<i>Strategic Goals</i>	<i>Measures</i>	<i>Strategies</i>	<i>Targets</i>	<i>Achieved</i>	<i>2019 Budget</i>	<i>2020 Budget</i>
Implement GIS Improvement Program	Enterprise GIS software deployed GIS roles established Data repository created Number of staff trained in GIS	Establish GIS Roles in Cascade Collaborate with member organization Deploy enterprise GIS software Create a GIS data repository Improve GIS access		2018: GIS improvement program implementation started 2018 Enterprise GIS software deployed 2019 GIS data repository created 2019 Staff training completed 2019 new drainage end points to our water supply layer created	In CIP	In CIP

FINANCIAL POLICIES

5.05.010 Adopted.

The Board of Directors of Cascade approves and adopts fiscal policies codified in this chapter. [Res. 2016-20 § 1; Res. 2012-14 § 1; Res. 2006-05 § 1].

5.05.020 Generally.

The Board of Directors of Cascade (the Board) has determined that Cascade shall maintain fiscal policies that promote:

- A. Financial integrity and stability.
- B. Rate equity.
- C. Efficiency and conservation.

From time to time, the Board may amend these policies as it deems appropriate. It is the exclusive authority of the Cascade Board to revise these fiscal policies as appropriate. The Board may delegate review and evaluation of the fiscal policies and any proposed amendments to its Finance and Management Committee for this purpose. [Res. 2016-20 § 1; Res. 2012-14 § 2; Res. 2006-05 § 1].

5.05.030 Financial integrity and stability.

Cascade will provide a stable financial structure that enables it to fulfill its mission to provide regional water supply and transmission services in an efficient and cost-effective manner.

A. Revenue Stability. Cascade will establish and maintain a financial structure that provides for stable and predictable revenues, relying primarily on fixed charges to members.

B. Operating Reserves (Operating Fund Balance). Cascade will maintain an operating fund and establish and budget for a beginning and ending operating fund target balance of no less than 13.7 percent (50 days) of budgeted annual operating expenses. Cascade may routinely budget higher levels of reserves to mitigate unpredictable lump sum expense adjustments, such as the annual Seattle contract true-up, and to reflect accruals toward intermittent large scale operating expenditures. In the event that the operating fund balance falls below the target balance, Cascade shall budget and set rates so that target fund levels are restored within two years.

C. Bond Reserves. Cascade will maintain a bond fund for bond reserves and debt repayment, and shall maintain bond fund balances consistent with corresponding debt covenants. In the event that the bond fund balances are found to fall below target levels, Cascade shall remedy the shortfall within 90 days or, if unable, within that period make partial remedy as able and adopt an action plan to complete the remedy.

D. Contingency Planning. Cascade will incorporate adequate contingencies in its capital planning to provide for orderly cash flow on capital projects and accommodate reasonable adjustments to capital budgets, scope and schedule, including an explicit provision for capital risk to provide for as-yet unidentified capital needs.

E. Rate Stabilization Fund. Cascade will maintain a rate stabilization fund (RSF) to be used to mitigate fluctuations in revenues, expenses or rates. Cascade shall target a RSF balance equal to 5% of operating revenues plus provisions for accruals for intermittent large scale operating expenditures. The Board shall establish rules for rate and fund management addressing additions to or withdrawal from the RSF with the objective of smoothing rate transitions and impacts, and may modify these by resolution.

F. Asset Management. Cascade shall establish capitalization and asset management policies and will maintain a fixed asset schedule and depreciate or amortize assets based upon reasonable expectations of useful life. When infrastructure assets are not booked as depreciable assets (e.g. alternate method accounting), Cascade shall estimate useful life and annual depreciation for purposes of establishing equivalent annual depreciation and net book value of assets for fiscal policy compliance.

G. Capital Reinvestment. Cascade will budget, generate and restrict funds for system repair and replacement (R&R), which will be made available for projects that replace assets or extend their lives *whether or not such expenditures are capitalized*. The annual budgeted amount will be total annual depreciation and amortization of system assets, less planned debt principal repayment, but in no case less than one-half percent of total asset value (original cost before depreciation). Subject to realization of sufficient revenues and cash balances to fund and transfer the budgeted amount, and net of R&R expenditures made through the operating budget, the net remaining annual R&R provision will be transferred into the construction fund, to be used as cash funding toward Cascade capital projects. [Res. 2016-20 § 1; Res. 2012-14 § 3; Res. 2006-05 § 1].

5.05.040 Funding growth-related system expansion.

Cascade will establish and impose member charges that provide for equitable recovery of growth-related costs from member agencies experiencing growth. The regional capital facilities charge (RCFC) is the member charge imposed for this purpose, and is applicable to all new or expanded water services within Cascade member service areas as defined in the RCFC methodology.

A. RCFC Basis. Cascade will adopt an RCFC methodology consistent with equity and revenue-generating purposes as required by the Cascade Joint Municipal Utility Service Agreement. The methodology will define the basis for determining the charge and the structure for imposing it.

B. RCFC Structure. The RCFC will be imposed on members based on customer growth. Any future revisions of the basis for RCFCs shall be limited to prospective purposes, and shall not affect past payments or previously determined RCFC credits.

C. RCFC Credits. Cascade may provide credits against RCFC payments due from members. Credits issued shall be defined in terms of a number of Cascade Equivalent Residential Units (CERUs) provided. Revisions in the definition of CERUs shall not be cause for a restatement of available credits.

D. RCFC Use and Restrictions. RCFC revenues will be used to offset system capital costs, including debt service and funding of debt related reserves. RCFCs shall be deposited into an RCFC fund, where they may be used for any authorized capital purpose.

As a part of Cascade's adopted budget, the Board shall set a minimum annual transfer of RCFC revenues from the RCFC fund to the capital fund to be used as cash funding for capital projects, attaining a minimum transfer of 75 percent of annual RCFC revenues by 2020. For this purpose, the portion of RCFCs used in support of debt service will be funded first, with all additional RCFC revenues then allocated to capital purposes. The Board will also determine appropriate restrictions, if any, on transferred funds as related to specific projects or uses.

When major construction projects cause a substantial increase in debt burden, or when accumulated construction funds exceed reasonably projected needs, or when debt funding obligations require increased deposit into the debt funds (such as for bond reserves), the Board may take action to temporarily reduce the annual capital transfer of RCFC revenues to as little as 50%, provided that the 75% transfer level is restored within 10 years. [Res. 2016-20 § 1; Res. 2012-14 § 4; Res. 2006-05 § 1].

5.05.050 Capital program funding.

In conjunction with establishing, planning or updating its capital program, Cascade will develop a corresponding capital-financing plan that supports execution of that program.

A. Construction or Acquisition of Assets. Capital funding, net of any grants, dedications or other assistance, will consist of a combination of cash (equity) and debt financing.



B. Capital Structure of Project Financing. Cascade's capital funding strategy will be developed with an objective that total cumulative debt outstanding shall not exceed 80% of the net book value (original cost net of depreciation or amortization) of fixed assets and asset-backed capacity rights. Cascade may establish, by Board action, more stringent limits on debt levels and debt funding of the capital program as it deems prudent to sustain Cascade's fiscal integrity.

C. Operating Costs. Cascade's capital funding strategy will consider estimated impacts on operating expenses related to planned capital improvements.

D. Master Meter Replacement. Cascade delivers water to its members through one or more wholesale master meters, owned and maintained either by Cascade or other regional water utilities such as Seattle Public Utilities and Tacoma Public Utilities. Costs to maintain, repair and replace master meters shall be considered Cascade operating and maintenance costs to be recovered through the uniform demand share structure of Cascade. Costs to install new wholesale master meters initiated by Cascade shall be Cascade capital costs. Costs to install new master meters initiated by a member shall be the responsibility of the member and charged directly to that member. [Res. 2016-20 § 1; Res. 2012-14 § 5; Res. 2006-05 § 1].

5.05.060 Managing debt.

A. Use of Debt for Capital Assets. Cascade will issue debt for investments in system infrastructure that provide tangible or intangible assets. Debt will not be used to fund ongoing operating and maintenance costs that cannot be capitalized.

B. Structure of Debt. The Board shall determine the term and structure of debt issued by Cascade. In determining debt structure, the Board shall consider the useful life of assets, existing debt and debt service load, plans for future debt issuance, market conditions, impacts on rates and charges, potential effect on Cascade's credit-worthiness, and other factors that the Board deems relevant. When debt is used for capital investment, the term of debt shall not exceed the reasonable useful life of the asset being acquired, constructed or enhanced.

C. Nontraditional Debt. Cascade will not use nontraditional debt, such as derivatives, swaps, variable rate obligations or other financial mechanisms, unless such instruments are allowable under Washington law, determined by the Board to be in the best interest of Cascade, and found by the Board to provide financial benefit to Cascade without undue risk. Cascade will not use derivatives or swaps without the Board first adopting policy by resolution on the use of such mechanisms and approval by a 65 percent dual majority vote. Cascade will also provide in payment agreements for derivatives or swaps that termination payments to a provider will be subordinate to debt service on a member's bond obligations.

D. Debt Modification. Cascade may consider debt refunding, defeasance or restructuring when demonstrated to be financially advantageous. When Cascade accumulates cash and investments in excess of identified near-term requirements, Cascade will consider debt reduction as one of the potential uses for such resources.

E. Disclosures. Cascade shall make timely filings of regular disclosures of information required by its bond covenants to the Municipal Securities Rulemaking Board (MSRB), including certain financial information and operating data of Cascade and of its Members and notices of the occurrence of certain enumerated events, if material. The specific nature of the information to be contained in the annual disclosure report and in notices of material events is set forth in the continuing disclosure certificates of Cascade's bonds. The CEO will be responsible to execute the disclosures and notify the Board of such reports. [Res. 2016-20 § 1; Res. 2012-14 § 6; Res. 2006-05 § 1].

5.05.070 Financial planning and revenue sufficiency.

Cascade shall establish member charges sufficient to meet all cash operating requirements of the system.

A. Cash Requirement. Cash operating requirements are defined to include operating expenses, debt repayment, planned equity funding of the capital program, and planned addition to operating, bond or other reserves. Resources considered for this purpose shall include, in addition to member charges, available interest earnings, ancillary energy and resource recovery revenues, miscellaneous revenues, and planned use of available reserves.

B. Coverage Requirement. Cascade shall comply with bond covenants and satisfy related coverage requirements. In addition, Cascade will establish member charges sufficient to maintain net revenues that provide a debt coverage factor of no less than 1.25 times total annual debt service. For this purpose, available revenues shall include member charges, interest earnings, ancillary energy and resource recovery revenues, miscellaneous revenues, and transfer to the operating fund from the rate stabilization fund. Expenses shall include operating expenses and transfers from the operating fund into the rate stabilization fund. Expenses shall not include capital expenditures, capacity investments such supply acquisition investments or conservation investments with quantifiable return in reduced water demand, or minimum payment obligations related to maintaining unused capacity rights.

C. Rate Transitions/Planning. In order to maintain orderly and reasonable transitions in rates, Cascade shall rely on the most current rate forecast as guidance in establishing member charges. Member charges (meaning unit charges applied to calculate member payments) shall not be reduced any year when a net increase in required revenues derived from member charges is projected within the upcoming five-year period. When substantial future revenue increases are forecast, Cascade shall, to the extent practical, increase member charges in an orderly fashion through a series of moderate annual adjustments with an intent to provide smoothing of increases and impacts over a prospective five-year period. [Res. 2016-20 § 1; Res. 2012-14 § 7; Res. 2006-05 § 1].

5.05.080 Budgeting and accounting.

Cascade shall develop and approve biennial budgets as provided by the Cascade Water Alliance Joint Municipal Utility Services Agreement (“Cascade Agreement”) and bylaws and consistent with adopted fiscal policies.

A. Annual Budget. Each annual Cascade budget shall establish authorized expenditure levels, estimated revenues and reserve levels. Cascade shall amend the adopted budget, as deemed appropriate, by Board action to reflect material changes in anticipated revenues or expenditures. The CEO shall establish procedures and practices for periodic reporting to the Board on budget performance.

B. Rate Planning. In support of the budget process, Cascade shall determine corresponding rates and charges and provide such information to members. Cascade shall issue a preliminary rate forecast no later than July 1st of each year. Cascade shall issue a revised rate forecast no later than October 1st of each year. These rate forecasts shall address no less than a 10-year planning horizon. Cascade shall issue additional rate analyses and forecasts as directed by the Board.

In addition, Cascade shall periodically, but no less than every ten years, develop a financial forecast encompassing at least a 20-year planning period. This forecast shall project member charges as required to satisfy financial requirements and performance standards.

C. Financial Reporting. Cascade shall establish and maintain financial records in a format consistent with Washington State BARS system of accounts. Cascade shall conform with generally accepted accounting with principles in its accounting, reporting and procedures.

D. Audit. Cascade shall be audited by an independent outside auditor no less than annually. Such audit shall be performed by the State Auditor or their agent or by a public accounting firm knowledgeable in Washington municipal accounting practices.

E. Funds. Cascade shall establish and maintain appropriate segregation of monies as required to provide adequate accounting for to the source and use of funds. To this end, Cascade shall maintain: (1) an operating fund; (2) an RCFC fund; (3) a rate stabilization fund; (4) a bond fund and (5) a construction fund. Any additional funds or accounts shall be established and maintained as defined by Board resolution.

F. Investments. The Board shall adopt by resolution an investment policy which is fully compliant with statutory requirements and which protect the security of invested funds. The investment strategy contained in that policy will

consider appropriate maturities for investments as related to corresponding yield and intended uses of various funds and reserves. The investment strategy may be executed through contract with third party governmental investment pools that comply with statutory limits, such as King County or the State investment pool, provided that those pools are also consistent with Cascade's investment policies and objectives.

G. Board Oversight. Cascade's Board shall receive regular reports and briefings on Cascade's financial status. The Board shall receive directly, or through its Finance and Management Subcommittee, at a minimum:

1. Net Assets Report, Balance Sheet, Treasurer's Report, Contracts Status Report, Budget-versus-Actual Report, Income Statement, and Warrants and Wires Listing (no less frequently than quarterly);
2. Direct reports from Cascade's independent outside auditor reporting the results of quarterly financial reviews conducted for quarters one, two, and three of every year;
3. Direct reports from Cascade's independent outside auditor reporting the results of the annual independent financial audit and Government Auditing Standards examination of Cascade;
4. Direct reports from the State Auditor's Office reporting the results of the state's annual audit of Cascade;
5. A written monthly narrative that reports on Cascade's financial and administrative activities;
6. Written Exception reports including material variance from budget;
7. Notice of disclosure submittals related to outstanding bonds;
8. Any other information as requested or directed by the Board. [Res. 2016-20 § 1; Res. 2012-14 § 8; Res. 2012-07 § 34; Res. 2006-05 § 1].

5.05.090 Rate structure and equity.

Cascade has established a uniform structure of charges to all members regardless of location. This structure reflects Cascade's uniform regional commitment of service to its members. Members shall not enjoy or suffer from geographic advantage as an element of the allocation of regional water resources or their costs.

A. Cascade Revenue Sources. The basic member charges imposed by Cascade are defined by the Cascade Agreement and include:

1. Annual administrative dues.
2. Conservation program charge.
3. Demand share charges.
4. Volume charges.
5. Regional growth charge (RCFC).

B. Credits and Adjustments. Cascade's fixed charge structure can in certain cases lead to results of overpayment or underpayment by members in a given fiscal year. Cascade shall identify and correct for overpayment and underpayment caused by estimation. Cascade will determine the net of such payments no later than June 30th of the next fiscal year. The net credit or surcharge due will be applied during the budgeting process for the following fiscal year, with corresponding adjustments to that year's scheduled payments. For example, overpayment received in 2020 would be identified in 2021 and credited against 2022 payments. As approved by Board resolution, earlier payment of credits to members may be approved, but Cascade may not unilaterally require early payment from members. Such credits, surcharges or adjustments shall not accrue interest. They shall be treated by Cascade as revenues or expenditures in the year payments are to be made.

C. New Member Buy-In Charges. As contemplated and provided in Section 3.2 of the Cascade Agreement, Cascade shall establish and require appropriate buy-in payments from new members. The Board shall consider net value of the Cascade system, supply requirements of the new member, Cascade's supply status, and other relevant factors as relevant to determining an equitable and appropriate payment that protects the interests and investments of existing members.

D. Sales or Capacity Commitments to Nonmembers. Cascade may determine that it is in its best interests to enter into water contracts to supply or otherwise serve nonmember utilities or agencies. In such cases, no commitment or supply to nonmembers may offer terms that are financially favorable in comparison to those offered to members except as the Board determines that such terms are of material benefit to Cascade and its members. The Board may consider material differences in service or supply commitments in its consideration of such terms.

E. Special Projects and Programs. It is expected that there may be occasional opportunities for arrangements of mutual benefit between Cascade and its members, or with nonmembers. The Board shall have the discretion to consider and enter into special agreements related to Cascade's and its members' resources and programs on a case-by-case basis;

provided, that such agreements are uniformly available to any members able to participate. [Res. 2016-20 § 1; Res. 2012-14 § 9; Res. 2012-07 § 35; Res. 2006-05 § 1].

5.05.100 Efficiency and conservation.

Cascade is committed to efficient and responsible use and stewardship of water resources. Water efficiency and conservation provide cost-effective means to avoid or delay costly system expansions while reducing environmental impacts on water systems.

A. Recovery of Conservation Program Costs. Cascade shall fund conservation and efficiency measures consistent with its service obligations and shall recover related program costs through a uniform conservation program charge that best relates to the cost and benefits attributable to its member agencies.

B. Cost-Effectiveness of Conservation and Efficiency Measures. As a means of meeting its members' demands, Cascade shall periodically evaluate potential efficiency and conservation measures and determine cost-effectiveness of those measures relative to related system expansion. That cost-effectiveness determination shall consider direct realized and avoided costs, but may also consider external costs or benefits related both to the measure and its alternate supply development option.

C. Access to Conservation and Efficiency Program and Measures. Cascade shall endeavor to develop conservation and efficiency programs that are broadly and universally available throughout its member service areas, recognizing that some measures are specific to retail customer activities and land uses that may not be uniformly distributed among members.

D. Wholesale Wheeling. When the Cascade Board determines it to be efficient and cost-effective, Cascade may contract with member or other water utilities, to "wheel" or transfer water through their systems to member or contract customers of Cascade in lieu of facility construction by Cascade. Payments made by Cascade for wheeling shall be considered a Cascade operating and maintenance expense.

E. Master Metering. To support efficient use of water resources, Cascade shall meter all water delivered to its members through one or more wholesale master meters, owned and maintained either by Cascade or other regional water utilities such as Seattle Public Utilities and Tacoma Public Utilities. Member charges shall include charges based on water delivered to each member. [Res. 2016-20 § 1; Res. 2012-14 § 10; Res. 2012-07 § 36; Res. 2006-05 § 1].

GLOSSARY OF TERMS

Accrual Basis-As accounting basis which recognizes transactions when they occur.

Administration Dues-Charges imposed on Cascade members to recover administrative costs. Charges are based on the members CERU count.

Appropriation- The legal authority to spend money and incur obligations for specific purposes. Spending cannot exceed appropriation without Cascade’s board’s approval.

Asset-Property and resources owned by Cascade that have a monetary value.

Basis of Accounting-Cascade uses the accrual basis of accounting and the total economic resources measurement focus. Expenses are recorded at the time liabilities are incurred, and revenues are recorded when earned.

Balanced Budget-When revenue equals or exceeds expenditures.

Bellevue Issaquah Pipeline (BIP)-Provides transmission of water purchased from Seattle Public Utilities to Issaquah and Sammamish Plateau. Cascade has agreements with the Cities of Bellevue and Sammamish for operating and maintaining the BIP.

Biennium-A two-year period. Cascade adopts both a biennium budget and biennium rates.

Capital Expenditure- An expenditure used to acquire or construct a tangible asset with a cost greater than \$5,000 and a useful life of several years.

Capital Improvement Program (CIP)-The plan of capital improvements needed to maintain infrastructure and fulfill Cascades’ water supply obligations. Cascade adopts a 6 year plan with biennial review and update.

Cascade Equivalent Residential Units (CERUs)-a key metric used by Cascade to allocate costs to members. CERUs are based on an inventory of water meters and flow equivalency factors established by the American Water Works Association.

Conservation Charges-Charges to Cascade’s members to recover the cost of Cascade’s conservation program. Charges are based on the members CERU count.

Contingency-A provision for an unforeseen event. Cascade budgets for unforeseen events in both the operating and capital budgets.



Debt Service-The principal and interest due and payable on outstanding revenue bonds and loans.

Demand Share-A charge to Cascade's members based on a three year rolling average of their water use.

Defeasance- The legal release of a debtor from a debt, for example when a bond holder sets aside cash to pay off bonds. In 2014, Cascade defeased the 2006 bond issuance.

Depreciation- In accounting, a reduction in the value of an asset over time, due to wear and tear.

Expenditure-The payment for goods and services.

Fiscal Year- The twelve-month period which an organization designates as its operating year. For Cascade Water Alliance the fiscal year coincides with the calendar year. Cascade prepares a biennial budget for a period of two fiscal years, beginning in an odd-numbered year.

Full Time Equivalent (FTEs)-A way of expressing staff in terms of full-time (40 hours per week) employment. For example if an employee is employed to work three days a week or 24 hours then the employee would be considered 0.6 FTE (24 hours divided by 40 hours).

Fund Balance-The excess of a fund's assets over its liabilities.

Governmental Accounting Standards Board Statement 34 (GASB 34)-sets the requirements for the content of the annual financial reports. Cascade accounts for and reports infrastructure capital assets based on GASB Statement No. 34.

Infrastructure-The basic physical assets used by Cascade in the conduct of its business.

Joint Municipal Utility Services Act (JMUSA)-RCW code 39.106 allowed for the formation of intergovernmental municipal corporations that provide services to local utilities and their customers. Cascade is organized as a JMUSA.

Lake Tapps-A reservoir created by Puget Sound Energy in 1911 and purchased by Cascade Water Alliance in 2009 is located in Pierce County, Washington and maintained for future water supply.

Milfoil- Eurasian milfoil (*Myriophyllum spicatum*) is a non-native, invasive aquatic plant. Milfoil is native to Eurasia and Africa, but is now found on all continents but Australia and Antarctica. The leaves of milfoil are submerged, and grow in whorls of four, with many thread-like leaflets. This plant can grow from broken-off stems and can spread quickly, creating dense mats that may crowd out native plants and inhibit recreational activity in the water. Cascade maintains a program to control the growth of milfoil in Lake Tapps.



Public Works Trust Fund (PWTF)-A fund overseen by the State of Washington that is used to loan money to local governments for infrastructure projects.

Regional Capital Facilities Charges (RCFC)-RCFs are paid to Cascade by each member for each new equivalent residential unit connected to its water distribution system, and are intended to allocate growth costs to those members that require capacity increases due to growth in customer demand.

Revenue-Sources of income that Cascade receives during a fiscal year.

Transmission Supply Plan (TSP)-A requirement of the Washington State Department of Health that details the demand projections and the supplies available to the utility to meet those demands. The TSP provides direction for Cascade over CIP decisions. Cascade is in the process of extend their current TSP plan.

2019-2020 BUDGET ADOPTION RESOLUTION



Attachment 1

CASCADE WATER ALLIANCE
RESOLUTION No. 2018-16

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CASCADE WATER ALLIANCE, A WASHINGTON MUNICIPAL CORPORATION, PROVIDING FOR A CASCADE WATER ALLIANCE BUDGET AND ADOPTING A BUDGET FOR 2019 AND A BUDGET FOR 2020

WHEREAS, the Cascade Water Alliance ("Cascade") is a Washington municipal corporation formed under authority of the Joint Municipal Utilities Authority Act (Chapter 39.106 RCW) to provide water supply to its Members; and

WHEREAS, by Resolution 2010-08, the Board of Directors of Cascade ("Board") established a two-year fiscal biennium budget that will consist of the adopted two consecutive annual budgets, which together shall be referred to as "the biennial budget" which will appropriate funds for two consecutive but non-transferrable years, and upon adoption of Resolution No. 2018-13, both years of the biennium will be adopted; and

WHEREAS, Cascade staff developed preliminary proposed annual budgets for 2019 and 2020 and made presentations to the Board at its June 27 and July 25, 2018, Board meetings; and

WHEREAS, the Board determined that it is reasonable, appropriate, consistent with applicable law, and Cascade's Joint Municipal Utility Services Agreement, and in the best interests of Cascade to adopt two consecutive annual budgets, which together shall be referred to as "the biennial budget."

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE CASCADE WATER ALLIANCE, as follows:

Section 1. 2019 Budget.

A. Estimated Resources and Expenditures. The 2019 budget estimated resources and expenditure authority of the Cascade Water Alliance is hereby adopted as follows:

<i>Fund</i>	<i>2019 appropriation authority</i>
Operating	\$50,936,632
Regional Capital Facilities Charge	\$9,624,368
Rate Stabilization	\$1,493,595
Construction	\$16,317,109
Bond	\$30,279,455
Total	\$108,651,159

B. Staffing. 2019 staffing of the Cascade Water Alliance is hereby established as follows:

1. Chief Executive Officer	7. Intergovernmental & Communications Director
2. Program & Policy Assistant	8. Management Assistant
3. Operations Manager	9. Finance and Administration Manager
4. Director of Planning	10. Water Resources Manager



5. Strategic Policy Advisor	11. Engineering & Capital Projects Director
6. Chief Economist/Treasurer	

C. Budget Document. The Chief Executive Officer and the Finance and Administration Manager are hereby directed to prepare, by December 31, 2018, a final 2019 budget document to include, at a minimum, the following:

- Line-item expenditure and revenue detail
- Comparative tables with prior years' data
- Narrative description of budget activity
- Financial policies
- Capital Improvement Program project descriptions, including cost estimates and historic cost projections
- Cash flow and borrowing projections and assumptions
- Performance measures tied to Cascade's Strategic Plan
- Organization chart
- Staff salary schedule

Section 2. 2020 Budget.

A. Estimated Resources and Expenditures. The 2020 Budget estimated resources and expenditure authority of the Cascade Water Alliance is hereby adopted as follows:

<i>Fund</i>	<i>2020 appropriation authority</i>
Operating	\$51,414,811
Regional Capital Facilities Charge	\$9,624,279
Rate Stabilization	\$1,707,335
Construction	\$17,389,791
Bond	\$30,254,816
Total	\$110,391,032

B. Staffing. 2020 staffing of the Cascade Water Alliance is hereby established as follows:

1. Chief Executive Officer	7. Intergovernmental & Communications Director
2. Program & Policy Assistant	8. Management Assistant
3. Operations Manager	9. Finance and Administration Manager
4. Director of Planning	10. Water Resources Manager
5. Strategic Policy Advisor	11. Engineering & Capital Projects Director
6. Chief Economist/Treasurer	

C. Budget document. The Chief Executive Officer and the Finance and Administration Manager are hereby directed to prepare, by December 31, 2018, a final 2020 budget document to include, at a minimum, the following:

- Line-item expenditure and revenue detail
- Comparative tables with prior years' data
- Narrative description of budget activity
- Financial policies
- Capital Improvement Program project descriptions, including cost estimates and historic cost projections



- Cash flow and borrowing projections and assumptions
- Performance measures tied to Cascade's Strategic Plan
- Organization chart
- Staff salary schedule

Section 3. 2017 - 2023 Capital Improvement Program.

The 2019 and 2020 budgets include the following Capital Improvement Program plan expenditures:

CIP Projects	2019	2020	2021	2022	2023	2024
Upper conveyance projects	\$ 45,000	\$ 625,000	\$ 550,000	\$ 285,000		\$ 300,000
Lake Tapps reservoir ongoing piezometers & dike improvements	\$ 150,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Lower conveyance projects	\$ 485,000	\$ 500,000	\$ 265,000	\$ 500,000	\$ 205,000	\$ 800,000
Security and SCADA	\$ 100,000	\$ 500,000	\$ 100,000			\$ 100,000
Cascade Intake Modifications	\$ 50,000	\$ 100,000	\$ 2,000,000	\$ 1,000,000		
Facilities: roofs, planking, decking, etc.	\$ 75,000	\$ 120,000	\$ -	\$ 300,000	\$ 1,000,000	\$ 100,000
Equipment	\$ 50,000		\$ 40,000		\$ 40,000	
Seismic Resiliency	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000
Bellevue-Issaquah Pipeline Improvements		\$ 100,000		\$ 100,000		\$ 130,000
GIS Implementation	\$ 50,000	\$ 25,000			\$ 20,000	
IT Infrastructure	\$ 25,000	\$ 35,000		\$ 50,000		\$ 50,000
Capital risk	\$ 500,000	\$ 600,000	\$ 700,000	\$ 800,000	\$ 900,000	\$ 1,000,000
SUBTOTAL	\$ 1,730,000	\$ 2,905,000	\$ 3,955,000	\$ 3,335,000	\$ 2,465,000	\$ 2,760,000
Tacoma agreement	\$ 5,630,812	\$ 5,743,428	\$ 5,858,297	\$ 5,975,463	\$ 6,094,972	\$ 6,216,872
Seattle contract						\$ 5,000,000
TOTAL CIP	\$ 7,360,812	\$ 8,648,428	\$ 9,813,297	\$ 9,310,463	\$ 8,559,972	\$ 13,976,872

Section 4. Effect.

This Resolution shall be in full force and effect on the date of its adoption.

ADOPTED AND APPROVED by the Board of Directors of the Cascade Water Alliance at a regular meeting thereof, held on the 26th day of September, 2018.

CASCADE WATER ALLIANCE

John Stokes, Chair

Attest – Chuck Clarke, Chief Executive Officer

Penny Sweet, Vice Chair

Angela Birney, Secretary/Treasurer

Members
Yes 6
No 0

Demand Share
Yes 85.7 %
No 0 %

Include in CWAC?

- Yes
 No

2019-2020 RATES AND CHARGES RESOLUTION

Attachment 1



CASCADe WATER ALLIANCE
RESOLUTION NO. 2018-17

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CASCADE WATER ALLIANCE, A WASHINGTON MUNICIPAL CORPORATION, ADOPTING RATES AND CHARGES FOR THE YEAR 2019 AND 2020

WHEREAS, the Cascade Water Alliance (“Cascade”) is a Washington municipal corporation formed under authority of the Joint Municipal Utilities Authority Act (Chapter 39.106 RCW) to provide water supply to its Members; and

WHEREAS, the Joint Municipal Utility Services Agreement provides for the payment of Administrative Dues by Cascade Members; and

WHEREAS, the Joint Municipal Utility Services Agreement provides for the Board of Directors (the Board) to set Rates and Charges according to the rate calculation methodology, which includes a calculation of demand shares and a uniform pricing structure with a commodity charge and fixed charges allocated by demand share; and

WHEREAS, the Joint Municipal Utility Services Agreement provides that the Board may adopt wholesale charges in addition to normal demand share charges to encourage resource conservation; and

WHEREAS, the Joint Municipal Utility Services Agreement provides that the Board must set Rates and Charges at levels sufficient for all expenses of Cascade; and

WHEREAS, by Resolution 2010-08, the Board established a two-year fiscal biennium budget that will consist of the adopted two consecutive annual budgets, which together shall be referred to as “the biennial budget.” By Resolution 2018-13, the Board further established that Member Charges for both years will be approved biennially when the biennial budget is adopted.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE CASCADE WATER ALLIANCE as follows:

Section 1. Cascade Equivalent Residential Units (CERUs) for 2019 and 2020.

CERUs for each Member for 2019 and 2020 are as follows:

TABLE 1

Member	2019 Adopted CERUs	2020 Adopted CERUs
Bellevue	66,493.5	66,873.5
Issaquah	14,882.5	15,157.5
Kirkland	19,597.0	19,747.0
Redmond	32,897.5	33,297.5
Sammamish Plateau Water	24,042.5	24,417.5
Skyway WSD	3,891.0	3,896.0

Tukwila	8,420.0	8,435.0
Total	170,224.0	171,824.0

Section 2. 2019 and 2020 Demand Shares.

Adopted demand shares for each Member for 2019 and 2020 are as follows:

TABLE 2

Member	2019 Demand Shares	2019 Demand Share percentage	2020 Demand Shares	2020 Demand Share percentage
Bellevue	19.7977	52.29%	19.7824	52.58%
Issaquah	1.8070	4.77%	1.8630	4.95%
Kirkland	5.3584	14.15%	5.2999	14.09%
Redmond	6.7516	17.83%	6.5895	17.51%
Sammamish Plateau Water	1.1401	3.01%	1.1397	3.03%
Skyway WSD	0.4037	1.07%	0.3993	1.06%
Tukwila	2.6032	6.88%	2.5524	6.78%
Total	37.8615	100.00%	37.6263	100.00%

Except that, in accordance with the Interlocal Contract, no Member shall have a Weighted Vote of less than one.

Section 3. Summary of Member Charges.

2019 and 2020 Adopted Member Charges (excluding RCFC) are hereby established as shown in Table 3 below.

Administrative dues shall be assessed against each Member for the years 2019 and 2020 at the rates of \$19.31 and \$19.44 per CERU respectively multiplied by 100% of that Member's CERUs.

The demand share charge for the years 2019 and 2020 shall be \$364,124 and \$375,670 respectively per Demand Share percentage.

The conservation program charge for the years 2019 and 2020 shall be \$4.82 and \$4.83 respectively per CERU. The charge is applicable to 100% of a Member's CERUs.

TABLE 3

2019 Member Charges	Administrative Dues	Conservation Charges	Demand Share Charges	Total
Bellevue	\$1,283,940	\$320,761	\$19,039,956	\$20,644,657
Issaquah	\$287,370	\$71,792	\$1,737,818	\$2,096,980
Kirkland	\$378,404	\$94,535	\$5,153,278	\$5,626,217
Redmond	\$635,226	\$158,696	\$6,493,173	\$7,287,095
Sammamish Plateau Water	\$464,243	\$115,980	\$1,096,443	\$1,676,666
Skyway WSD	\$75,132	\$18,770	\$388,227	\$482,129
Tukwila	\$162,584	\$40,618	\$2,503,529	\$2,706,731
Total	\$3,286,900	\$821,152	\$36,412,424	\$40,520,476



2020 Member Charges	Administrative Dues	Conservation Charges	Demand Share Charges	Total
Bellevue	\$1,299,865	\$322,734	\$19,751,277	\$21,373,876
Issaquah	\$294,627	\$73,151	\$1,860,105	\$2,227,883
Kirkland	\$383,836	\$95,300	\$5,291,538	\$5,770,674
Redmond	\$647,226	\$160,695	\$6,579,129	\$7,387,050
Sammamish Plateau Water	\$474,619	\$117,840	\$1,137,858	\$1,730,317
Skyway WSD	\$75,729	\$18,802	\$398,709	\$493,240
Tukwila	\$163,957	\$40,708	\$2,548,385	\$2,753,050
Total	\$3,339,859	\$829,230	\$37,567,001	\$41,736,090

Section 4. Effect.

This Resolution shall be in full force and effect on the date of its adoption.

ADOPTED AND APPROVED by the Board of Directors of the Cascade Water Alliance at a regular meeting thereof, held on the 26th day of September, 2018.

CASCADE WATER ALLIANCE

John Stokes, Chair

Attest – Chuck Clarke, Chief Executive Officer

Penny Sweet, Vice Chair

Angela Birney, Secretary/Treasurer

Members
 Yes 6
 No 0

Demand Share
 Yes 85.7 %
 No 0 %

Include in CWAC?
 Yes
 No

2019-2020 REGIONAL CAPITAL FACILITIES CHARGE RESOLUTION

Attachment 1



CASCADe WATER ALLIANCE
RESOLUTION No. 2018-15

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE CASCADe WATER ALLIANCE,
A WASHINGTON MUNICIPAL CORPORATION,
SETTING THE REGIONAL CAPITAL FACILITIES CHARGE FOR THE YEARS 2019 AND 2020

WHEREAS, the Cascade Water Alliance ("Cascade") is a Washington municipal corporation formed under authority of the Joint Municipal Utilities Authority Act (Chapter 39.106 RCW) to provide water supply to its Members; and

WHEREAS, the Joint Municipal Utility Services Agreement authorizes Cascade to adopt a Regional Capital Facilities Charge ("RCFC"), and in furtherance of that Agreement the Board of Directors ("Board") has adopted a methodology for calculating the RCFC which has been used to calculate the RCFC; and

WHEREAS, by Cascade Water Alliance Code 5.55.020, the Board established a two-year fiscal biennium budget that will consist of the adopted two consecutive annual budgets, which together shall be referred to as "the biennial budget." By Resolution 2018-13, the Board further established that the RCFC will be approved biennially when the biennial budget is adopted.

NOW THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE CASCADe WATER ALLIANCE, as follows:

Section 1. Determination of the RCFC for 2019 and 2020

The RCFC effective January 1, 2019, shall be \$6,416 per Cascade Equivalent Residential Unit (CERU).

The RCFC effective January 1, 2020, shall be \$6,607 per Cascade Equivalent Residential Unit (CERU).

Section 2. Effect

This Resolution shall be in full force and effect on the date of its adoption.



ADOPTED AND APPROVED by the Board of Directors of the Cascade Water Alliance at a regular meeting thereof, held on the 26th day of September, 2018.

CASCADE WATER ALLIANCE

John Stokes, Chair

Attest – Chuck Clarke, Chief Executive Officer
Penny Sweet, Vice Chair
Angela Birney, Secretary/Treasurer

Members
Yes 6
No 0

Demand Share
Yes 85.7 %
No 0 %

Include in CWAC?
 Yes
 No

FINAL DOCUMENTATION OF 2019 MEMBER CHARGES MEMO


FINAL MEMORANDUM

DATE: October 8, 2018

TO: Cascade Member Agencies

FROM: Ed Cebron, Chief Economist/Treasurer
Paula Anderson, Program and Policy Assistant

SUBJECT: FINAL Documentation of 2019 Member Charges

Based on the budget and rates adopted by the Cascade Board, a general rate revenue increase of 4.5% is determined for 2019. This increase is largely due to increases in SPU wholesale charges.

In addition, the Board adopted a two-year rate package. For 2020, a 3.0% general increase is adopted. Member charges are determined based on this increase and assumed customer and demand experience for 2018. These charges would be adopted and imposed now, even though actual member charges for 2020 cannot yet be known. Separately, a reconciliation mechanism is being developed to determine final 2020 actual member shares of costs and provide for recovery of over/under-payments during the 2021 fiscal year. It is expected that this will be “revenue-neutral” for Cascade, but would impose charges or credits for each member to reconcile the adopted and allocated costs.

This document establishes the 2019 and 2020 charges that are applicable, with the latter subject to future true-up. Actual charges will be determined upon receipt of member data in 2019 and reconciled with the imposed charges. Once data are available in 2019, a member charge memo will be issued determining the actual 2020 charges and documenting the reconciliation amounts. During the budget and rate process for 2021-2022, these adjustments will be incorporated into member charges for 2021.

Any general system increase, such as the 2019 increase of 4.5%, does not translate to equal percentage increases for all members, since member charges are based on each agency’s total customer base and actual water usage, which vary in both absolute and relative terms from year to year. The following information outlines the development of individual member charges for 2019 and for 2020. It relies on information provided by SPU and by member agencies related to water demand, water supply and customer base. For 2020, it also relies on Cascade assumptions regarding CERU count and wholesale demand; the methods used to estimate are detailed below.

Purpose: This final memorandum provides documentation of the data and calculations used to determine member charges for 2019 and 2020, again with the understanding that the actual 2020 member allocations will be reconciled through adjustments to 2021 charges.

Cascade Revenue Structure

Cascade collects revenue from members through four separate charges. These include:

- **Administrative Dues** are based on budgeted administrative costs for 2019 and 2020 and actual CERU counts as of January 1st of each year. For 2019, actual CERU counts are based on data reported by members. For 2020, estimated CERU counts add assumed member CERU growth for 2018. These are based on total estimated Cascade CERU growth (1,500 CERUs), which are then subjectively allocated to members based on recent growth experience. The dues are expressed in terms of a charge per CERU. Members pay Administrative Dues based on the number of CERUs that they serve. The contractual limit on administrative dues is 9% of total revenue requirements. For 2019 and 2020, the charge falls below this limit at 8.11% and 8.00%, respectively.
- **Conservation Charges** are also based on CERU counts for the two budget years. The 2019 and 2020 Conservation Charge reflects the budgeted conservation program for each year.
- **Demand Share Charges** are based on a rolling three-year demand history. For 2020, the average includes estimated member demands for 2018. These estimates are based on the most recent three-year average demand, adjusted for estimated changes in CERU demands and for estimated growth in member customer base. Based on Board action, minimum demand shares are assigned for two agencies, Sammamish Plateau and Issaquah, and are applied in lieu of actual history if they exceed the related calculated value. For 2019, both agencies exceed the adopted minimum based on their usage history. For 2020, estimated demand shares also exceed the adopted minimum in each case. Demand Share Charges account for the majority (roughly 85% to 90%) of Cascade's rate revenue and are solely based on actual historical data.
- **Regional Capital Facilities Charges (RCFCs)** are charged based on reported growth in customer base. RCFCs are relatively volatile and are not relied on for Cascade operations. Instead, they are deposited into a separate RCFC fund, from which transfers are made to support debt service and to fund capital projects. As a result of adopted fiscal policy, RCFCs related to 450 CERUs of growth will be held available for debt service in 2019; funds from all additional growth (budgeted at 1,050 CERUs) will be transferred to construction. For 2020, RCFCs for 375 CERUs will be held available for debt service. This summary does not project RCFCs or establish payment obligations in advance of actual growth. While Cascade budgets and plans based on expected connections, members are not obligated to pay RCFCs except as growth actually occurs.

Cascade Equivalent Residential Units (CERUs)

Discussed in the Cascade JMUSA and the RCFC Methodology, the CERU is one of the key metrics that Cascade uses to allocate costs to its Members. Per Table 1 of the RCFC Methodology, CERU counts are based on an inventory of water meters and flow equivalency factors established by the American Water Works Association. The 2019 charges are based on CERU counts at the end of 2017. The 2020 charges are based on the estimated CERU count at the end of 2018. **Table 1** summarizes the calculation of 2019 and 2020 CERUs based on water meter counts as of 12/31/17 and estimated 2018 growth by member:

Table 1: CERU Calculations for 2019 and 2020 Charges

Water Meter Size	Number of CERUs	Water Meter Counts as of 12/31/17 *							Total
		Bellevue	Issaquah	Kirkland	Redmond	SP Water	Skyway WD	Tukwila	
3/4" [incl. 5/8x3/4"]	1.0	32,610	6,716	10,742	15,436	16,707	3,224	1,413	86,848
1"	2.5	3,625	869	949	830	508	101	278	7,160
1.5"	5.0	2,037	440	546	1,283	772	38	339	5,455
2"	8.0	881	308	318	638	138	9	178	2,470
3"	16.0	170	35	48	74	25	7	37	396
4"	25.0	89	12	13	71	6	0	27	218
6"	50.0	32	3	0	10	0	0	18	63
8"	80.0	6	0	0	4	0	0	8	18
10"	115.0	1	0	0	0	0	0	3	4
Total Number of Meters		39,451	8,383	12,616	18,346	18,156	3,379	2,301	102,632
Total Number of 2019 CERUs		66,045.5	14,562.5	19,481.5	32,809.0	23,491.0	3,850.5	8,379.0	168,619.0
Estimated CERU Growth in 2018		380.0	275.0	150.0	400.0	375.0	5.0	15.0	1,600.0
Total Number of 2020 CERUs		66,425.5	14,837.5	19,631.5	33,209.0	23,866.0	3,855.5	8,394.0	170,219.0

* - Exclude fire lines/meters and deduct meters; single-family residential combination domestic/fire meters are counted and shown one size lower than reported.

Several notes regarding the water meter and CERU counts shown in **Table 1**:

- Section 2.2 of the RCFC Methodology explicitly states that fire sprinkler and exempt/deduct meters are not counted as CERUs because they do not increase system demand. When reported as such by members, dedicated fire meters are excluded from the CERU calculation.
- Section 2.3 requires Members to report total connected CERUs to Cascade on a quarterly basis for the purpose of collecting RCFCs, an administrative practice has transitioned to monthly reporting of net additions or deletions of meters. Meters that are not actually connected to the water system are not counted as CERUs for administrative dues or conservation charges, even if RCFCs have been paid. Meters that are connected are counted as CERUs whether or not the account is active at the time of inventory.
- Several Members report combined domestic/fire meters for single family residences. These meters are generally 1-inch or 1.5 inch meters that were oversized from 3/4-inch meters to provide fire flow capacity. When members report combined residential domestic/fire meters, they are defined by CERU methodology to be based on an equivalent domestic meter requirement excluding fire sprinkler load. Absent specific documentation from the member, they have been included in **Table 1** based on the assumption that each such meter is oversized one incremental size to support fire flow. Note that members are requested to report both actual and equivalent sizes. RCFCs are imposed based on the equivalent factor.
- The 2020 CERUs used for the adopted 2020 charges will be subject to reconciliation once actual 2018 meter counts are provided by members.

Administrative Dues

Administrative Dues are imposed on Members to recover the various administrative costs that Cascade incurs in its day-to-day operations – examples of relevant expenses include salaries and benefits of administrative personnel, office space rental, and public process. Members pay Administrative Dues annually according to the number of reported Cascade Equivalent Residential Units (CERUs) for the

prior completed fiscal year at time of budgeting. Thus, for 2019 rates, the year-end 2017 CERU counts are used, as adjusted. For 2020 rates, the estimated CERU growth by member is added to the year-end 2017 CERU counts to determine an estimated 2018 CERU count. In the event of new members or service area additions, the actual counts would be further adjusted to reflect those transactions.

The Administrative Dues rate is generally derived for a given year by dividing that year’s projected administrative expenses by the total number of CERUs for Cascade members (see Table 1). Cascade policy constrains the amount that Cascade can collect in Administrative Dues – annual collections are limited to nine percent (9.0%) of the Member Charge revenue requirement. **Table 2** shows the derivation of the 2019 and 2020 Administrative Dues rates:

Table 2: Derivation of 2019 and 2020 Administrative Dues

Administrative Dues Rate Calculation	Existing 2018	2019	2020
Projected Administrative Expenses:			
Wages	\$ 1,290,467	\$ 1,209,200	\$ 1,255,891
Professional services	\$ 604,300	\$ 466,000	\$ 454,500
Goods & services	\$ 581,000	\$ 766,700	\$ 757,468
Legal Services	\$ 637,500	\$ 680,000	\$ 705,000
Equipment	\$ 41,000	\$ 40,000	\$ 40,000
Travel	\$ 15,000	\$ 15,000	\$ 16,000
Miscellaneous	\$ 9,000	\$ 10,000	\$ 11,000
Contingency	\$ 200,000	\$ 100,000	\$ 100,000
Total	\$ 3,378,267	\$ 3,286,900	\$ 3,339,859
Administrative Dues Revenue Cap	\$ 3,489,802	\$ 3,734,088	\$ 3,734,088
Applicable CERU Count	167,992	168,619	170,219
<i>Administrative Cost per CERU</i>	\$ 20.11	\$ 19.49	\$ 19.62
Administrative Dues Rate per CERU	\$ 20.11	\$ 19.49	\$ 19.62

Table 3 shows the adopted 2019 and 2020 Administrative Dues payment for each Member:

Table 3: 2019 and 2020 Administrative Dues Payments by Member

<u>Administrative Dues</u>	Existing 2018	2019	2020
Bellevue	\$ 1,355,360	\$ 1,283,940	\$ 1,299,865
Issaquah	\$ 289,247	\$ 287,370	\$ 294,627
Kirkland	\$ 384,389	\$ 378,404	\$ 383,836
Redmond	\$ 649,009	\$ 635,226	\$ 647,226
Sammamish Plateau Water	\$ 459,730	\$ 464,243	\$ 474,619
Skyway WSD	\$ 76,496	\$ 75,132	\$ 75,729
Tukwila	\$ 164,036	\$ 162,584	\$ 163,957
Total	\$ 3,378,267	\$ 3,286,899	\$ 3,339,859

Conservation Charges

Conservation Charges were introduced in 2005 as a means of recovering the costs of Cascade's conservation program. Like Administrative Dues, Conservation Charges are imposed on Members on a CERU basis. **Table 4** shows the derivation of the Conservation Charge for 2019 and 2020:

Table 4: Derivation of 2019 and 2020 Conservation Charges

<u>Conservation Charge Rate Calculation</u>	Existing 2018	2019	2020
Projected Conservation Expenses:			
Wages	\$ 191,664	\$ 200,152	\$ 208,229
Goods & services	\$ 150,000	\$ 256,000	\$ 256,000
Rebates	\$ 240,000	\$ 125,000	\$ 125,000
Professional Services	\$ 215,000	\$ 235,000	\$ 235,000
Legal Services	\$ 5,000	\$ 5,000	\$ 5,000
Total	\$ 801,664	\$ 821,152	\$ 829,229
Applicable CERU Count	167,992	168,619	170,219
Conservation Charge per CERU	\$ 4.77	\$ 4.87	\$ 4.87

Table 5 shows the 2019 and 2020 Conservation Charge payments for each Member:

Table 5: 2019 and 2020 Conservation Charge Payments by Member

<u>Conservation Charges</u>	Existing 2018	2019	2020
Bellevue	\$ 321,628	\$ 320,761	\$ 322,734
Issaquah	\$ 68,638	\$ 71,792	\$ 73,151
Kirkland	\$ 91,216	\$ 94,535	\$ 95,300
Redmond	\$ 154,010	\$ 158,696	\$ 160,695
Sammamish Plateau Water	\$ 109,094	\$ 115,980	\$ 117,840
Skyway WSD	\$ 18,152	\$ 18,770	\$ 18,802
Tukwila	\$ 38,926	\$ 40,618	\$ 40,708
Total	\$ 801,664	\$ 821,152	\$ 829,230

Demand Share Charges

The Demand Share Charge recovers costs that are not otherwise recovered through the other Member Charges or other sources of revenue, and is computed by dividing the Demand Share cost basis by the number of Demand Shares. A member's Demand Share in a given year is based on a three-year rolling average – the 2019 calculations are based on data from 2015 – 2017 as the three most recently completed years. Each member's Demand Share is initially established as the greater of:

- Average daily demand (in mgd) from Cascade during the peak season (June 1 – September 30)
- Average daily demand (in mgd) from Cascade for the entire calendar year

Two agencies have minimum demand shares assigned based on Board action: Sammamish Plateau at 1.0 mgd and Issaquah at 0.75 mgd. For those agencies, the greater of the minimum or calculated demand share is applied.

Table 6 provides a summary of actual wholesale water demands for the three years 2015-2017, and an estimated wholesale water demand for 2018. It summarizes total annual, peak season, and peak month demands. The peak month demands are purely informational, and are not used to determine Cascade charges.

The estimated 2018 demand is derived from the three-year rolling average for 2015-2017. This value is adjusted downward to reflect ongoing trends in CERU water efficiency, and then adjusted upward to reflect the addition of CERUs to the customer base (essentially 2 years of growth to adjust from 2016, the midpoint of the three year average, to 2018).

In developing this summary, transfers among members are recognized as adjustments. Also, metered deliveries from Seattle are typically based on meter reads occurring near the 20th of each month. Peak season usage for June through September is pro-rated based on days contained in each month to estimate actual usage within the four month period. For example, a bill based on a June 20 meter read that follows a May 20 meter read would be allocated 11/31 to May and 20/31 to June. This is primarily relevant for the June 1 and September 30 endpoints of the peak summer season used to determine demand shares. Other member reports of production and transfers are assumed to be reported on a calendar month basis and are not adjusted, unless otherwise documented by the member. Peak month usage is informational only, and is simply the highest reported month of system demand.

The reported volumes for delivery of water to the Rose Hill area serving Kirkland, Redmond and Bellevue are originally reported from Seattle to Cascade as Kirkland volume, and then allocated among users based on member-provided allocation. In that allocation, reported volumes were adjusted by the members to conform to Seattle meter reads.

In May 2016, Redmond used estimated meter reads as the basis for billing retail accounts. These meter reads are also used to reconcile Redmond, Kirkland and Bellevue shares of wholesale water. On inspection, the estimated reads were not consistent with historical patterns and resulted in lower May volumes and higher June volumes than normal. Cascade undertook a review of annual usage patterns and pertinent weather (average high temperature, precipitation) and determined that 2008, 2014 and 2015 had similar weather patterns. Using 2015 as the most recent data, Redmond adjusted the May and June volumes to conform to historical ratios. Cascade has reviewed this allocation and agrees that it provides a reasonable basis for correcting the metered data, especially given that 2015 showed an above average share of usage in June, as did 2016 for other available data. Redmond has since submitted its 2016 demand data using this adjustment, and Cascade is relying on this data.

Bellevue has provided annual data for the transition service area that was transferred to Issaquah as of January 1, 2017. Given that the 2018 demand share charge should reflect the served customer base during 2018, the historical usage for 2015 and 2016 for this area has been used to adjust Bellevue volume downward and Issaquah demand upward in determining 2018 demand shares. These adjustments are incorporated into the summary in Table 6. Ultimately, the adjustments through 2016 will be outside the 3 year usage period and be removed from the calculation of demand shares. Beginning in 2017, water delivered from Bellevue to Issaquah for this service area is being reported as Issaquah usage and included under transfers from Bellevue to Issaquah.

Table 6: Three Year History of Member Wholesale Demands 2015-2017 and 2018 Estimated Demand

Annual Water Demand	CCF				MGD			
	2015	2016	2017	est. 2018	2015	2016	2017	est. 2018
1 Bellevue	7,032,533	7,094,055	7,445,935	7,143,649	14.41	14.50	15.26	14.64
3 Issaquah	569,653	632,178	661,569	659,114	1.17	1.29	1.36	1.35
4 Kirkland	1,923,991	1,859,004	1,902,626	1,891,693	3.94	3.80	3.72	3.88
5 Redmond	2,263,447	1,978,592	2,253,760	2,172,738	4.64	4.04	4.03	4.45
6 Sammamish Plateau Water	497,571	493,467	500,343	487,968	1.02	1.01	1.03	1.00
7 Skyway WSD	173,472	162,226	164,069	167,776	0.36	0.33	0.34	0.34
8 Tukwila	1,001,539	963,250	928,329	956,436	2.05	1.97	1.90	1.96
Total	13,462,207	13,182,772	13,856,631	13,479,374	27.6	26.9	28.4	27.6

Peak Season Water Demand	CCF				MGD			
	2015	2016	2017	est. 2018	2015	2016	2017	est. 2018
1 Bellevue	3,218,142	3,019,434	3,449,520	3,210,691	19.73	18.51	21.15	19.69
3 Issaquah	285,525	282,729	315,908	312,957	1.75	1.73	1.94	1.92
4 Kirkland	901,549	826,189	894,133	872,939	5.53	5.07	5.15	5.35
5 Redmond	1,182,785	922,507	1,198,286	1,103,486	7.25	5.66	5.91	6.77
6 Sammamish Plateau Water	197,839	162,373	197,632	197,632	1.21	1.00	1.21	1.21
7 Skyway WSD	68,808	60,498	68,215	66,685	0.42	0.37	0.42	0.41
8 Tukwila	446,352	413,931	413,456	421,518	2.74	2.54	2.53	2.58
Total	6,301,001	5,687,661	6,537,150	6,185,909	38.6	34.9	40.1	37.9

Peak Month Water Demand	CCF				MGD			
	2015	2016	2017	est. 2018	2015	2016	2017	est. 2018
1 Bellevue	948,450	812,088	975,881	925,880	22.89	19.59	23.55	22.34
3 Issaquah	84,089	80,630	91,990	92,782	2.03	1.95	2.22	2.24
4 Kirkland	268,300	232,509	255,935	257,148	6.47	5.61	6.18	6.20
5 Redmond	398,489	250,386	360,879	343,828	9.62	6.04	8.71	8.30
6 Sammamish Plateau Water	78,338	38,791	46,964	46,964	1.89	0.94	1.13	1.13
7 Skyway WSD	19,461	15,463	18,383	18,414	0.47	0.37	0.44	0.44
8 Tukwila	130,108	111,515	114,898	120,453	3.14	2.69	2.77	2.91
Total	1,927,234	1,541,382	1,864,930	1,805,468	46.5	37.2	45.0	43.6

Table 7 summarizes the 2019 and 2020 Demand Share calculations (more detailed calculations are attached as an appendix):



Table 7: 2019 and 2020 Demand Share Calculations

Member	2018 Actual		2019 Actual		2020 Estimated	
	Demand Share	% of Total	Demand Share	% of Total	Demand Share	% of Total
Bellevue	19.2118	52.5%	19.7977	52.3%	19.7824	52.6%
Issaquah	1.6415	4.5%	1.8070	4.8%	1.8630	5.0%
Kirkland	5.2479	14.3%	5.3584	14.2%	5.2999	14.1%
Redmond	6.4401	17.6%	6.7516	17.8%	6.5895	17.5%
Sammamish Plateau Water	1.0337	2.8%	1.1401	3.0%	1.1397	3.0%
Skyway WSD	0.3999	1.1%	0.4037	1.1%	0.3993	1.1%
Tukwila	2.6289	7.2%	2.6032	6.9%	2.5524	6.8%
Total	36.6038	100.0%	37.8615	100.0%	37.6263	100.0%

Note: Bellevue and Issaquah reflect 2017 service area transfer incorporating 0.2990 in 2018 demand shares

Table 8 shows the Demand Share Charge calculation for 2019 and 2020:

Table 8: Derivation of 2019 and 2020 Demand Share Charge

<u>Demand Share Charge Calculation</u>	Existing 2018	2019	2020
Total Prior-Year Member Charge Revenue Excluding RCFs	\$37,646,188	\$38,775,574	\$40,520,475
Planned Member Charge Revenue Adjustment	3.00%	4.50%	3.00%
Projected Member Charge Revenue	\$38,775,574	\$40,520,475	\$41,736,089
Less: Projected Administrative Dues	\$ (3,378,267)	\$ (3,286,899)	\$ (3,339,859)
Less: Projected Conservation Charges	\$ (801,664)	\$ (821,152)	\$ (829,230)
Demand Share Cost Basis	\$34,595,643	\$36,412,424	\$37,567,000
Projected Demand Share Basis	36.6038	37.8615	37.6263
Demand Share Charge	\$945,138	\$961,727	\$998,424
Corresponding Charge Per Demand Share %	\$345,956	\$364,124	\$375,670

Table 9 shows the 2019 and 2020 Demand Share Charge payments for each Member.



Table 9: 2019 and 2020 Demand Share Charges By Member

<u>Demand Share Charges</u>	Existing 2018	2019	2020
	Total Payment	Total Payment	Total Payment
Bellevue	\$ 18,157,825	\$ 19,039,957	\$ 19,751,277
Issaquah	\$ 1,551,469	\$ 1,737,818	\$ 1,860,105
Kirkland	\$ 4,959,980	\$ 5,153,278	\$ 5,291,538
Redmond	\$ 6,086,748	\$ 6,493,173	\$ 6,579,129
Sammamish Plateau Water	\$ 976,988	\$ 1,096,443	\$ 1,137,858
Skyway WSD	\$ 377,939	\$ 388,227	\$ 398,709
Tukwila	\$ 2,484,694	\$ 2,503,529	\$ 2,548,385
Total	\$ 34,595,643	\$ 36,412,425	\$ 37,567,001

Total Member Charges

Table 10 summarizes the Total 2019 and 2020 Member Charges for each Member.

Table 10: Summary of 2019 and 2020 Member Charges

2018 Member Charges	Administrative Dues	Conservation Charges	Demand Share Charges	Total
Bellevue	\$ 1,355,360	\$ 321,628	\$ 18,157,825	\$ 19,834,813
Issaquah	\$ 289,247	\$ 68,638	\$ 1,551,469	\$ 1,909,354
Kirkland	\$ 384,389	\$ 91,216	\$ 4,959,980	\$ 5,435,585
Redmond	\$ 649,009	\$ 154,010	\$ 6,086,748	\$ 6,889,767
Sammamish Plateau Water	\$ 459,730	\$ 109,094	\$ 976,988	\$ 1,545,812
Skyway Water & Sewer District	\$ 76,496	\$ 18,152	\$ 377,939	\$ 472,587
Tukwila	\$ 164,036	\$ 38,926	\$ 2,484,694	\$ 2,687,656
Total	\$ 3,378,267	\$ 801,664	\$ 34,595,643	\$ 38,775,574

2019 Adopted Member Charges	Administrative Dues	Conservation Charges	Demand Share Charges	Total	Increase Over 2016 Charges
Bellevue	\$ 1,283,940	\$ 320,761	\$ 19,039,957	\$ 20,644,658	4.08%
Issaquah	\$ 287,370	\$ 71,792	\$ 1,737,818	\$ 2,096,980	9.83%
Kirkland	\$ 378,404	\$ 94,535	\$ 5,153,278	\$ 5,626,217	3.51%
Redmond	\$ 635,226	\$ 158,696	\$ 6,493,173	\$ 7,287,095	5.77%
Sammamish Plateau Water	\$ 464,243	\$ 115,980	\$ 1,096,443	\$ 1,676,666	8.47%
Skyway Water & Sewer District	\$ 75,132	\$ 18,770	\$ 388,227	\$ 482,129	2.02%
Tukwila	\$ 162,584	\$ 40,618	\$ 2,503,529	\$ 2,706,731	0.71%
Total	\$ 3,286,899	\$ 821,152	\$ 36,412,425	\$ 40,520,476	4.50%

2020 Adopted Member Charges	Administrative Dues	Conservation Charges	Demand Share Charges	Total	Increase Over 2019 Charges
Bellevue	\$ 1,299,865	\$ 322,734	\$ 19,751,277	\$ 21,373,876	3.53%
Issaquah	\$ 294,627	\$ 73,151	\$ 1,860,105	\$ 2,227,883	6.24%
Kirkland	\$ 383,836	\$ 95,300	\$ 5,291,538	\$ 5,770,674	2.57%
Redmond	\$ 647,226	\$ 160,695	\$ 6,579,129	\$ 7,387,050	1.37%
Sammamish Plateau Water	\$ 474,619	\$ 117,840	\$ 1,137,858	\$ 1,730,317	3.20%
Skyway Water & Sewer District	\$ 75,729	\$ 18,802	\$ 398,709	\$ 493,240	2.30%
Tukwila	\$ 163,957	\$ 40,708	\$ 2,548,385	\$ 2,753,050	1.71%
Total	\$ 3,339,859	\$ 829,230	\$ 37,567,001	\$ 41,736,090	3.00%

For 2019, higher Issaquah and Sammamish Plateau CERU and water demand growth in 2017 have caused an above average increase. Other rate increases are moderately consistent with the general 4.5% increase incorporated in the charges, and reflect typical



fluctuations or impacts among members. For Skyway and Tukwila, flat volumes have reduced their relative share of impact given the general increase in 2017 Cascade demands.

For 2020, higher Issaquah demands relative to 2015 continue to generate above average increases as accumulated in the rolling history. All others are generally consistent with the general 3.0% increase. The 2020 charges are established based on estimated values pending determination of actual 2018 demands and customer counts (CERUs). As noted at the outset of this memorandum, Cascade will “lock in” the 2020 charges and introduce a true-up mechanism, applicable in 2021, for any deviations between estimates and actuals.

Appendix A summarizes the annual demands and 2019 demand share calculations for each member. The tables show Cascade deliveries and transfers among members as used to determine the member demand shares. This appendix does not document the basis for 2020 demand share calculations, as member demands were not estimated at this level of detail.

APPENDIX A



Details of Bellevue Demand Share Calculations

Bellevue Consumption Records:

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	568,245	530,129	588,480	601,019	823,174	1,043,652	1,209,591	1,012,276	756,777	613,916	559,908	423,020	8,730,188	4,022,296	4,707,892
From Kirkland	841	792	878	1,076	1,379	3,312	4,508	3,010	1,586	902	749	1,203	20,236	12,416	7,820
To Redmond	(37,558)	(34,851)	(40,104)	(38,992)	(62,028)	(97,779)	(121,576)	(100,921)	(58,853)	(44,507)	(37,151)	(34,266)	(708,586)	(379,129)	(329,457)
To SP Water	(40,833)	(34,995)	(36,160)	(39,352)	(42,119)	(42,194)	(59,984)	(40,658)	(9,080)	(14,934)	(43,967)	(35,376)	(439,652)	(151,916)	(287,736)
To Issaquah	(27,253)	(21,804)	(24,893)	(26,718)	(35,969)	(57,901)	(67,874)	(66,150)	(38,904)	(30,755)	(27,453)	(32,112)	(457,786)	(230,829)	(226,957)
Total	463,442	439,271	488,201	497,033	684,437	849,090	964,665	807,557	651,526	524,622	452,086	322,469	7,144,400	3,272,838	3,871,562

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	560,784	535,200	624,480	671,020	829,632	872,488	981,558	1,022,535	897,564	697,437	591,705	580,744	8,865,147	3,774,146	5,091,002
From Kirkland	849	693	820	1,226	2,153	2,596	2,175	3,014	2,222	1,597	1,229	847	19,421	10,007	9,414
To Redmond	(33,678)	(32,643)	(37,647)	(41,267)	(60,565)	(76,886)	(81,102)	(94,794)	(68,786)	(53,463)	(45,050)	(41,652)	(667,532)	(321,568)	(345,964)
To SP Water	(48,766)	(39,060)	(41,459)	(41,680)	(38,726)	(42,273)	(36,816)	(38,037)	(43,295)	(44,140)	(45,346)	(31,205)	(490,803)	(160,421)	(330,382)
To Issaquah	(35,321)	(30,695)	(35,887)	(38,061)	(47,674)	(55,495)	(60,683)	(68,369)	(53,395)	(35,575)	(36,912)	(31,351)	(529,418)	(237,942)	(291,476)
Total	443,868	433,495	510,307	551,238	684,820	700,430	805,133	824,349	734,309	565,856	465,626	477,383	7,196,815	3,064,221	4,132,593

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	600,400	541,543	630,695	628,894	720,205	941,623	1,192,870	1,213,368	939,148	672,563	583,672	580,002	9,244,984	4,287,010	4,957,974
From Kirkland	388	342	372	498	537	1,049	1,305	1,108	1,007	529	400	357	7,892	4,469	3,423
To Redmond	(40,981)	(36,646)	(46,840)	(36,729)	(50,783)	(73,195)	(99,460)	(103,101)	(66,293)	(41,426)	(32,917)	(31,891)	(660,262)	(342,049)	(318,213)
To SP Water	(37,426)	(33,801)	(32,385)	(44,193)	(42,247)	(43,263)	(75,198)	(43,504)	(22,036)	(31,254)	(43,493)	(36,309)	(485,110)	(184,001)	(301,108)
To Issaquah	(45,140)	(35,500)	(41,797)	(38,281)	(49,307)	(60,563)	(87,205)	(91,990)	(76,151)	(50,016)	(43,901)	(41,721)	(661,569)	(315,908)	(345,661)
Total	477,241	435,938	510,046	510,189	578,405	765,651	932,312	975,881	775,675	550,397	463,761	470,438	7,445,935	3,449,520	3,996,415

2019 Demand Share	
2015 - 2017 Average Wholesale Demand (mgd):	
Annual	14.8829
Summer	20.0010
Maximum Wholesale Capacity Required	20.0010
Service Area Transfer to Issaquah	-0.2033
Demand Share:	19.7977

peak season demands for 2015-2016; 2017 demands are net of transferred service area



Details of Issaquah Demand Share Calculations

Issaquah Consumption Records:

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade BIP	24,091	18,930	21,832	23,155	31,016	49,960	58,877	58,075	34,412	27,299	24,385	29,144	401,176	201,324	199,852
From Bellevue	3,162	2,874	3,061	3,563	4,953	7,941	8,997	8,075	4,492	3,456	3,068	2,968	56,610	29,505	27,105
Total	27,253	21,804	24,893	26,718	35,969	57,901	67,874	66,150	38,904	30,755	27,453	32,112	457,786	230,829	226,957

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade BIP	31,150	29,064	32,019	35,735	41,444	50,455	52,861	62,179	47,045	33,115	32,500	29,158	476,725	212,540	264,185
From Bellevue	4,171	1,631	3,868	2,326	6,230	5,040	7,822	6,190	6,350	2,460	4,412	2,193	52,693	25,402	27,291
Total	35,321	30,695	35,887	38,061	47,674	55,495	60,683	68,369	53,395	35,575	36,912	31,351	529,418	237,942	291,476

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade BIP	34,893	28,422	31,537	30,361	37,888	49,612	65,441	73,020	57,807	36,872	32,447	32,473	510,773	245,880	264,893
From Bellevue	10,247	7,078	10,260	7,920	11,419	10,951	21,764	18,970	18,344	13,144	11,454	9,248	150,796	70,028	80,768
Total	45,140	35,500	41,797	38,281	49,307	60,563	87,205	91,990	76,151	50,016	43,901	41,721	661,569	315,908	345,661

2019 Demand Share	
2015 - 2017 Average Wholesale Demand (mgd):	
Annual	1.1263
Summer	1.6037
Maximum Wholesale Capacity Required	1.6037
Service Area Transfer from Bellevue	0.2033
Minimum Demand Share	0.7500
Demand Share	1.8070

peak season demands for 2015-2016; 2017 demands are net of transferred service area



Details of Kirkland Demand Share Calculations

Kirkland Consumption Records:

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	188,518	172,504	187,821	191,473	264,258	353,980	432,870	368,345	265,997	210,890	184,731	185,609	3,006,995	1,421,191	1,585,804
To Redmond	(70,080)	(60,057)	(61,028)	(68,111)	(93,858)	(118,178)	(160,062)	(133,677)	(95,309)	(73,907)	(63,036)	(65,465)	(1,062,768)	(507,226)	(555,542)
To Bellevue	(841)	(792)	(878)	(1,076)	(1,379)	(3,312)	(4,508)	(3,010)	(1,586)	(902)	(749)	(1,203)	(20,236)	(12,416)	(7,820)
Total	117,597	111,655	125,915	122,286	169,021	232,490	268,300	231,658	169,102	136,081	120,946	118,941	1,923,991	901,549	1,022,442

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	182,260	166,060	194,569	192,383	276,666	297,640	338,875	326,783	273,244	204,893	179,287	170,623	2,803,282	1,236,541	1,566,741
To Redmond	(66,062)	(53,711)	(68,138)	(64,747)	(94,972)	(102,840)	(120,684)	(91,259)	(85,563)	(61,216)	(55,651)	(60,015)	(924,857)	(400,346)	(524,512)
To Bellevue	(849)	(693)	(820)	(1,226)	(2,153)	(2,596)	(2,175)	(3,014)	(2,222)	(1,597)	(1,229)	(847)	(19,421)	(10,007)	(9,414)
Total	115,348	111,656	125,611	126,409	179,542	192,204	216,017	232,509	185,459	142,080	122,407	109,761	1,859,004	826,189	1,032,815

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	189,889	166,324	180,868	189,414	235,116	309,672	384,064	393,899	312,632	222,145	190,704	188,368	2,963,096	1,400,268	1,562,828
To Redmond	(62,397)	(55,126)	(45,820)	(75,492)	(77,150)	(111,851)	(137,161)	(136,856)	(115,798)	(76,262)	(72,517)	(86,148)	(1,052,578)	(501,666)	(550,912)
To Bellevue	(388)	(342)	(372)	(498)	(537)	(1,049)	(1,305)	(1,108)	(1,007)	(529)	(400)	(357)	(7,892)	(4,469)	(3,423)
Total	127,104	110,856	134,676	113,424	157,429	196,772	245,598	255,935	195,827	145,354	117,787	101,863	1,902,626	894,133	1,008,493

2019 Demand Share	
2015 - 2017 Average Wholesale Demand (mgd):	
Annual	3.8839
Summer	5.3584
Maximum Wholesale Capacity Required	5.3584
Demand Share	5.3584



Details of Redmond Demand Share Calculations

Redmond Consumption Records:

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	30,263	21,452	22,629	21,429	42,501	90,125	135,205	79,503	37,521	25,756	21,189	22,440	550,012	342,353	207,658
From Bellevue	37,558	34,851	40,104	38,992	62,028	97,779	121,576	100,921	58,853	44,507	37,151	34,266	708,586	379,129	329,457
From Kirkland	70,080	60,057	61,028	68,111	93,858	118,178	160,062	133,677	95,309	73,907	63,036	65,465	1,062,768	507,226	555,542
To SP Water	(5,150)	(4,826)	(919)	(28)	(291)	(12,569)	(18,354)	(14,479)	(521)	(28)	(70)	(684)	(57,919)	(45,923)	(11,995)
Total	132,751	111,535	122,842	128,504	198,096	293,512	398,489	299,622	191,161	144,142	121,306	121,486	2,263,447	1,182,785	1,080,662

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	20,528	17,928	21,323	24,485	33,793	40,650	52,565	65,087	44,245	24,210	21,391	22,663	388,867	202,546	186,321
From Bellevue	33,678	32,643	37,647	41,267	60,565	76,886	81,102	94,794	68,786	53,463	45,050	41,652	667,532	321,568	345,964
From Kirkland	66,062	53,711	68,138	64,747	94,972	102,840	120,684	91,259	85,563	61,216	55,651	60,015	924,857	400,346	524,512
To SP Water	(27)	-	6	(36)	(513)	(891)	(252)	(754)	(55)	(32)	(59)	(51)	(2,664)	(1,952)	(712)
Total	120,241	104,282	127,114	130,462	188,816	219,484	254,099	250,386	198,539	138,857	122,033	124,279	1,978,592	922,507	1,056,085

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	22,351	24,078	22,610	20,681	29,128	63,474	116,544	124,382	63,803	25,778	21,411	21,913	556,153	368,202	187,951
From Bellevue	40,981	36,646	46,840	36,729	50,783	73,195	99,460	103,101	66,293	41,426	32,917	31,891	660,262	342,049	318,213
From Kirkland	62,397	55,126	45,820	75,492	77,150	111,851	137,161	136,856	115,798	76,262	72,517	86,148	1,052,578	501,666	550,912
To SP Water	(110)	(259)	(578)	(46)	(122)	(1,144)	(7,090)	(3,460)	(1,937)	(36)	(170)	(281)	(15,233)	(13,631)	(1,602)
Total	125,619	115,591	114,692	132,856	156,939	247,376	346,075	360,879	243,957	143,430	126,675	139,671	2,253,760	1,198,286	1,055,474

2019 Demand Share	
2015 - 2017 Average Wholesale Demand (mgd):	
Annual	4.4373
Summer	6.7516
Maximum Wholesale Capacity Required	6.7516
Demand Share	6.7516



Details of Sammamish Plateau Water Demand Share Calculations

Sammamish Plateau Water Consumption Records:

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
From Cascade BIP	40,833	34,995	36,160	39,352	42,119	42,194	59,984	40,658	9,080	14,934	43,967	35,376	439,652
From Redmond	5,150	4,826	919	28	291	12,569	18,354	14,479	521	28	70	684	57,919
Total	45,983	39,821	37,079	39,380	42,410	54,763	78,338	55,137	9,601	14,962	44,037	36,060	497,571

Summer	Winter
151,916	287,736
45,923	11,995
197,839	299,731

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
From Cascade BIP	48,766	39,060	41,459	41,680	38,726	42,273	36,816	38,037	43,295	44,140	45,346	31,205	490,803
From Redmond	27	-	(6)	36	513	891	252	754	55	32	59	51	2,664
Total	48,793	39,060	41,452	41,716	39,239	43,164	37,067	38,791	43,351	44,172	45,405	31,256	493,467

Summer	Winter
160,421	330,382
1,952	712
162,373	331,094

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
From Cascade BIP	37,426	33,801	32,385	44,193	42,247	43,263	75,198	43,504	22,036	31,254	43,493	36,309	485,110
From Redmond	110	259	578	46	122	1,144	7,090	3,460	1,937	36	170	281	15,233
Total	37,536	34,060	32,963	44,239	42,369	44,407	82,288	46,964	23,973	31,290	43,663	36,590	500,343

Summer	Winter
184,001	301,108
13,631	1,602
197,632	302,710

2019 Demand Share	
2015 - 2017 Average Wholesale Demand (mgd):	
Annual	1.0188
Summer	1.1401
Maximum Wholesale Capacity Required	1.1401
Minimum Demand Share	1.0000
Demand Share	1.1401



Details of Skyway WSD Demand Share Calculations

Skyway WSD Consumption Records:

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	13,025	11,244	13,140	13,111	14,757	17,246	19,461	16,811	15,291	13,363	12,165	13,859	173,472	68,808	104,664
Total	13,025	11,244	13,140	13,111	14,757	17,246	19,461	16,811	15,291	13,363	12,165	13,859	173,472	68,808	104,664

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	14,019	11,507	12,929	12,491	14,978	15,359	15,366	15,463	14,309	12,854	11,601	11,350	162,226	60,498	101,728
Total	14,019	11,507	12,929	12,491	14,978	15,359	15,366	15,463	14,309	12,854	11,601	11,350	162,226	60,498	101,728

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	10,874	11,944	13,238	11,930	12,907	15,775	18,481	18,383	15,576	12,576	11,180	11,204	164,069	68,215	95,854
Total	10,874	11,944	13,238	11,930	12,907	15,775	18,481	18,383	15,576	12,576	11,180	11,204	164,069	68,215	95,854

2019 Demand Share	
2015 - 2017 Average Wholesale Demand (mgd):	
Annual	0.3414
Summer	0.4037
Maximum Wholesale Capacity Required	0.4037
Demand Share	0.4037

Details of Tukwila Demand Share Calculations

Tukwila Consumption Records:

2015	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	63,671	59,424	68,066	70,302	89,231	108,875	130,108	117,724	89,645	75,954	64,412	64,127	1,001,539	446,352	555,187
Total	63,671	59,424	68,066	70,302	89,231	108,875	130,108	117,724	89,645	75,954	64,412	64,127	1,001,539	446,352	555,187

2016	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	61,651	57,972	67,317	71,474	88,369	97,099	108,357	111,515	96,960	76,532	62,472	63,533	963,250	413,931	549,319
Total	61,651	57,972	67,317	71,474	88,369	97,099	108,357	111,515	96,960	76,532	62,472	63,533	963,250	413,931	549,319

2017	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Summer	Winter
From Cascade	66,288	59,401	64,677	63,978	77,138	93,997	111,832	114,898	92,728	64,124	55,505	63,762	928,329	413,456	514,874
Total	66,288	59,401	64,677	63,978	77,138	93,997	111,832	114,898	92,728	64,124	55,505	63,762	928,329	413,456	514,874

2019 Demand Share	
2015 - 2017 Average Wholesale Demand (mgd):	
Annual	1.9763
Summer	2.6032
Maximum Wholesale Capacity Required	2.6032
Demand Share	2.6032



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