



City of Ferndale

CITY COUNCIL STAFF REPORT

MEETING DATE: October 16, 2019 AGENDA BILL #_____

SUBJECT: Utility Rate Design

DATE: October 13, 2019

FROM: Kevin Renz, Public Works Director

PRESENTATION BY: Kevin Renz, Public Works Director; Sirke Salminen, Finance Director

RECOMMENDATIONS:

Discuss utility rate design options and provide staff with a preferred rate structure which would inform drafting of a rate ordinance for Council consideration.

BACKGROUND:

Utility rates within each of the three utility funds require adjustment to properly fund operations, maintenance, and capital needs. The City has been working with FCS Group to analyze necessary funding levels and rates within the utility funds.

ANALYSIS:

FCS Group has presented findings on revenue requirements and rate design at both Committee and full Council meetings. Multiple rate design options have been formulated with each providing the funding necessary for the Water and Sewer utilities.

Three options were presented for the Water utility, including:

1. Across the board increase which would maintain the existing rate structure for various customer classes as well as the tiered block structure.
2. Option A – Single family customers, new 4 block tier structure with blocks set based on average seasonal use trends. Multifamily and commercial rates adjusted to a single block structure.
3. Option B – Single family customers, new 3 block tier structure. Multifamily and commercial same as Option A.

Three options were presented for the Sewer utility, including:

1. Across the board increase which would maintain the existing rate structure for various customer classes as well as the tiered block structure.
2. Option A – Single family customers, flat base fee only. Multifamily and commercial, base rate and non-tiered use charge.
3. Option B – Single family customers, flat base fee and use fee calculated from winter use average. Multifamily and commercial, base rate and non-tiered use charge

The various rate options presented for the Water fund differ very little for the average customer. While the differences for the average customer are very small, customers with very high use would see larger increases due to the realigned tiered block structure. Staff would like to highlight that Option A may result in high use customers modifying their use resulting in lower consumption; a clear benefit to the Water utility.

Rate options presented for the Sewer fund offer more variability than those presented for the Water fund. Option A with its flat rate for single family residential customers would result in an inequitable distribution of costs between high and low users and is not recommended. Option B represents a modification to the rate structure that would result in a more equitable distribution of costs between high and low users and returns to a structure which does not penalize customers for summer water use increases; this option is staff's recommendation.

ALTERNATIVES CONSIDERED:

Direct staff to investigate other options

FISCAL REVIEW:

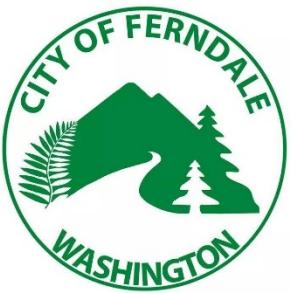
Each of the rate options are designed to fully fund the utility.

LEGAL REVIEW:

N/A

CONCLUSION:

Staff will draft a rate ordinance based on Council feedback. It is anticipated that the rate ordinance would be presented for Council consideration before the end of 2019.



City of Ferndale, WA



Presentation of the Water, Wastewater Rate Study Cost of Service Results

Presented by:
Martin Chaw, Project Manager

Ferndale City Council
October 7, 2019



What We Were Asked To Do



1.
Pre-Study
Communication

COMPLETED



2.
Financial Rate
Study

COMPLETED



3.
Cost of Service
Study and Rate
Design

-----**PRELIM RESULTS**-----
CC: Oct 2 & Oct 7



4.
Connection Fee
Study

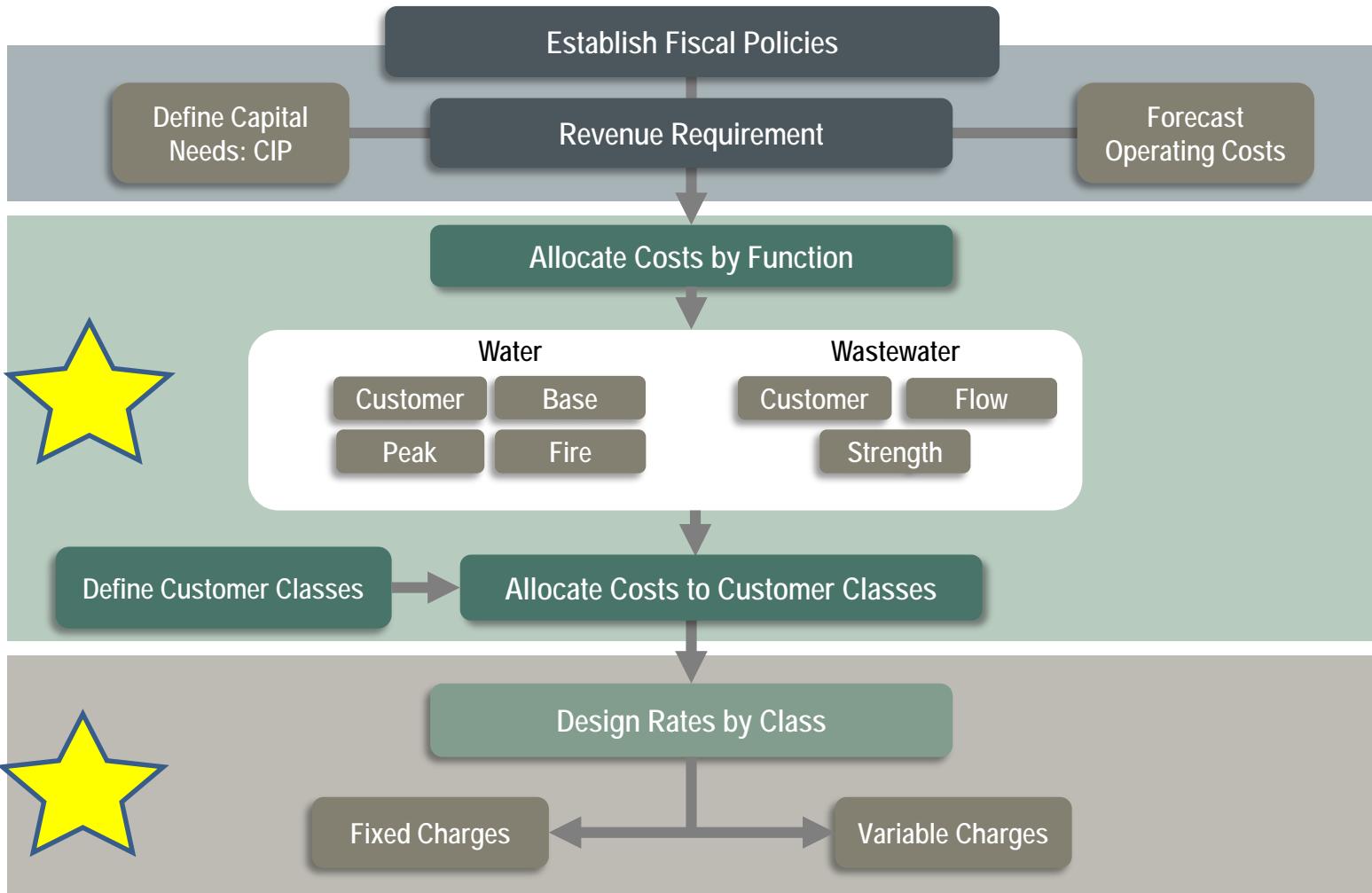


5.
Final
Documentation





Overview of the Rate Setting Process





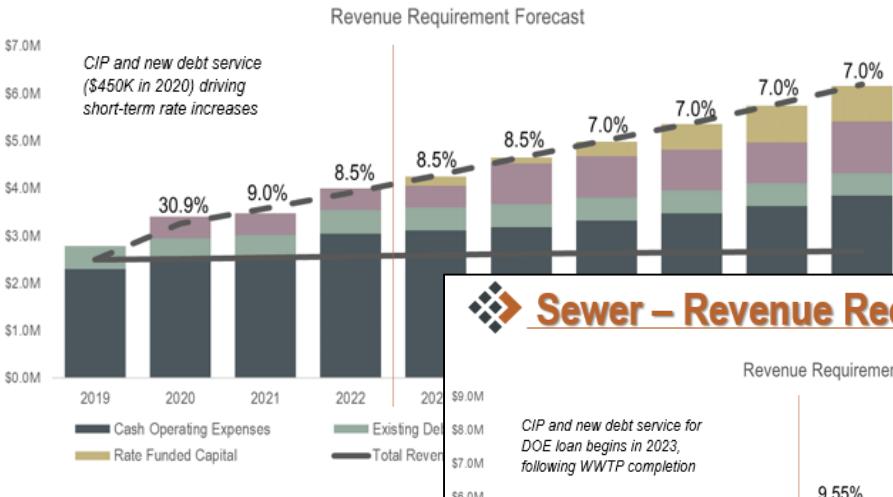
- ◆ Recap where we have been
- ◆ Connection fee update
- ◆ Update water and sewer rates
- ◆ Next steps



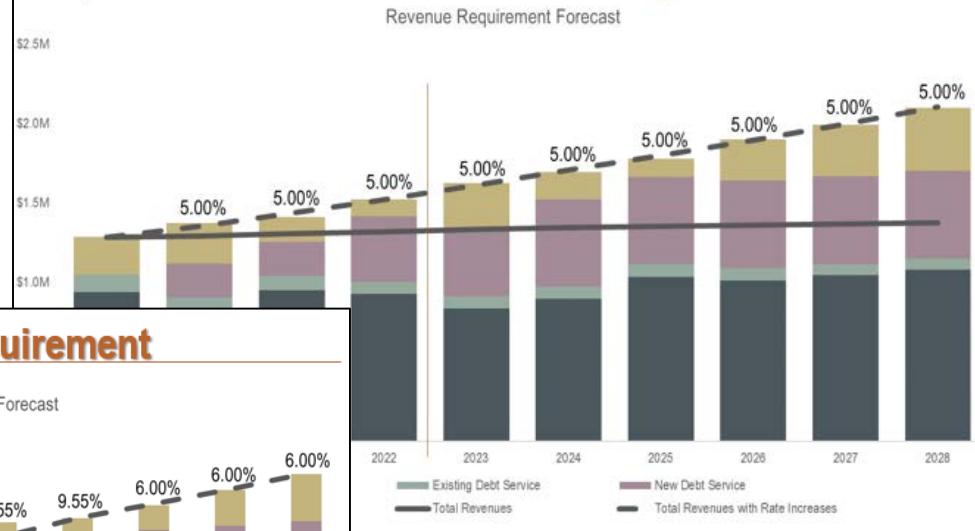
Recap: Revenue Requirements Analysis

- ◆ **What:** Determine what annual level of adjustment to rates is needed to fully fund utility operations in each year.
- ◆ **Outcome:** Council reviewed on Aug 14 and 19.

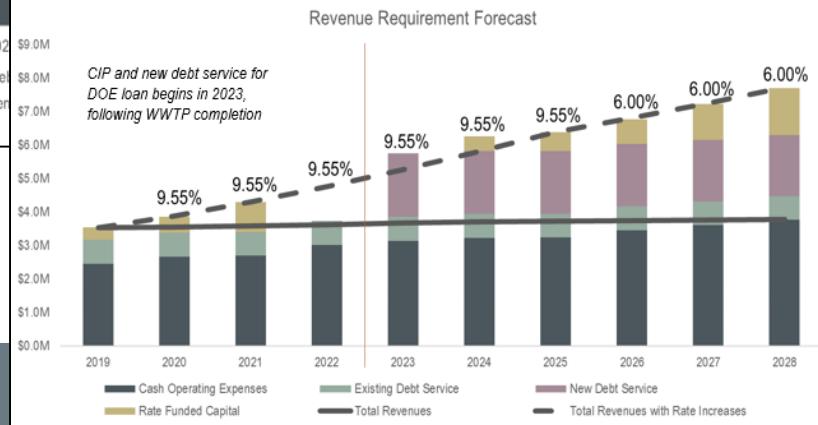
Water – Revenue Requirement



Stormwater – Revenue Requirement



Sewer – Revenue Requirement



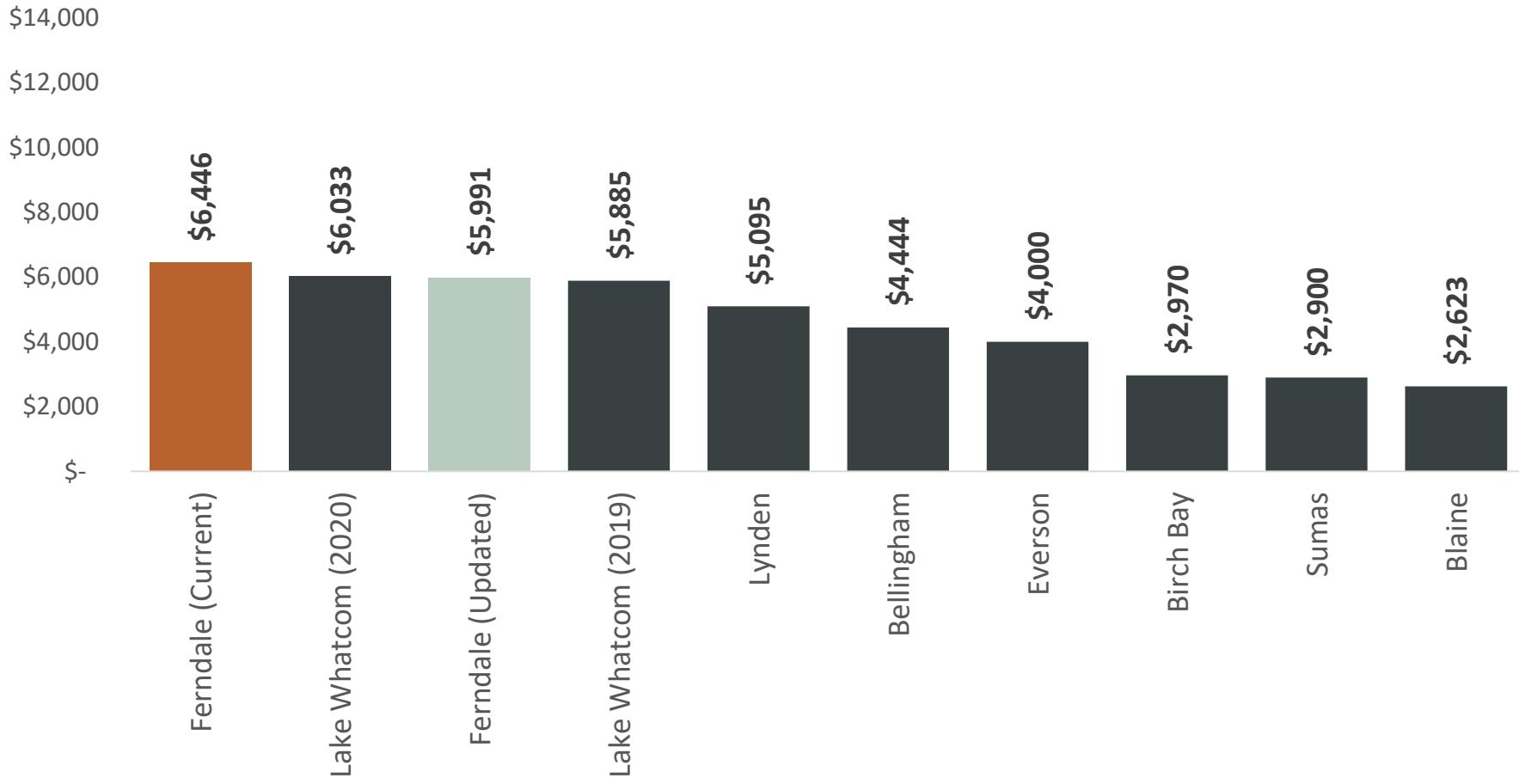


What Is A Connection Fee

- ◆ One-time charge imposed as a condition of service on new development or on increased system demand.
- ◆ Represents a prorated share of the capital investment made to provide system capacity.
- ◆ Governing state law: RCW 35.92.025: *In general, each connection shall bear a proportionate share of the cost of the system capacity required to serve it.*

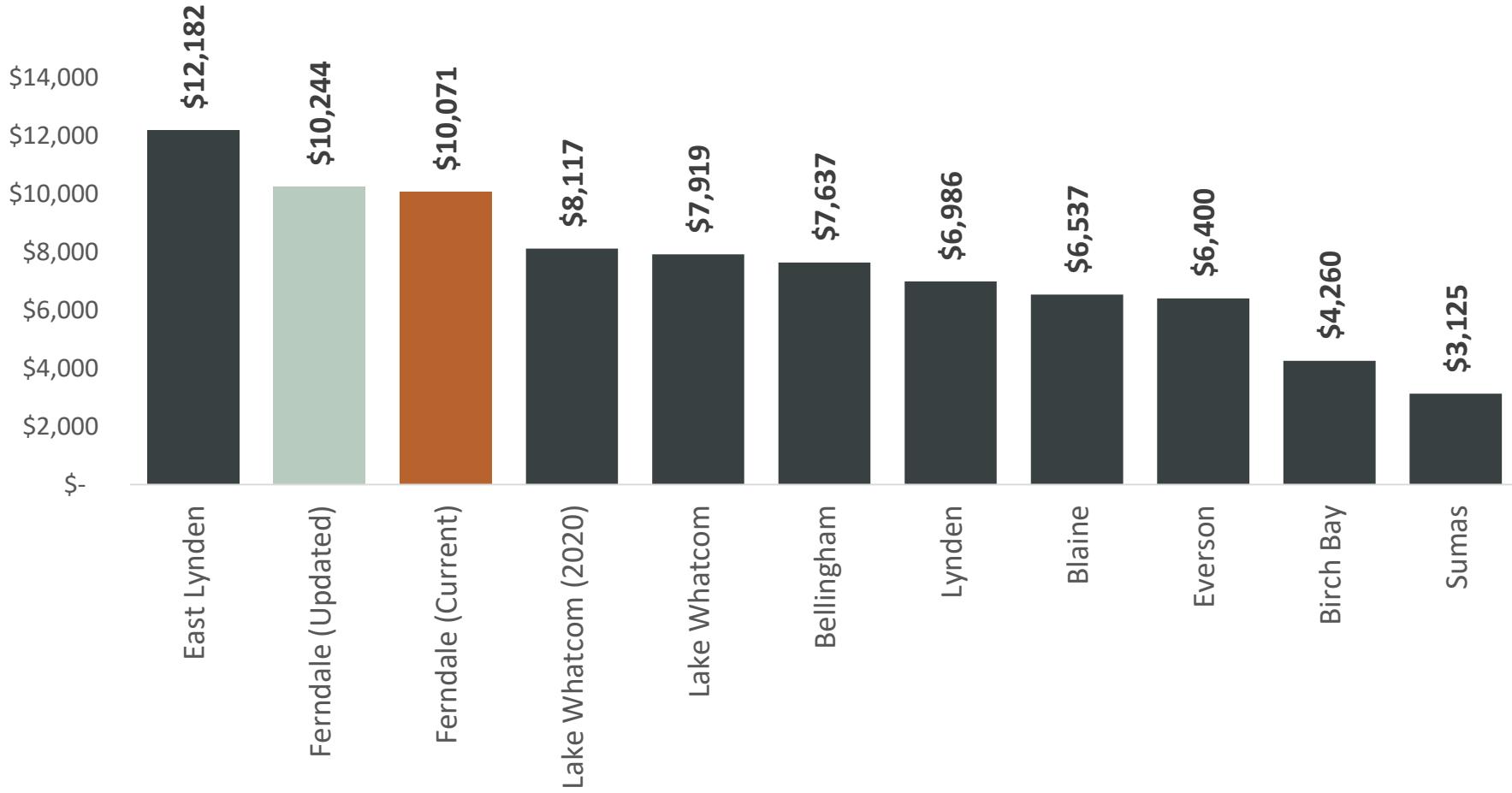


Current vs Updated Connection Fee Water Utility





Current vs Updated Connection Fee Sewer Utility



Notes: Blaine/B'ham/LW (also FCS GROUP clients): adopted charges at full rate.
See related City Financial Policy on 'growth pays for growth'



Cost of Service & Rate Design

Two Different but Related Tasks

Step 1: Cost of Service

Goal: An equitable distribution of cost shares that considers utility specific data.

- # accounts
- Plant and equipment
- Budget
- Water consumption
- Wastewater flow

Step 2: Rate Design

Goal: Recovery of allocated cost shares through rates.

- Evaluate fixed and volume charges
- Governed by City and financial policies
 - Sufficiency of revenue
 - Cost based and equitable
 - Collects target revenue from each class
 - Administrative simplicity
 - Rate payer understandability



Cost of Service Objectives

- ◆ An equitable distribution of cost shares that considers utility specific data:
 - Measures of usage and demand
 - Planning, engineering and design criteria
 - Facility requirements
- ◆ Total cost by class (equity)
- ◆ Unit costs (/usage; /customer)
- ◆ Fundamental question: Do cost differences exist to serve different customer classes of service?



Cost of Service Process

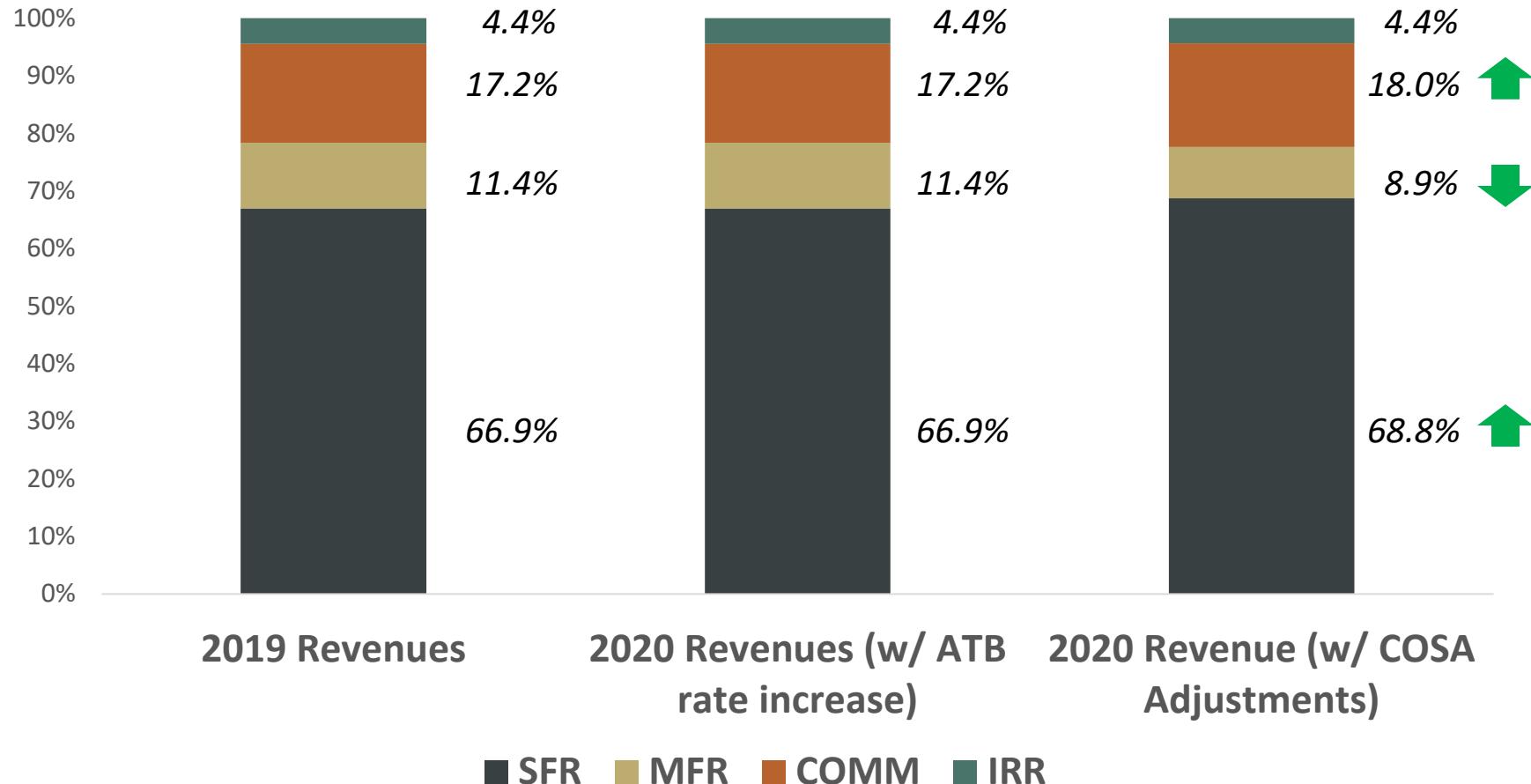
- ◆ Step 1: Allocate total utility costs to cost pools

Water Utility Functions	Sewer Utility Functions
<ul style="list-style-type: none">• Customer• Meters & Services• Base Demand (Average Use)• Peak Demand (Peak Use)• Fire Protection	<ul style="list-style-type: none">• Customer• Flow• Strength-Suspended Solids (TSS)-Biochemical Oxygen Demand (BOD)

- ◆ Step 2: Develop allocation factors using class specific information
- ◆ Step 3: Allocate costs to customer classes

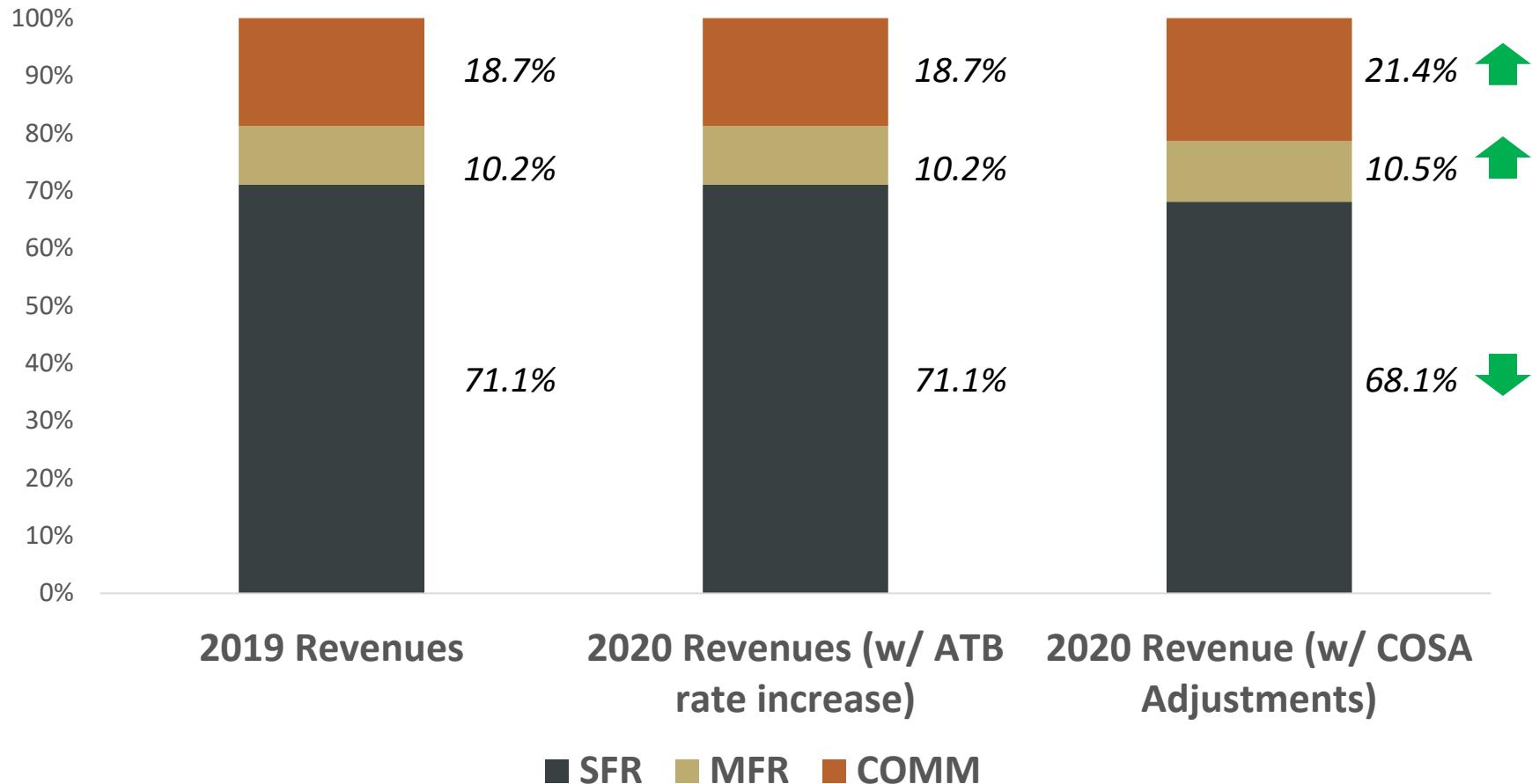


Water Cost of Service – COS Based Shifts Were Insignificant; No Changes Recommended





Sewer Cost of Service – COS Based Shifts Were Significant; Changes Recommended



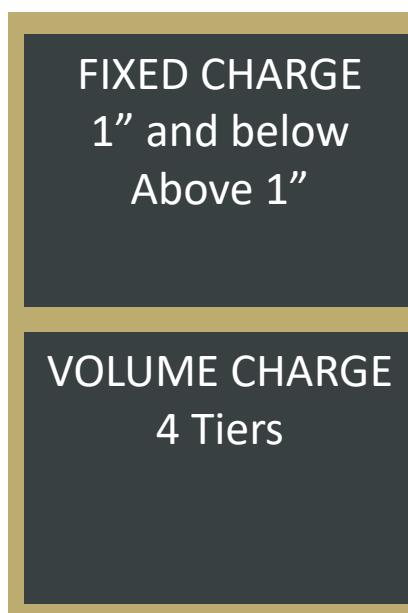


Guiding Principles in Rate Design

- ◆ Administrative ease
- ◆ Simplicity and understandability
- ◆ Revenue stability
- ◆ Interclass and Intraclass customer equity
- ◆ Affordability



Water Rate Design – Options



MAINTAIN EXISTING RATE STRUCTURE
Apply Across the Board Increases Only

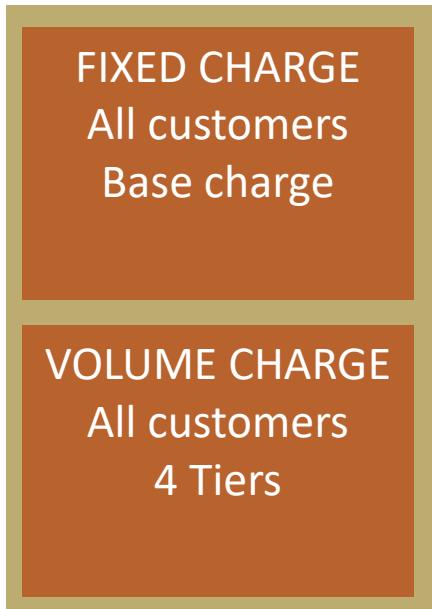
COS: FIXED CHARGE
Based on meter size for all classes

COS VOLUME CHARGE – OPT A
SFR & IRR: 4 Block Inclining Structure
MFR & COMM: Single Block Structure

COS VOLUME CHARGE – OPT B
SFR & IRR: 3 Block Inclining Structure
MFR & COMM: Single Block Structure



Sewer Rate Design – Options



MAINTAIN EXISTING RATE STRUCTURE
Apply Across the Board Increases Only

COS: OPTION A

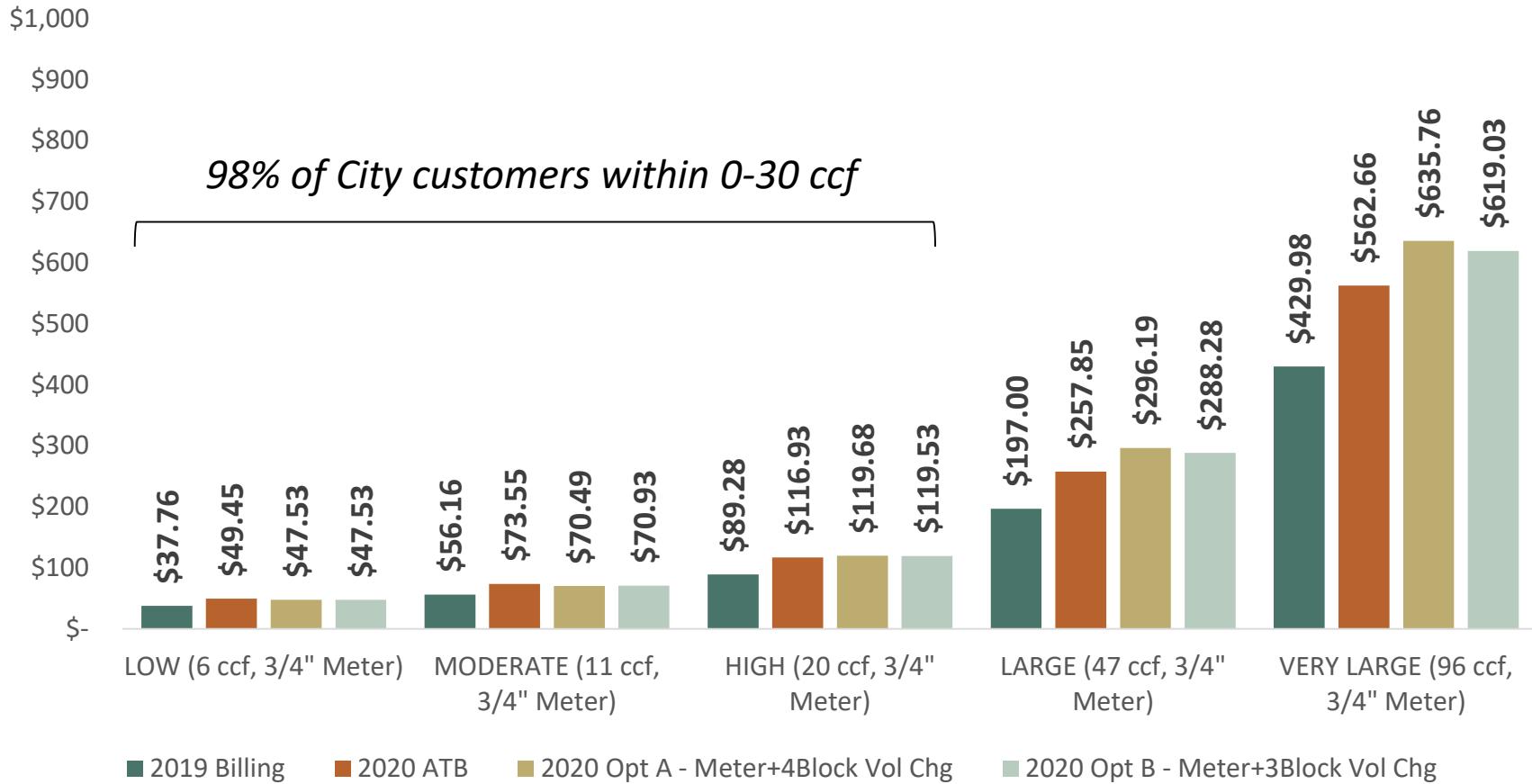
SFR: Base Charge only
Non-SFR: Base Charge + Uniform Volume Charge

COS: OPTION B

SFR: Base Charge + Winter Volume Charge
Non-SFR: Base Charge + Uniform Volume Charge

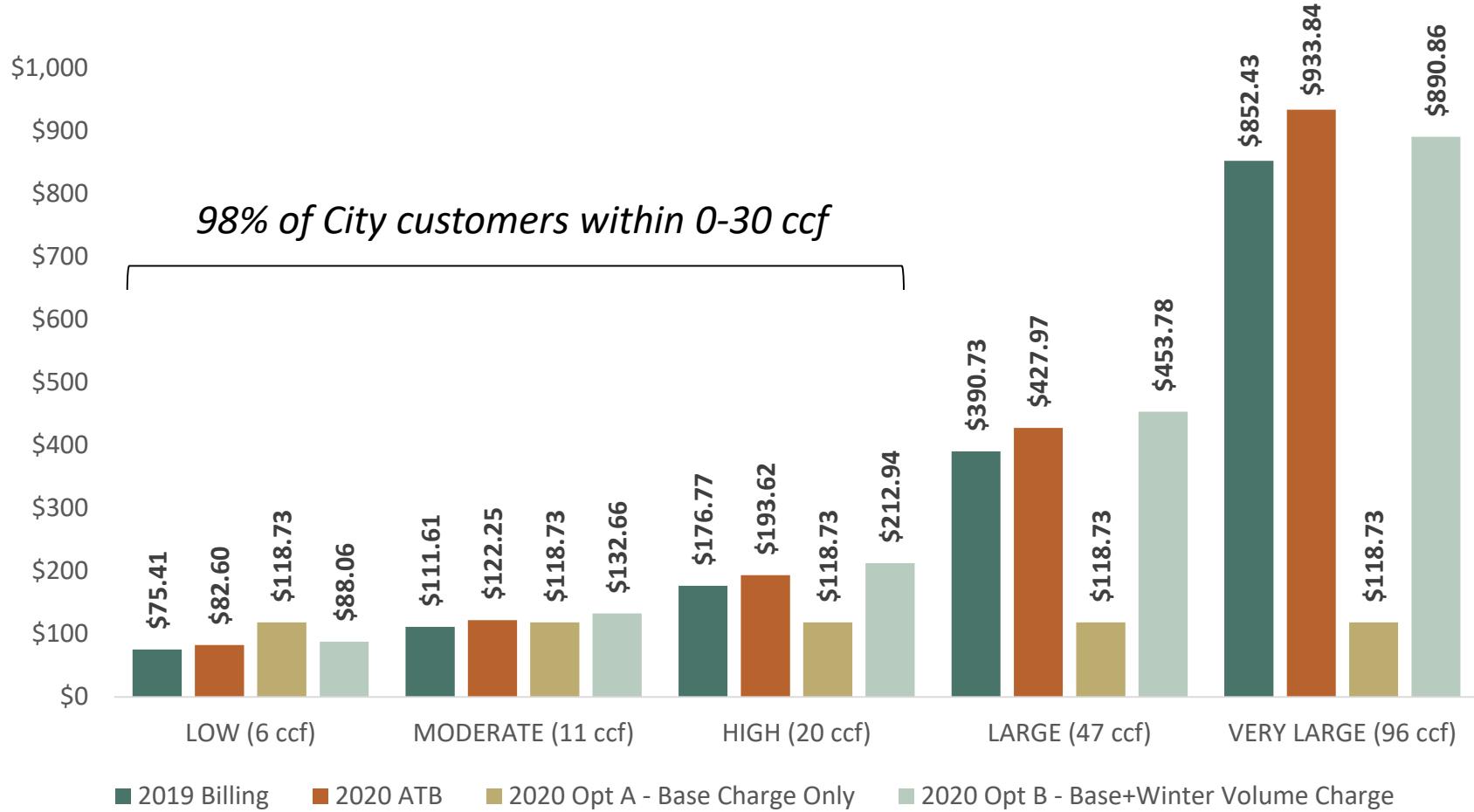


SFR Sample Bi-Monthly Bills - WATER



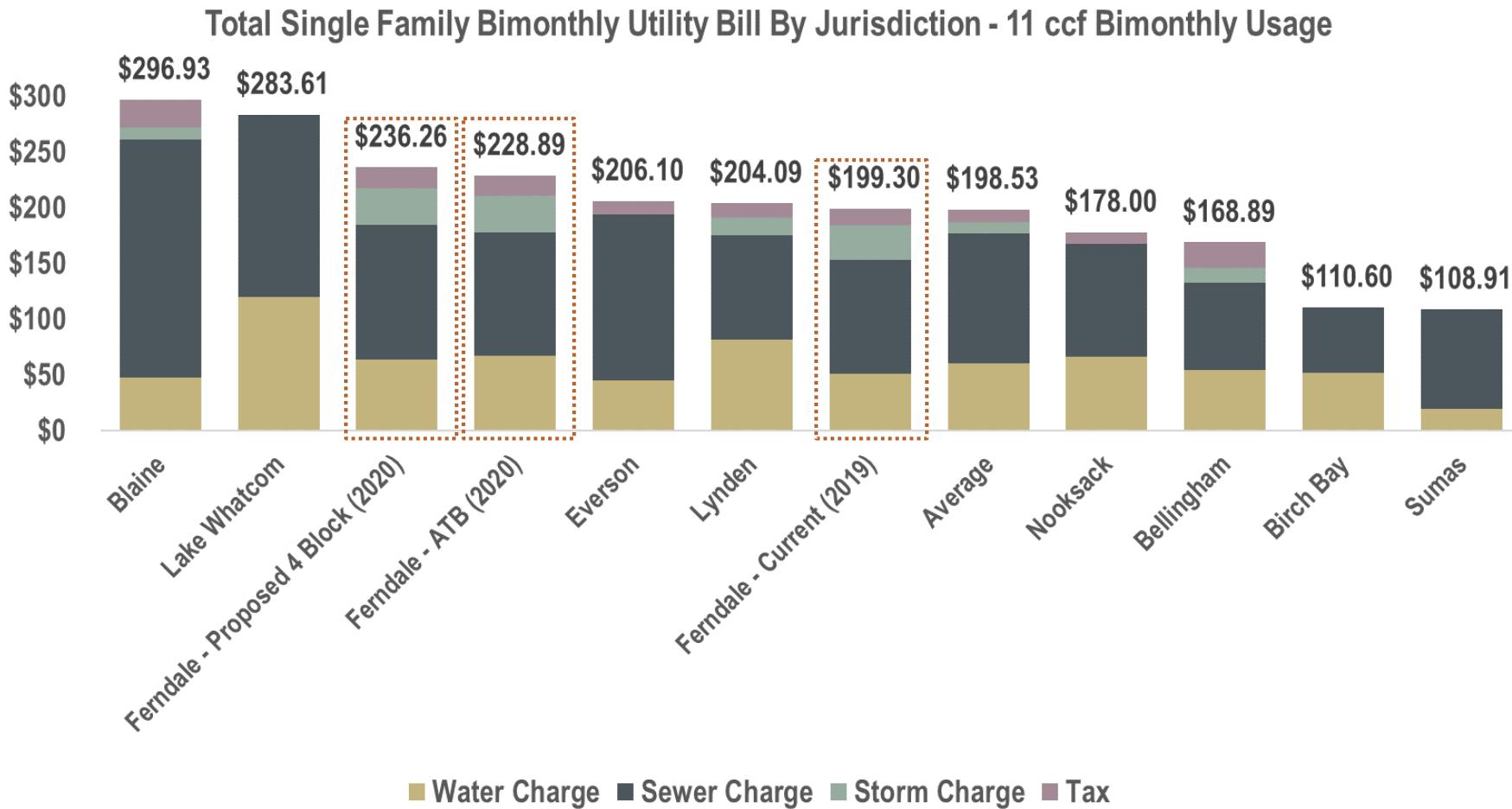


SFR Sample Bi-Monthly Bills - SEWER





SFR Interjurisdictional Comparison – Combined Water, Sewer, Storm Bi-Monthly Billing



Bimonthly bill – assumes 11 ccf of bimonthly water/sewer usage. Calculated billings based upon 5/8" meter or lowest available and using prevailing city rates as published per city websites.



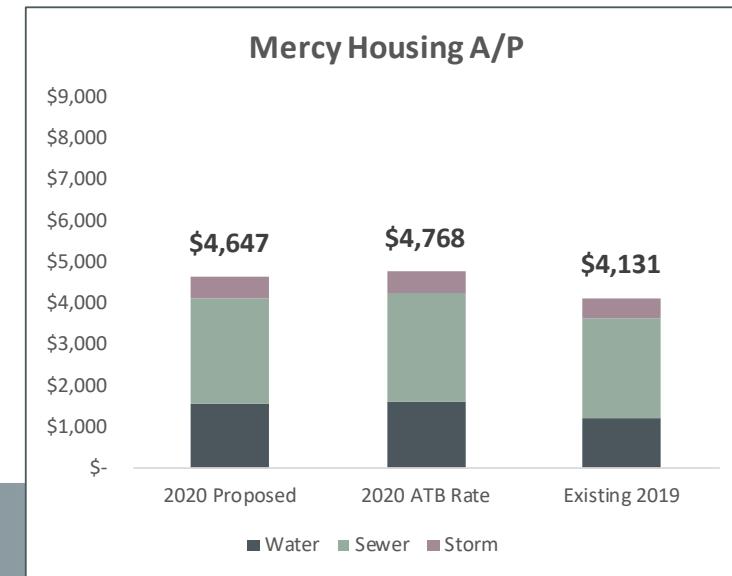
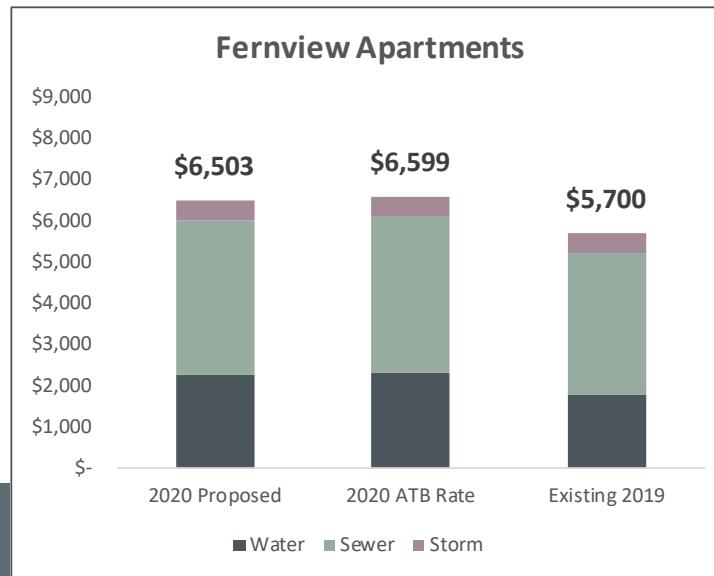
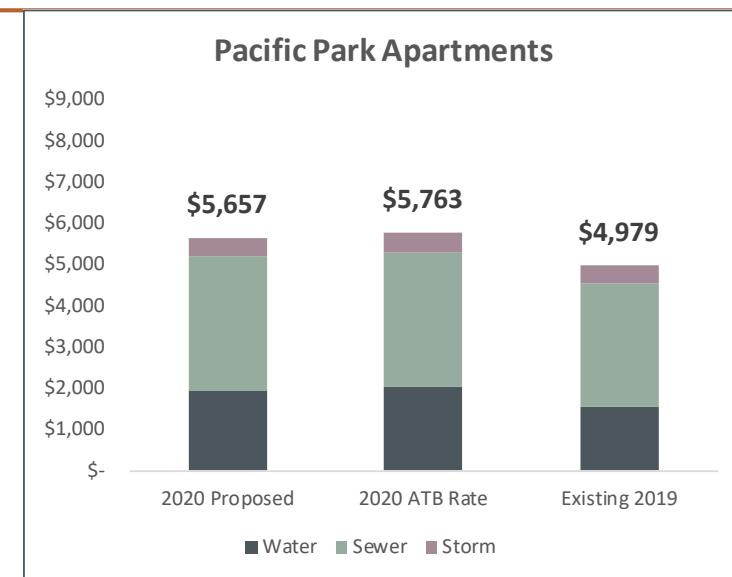
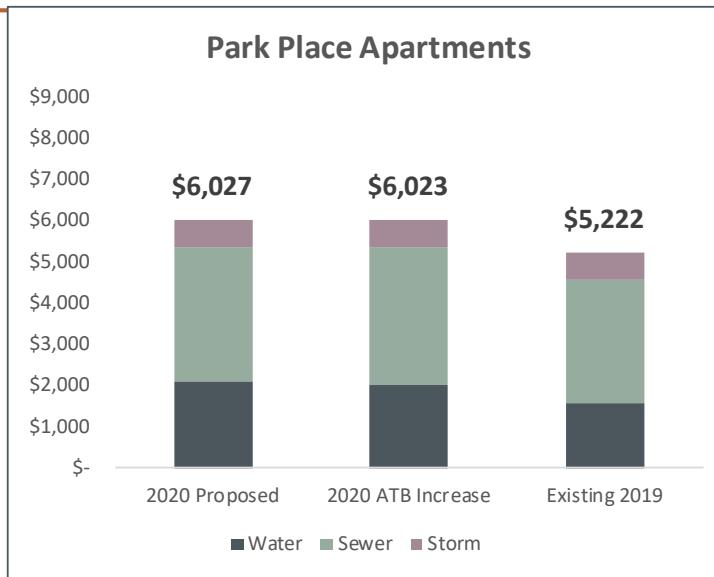
SFR Interjurisdictional Comparison – Combined Water, Sewer, Storm Bi-Monthly Billing Data Table

Jurisdiction	Water	Sewer	Storm	Taxes	Total
Blaine	47.85	213.22	11.34	24.52	296.93
Lake Whatcom	120.21	163.40	-	-	283.61
Ferndale - Proposed 4 Block (2020)	64.15	120.72	33.11	18.28	236.26
Ferndale - ATB (2020)	66.90	111.26	33.11	17.62	228.89
Everson	45.21	148.52	-	12.37	206.10
Lynden	81.47	93.72	16.00	12.91	204.09
Ferndale - Current (2019)	51.11	101.57	31.53	15.10	199.30
Average	60.45	116.04	10.55	11.49	198.53
Nooksack	66.16	101.76	-	10.08	178.00
Bellingham	54.18	78.80	13.57	22.34	168.89
Birch Bay	51.60	59.00	-	-	110.60
Sumas	19.80	89.11	-	-	108.91

ATB: Across the board increase to current 2019 rates. This represents the minimum increase necessary to address identified operating and capital needs of each utility.



Combined Water/Sewer/Stormwater Billings Selected MFR Customers





Combined Water/Sewer/Stormwater Billings Selected COMM Customers





- ◆ Updated Connection charge
- ◆ Cost of Service Results
- ◆ Rate Design Options
- ◆ Impacts to Customer Classes



Next Steps

- ◆ Continuation of workshop / discussion?
- ◆ Direct staff to prepare Ordinance with new rates for Council adoption for 2020 – 2022; and opportunity to review annually
- ◆ Recommend revisiting cost of service and equity of allocated costs in 3-5 years
- ◆ Council Questions?

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FCS GROUP

Solutions-Oriented Consulting



Billing Impacts – Other Customer Classes



MFR Sample Bi-Monthly Bills - WATER

\$2,500

\$2,000

67% of City customers

\$1,500

\$1,000

\$500

\$0

\$104.37

\$136.66

\$113.41

\$161.47

\$211.41

\$192.61

\$242.67

\$317.61

\$332.42

\$925.67

\$1,211.11

\$1,165.47

LOW (15 ccf, 1" Meter) MODERATE (30 ccf, 1" Meter) HIGH (50 ccf, 1 1/2" Meter) LARGE (200 ccf, 2" Meter)

■ 2019 Billing

■ 2020 ATB

■ 2020 Opt - Meter+Uniform Volume Charge



COMM Sample Bi-Monthly Bills - WATER

\$2,500

\$2,000

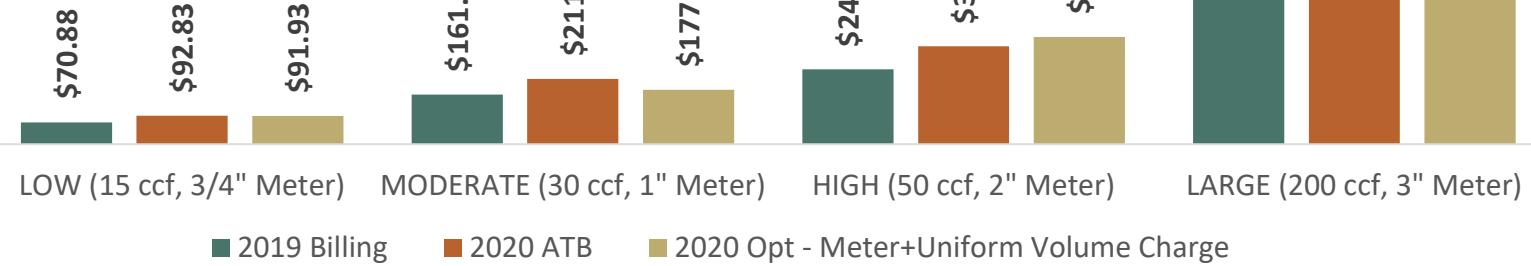
84% of City customers

\$1,500

\$1,000

\$500

\$0





IRR Sample Bi-Monthly Bills - WATER

\$2,500

\$2,000

\$1,500

\$1,000

\$500

\$0

84% of City customers

\$34.08
\$44.63

\$41.03
\$41.03

\$89.28
\$116.93

\$108.41
\$102.53

\$338.67

\$443.21

\$448.25

\$433.37

\$1,128.67

\$1,476.61

\$1,522.47

\$1,540.97

LOW (5 ccf, 3/4" Meter)

MODERATE (20 ccf, 3/4" Meter)

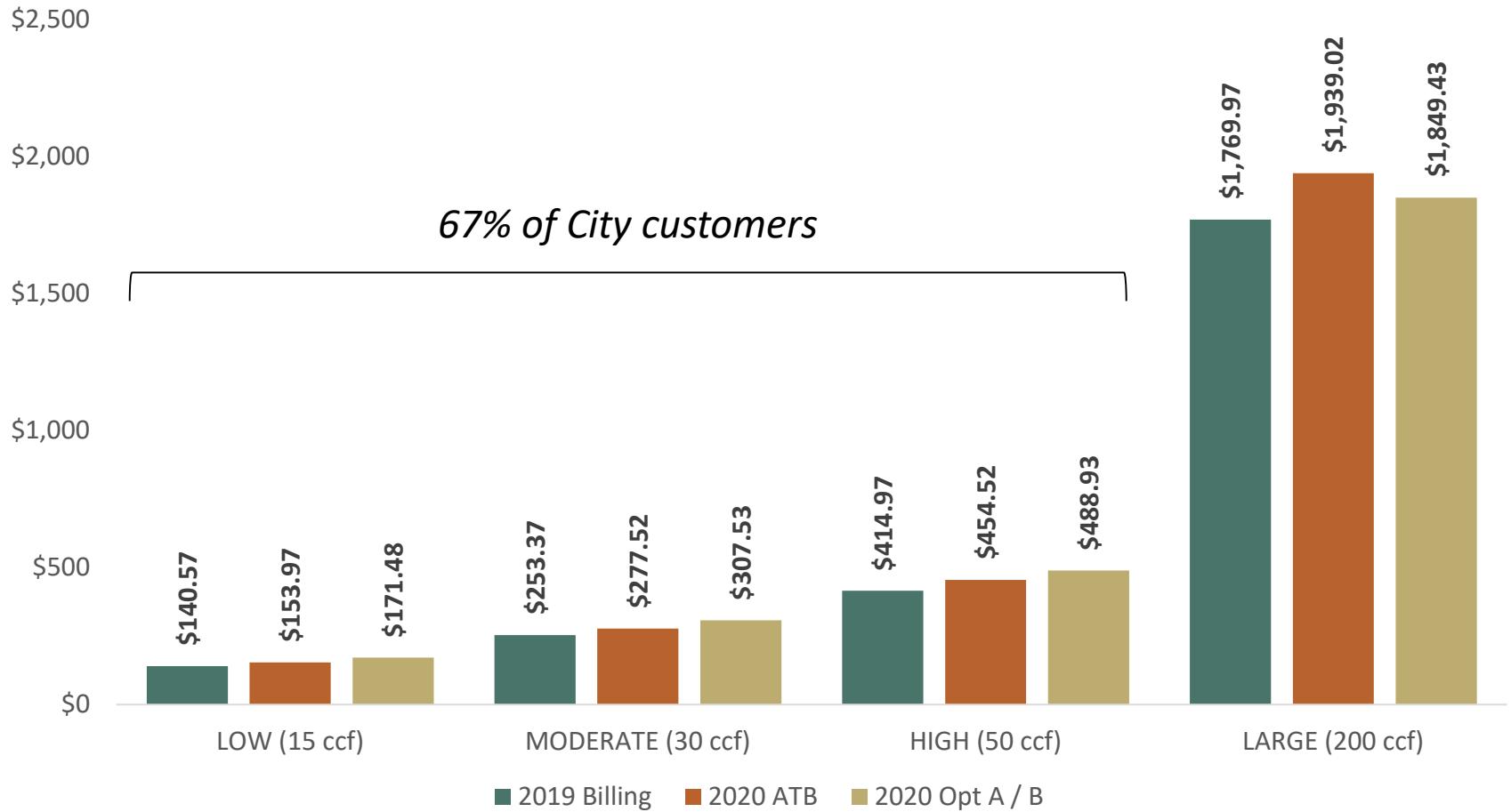
HIGH (70 ccf, 2" Meter)

LARGE (250 ccf, 2" Meter)

■ 2019 Billing ■ 2020 ATB ■ 2020 Opt A - Meter+4Block Vol Chg ■ 2020 Opt B - Meter+3Block Vol Chg

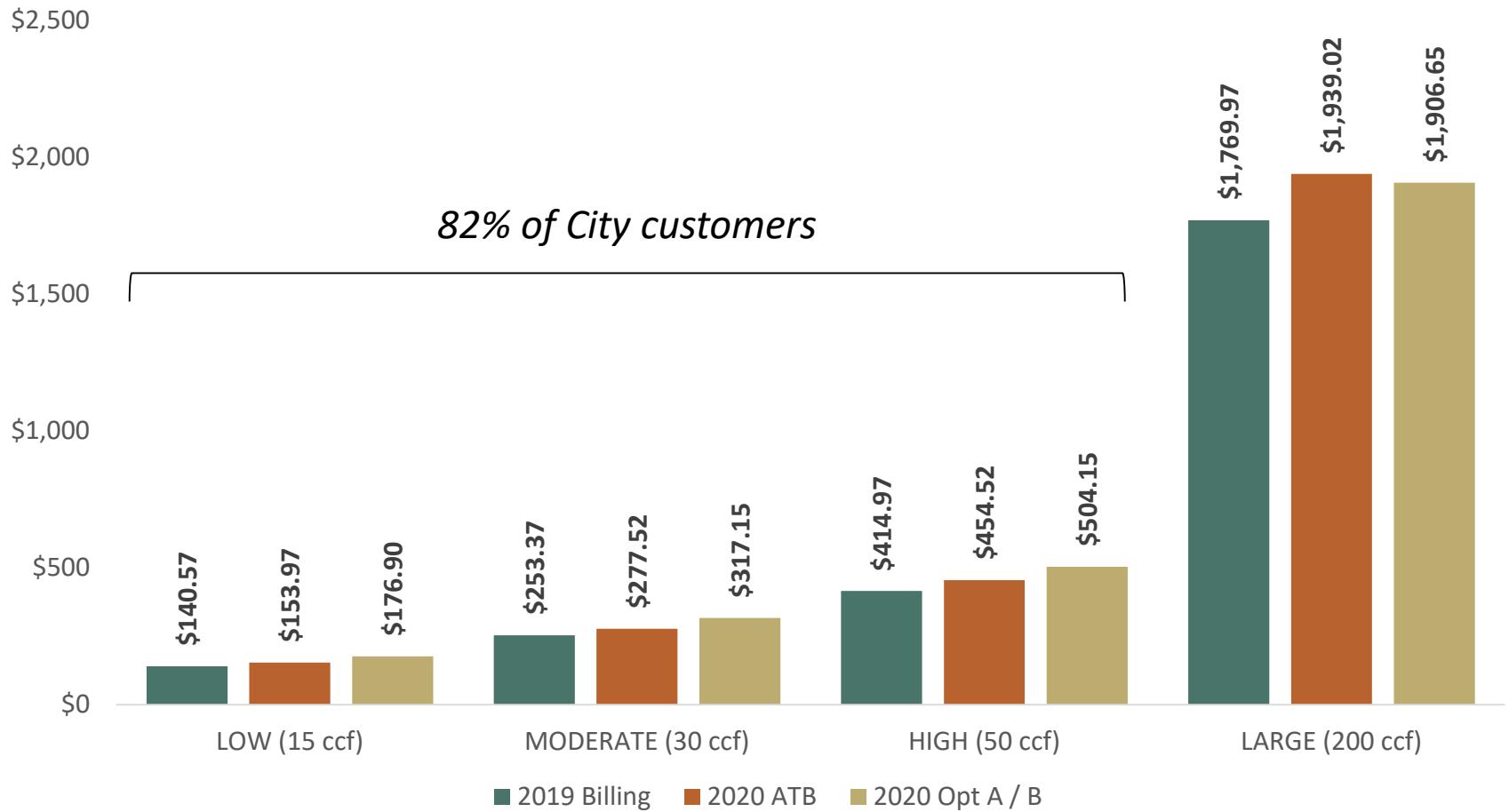


MFR Sample Bi-Monthly Bills - SEWER





COMM Sample Bi-Monthly Bills - SEWER





Appendix – Rate Schedules



Water Fixed Rate Schedule

All Classes						
Meter Size		2019 Fixed Charge		2020 ATB Fixed Charge		Proposed 2020 Fixed Charge
3/4"	\$	15.68	\$	20.53	\$	20.53
1"		49.17		64.36		34.21
1 1/2"		49.17		64.36		68.42
2"		49.17		64.36		109.47
3"		49.17		64.36		218.93
4"		49.17		64.36		342.09
6"		49.17		64.36		684.17



Volume Rate Schedule

Option A (4 Block)

Existing - All Customers			
Usage Tier	2019 Charge	2020 ATB	
0-25 ccf	\$ 3.68	\$ 4.82	
26-50 ccf	4.06	5.31	
51-150 ccf	4.80	6.28	
151+ ccf	4.06	5.31	

Residential - Proposed (Opt. A)		
Usage Tier	2020 Opt. A	
0-10 ccf	\$ 4.50	
11-15 ccf	4.96	
16-30 ccf	5.87	
31+ ccf	6.93	

COM - Proposed (Opt. A/B)		
Usage Tier	2020 Opt. A/B	
All Usage	\$ 4.76	

Irrigation - Proposed (Opt. A)		
Usage Tier	2020 Opt. A	
0-6 ccf	\$ 4.10	
7-40 ccf	4.52	
41-116 ccf	5.35	
117+ ccf	6.18	

MFR - Proposed (Opt. A/B)		
Usage Tier	2020 Opt. A/B	
All Usage	\$ 5.28	



Water Volume Rate Schedule

Option B (3 Block)

Existing - All Customers			
Usage Tier	2019 Charge	2020 ATB	
0-25 ccf	\$ 3.68	\$ 4.82	
26-50 ccf		4.06	5.31
51-150 ccf		4.80	6.28
151+ ccf		4.06	5.31

Residential - Proposed (Opt. B)		
Usage Tier	2020 Opt. B	
0-10 ccf	\$ 4.50	
11-30 ccf		5.40
31+ ccf		6.75

COM - Proposed (Opt. A/B)		
Usage Tier	2020 Opt. A/B	
All Usage	\$ 4.76	

Irrigation - Proposed (Opt. B)		
Usage Tier	2020 Opt. B	
0-25 ccf	\$ 4.10	
26-100 ccf		4.92
101+ ccf		6.40

MFR - Proposed (Opt. A/B)		
Usage Tier	2020 Opt. A/B	
All Usage	\$ 5.28	

Sewer Rate Schedule



Option A (Uniform Vol. Charge)

Rate Structure - All Classes				
	2019 Charge		2020 ATB	
Fixed Charge	\$	31.97	\$	35.02
0-25 ccf		7.24		7.93
26-50 ccf		8.08		8.85
51-150 ccf		9.51		10.42
151+ ccf		8.08		8.85

SFR - Opt. A		
2020 Charge		
Fixed Charge	\$	118.73

Note: Single family residences will not be billed for any consumption

MFR - Opt. A/B		
2020 Charge		
Fixed Charge	\$	35.43
All Usage		9.07

COM - Opt. A/B		
2020 Charge		
Fixed Charge	\$	36.65
All Usage		9.35

Sewer Rate Schedule



Option B (Uniform Vol. Charge)

Rate Structure - All Classes				
		2019 Charge	2020 ATB	
Fixed Charge	\$	31.97	\$	35.02
0-25 ccf		7.24		7.93
26-50 ccf		8.08		8.85
51-150 ccf		9.51		10.42
151+ ccf		8.08		8.85

SFR - Opt. B		
2020 Charge		
Fixed Charge	\$	34.54
All Usage		8.92

Note: residential billing proposed to be based on average winter usage (currently based on total usage)

MFR - Opt. A/B		
2020 Charge		
Fixed Charge	\$	35.43
All Usage		9.07

COM - Opt. A/B		
2020 Charge		
Fixed Charge	\$	36.65
All Usage		9.35