



Utility Board Agenda

For Meeting of October 9, 2018
7:00 PM to 9:00 PM
City Council Chambers, City Hall

Board Members:

Council Liaison:

Staff:

Tim O'Connell, Chairman, Vice Chairman, Tom DeBoer, Mary Grady, Stephen Milton, William Pokorny, Brian Thomas, and Kwan Wong

Mayor Debbie Bertlin, Council Liaison

Jason Kintner, Public Works Director

Chip Corder, Finance Director

Francie Lake, Deputy Finance Director

Patrick Yamashita, City Engineer

Anne Tonella-Howe, Assistant City Engineer

Brian McDaniel, Utilities Operations Manager

Asea Sandine, Recording Secretary

Agenda topics

7:00 PM

Approve Minutes All

Water Budget & Rates Francie Lake

Sewer Budget & Rates Francie Lake

December Meeting Dates: Dec 3, 10 All

Work Plan All

Transmitted via Email:

Agenda

Meeting Minutes

Work Plan

Next Meeting:

November 13, 2018



UTILITY BOARD REGULAR MEETING MINUTES SEPTEMBER 11, 2018

CALL TO ORDER:

Chair Tim O'Connell called the regular meeting of the Utility Board to order at 7:02 p.m. in the Council Chambers Room at City Hall, 9611 SE 36th Street, Mercer Island, WA.

ROLL CALL:

Present: Chair Tim O'Connell, Vice Chair Tom DeBoer, Mary Grady, Stephen Milton, Will Pokorny, Brian Thomas, and Kwan Wong present. Council Liaison Mayor Debbie Bertlin was also present.

City Staff: Jason Kintner, Public Works Director, Chip Corder, Assistant City Manager & Finance Director, Brian Hartvigson, Right-of-Way Manager, and Asea Sandine, Recording Secretary were also present.

MINUTES:

Board Member DeBoer moved to approve the minutes from the August 14, 2018 meeting. Board Member Grady seconded the motion. The Board unanimously approved the minutes.

REGULAR BUSINESS:

EMERGENCY MEDICAL SERVICES(EMS) RATES

Corder presented the 2018 EMS Rate update, noting that EMS rates are intended to cover the average cost of four firefighters (excluding overtime), who were hired back in 1996 to provide capacity to handle simultaneous EMS calls. He added that the last cost of service study was performed in 2015 and that the next one is planned for 2019. He also noted that the rates varied by customer class before the BLS ambulance transport fee was instituted in 2011. Rates are applied based on Equivalent Service Units, which have been updated based on September 2018 statistics. The Board inquired about the possibility of taking a different, more comprehensive approach to the development of EMS rates. Corder said that such a review would be challenging in 2019-2020 given what is on the current workplan for those years. The overall rate increase in 2019 is only 1.64% primarily due to firefighter turnover, with new firefighters replacing retired firefighters. Staff recommends the 1.64% rate increase in 2019.

Motion: Moved by Board Member Grady, seconded by Pokorny to recommend a 1.64% rate increase. The motion carried unanimously.

Motion: Moved by Board Member Thomas to encourage staff to examine a long-term fee structure and recovery of services. Seconded by O'Connell. The motion carried 6-1, Grady abstained.

STORMWATER RATES

Corder outlined the 2019-2020 operating budget for the Board. He noted that there is a proposed service enhancement added to meet National Pollution Discharge Elimination

System (NPDES) permit requirements. The permit requires inspection of an average of 12% of the City's system beginning in 2018 to meet permit regulations. Corder concluded the presentation with an overview of the Stormwater Capital Budget and by outlining how the rates are applied. Rates are applied based on impervious surface which is converted into Equivalent Service Units (ESUs). He noted that staff recommends a 3.2% rate increase in 2019-2020, which is driven by the cost of increasing catch basin inspection/illicit discharge monitoring by \$50,000 per year and planned capital projects in 2019-2024.

Motion: Moved by Board Member Thomas and seconded by Board Member Pokorny to recommend a 3.2% rate increase. The motion carried unanimously.

SOLID WASTE

O'Connell stated that he had sent a previous email regarding Board Member Thomas' inability to participate as a member of the Solid Waste Contract Review Committee due to a conflict of interest. O'Connell inquired if any other Board Members were interested in participating on the Committee. DeBoer said he would volunteer. The Board unanimously recommended DeBoer to volunteer.

2018 WORK PLAN

Mayor Bertlin advised of Council meeting on the same date as the December Utility Board Meeting. Staff advised they would explore other dates and poll the Board for a quorum.

NEXT MEETING: October 9, 2018.

ADJOURNMENT: 8:15 PM

Asea Sandine
Recording Secretary

Memo

Finance Department



To: Utility Board Members
From: Francie Lake, Deputy Finance Director
Date: October 5, 2018
Re: Water Utility Proposed Budget and 2019-2020 Rate Recommendation

At the October 9th Utility Board meeting we will discuss the proposed Water operations and maintenance budget and quickly review the six year plan for the Water capital program. Summary spreadsheets for these two key areas are attached. The Utility Board is being asked to review the budget for the Water Utility and make a rate recommendation for the 2019-2020 Budget at its meeting on October 9th. The operating and capital budgets presented in this memo have been incorporated into the Preliminary Budget Document, which will be delivered to the City Council on October 16th. Changes to the proposed budget and rate increase may result as further refinements are incorporated or when Council reviews the Preliminary Budget on October 23 (Operating Budget) and November 5, 2018 (Capital Budget).

The Board's last review of rates for the Water Utility was conducted at its October 10, 2017 meeting. The Board recommended and Council adopted a rate increase of 5.3% for 2018 (a bi-monthly increase of \$5.56 to the water [meter + usage] components of an average residential customer's bill).

2019-2020 Preliminary Budget

The proposed operating budget (See Exhibit I) for the Water Utility is status quo, in that there are no significant changes to the level of operation and maintenance of the Water system planned. Some highlights from the operating budget:

1. Salary estimates reflect current levels of staffing, which include 7 Public Works team members dedicated to operation and maintenance of the Water system, administrative support, utility billing and customer service, utility inspections of private development, and GIS (geographic information system) support to the Water Utility. Some of the increase in salaries in 2019 are the result of reclassifications (completed during the last round of bargaining), and the addition of a 9 month seasonal employee. The AFSCME contract, which dictates the pay and benefits of Public Works team members, is set to expire December 2019. The COLA for Public Works employees in the AFSCME union is 3.24% for 2019 and, as a placeholder, is projected to be 2.7% in 2020 (however, this still needs to be negotiated).

2. Benefit costs are driven primarily by projected increases in medical/dental premiums and the PERS retirement rate paid by the City in 2019 and 2020. Overall, benefits are projected to increase 1.9% in 2019 and 5.1% in 2020.
3. Supplies also include one-time increases in 2019 for the purchase of small equipment: (1) the purchase of a confined space tool in 2019 (\$17,500) and (2) a valve turning tool in 2020 (\$24,000).
4. Contractual services are forecasted to be significantly higher in 2019 because of the addition of several repair and maintenance contracts (partly due to staff vacancies in 2018 which has created a need to “catch up” on deferred maintenance in 2019-2020) for utilities valve exercising/operations, asphalt repair, and hydrant maintenance contracts (\$90,000). In addition, staff has proposed that a comprehensive Water Rate Study be conducted in 2019 (\$50,000).
5. Equipment Rental (fleet and computer) costs will increase in 2019 mostly as a result of the cost to support added technology for the Enterprise Management System implemented by Public Works in 2017 (\$35,000).
6. Insurance costs decrease slightly in 2019. Insurance costs are reviewed each biennium and are based on the prior 5 year claim history of the City.
7. Excise Tax on Water Revenue increases each year as rates are increased.
8. Water Purchases from Seattle Public Utilities (SPU) will increase as a result of rate increases of 6.0% (on average in 2019) and 5.8% (on average in 2020). Note that SPU sets a higher rate for the period of Peak usage (May 15-Sept 15) than for the period of Non-Peak usage (Sept 16-May 15). The cost of water purchases makes up about 20% of all Water Utility expenses.
9. Bond Redemption costs are related to repayment of the debt on the First Hill Water System Improvements (which is expected to conclude in 2030) and the addition of a new \$7.6 million debt issue in 2020 to fund the SCADA and Meter Replacement projects planned for 2020-2021.
10. Maintenance Building costs are the Water Fund’s share of maintaining this facility.
11. City Administration costs are the Water Fund’s share of administrative support provided by the City Attorney’s Office, City Manager’s Office, Finance and Human Resources staff.

The Utility Board reviewed a Preview of the Six Year Capital Plan for each of the Utilities at its August 14, 2018 meeting. No significant changes have been made to the proposed 2019-2024 Water capital plan since the August meeting. Planned capital projects total \$4,227,000 in 2019 and \$5,809,000 in 2020. See Exhibit 2 for a detailed summary of the proposed projects.

Water Use Assumptions within the Water Rate Model

Water rate modeling is done based on a wet to moderate weather year. 2010 usage patterns are the basis used in the model. In years when water use exceeds this amount, additional revenue is generated. In 2018, additional revenue of \$600,000 is anticipated, as a result of the warm, dry summer. The additional water purchased from SPU is estimated to

cost \$200,000, leaving net additional proceeds of \$400,000. The estimated additional proceeds have been reflected in the water rate model.

Historical annual water use by customers:

Year	2008	2009	2010	2011	2012
Total Use (ccf)	931,646	1,005,096	867,015	876,040	892,623
Year	2013	2014	2015	2016	2017
Total Use (ccf)	896,010	923,191	959,114	925,544	946,915

Debt Financing of Capital Projects

Exhibit 3 provides background information on the proposed debt financing of two Water projects: SCADA System Replacement and Meter Replacement Program. Note that Exhibit 3 is identical in the Water and Sewer Rate memos.

For the rate study, debt proceeds of \$7.6 million have been assumed in 2020, with a resulting annual debt repayment of \$623,697 starting in 2020. Future rate studies will further refine the debt issue and the debt repayment schedule needed to fund these projects.

Summary of Rate Financed Capital Reinvestment Projects

Last year's rate update anticipated increased capital reinvestment in 2019-2022 of \$4 million. A comparison of capital reinvestment between the rate study from one year ago, and the current rate study is provided in the following table. Note that the investment of \$7.6 million for SCADA and Meter Replacements has been excluded from the totals shown below for the current 2018 rate update, but the estimated annual debt service cost of \$623,697 starting in 2020 has been included.

Year	2019	2020	2021	2022	Total
2017 Rate Update	3,386,772	2,843,023	2,983,191	3,204,992	12,417,978
2018 Rate Update	4,425,040	2,759,645	2,759,645	5,991,977	15,936,307
Difference	1,038,268	1,005,096	867,057	876,040	3,786,461

Additional planned capital reinvestment work in 2023 and 2024 are significant drivers of the proposed water rate increase for 2019-2024. Capital reinvestment planned for the 2 "out years" which have been added to the 6 year plan total \$4.9 million (2023) and \$4.0 million (2024). Note that the 2018 rate update looked at capital reinvestment needs through 2022.

Water Rate Scenarios

Staff has prepared one Water rate scenario for the Utility Board's consideration on Tuesday evening. The rate scenario is based on the proposed Operating Budget, 6 year Capital Plan, and Debt Financing presented in Exhibits 1-3. In addition, the rate scenario reflects \$400,000 in estimated additional proceeds in 2018 as a result of the warm, dry summer.

Exhibit 4 (2019-2020 Rate Update) proposes a smoothed rate increase of 6.5% for 2019-2024. The 6.5% rate increase provides the funding needed to debt finance \$7.6 million for the SCADA and Meter Replacement projects, as well as to fund capital reinvestment planned for 2023 and 2024. **Staff recommends this Rate Scenario.**

A summary table comparing the proposed rates from last year’s rate update (for 2018) to the proposed 2019-2020 water rate update is presented below.

Rate Study	2018	2019	2020	2021	2022	2023	2024
2018 Rate Update	5.3%	5.3%	5.3%	5.3%	5.3%	N/A	N/A
2019-2020 Rate Update	5.3%	6.5%	6.5%	6.5%	6.5%	6.5%	6.5%

To facilitate your review, a copy of the Water Rate Scenario recommended by the Utility Board and adopted by the City Council for 2018 is attached as Exhibit 5. In addition, A comparison of the change in an average single family utility bill is provided in Exhibit 6. Note that Exhibit 6 is identical in the Water and Sewer Rate memos.

Staff will be available on Tuesday night to answer questions about the proposed operating and capital budgets as well as the proposed 2019-2024 Water Rate scenario. Staff will seek a recommendation from the Board on 2019-2020 Rates for the Water Utility. The rate recommendation for 2020 will be reviewed again next year.

The 2019 Water utility rate resolution is scheduled to go before the Council on November 20, 2018. It is customary for the Utility Board Chairman to be present at the Council meeting and speak about the Utility Board’s recommendation.

EXHIBIT I
WATER OPERATING BUDGET 2019-2020
(Maintenance, Utility Billing, Development Inspections and GIS)

DESCRIPTION	2017	2018	2019	%	2020	%
	ACTUAL	FORECAST	BUDGET	CHANGE	BUDGET	CHANGE
Salaries & Wages	908,355	904,004	986,646	9.1%	998,740	1.2%
Benefits	383,105	385,163	392,415	1.9%	412,475	5.1%
Supplies	217,694	194,030	209,230	7.8%	207,230	-1.0%
Contractual Services	178,130	242,170	409,145	68.9%	355,795	-13.0%
Communications	27,165	14,140	29,030	105.3%	29,230	0.7%
Equipment Rental	149,443	149,523	187,104	25.1%	188,420	0.7%
Insurance	121,390	128,741	124,211	-3.5%	129,551	4.3%
Utilities	51,708	44,600	53,000	18.8%	55,000	3.8%
Other Services & Charges	22,997	26,985	29,430	9.1%	29,030	-1.4%
Excise Tax on Water Revenues	436,355	379,641	386,595	1.8%	407,706	5.5%
Intergovernmental	11,135	11,620	11,620	0.0%	11,620	0.0%
Water Purchases	1,998,695	1,922,566	2,014,302	4.8%	2,110,162	4.8%
Bond Redemption *	107,272	111,525	109,425	-1.9%	730,847	567.9%
Interfund - Maint Building Rental	25,754	27,848	26,366	-5.3%	26,945	2.2%
City Administration	158,088	159,310	164,208	3.1%	169,114	3.0%
TOTAL	4,797,287	4,701,866	5,132,727	9.2%	5,861,865	14.2%

Exhibit 2
WATER FUND
Six Year Capital Plan 2019-2024

Description	2018	2019	2020	2021	2022	2023	2024
Sub-Standard Water Main Replacements							
82nd Ave and Forest Ave, W of WMW Improvement	0		122,000	802,000			
SE 22nd St - 22nd Pl Water System Improv.	111,000	1,118,000					
87th Ave & 88th Ave SE Water System Improvements	0	154,000	1,017,000				
82nd Ave SE, N or SE 24th Improvements			110,000	725,000			
96th Ave SE, SE 34th Improvements		392,000					
Madrona Crest East Addition Water Sys Improvement				357,000	2,348,000		
74TH Ave, SE 27th, 76th Ave & SE 29th Improvements					254,000	1,672,000	
77th Ave SE, SE 27th to SE 29th Improvements					77,000	506,000	
Avalon Dr and Benotho Pl Neighborhood Improvements						382,000	2,512,000
80th Ave SE, SE 27th - SE 32nd Improvements							180,000
Water Quality Event Follow-up Action Plan Projects							
Booster Chlorination Station	90,000	1,160,000					
Reservoir Generator Replacement	100,000	200,000					
Abandonment of 12" Water Line EMW		75,000					
Phase III Air Vacuum Release Valve Assemblies Upgrades	92,930						
Fluoride Station Removal	100,000						
SCADA System							
SCADA System Replacement		235,000	1,800,000	1,800,000	225,000	250,000	250,000
Water System Improvements							
EMW 5400 to 6000 block Watermain & PRV Stations	1,696,467						
Hydrant Replacement (contract work)	275,410	25,000	300,000	25,000	300,000	25,000	300,000
Water System Components (air vac, blow off, and etc.)	45,253	35,000	35,000	35,000	35,000	35,000	35,000
Street Related Water CIP Projects	191,924	200,000	200,000	200,000	200,000	200,000	200,000
Abandonment of 12" Water Line Reservoir to First Hill		50,000	200,000				
Other Water System Projects							
Water Model Updates/Fire Flow Analysis	38,550	8,000	25,000	8,000	25,000	8,000	25,000
Water System Plan Update	0	75,000		70,000	70,000		
Meter Replacement Program and Master Plan	199,453	500,000	2,000,000	2,000,000			
Water Reservoir Coatings- Interior and Exterior				50,000	1,700,000	1,700,000	300,000
Emergency Well Phase II - Feasibility & Assessment (CFP)				75,000			
Subtotal Water CIP	\$ 2,940,987	\$ 4,227,000	\$ 5,809,000	\$ 6,147,000	\$ 5,234,000	\$ 4,778,000	\$ 3,802,000
Interfund Transfers and other Capital Projects							
Capital Project Management	99,121	98,540	101,148	106,711	112,580	118,772	125,305
IFT - Maintenance Building Reinvestment	69,434	28,500	25,800	49,910	21,700	21,917	53,599
IFT - Technology Projects (EAM / SCADA Implementation)	50,000	71,000	0	0	0	0	0
Total	\$ 3,159,542	\$ 4,425,040	\$ 5,935,948	\$ 6,303,621	\$ 5,368,280	\$ 4,918,689	\$ 3,980,904

EXHIBIT 3

Debt Financing Information for Water and Sewer Rates

For several years, the Utility Board has anticipated the opportunity to make progress on replacement of aging utility capital assets by lumping several capital projects together and funding them with debt. However, staffing levels (and space to house additional staff) have precluded this financing approach. As discussed at the CIP Preview at the August 14, 2018 Utility Board meeting, there are two capital projects (SCADA System Replacement and Meter Replacement Program) planned for 2020-2021 that are anticipated to be significant in scope, which provide the opportunity for debt financing:

Year		2020	2021	Total
SCADA System Replacement	Water	\$ 1,800,000	\$ 1,800,000	\$ 3,600,000
SCADA System Replacement	Sewer	\$ 1,800,000	\$ 1,800,000	\$ 3,600,000
Sub-Total SCADA		\$ 3,600,000	\$ 3,600,000	\$ 7,200,000
Meter Replacement Program	Water	2,000,000	2,000,000	4,000,000
Total Cost Estimate (Debt Issue)		\$ 5,600,000	\$ 5,600,000	\$ 11,200,000
Sub-Total	Water	3,800,000	3,800,000	7,600,000
Sub-Total	Sewer	1,800,000	1,800,000	3,600,000

Staff is in the very early stages of planning for both of these projects. Cost estimates are very preliminary and are based on work by consultants. A cost estimate of \$7.2 million has been used as a preliminary placeholder for SCADA System Replacement project. This cost estimate is based on 80% of the high estimate of \$9.0 million provided by the consultant. Note that this cost estimate is for both the Water and Sewer components of the SCADA System project. A cost estimate of \$4 million has been used for the Meter Replacement program, which is the mid-point of the cost estimate range of \$2 to \$6 million provided by the consultant.

There is a lot of work to do in precisely defining the scope and refining the cost estimates for these projects, including preliminary design and updated engineer estimates (tentatively scheduled for 2019). Further refinement of cost estimates will be used for future debt financing discussions with the Board.

For the **Water Rate** Update, debt proceeds of \$7.6 million have been assumed in 2020, with a resulting annual debt repayment of \$623,697 starting in 2020. For the **Sewer Rate** Update, debt proceeds of \$3.6 million have been assumed in 2020, with a resulting annual debt repayment of \$295,436 starting in 2020. Future rate studies will further refine the amount of debt proceeds required to fund these projects and the debt repayment schedule to be paid by the Water and Sewer Utilities.

Exhibit 4

Water Rate Update for 2019-2020

Includes \$7.6 million in Debt Financed Capital Projects

City of Mercer Island
Water Utility Rate Update
 Summary



Revenue Requirement	2018	2019	2020	2021	2022	2023	2024
Revenues							
Rate Revenues Under Existing Rates	\$ 7,019,217	\$ 6,949,024	\$ 6,879,534	\$ 6,810,739	\$ 6,742,631	\$ 6,675,205	\$ 6,608,453
Adjustments for Leaks, Misreads, etc	(170,752)	(175,874)	(181,150)	(187,491)	(194,053)	(201,815)	(209,888)
Conservation Surcharge	20,000	20,000	20,000	20,000	20,000	20,000	20,000
IFT - Utility Tax Revenues	119,327	-	-	-	-	-	-
Non-Rate Revenues	117,300	117,300	117,300	117,300	117,300	117,300	117,300
Total Revenues	\$ 7,105,092	\$ 6,910,450	\$ 6,835,684	\$ 6,760,548	\$ 6,685,879	\$ 6,610,690	\$ 6,535,865
Expenses							
Cash Operating Expenses	\$ 2,664,275	\$ 2,981,581	\$ 2,968,456	\$ 3,092,119	\$ 3,222,636	\$ 3,362,192	\$ 3,509,068
Wholesale Water Purchases - SPU	1,922,566	2,014,302	2,110,162	2,193,514	2,280,157	2,370,224	2,463,847
Water Conservation Expenses	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Existing Debt Service	111,525	109,425	107,150	109,875	107,250	109,531	111,631
New Debt Service	-	-	623,697	623,697	623,697	623,697	623,697
Rate Funded System Reinvestment	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000	1,700,000	1,800,000
Total Expenses	\$ 5,901,866	\$ 6,408,807	\$ 7,212,966	\$ 7,522,705	\$ 7,837,241	\$ 8,169,145	\$ 8,511,744
Net Surplus (Deficiency)	\$ 1,203,225	\$ 501,643	\$ (377,282)	\$ (762,157)	\$ (1,151,362)	\$ (1,558,455)	\$ (1,975,879)
Additions to Meet Coverage	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 1,203,225	\$ 501,643	\$ (377,282)	\$ (762,157)	\$ (1,151,362)	\$ (1,558,455)	\$ (1,975,879)
% of Rate Revenue	0.00%	0.00%	5.47%	11.16%	17.03%	23.28%	29.81%
Annual Rate Adjustment	0.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%
Cumulative Annual Rate Adjustment	0.00%	6.50%	13.42%	20.79%	28.65%	37.01%	45.91%
Historical Rate Adjustment	5.30%	-----	-----	-----	-----	-----	-----
Net Revenue from Rate Increases	\$ -	\$ 451,687	\$ 923,405	\$ 1,416,291	\$ 1,931,537	\$ 2,450,404	\$ 3,014,220
Net Surplus / (Deficiency)	\$ 1,203,225	\$ 953,329	\$ 546,123	\$ 654,133	\$ 780,175	\$ 891,950	\$ 1,038,341
Remaining Adj Req % of Rate Revenue	-17.14%	-13.72%	-7.94%	-9.60%	-11.57%	-13.36%	-15.71%
Rate Revenues After Rate Increase	\$ 7,019,217	\$ 7,400,711	\$ 7,802,940	\$ 8,227,029	\$ 8,674,168	\$ 9,145,610	\$ 9,642,673
Additional Taxes from Rate Increase	\$ -	\$ 23,919	\$ 48,899	\$ 75,000	\$ 102,285	\$ 130,821	\$ 160,678
Net Cash Flow After Rate Increase	1,203,225	929,410	497,224	579,133	677,890	781,129	897,663
Coverage After Rate Increases	n/a	n/a	4.49	5.01	5.18	5.82	6.11
Sample Summer Bimonthly Bill (SF assuming 16 ccf)	\$ 110.31	\$ 117.48	\$ 125.12	\$ 133.25	\$ 141.91	\$ 151.13	\$ 160.96
Monthly Average Increase (\$)	\$ 5.49	\$ 7.17	\$ 7.64	\$ 8.13	\$ 8.66	\$ 9.22	\$ 9.82

Exhibit 4

Water Rate Update for 2019-2020
Includes \$7.6 million in Debt Financed Capital Projects

City of Mercer Island
Water Utility Rate Update
Summary



Fund Balance	2018	2019	2020	2021	2022	2023	2024
WORKING CAPITAL							
Beginning Balance	\$ 10,511,512	\$ 10,554,396	\$ 8,694,866	\$ 12,560,143	\$ 8,772,237	\$ 6,027,827	\$ 3,929,495
plus: Net Cash Flow after Rate Increase	1,203,225	929,410	497,224	579,133	677,890	781,129	897,663
Operating Funds Subtotal	\$ 11,714,737	\$ 11,483,806	\$ 9,192,090	\$ 13,139,276	\$ 9,450,126	\$ 6,808,955	\$ 4,827,159
plus: Rate Funded System Reinvestment	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000	1,700,000	1,800,000
plus: Grants/ Donations/ PWTF/ G.O.	-	-	-	-	-	-	-
plus: Connection Charges	210,000	125,000	130,000	132,258	136,887	199,307	207,280
plus: Net Debt Proceeds Available for Projects	-	-	7,600,000	-	-	-	-
plus: Interest Earnings	189,200	211,100	174,000	314,004	219,306	150,696	98,237
plus: Additional Proceeds	400,000	-	-	-	-	-	-
less: Additional Costs	-	-	-	-	-	-	-
less: Connection Charges Towards Debt	-	-	-	-	-	-	-
Total Funding Sources	\$ 13,713,937	\$ 13,119,906	\$ 18,496,091	\$ 15,085,537	\$ 11,406,319	\$ 8,858,958	\$ 6,932,676
less: Capital Expenditures	(3,159,541)	(4,425,040)	(5,935,948)	(6,313,301)	(5,378,492)	(4,929,463)	(3,992,270)
Ending Working Capital Balance	\$ 10,554,396	\$ 8,694,866	\$ 12,560,143	\$ 8,772,237	\$ 6,027,827	\$ 3,929,495	\$ 2,940,406
<i>Info: No of Days of Cash Operating Expenses</i>	839	635	905	605	400	250	180
FISCAL TARGET							
<i>Minimum Operating Reserve</i>	\$ 1,131,865	\$ 1,232,724	\$ 1,249,701	\$ 1,304,170	\$ 1,357,716	\$ 1,414,335	\$ 1,469,610
<i>Minimum Capital Target Balance</i>	803,618	892,119	1,010,838	1,137,104	1,244,674	1,343,263	1,423,109
Total Target Working Capital Balance	\$ 1,935,483	\$ 2,124,844	\$ 2,260,539	\$ 2,441,274	\$ 2,602,390	\$ 2,757,599	\$ 2,892,719
<i>Info: No of Days of Target Cash Operating Expenses</i>	154	155	163	168	173	175	177
AVAILABLE FUND BALANCE-AFTER FISCAL TARGET IS MET	\$ 8,618,913	\$ 6,570,022	\$ 10,299,603	\$ 6,330,963	\$ 3,425,437	\$ 1,171,897	\$ 47,687

Exhibit 5

2018 Adopted Water Rates
Generates \$4M for Additional Capital Reinvestment (2019-2022)

City of Mercer Island
Water Utility Rate Update
 Summary



Revenue Requirement	2016	2017	2018	2019	2020	2021	2022
Revenues							
Rate Revenues Under Existing Rates	\$ 7,331,112	\$ 6,750,342	\$ 6,682,839	\$ 6,682,839	\$ 6,682,839	\$ 6,682,839	\$ 6,682,839
Adjustments for Leaks, Misreads, etc	(149,449)	(165,778)	(170,752)	(175,874)	(181,150)	(186,585)	(192,183)
Conservation Surcharge	27,978	20,000	20,000	20,000	20,000	20,000	20,000
IFT - Utility Tax Revenues	122,451	114,756	119,629	125,970	132,646	139,677	147,079
Non-Rate Revenues	126,109	109,300	109,300	109,300	109,300	109,300	109,300
Total Revenues	\$ 7,458,201	\$ 6,828,620	\$ 6,761,016	\$ 6,762,234	\$ 6,763,634	\$ 6,765,230	\$ 6,767,035
Expenses							
Cash Operating Expenses	\$ 2,527,733	\$ 2,674,005	\$ 2,618,507	\$ 2,735,133	\$ 2,849,370	\$ 2,969,729	\$ 3,096,572
Wholesale Water Purchases - SPU	2,010,226	1,854,040	1,778,599	1,894,208	2,004,072	2,104,276	2,209,490
Water Conservation Expenses	-	3,500	3,500	3,500	3,500	3,500	3,500
Existing Debt Service	110,263	108,475	111,525	109,425	107,150	109,875	107,250
New Debt Service	-	-	-	-	-	-	-
Rate Funded System Reinvestment	950,000	1,100,000	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000
Total Expenses	\$ 5,598,222	\$ 5,740,020	\$ 5,712,132	\$ 6,042,266	\$ 6,364,092	\$ 6,687,380	\$ 7,016,811
Net Surplus (Deficiency)	\$ 1,859,980	\$ 1,088,600	\$ 1,048,885	\$ 719,968	\$ 399,543	\$ 77,850	\$ (249,776)
Additions to Meet Coverage	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 1,859,980	\$ 1,088,600	\$ 1,048,885	\$ 719,968	\$ 399,543	\$ 77,850	\$ (249,776)
% of Rate Revenue	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.73%
Annual Rate Adjustment	0.00%	0.00%	5.30%	5.30%	5.30%	5.30%	5.30%
Cumulative Annual Rate Adjustment	0.00%	0.00%	5.30%	10.88%	16.76%	22.95%	29.46%
Historical Rate Adjustment	10.90%	5.50%	0.00%	0.00%	0.00%	0.00%	0.00%
Net Revenue from Rate Increases	\$ -	\$ -	\$ 354,190	\$ 727,153	\$ 1,119,883	\$ 1,533,427	\$ 1,968,889
Net Surplus / (Deficiency)	\$ 1,859,980	\$ 1,088,600	\$ 1,403,075	\$ 1,447,121	\$ 1,519,425	\$ 1,611,277	\$ 1,719,113
Remaining Adj Req % of Rate Revenue	-25.37%	-16.13%	-21.00%	-21.65%	-22.74%	-24.11%	-25.72%
Rate Revenues After Rate Increase	\$ 7,331,112	\$ 6,750,342	\$ 7,037,029	\$ 7,409,992	\$ 7,802,721	\$ 8,216,265	\$ 8,651,727
Additional Taxes from Rate Increase	\$ -	\$ -	\$ 17,812	\$ 36,569	\$ 56,319	\$ 77,116	\$ 99,015
Net Cash Flow After Rate Increase	1,859,980	1,088,600	1,385,263	1,410,553	1,463,106	1,534,161	1,620,098
Coverage After Rate Increases	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sample Summer Bimonthly Bill (SF assuming 16 ccf)	\$99.36	\$ 104.82	\$ 110.38	\$ 116.23	\$ 122.39	\$ 128.88	\$ 135.71
Monthly Average Increase (\$)	\$9.76	\$ 5.46	\$ 5.56	\$ 5.85	\$ 6.16	\$ 6.49	\$ 6.83

Exhibit 5

2018 Adopted Water Rates
Generates \$4M for Additional Capital Reinvestment (2019-2022)

City of Mercer Island
Water Utility Rate Update
 Summary



Fund Balance	2016	2017	2018	2019	2020	2021	2022
WORKING CAPITAL							
Beginning Balance	\$ 6,617,158	\$ 7,724,247	\$ 8,402,582	\$ 6,052,591	\$ 4,665,693	\$ 3,928,420	\$ 3,134,954
plus: Net Cash Flow after Rate Increase	1,859,980	1,088,600	1,385,263	1,410,553	1,463,106	1,534,161	1,620,098
Operating Funds Subtotal	\$ 8,477,138	\$ 8,812,846	\$ 9,787,845	\$ 7,463,144	\$ 6,128,799	\$ 5,462,580	\$ 4,755,051
plus: Rate Funded System Reinvestment	950,000	1,100,000	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000
plus: Grants/ Donations/ PWTF/ G.O.	-	-	-	-	-	-	-
plus: Connection Charges	314,114	145,682	137,548	128,795	132,659	136,639	140,738
plus: Net Debt Proceeds Available for Projects	-	-	-	-	-	-	-
plus: Interest Earnings	39,674	27,516	63,019	60,526	69,985	58,926	47,024
plus: Additional Proceeds	-	-	-	-	-	-	-
less: Additional Costs	-	-	-	(900,000)	(960,000)	(1,040,000)	(1,100,000)
less: Connection Charges Towards Debt	-	-	-	-	-	-	-
Total Funding Sources	\$ 9,780,926	\$ 10,086,045	\$ 11,188,412	\$ 8,052,465	\$ 6,771,444	\$ 6,118,146	\$ 5,442,814
less: Capital Expenditures	(2,056,679)	(1,683,463)	(5,135,821)	(3,386,773)	(2,843,024)	(2,983,192)	(3,204,994)
Ending Working Capital Balance	\$ 7,724,247	\$ 8,402,582	\$ 6,052,591	\$ 4,665,693	\$ 3,928,420	\$ 3,134,954	\$ 2,237,820
<i>Info: No of Days of Cash Operating Expenses</i>	623	677	502	368	296	225	154
FISCAL TARGET							
<i>Minimum Operating Reserve</i>	\$ 1,115,892	\$ 1,117,367	\$ 1,085,081	\$ 1,142,344	\$ 1,194,330	\$ 1,251,988	\$ 1,309,207
<i>Minimum Capital Target Balance</i>	386,320	604,732	681,769	732,571	775,216	819,964	868,039
Total Target Working Capital Balance	\$ 1,502,212	\$ 1,722,099	\$ 1,766,851	\$ 1,874,915	\$ 1,969,546	\$ 2,071,952	\$ 2,177,246
<i>Info: No of Days of Target Cash Operating Expenses</i>	121	139	147	148	148	149	150
AVAILABLE FUND BALANCE-AFTER FISCAL TARGET IS MET	\$ 6,222,035	\$ 6,680,482	\$ 4,285,741	\$ 2,790,777	\$ 1,958,873	\$ 1,063,002	\$ 60,574

Notes:

Additional Proceeds (Costs) Consist of the following:	2016	2017	2018	2019	2020	2021	2022
Additional Proceeds (Dry Summer) (net of cost)	-	800,000	-	-	-	-	-
Additional Capital Reinvestment (Main Replacements)	-	-	-	(900,000)	(960,000)	(1,040,000)	(1,100,000)
[Extra line]	-	-	-	-	-	-	-

EXHIBIT 6

Sample Bill for an Average Single Family Customer*

2019-2020 Rate Recommendation to Utility Board on October 9, 2018

Taken together, the total (i.e. water, sewer, storm water, and EMS) bi-monthly utility bill under the staff recommended rate scenarios for the average single family residential customer would go up by 5.3% in 2019 and 4.7% in 2020, which equates to a \$17.13 increase and a \$16.10 increase respectively, as noted in the following table.

Utility Rate Component	2018 Adopted	2019 Proposed	2020 Proposed	\$ Change		% Change	
				2019	2020	2019	2020
Water	\$110.31	\$117.48	\$125.12	\$7.17	\$7.64	6.5%	6.5%
Sewer Maintenance (City)	\$84.71	\$91.23	\$98.26	\$6.52	\$7.02	7.7%	7.7%
Sewer Treatment (King County)	\$88.44	\$90.66	\$90.66	\$2.22	\$0.00	2.5%	0.0%
Storm Water	\$33.59	\$34.66	\$35.77	\$1.07	\$1.11	3.2%	3.2%
EMS (estimate)	\$9.14	\$9.29	\$9.62	\$0.15	\$0.33	1.6%	3.5%
Total	\$326.19	\$343.32	\$359.42	\$17.13	\$16.10	5.3%	4.7%

* **An average Single Family Customer is as follows:**

Water: 3/4" Meter with 16 ccf of Water Use (Bi-Monthly)

Sewer: 11 ccf of Water Use (Bi-Monthly Winter Average) - was 12 ccf for 2017-2018 analysis

KC Sewer Treatment: Fixed Rate is set by King County

Stormwater: SF is charged at 1 ESU (Equivalent Service Unit)

EMS: SF is charged at 1 ESU (Equivalent Service Unit)

Memo

Finance Department



To: Utility Board Members
From: Francie Lake, Deputy Finance Director
Date: October 5, 2018
Re: Sewer Utility Proposed Budget and 2019-2020 Rate Recommendation

At the October 9th Utility Board meeting we will discuss the proposed Sewer operations and maintenance budget and quickly review the six year plan for the Sewer capital program. Summary spreadsheets for these two key areas are attached. The Utility Board is being asked to review the budget for the Sewer Utility and make a rate recommendation for the 2019-2020 Budget at its meeting on October 9th. The operating and capital budgets presented in this memo have been incorporated into the Preliminary Budget Document, which will be delivered to the City Council on October 16th. Changes to the proposed budget and rate increase may result as further refinements are incorporated or when Council reviews the Preliminary Budget on October 23 (Operating Budget) and November 5, 2018 (Capital Budget).

The Board's last review of rates for the Sewer Utility was conducted at its October 10, 2017 meeting. The Board recommended and Council adopted a rate increase of 7.8% for 2018 (a bi-monthly increase of \$6.63 to the sewer line maintenance component of an average residential customer's bill).

Service Enhancement - Sewer Utilities Closed Circuit Television (CCTV) Vehicle and Combination Vector Jetter

The proposed operating budget for the Sewer Utility includes one significant change in the way operation and maintenance services are provided by the Sewer team. Regular operations and maintenance (O&M) of the sewer utility provides effective and efficient maintenance services to the community. Delayed O&M activities may contribute to adverse sewer events, including sewer backups, sanitary sewer overflows, pipe breaks, etc. Closed Circuit Television (CCTV) is primarily used to identify clogs, roots, grease, and defects.

Currently (and previously), contracted services is utilized for CCTV work due to the cost of the equipment and the lack of available staff to operate the equipment. In the 2017-2018 biennium, staffing was increased by two full-time employees. The Sewer Team staff have proposed a savings opportunity and the ability to provide a higher level of service by bringing this service in house.

Additionally, in 2018, the Public Works Department implemented a new Enterprise Asset Management System and updated the General Sewer Plan. CCTV inspection, in conjunction

with Pipeline Assessment and Certification Program (PACP) and Manhole Assessment and Certification Program (MACP) standards will be used to manage sewer assets more efficiently and effectively.

In lieu of contracted services, the acquisition of a CCTV vehicle and vactor/jetter combination unit is proposed. Currently, per the Fleet Replacement schedule, the Sewer Jetter is scheduled for replacement in 2019. This vehicle will be replaced in 2019 but modified to include a combination unit (vactor capabilities) to improve the levels of service. As a result, contracted services previously used for O&M activities such as pump station wet well and special catch basin cleaning will be completed utilizing existing staff resources.

The use of these 2 vehicles coupled with the use of the Enterprise Asset Management system will result in reduced response times during emergencies and increase staff efficiency. In addition, shrinking the operating costs for the utility by the ability to reduce claims along with a reduction in contracted services.

The cost savings in contracted services in 2019 (\$175,000) and 2010 (\$185,000) would be applied to the purchase cost of the 2 vehicles.

2019-2020 Preliminary Budget

Additional information about the proposed operating budget (See Exhibit 1) for the Sewer Utility is summarized below:

1. Salary estimates reflect current levels of staffing, which include 6 Public Works team members dedicated to operation and maintenance of the Sewer system, administrative support, utility billing and customer service, utility inspections of private development, and GIS (geographic information system) support to the Sewer Utility. Some of the increase in salaries in 2019 are the result of reclassifications (completed during the last round of bargaining), and the addition of a 6-month seasonal employee. The AFSCME contract, which dictates the pay and benefits of Public Works team members, is set to expire December 2019. The COLA for Public Works employees in the AFSCME union is 3.24% for 2019 and, as a placeholder, is projected to be 2.7% in 2020 (however, this still needs to be negotiated).
2. Benefit costs are driven primarily by projected increases in medical/dental premiums and the PERS retirement rate paid by the City in 2019 and 2020. Overall, benefits are projected to increase 1.5% in 2019 and 5.7% in 2020.
3. Supplies include one-time increases in 2019 for the purchase of small equipment: (1) a confined space entry tool in 2019 (\$10,000); (2) replacement of the Uninterrupted Power Supply (UPS) for safe operation of the pump stations in 2019 (\$12,000), and (3) push camera and jet nozzles for inspecting and cleaning sewer lines in 2019 (\$15,000) and 2020 (\$12,000).
4. Contractual services are forecasted to be higher in 2019 because of the rental of CCTV equipment for \$45,000 per year in 2019 and 2020 (to be utilized until the CCTV vehicle and equipment are purchased). In addition, staff has proposed that a comprehensive Sewer Rate Study be conducted in 2019 (\$40,000).

5. Equipment Rental (fleet and computer) costs decrease about \$10,000 in 2019 mostly as a result of postponing some vehicle replacements, decreasing fleet charges, which was somewhat offset by increases in computer support costs.
6. Insurance costs increase slightly in 2019. Insurance costs are reviewed each biennium and are based on the prior 5 year claim history of the City.
7. Excise Tax on Sewer Revenue increases each year as rates are increased.
8. King County Wastewater Treatment rates will increase by 2.5% in 2019, and are expected to remain level for 2020. King County Wastewater Treatment makes up 58% of the total operating costs in 2019. This close to \$114,000 increase is **passed through** to sewer customers and is identified separately on a customer's utility bill (as KC SWR FLAT). [Note that this cost is not included in the expenses which drive the City Sewer rates (SWR LINE MAINT)].
9. Bond Redemption costs are related to repayment of the debt on the Sewer Lake Line project (\$7.0 million PWTF loan and \$9.4 million LTGO bonds) and for the SCADA System Replacement project planned for 2020-2021 (a new \$3.6 million debt issue).
10. Maintenance Building costs are the Sewer Fund's share of maintaining this facility.
11. City Administration costs are the Sewer Fund's share of administrative support provided by the City Attorney's Office, City Manager's Office, Finance and Human Resources staff.

The Utility Board reviewed a Preview of the Six Year Capital Plan for each of the Utilities at its August 14, 2018 meeting. No significant changes have been made to the proposed 2019-2024 Sewer capital plan since the August meeting. Planned capital projects total \$1,859,000 in 2019 and \$3,387,000 in 2020. See Exhibit 2 for a detailed summary of the proposed projects.

Debt Financing of Capital Projects

Exhibit 3 provides background information on the proposed debt financing of the Sewer portion of the SCADA System Replacement project. Note that Exhibit 3 is identical in the Water and Sewer Rate memos.

For the rate study, debt proceeds of \$3.6 million have been assumed in 2020, with a resulting annual debt repayment of \$295,436 starting in 2020. Future rate updates will reflect future refinement of the project costs, and the associated debt issue and debt repayment schedule needed to fund the SCADA project.

Future Sewer Capital Reinvestment Needs

In recent years, the Utility Board has recommended rate scenarios which anticipate generating an additional \$2.5 million in capital funding by 2022 for a future Lake Line replacement project.

The General Sewer Plan (GSP) Update (with an emphasis on the Capital Reinvestment needs of the Sewer Utility) was reviewed by the Utility Board at its January 16, 2018 meeting. The GSP anticipates the replacement of Reach 4 of the Lake Line at an estimated cost of \$3.7

million in the “mid-term” (2025-2028) following condition assessment and preliminary design. In addition, the GSP forecasts the Capital Reinvestment needs of the Sewer Utility increasing to \$7.5 to \$8.0 million per year starting in 2025. The average annual reinvestment in the proposed 2019-2024 Capital Plan is \$2.5 million (including the SCADA System Replacement project). While further planning work will be needed, the Sewer System (like the Water System) is aging and significant reinvestment work will be required in the future.

The proposed 2019-2020 Sewer Rate update maintains the goal of generating \$2.5 million in funds for a future Sewer Lake Line or other capital reinvestment project, but pushed out the date by which the funds are fully available to 2024.

Sewer Rate Scenarios

Staff has prepared one Sewer rate scenario for the Utility Board’s consideration on Tuesday evening. The rate scenario is based on the proposed Operating Budget, 6 year Capital Plan, and Debt Financing presented in Exhibits 1-3. In addition, the rate scenario anticipates issuing \$3.6 million in debt in 2020 and also anticipates generating \$2.5 million in funding by 2024.

Exhibit 4 (2019-2020 Rate Update) proposes a smoothed rate increase of 7.7% for 2019-2024. The 7.7% rate increase provides the funding needed to make annual debt payments on the \$3.6 million for the SCADA System Replacement project starting in 2020, as well as to invest an average of \$2.5 million per year in Sewer Capital Reinvestment projects (2019-2024). **Staff recommends this Rate Scenario.**

A summary table comparing the proposed rates from last year’s rate update (for 2018) to the proposed 2019-2020 Sewer rate update is presented below.

Rate Study	2018	2019	2020	2021	2022	2023	2024
2018 Rate Update	7.8%	7.8%	7.8%	7.8%	7.8%	N/A	N/A
2019-2020 Rate Update	7.8%	7.7%	7.7%	7.7%	7.7%	7.7%	7.7%

To facilitate your review, a copy of the Sewer Rate Scenario recommended by the Utility Board and adopted by the City Council for 2018 is attached as Exhibit 5. In addition, A comparison of the change in an average single family utility bill is provided in Exhibit 6. Note that Exhibit 6 is identical in the Water and Sewer Rate memos.

Staff will be available on Tuesday night to answer questions about the proposed operating and capital budgets as well as the proposed 2019-2024 Sewer Rate scenario. Staff will seek a recommendation from the Board on 2019-2020 Rates for the Sewer Utility. The rate recommendation for 2020 will be reviewed again next year.

The 2019 Sewer utility rate resolution is scheduled to go before the Council on November 20, 2018. It is customary for the Utility Board Chairman to be present at the Council meeting and speak about the Utility Boards’ recommendation.

Exhibit I
SEWER OPERATING BUDGET 2019-2020
(Maintenance, Utility Billing, Development Inspections and GIS)

DESCRIPTION	2017	2018	2019	%	2020	%
	ACTUAL	FORECAST	BUDGET	CHANGE	BUDGET	CHANGE
Salaries & Wages	718,216	795,103	868,681	9.3%	883,590	1.7%
Benefits	325,422	347,283	352,454	1.5%	372,537	5.7%
Supplies	60,895	44,280	80,730	82.3%	68,130	-15.6%
Contractual Services	270,205	353,055	446,030	26.3%	412,130	-7.6%
Communications	66,604	51,090	77,780	52.2%	78,580	1.0%
Equipment Rental	136,293	137,298	130,049	-5.3%	131,365	1.0%
Insurance	58,710	62,599	64,093	2.4%	66,649	4.0%
Utilities	53,964	51,800	55,310	6.8%	57,310	3.6%
Other Services & Charges	12,964	24,935	25,345	1.6%	24,945	-1.6%
Excise Tax on Sewer Revenues	194,971	190,993	200,190	4.8%	212,355	6.1%
Intergovernmental	63	120	120	0.0%	120	0.0%
King County Wastewater Treatment	4,713,277	4,719,416	4,833,160	2.4%	4,828,462	-0.1%
Capital	14,006	0	175,000	N/A	185,000	N/A
Bond Redemption *	1,079,514	1,057,179	1,046,897	-1.0%	1,337,720	27.8%
	27,333	29,582	23,136	N/A	23,645	N/A
City Administration	116,468	116,907	126,876	8.5%	130,609	2.9%
TOTAL	7,848,904	7,981,639	8,505,851	6.6%	8,813,147	3.6%
Service Enhancement - CCTV - R/M	0	0	-175,000	N/A	-185,000	N/A
TOTAL	7,848,904	7,981,639	8,330,851	4.4%	8,628,147	3.6%

* Bond Redemption relates to PWTF Construction Loan (\$7M) and LTGO Bonds (\$9.4M) to Finance Sewer Lake Line Construction and SCADA (starting in 2020).

**Exhibit 2
SEWER FUND**

Six Year Capital Plan 2019-2024

Description	2018	2019	2020	2021	2022	2023	2024
General							
Pipe Flow Monitoring		105,000	0	105,000	0	105,000	0
Comprehensive Hydraulic Model Development		180,000	0	0	0	0	0
Comprehensive I/I Evaluation		0	140,000	0	0	0	0
Pipe Collection System Improvements							
Special Catch Basins	270,884						
Comprehensive Pipeline Repair & Replacement	412,794	300,000	350,000	400,000	400,000	400,000	400,000
Street Related Sewer System Improvements	51,119	30,000	30,000	30,000	30,000	30,000	30,000
Backyard Sewer System Improvements	156,380	37,000	232,000	37,000	232,000	37,000	232,000
W. Mercer Way Pipe Upsize	0	0	0	50,000	146,000	0	0
Pump Station Improvements							
Pump Station Access Improvements	63,858	37,000	74,000	37,000	74,000	37,000	74,000
Generator Replacement	436,686	100,000	100,000	100,000	100,000		0
Pump Station Flow Monitoring	0	0	130,000	195,000	195,000	195,000	260,000
PS 23, 24, 25 Capacity Improvements	50,000	370,000	111,000	740,000	740,000	0	0
Pump Station R&R		0	0	0	0	555,000	0
SCADA System							
SCADA System Replacement	75,759	235,000	1,800,000	1,800,000	168,000	0	0
Sewer Lake Line Improvements							
Lake Line Access Points	300,000	185,000	185,000	0	0	495,000	495,000
Lincoln Landing Pipe Improvements	220,300	230,000	0	0	0	0	0
Reach 4 Lake Line Replacement		0	185,000	185,000	185,000	0	0
Emergency Repairs							
Sewer System Emergency Repairs		50,000	50,000	50,000	50,000	50,000	50,000
Subtotal Sewer CIP	\$ 2,037,780	\$ 1,859,000	\$ 3,387,000	\$ 3,729,000	\$ 2,320,000	\$ 1,904,000	\$ 1,541,000
Interfund Transfers and other Capital Projects							
Capital Project Management	41,085	39,999	40,962	48,244	50,897	53,696	56,650
IFT - Maintenance Building Reinvestment	69,434	28,500	25,800	55,430	24,100	24,341	59,527
IFT - Technology Projects (EAM / SCADA Implementation)	50,000	52,000	0	0	0	0	0
Total	\$ 2,198,299	\$ 1,979,499	\$ 3,453,762	\$ 3,832,674	\$ 2,394,997	\$ 1,982,037	\$ 1,657,177

EXHIBIT 3

Debt Financing Information for Water and Sewer Rates

For several years, the Utility Board has anticipated the opportunity to make progress on replacement of aging utility capital assets by lumping several capital projects together and funding them with debt. However, staffing levels (and space to house additional staff) have precluded this financing approach. As discussed at the CIP Preview at the August 14, 2018 Utility Board meeting, there are two capital projects (SCADA System Replacement and Meter Replacement Program) planned for 2020-2021 that are anticipated to be significant in scope, which provide the opportunity for debt financing:

Year		2020	2021	Total
SCADA System Replacement	Water	\$ 1,800,000	\$ 1,800,000	\$ 3,600,000
SCADA System Replacement	Sewer	\$ 1,800,000	\$ 1,800,000	\$ 3,600,000
Sub-Total SCADA		\$ 3,600,000	\$ 3,600,000	\$ 7,200,000
Meter Replacement Program	Water	2,000,000	2,000,000	4,000,000
Total Cost Estimate (Debt Issue)		\$ 5,600,000	\$ 5,600,000	\$ 11,200,000
Sub-Total	Water	3,800,000	3,800,000	7,600,000
Sub-Total	Sewer	1,800,000	1,800,000	3,600,000

Staff is in the very early stages of planning for both of these projects. Cost estimates are very preliminary and are based on work by consultants. A cost estimate of \$7.2 million has been used as a preliminary placeholder for SCADA System Replacement project. This cost estimate is based on 80% of the high estimate of \$9.0 million provided by the consultant. Note that this cost estimate is for both the Water and Sewer components of the SCADA System project. A cost estimate of \$4 million has been used for the Meter Replacement program, which is the mid-point of the cost estimate range of \$2 to \$6 million provided by the consultant.

There is a lot of work to do in precisely defining the scope and refining the cost estimates for these projects, including preliminary design and updated engineer estimates (tentatively scheduled for 2019). Further refinement of cost estimates will be used for future debt financing discussions with the Board.

For the **Water Rate** Update, debt proceeds of \$7.6 million have been assumed in 2020, with a resulting annual debt repayment of \$623,697 starting in 2020. For the **Sewer Rate** Update, debt proceeds of \$3.6 million have been assumed in 2020, with a resulting annual debt repayment of \$295,436 starting in 2020. Future rate studies will further refine the amount of debt proceeds required to fund these projects and the debt repayment schedule to be paid by the Water and Sewer Utilities.

Exhibit 4
Sewer Rate Update for 2019-2020
Includes \$3.6 million in Debt Financed Capital Projects



City of Mercer Island
Sewer Utility Rate Update
Summary

Revenue Requirement	2018	2019	2020	2021	2022	2023	2024
Revenues							
Rate Revenues Under Existing Rates - City	\$ 4,563,657	\$ 4,562,114	\$ 4,494,219	\$ 4,427,601	\$ 4,362,234	\$ 5,130,883	\$ 5,243,742
Rate Revenues with Rate Increases - KC Treatment	4,702,108	4,818,160	4,813,462	5,025,873	5,021,013	5,130,883	5,243,742
Non-Rate Revenues	42,000	30,000	20,000	20,000	20,000	20,000	20,000
Total Revenues	\$ 9,307,765	\$ 9,410,274	\$ 9,327,681	\$ 9,473,474	\$ 9,403,247	\$ 10,281,766	\$ 10,507,483
Expenses							
Cash Operating Expenses	\$ 2,205,045	\$ 2,436,543	\$ 2,432,585	\$ 2,486,239	\$ 2,597,659	\$ 2,715,178	\$ 2,839,389
KC Treatment Sewer Disposal Charge	4,719,416	4,833,160	4,828,462	5,040,873	5,036,013	5,145,883	5,258,742
Existing Debt Service	1,057,179	1,046,897	1,042,284	1,047,070	1,035,856	1,038,270	1,035,856
New Debt Service	-	-	295,436	295,436	295,436	295,436	295,436
Rate Funded System Reinvestment	1,000,000	1,100,000	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000
Total Expenses	\$ 8,981,640	\$ 9,416,600	\$ 9,798,767	\$ 10,169,618	\$ 10,364,964	\$ 10,694,766	\$ 11,029,422
Net Surplus (Deficiency)	\$ 326,125	\$ (6,327)	\$ (471,086)	\$ (696,144)	\$ (961,717)	\$ (413,000)	\$ (521,939)
Additions to Meet Coverage	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 326,125	\$ (6,327)	\$ (471,086)	\$ (696,144)	\$ (961,717)	\$ (413,000)	\$ (521,939)
% of Rate Revenue	0.00%	0.14%	10.48%	15.72%	22.05%	8.05%	9.95%
Annual Rate Adjustment	0.00%	7.70%	7.70%	7.70%	7.70%	7.70%	7.70%
Cumulative Annual Rate Adjustment	0.00%	7.70%	15.99%	24.92%	34.54%	44.90%	56.06%
Historical Rate Adjustment	7.80%	-----	-----	-----	-----	-----	-----
Net Revenue from Rate Increases	\$ -	\$ 351,283	\$ 724,386	\$ 1,121,089	\$ 1,543,305	\$ 1,160,304	\$ 1,464,084
Net Surplus / (Deficiency)	\$ 326,125	\$ 344,956	\$ 253,300	\$ 424,945	\$ 581,588	\$ 747,304	\$ 942,145
Remaining Adj Req % of Rate Revenue	-7.15%	-7.56%	-5.64%	-9.60%	-13.33%	-14.56%	-17.97%
Rate Revenues After Rate Increase	\$ 4,563,657	\$ 4,913,396	\$ 5,218,605	\$ 5,548,690	\$ 5,905,539	\$ 6,291,187	\$ 6,707,826
Additional Taxes from Rate Increase	\$ -	\$ 14,251	\$ 29,380	\$ 45,473	\$ 62,599	\$ 80,843	\$ 100,295
Net Cash Flow After Rate Increase	326,125	330,708	223,918	379,472	518,989	666,461	841,850
Coverage After Rate Increases	n/a	n/a	9.59	10.67	11.27	(5.31)	(4.74)
Sample Bi-Monthly Bill (SF assuming 11 ccf) - City	\$ 84.71	\$ 91.23	\$ 98.25	\$ 105.82	\$ 113.97	\$ 122.74	\$ 132.19
Bi-Monthly Average Increase (\$)	\$ (0.36)	\$ 6.52	\$ 7.02	\$ 7.57	\$ 8.15	\$ 8.78	\$ 9.45
Sample Bi-Monthly Bill - (Flat Fee) - KC Treatment	\$ 88.44	\$ 90.66	\$ 90.66	\$ 94.74	\$ 94.74	\$ 96.90	\$ 99.12
Bi-Monthly KC Treatment Increase	\$ -	\$ 2.22	\$ -	\$ 4.08	\$ -	\$ 2.16	\$ 2.22
Combined Bi-Monthly Bill (SF assuming 12 ccf)	\$ 173.15	\$ 181.89	\$ 188.91	\$ 200.56	\$ 208.71	\$ 219.64	\$ 231.31
Combined Bi-Monthly Increase	\$ (0.36)	\$ 8.74	\$ 7.02	\$ 11.65	\$ 8.15	\$ 10.94	\$ 11.67

Exhibit 4
Sewer Rate Update for 2019-2020
Includes \$3.6 million in Debt Financed Capital Projects



City of Mercer Island
Sewer Utility Rate Update
Summary

Fund Balance	2018	2019	2020	2021	2022	2023	2024
WORKING CAPITAL							
Beginning Balance	\$ 4,773,118	\$ 4,008,078	\$ 3,559,029	\$ 5,218,290	\$ 3,211,779	\$ 2,830,466	\$ 3,098,133
plus: Net Cash Flow after Rate Increase	326,125	330,708	223,918	379,472	518,989	666,461	841,850
Operating Funds Subtotal	\$ 5,099,243	\$ 4,338,786	\$ 3,782,946	\$ 5,597,762	\$ 3,730,768	\$ 3,496,927	\$ 3,939,983
plus: Rate Funded System Reinvestment	1,000,000	1,100,000	1,200,000	1,300,000	1,400,000	1,500,000	1,600,000
plus: Grants/ Donations/ PWF/ G.O.	-	-	-	-	-	-	-
plus: Additional Proceeds (Costs)	-	-	-	-	-	-	-
plus: Connection Charges	21,218	19,580	17,925	16,233	14,401	12,481	12,980
plus: Net Debt Proceeds Available for Projects	-	-	3,600,000	-	-	-	-
plus: Interest Earnings	85,916	80,162	71,181	130,457	80,294	70,762	77,453
less: Connection Charges Towards Debt	-	-	-	-	-	-	-
Total Funding Sources	\$ 6,206,377	\$ 5,538,528	\$ 8,672,052	\$ 7,044,452	\$ 5,225,463	\$ 5,080,170	\$ 5,630,416
less: Capital Expenditures	(2,198,299)	(1,979,499)	(3,453,762)	(3,832,674)	(2,394,997)	(1,982,037)	(1,657,177)
Ending Working Capital Balance	\$ 4,008,078	\$ 3,559,029	\$ 5,218,290	\$ 3,211,779	\$ 2,830,466	\$ 3,098,133	\$ 3,973,239
<i>Info: No of Days of Cash Operating Expenses</i>	211	179	263	156	135	144	180
FISCAL TARGET							
<i>Minimum Operating Reserve</i>	\$ 569,134	\$ 597,510	\$ 595,168	\$ 618,667	\$ 627,425	\$ 646,115	\$ 663,781
<i>Minimum Capital Target Balance</i>	488,936	528,526	597,601	674,255	722,155	761,795	794,939
Total Target Working Capital Balance	\$ 1,058,070	\$ 1,126,036	\$ 1,192,769	\$ 1,292,921	\$ 1,349,580	\$ 1,407,910	\$ 1,458,720
<i>Info: No of Days of Target Cash Operating Expenses</i>	56	57	60	63	65	65	66
AVAILABLE FUND BALANCE-AFTER FISCAL TARGET IS MET	\$ 2,950,008	\$ 2,432,993	\$ 4,025,521	\$ 1,918,857	\$ 1,480,887	\$ 1,690,223	\$ 2,514,519

Exhibit 5
2018 Adopted Sewer Rates
Generates \$2.5M for Future Capital Reinvestment (by 2022)

City of Mercer Island
Sewer Utility Rate Update
Summary



Revenue Requirement	2016	2017	2018	2019	2020	2021	2022
Revenues							
Rate Revenues Under Existing Rates - City	\$ 4,193,111	\$ 4,122,443	\$ 4,063,657	\$ 4,002,910	\$ 3,943,307	\$ 3,884,825	\$ 3,827,441
Rate Revenues with Rate Increases - KC Treatment	4,469,118	4,712,212	4,710,599	4,952,612	4,947,789	5,070,856	5,197,959
Non-Rate Revenues	31,543	-	-	-	-	-	-
Total Revenues	\$ 8,693,772	\$ 8,834,655	\$ 8,774,256	\$ 8,955,522	\$ 8,891,096	\$ 8,955,681	\$ 9,025,400
Expenses							
Cash Operating Expenses	\$ 1,874,772	\$ 2,138,329	\$ 2,170,965	\$ 2,264,375	\$ 2,362,953	\$ 2,466,999	\$ 2,576,830
KC Treatment Sewer Disposal Charge	4,445,555	4,727,212	4,725,599	4,967,612	4,962,789	5,085,856	5,212,959
Existing Debt Service	1,102,222	1,083,418	1,057,179	1,046,897	1,042,284	1,047,070	1,035,856
New Debt Service	-	-	-	-	-	-	-
Rate Funded System Reinvestment	800,000	900,000	1,000,000	1,100,000	1,200,000	1,300,000	1,400,000
Total Expenses	\$ 8,222,549	\$ 8,848,958	\$ 8,953,744	\$ 9,378,885	\$ 9,568,027	\$ 9,899,925	\$ 10,225,646
Net Surplus (Deficiency)	\$ 471,223	\$ (14,304)	\$ (179,488)	\$ (423,363)	\$ (676,931)	\$ (944,244)	\$ (1,200,245)
Additions to Meet Coverage	-	-	-	-	-	-	-
Total Surplus (Deficiency)	\$ 471,223	\$ (14,304)	\$ (179,488)	\$ (423,363)	\$ (676,931)	\$ (944,244)	\$ (1,200,245)
% of Rate Revenue	0.00%	0.35%	4.42%	10.58%	17.17%	24.31%	31.36%
Annual Rate Adjustment	0.00%	0.00%	7.80%	7.80%	7.80%	7.80%	7.80%
Cumulative Annual Rate Adjustment	0.00%	0.00%	7.80%	16.21%	25.27%	35.04%	45.58%
Historical Rate Adjustment	7.00%	5.70%	0.00%	0.00%	0.00%	0.00%	0.00%
Net Revenue from Rate Increases	\$ -	\$ -	\$ 316,965	\$ 653,916	\$ 1,012,499	\$ 1,394,490	\$ 1,801,801
Net Surplus / (Deficiency)	\$ 471,223	\$ (14,304)	\$ 137,478	\$ 230,553	\$ 335,568	\$ 450,246	\$ 601,555
Remaining Adj Req % of Rate Revenue	-11.24%	0.35%	-3.38%	-5.76%	-8.51%	-11.59%	-15.72%
Rate Revenues After Rate Increase	\$ 4,193,111	\$ 4,122,443	\$ 4,380,622	\$ 4,656,826	\$ 4,955,806	\$ 5,279,315	\$ 5,629,242
Additional Taxes from Rate Increase	\$ -	\$ -	\$ 12,210	\$ 25,189	\$ 39,001	\$ 53,716	\$ 69,405
Net Cash Flow After Rate Increase	471,223	(14,304)	125,268	205,364	296,567	396,530	532,150
Coverage After Rate Increases	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Sample Bi-Monthly Bill (SF assuming 12 ccf) - City	\$ 80.47	\$ 85.06	\$ 91.70	\$ 98.85	\$ 106.56	\$ 114.87	\$ 123.83
Bi-Monthly Average Increase (\$)	\$ 5.27	\$ 4.59	\$ 6.63	\$ 7.15	\$ 7.71	\$ 8.31	\$ 8.96
Sample Bi-Monthly Bill - (Flat Fee) - KC Treatment	\$ 84.06	\$ 88.44	\$ 88.44	\$ 93.06	\$ 93.06	\$ 95.46	\$ 97.94
Bi-Monthly KC Treatment Increase	\$ -	\$ 4.38	\$ -	\$ 4.62	\$ -	\$ 2.40	\$ 2.48
Combined Bi-Monthly Bill (SF assuming 12 ccf)	\$ 164.53	\$ 173.50	\$ 180.14	\$ 191.91	\$ 199.62	\$ 210.33	\$ 221.77
Combined Bi-Monthly Increase	\$ 5.27	\$ 8.97	\$ 6.63	\$ 11.77	\$ 7.71	\$ 10.71	\$ 11.44

Exhibit 5
2018 Adopted Sewer Rates
Generates \$2.5M for Future Capital Reinvestment (by 2022)

City of Mercer Island
Sewer Utility Rate Update
Summary



Fund Balance	2016	2017	2018	2019	2020	2021	2022
WORKING CAPITAL							
Beginning Balance	\$ 3,407,697	\$ 4,200,000	\$ 3,508,801	\$ 1,514,817	\$ 1,706,639	\$ 2,177,353	\$ 2,317,685
plus: Net Cash Flow after Rate Increase	471,223	(14,304)	125,268	205,364	296,567	396,530	532,150
Operating Funds Subtotal	\$ 3,878,920	\$ 4,185,696	\$ 3,634,069	\$ 1,720,181	\$ 2,003,206	\$ 2,573,883	\$ 2,849,835
plus: Rate Funded System Reinvestment	800,000	900,000	1,000,000	1,100,000	1,200,000	1,300,000	1,400,000
plus: Grants/ Donations/ PWTF/ G.O.	-	-	-	-	-	-	-
plus: Additional Proceeds (Costs)	-	-	-	-	-	-	-
plus: Connection Charges	40,700	20,600	21,218	21,855	22,510	23,185	23,881
plus: Net Debt Proceeds Available for Projects	-	-	-	-	-	-	-
plus: Interest Earnings	21,562	17,792	26,316	15,148	17,066	32,660	34,765
less: Connection Charges Towards Debt	-	-	-	-	-	-	-
Total Funding Sources	\$ 4,741,182	\$ 5,124,088	\$ 4,681,603	\$ 2,857,184	\$ 3,242,782	\$ 3,929,729	\$ 4,308,481
less: Capital Expenditures	(541,182)	(1,615,288)	(3,166,786)	(1,150,545)	(1,065,429)	(1,612,044)	(722,098)
Ending Working Capital Balance	\$ 4,200,000	\$ 3,508,801	\$ 1,514,817	\$ 1,706,639	\$ 2,177,353	\$ 2,317,685	\$ 3,586,383
<i>Info: No of Days of Cash Operating Expenses</i>	243	187	80	86	109	112	168
FISCAL TARGET							
<i>Minimum Operating Reserve</i>	\$ 518,060	\$ 564,291	\$ 566,841	\$ 594,410	\$ 600,471	\$ 620,783	\$ 640,257
<i>Minimum Capital Target Balance</i>	211,279	341,148	388,650	405,908	421,890	446,070	456,902
Total Target Working Capital Balance	\$ 729,339	\$ 905,439	\$ 955,491	\$ 1,000,318	\$ 1,022,360	\$ 1,066,853	\$ 1,097,158
<i>Info: No of Days of Target Cash Operating Expenses</i>	42	48	51	50	51	52	51
AVAILABLE FUND BALANCE-AFTER FISCAL TARGET IS MET	\$ 3,470,661	\$ 2,603,361	\$ 559,326	\$ 706,321	\$ 1,154,993	\$ 1,250,832	\$ 2,489,225

EXHIBIT 6

Sample Bill for an Average Single Family Customer*

2019-2020 Rate Recommendation to Utility Board on October 9, 2018

Taken together, the total (i.e. water, sewer, storm water, and EMS) bi-monthly utility bill under the staff recommended rate scenarios for the average single family residential customer would go up by 5.3% in 2019 and 4.7% in 2020, which equates to a \$17.13 increase and a \$16.10 increase respectively, as noted in the following table.

Utility Rate Component	2018 Adopted	2019 Proposed	2020 Proposed	\$ Change		% Change	
				2019	2020	2019	2020
Water	\$110.31	\$117.48	\$125.12	\$7.17	\$7.64	6.5%	6.5%
Sewer Maintenance (City)	\$84.71	\$91.23	\$98.26	\$6.52	\$7.02	7.7%	7.7%
Sewer Treatment (King County)	\$88.44	\$90.66	\$90.66	\$2.22	\$0.00	2.5%	0.0%
Storm Water	\$33.59	\$34.66	\$35.77	\$1.07	\$1.11	3.2%	3.2%
EMS (estimate)	\$9.14	\$9.29	\$9.62	\$0.15	\$0.33	1.6%	3.5%
Total	\$326.19	\$343.32	\$359.42	\$17.13	\$16.10	5.3%	4.7%

* **An average Single Family Customer is as follows:**

Water: 3/4" Meter with 16 ccf of Water Use (Bi-Monthly)

Sewer: 11 ccf of Water Use (Bi-Monthly Winter Average) - was 12 ccf for 2017-2018 analysis

KC Sewer Treatment: Fixed Rate is set by King County

Stormwater: SF is charged at 1 ESU (Equivalent Service Unit)

EMS: SF is charged at 1 ESU (Equivalent Service Unit)

Utility Board 2018 Work Plan

Meeting Date	Agenda Item
January 16	General Sewer Plan - CIP Focus
February 13	Scada Master Plan
March 13	Recess
April 10	Solid Waste Contract Review and Schedule Meeting Canceled
May 8	Water Quality Metrics & CIP Classification
June 12	Meeting Canceled
July 24	Meeting Canceled
August	Board Elections CIP Preview Solid Waste RFP
September 11	EMS Rates Stormwater Budget & Rates
October 9	Water Budget & Rates Sewer Budget & Rates
November 13	Solid Waste Contract
December - TBD	Meter Replacement Program Implementation
To Be Determined	Solid Waste RFP Discussion (If Needed)