

# City of Ferndale, WA



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

Presented by:  
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Ferndale City Council  
Finance Committee  
October 2, 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



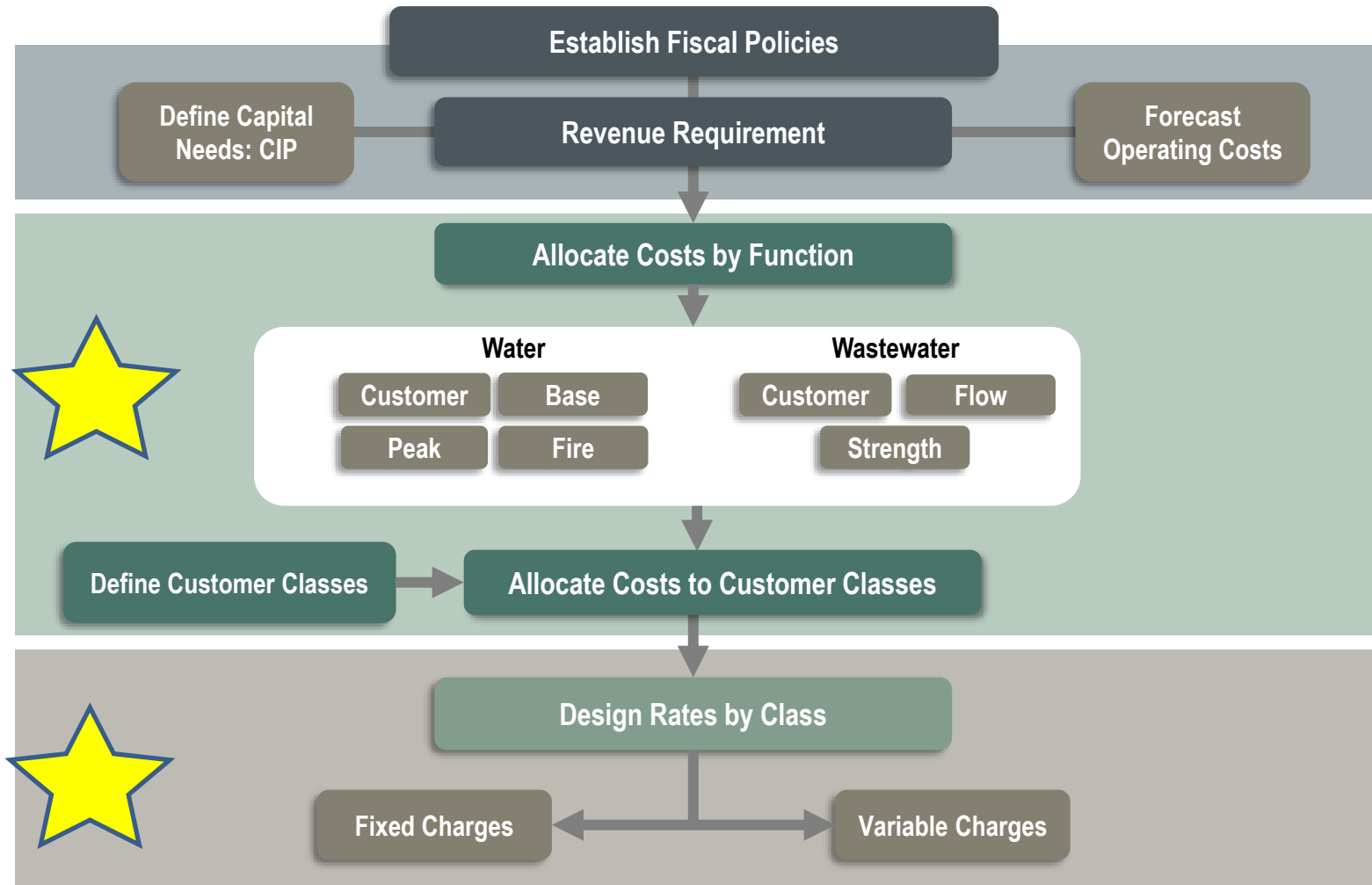
5.

Final  
Documentation





# Overview of the Rate Setting Process





# Agenda

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

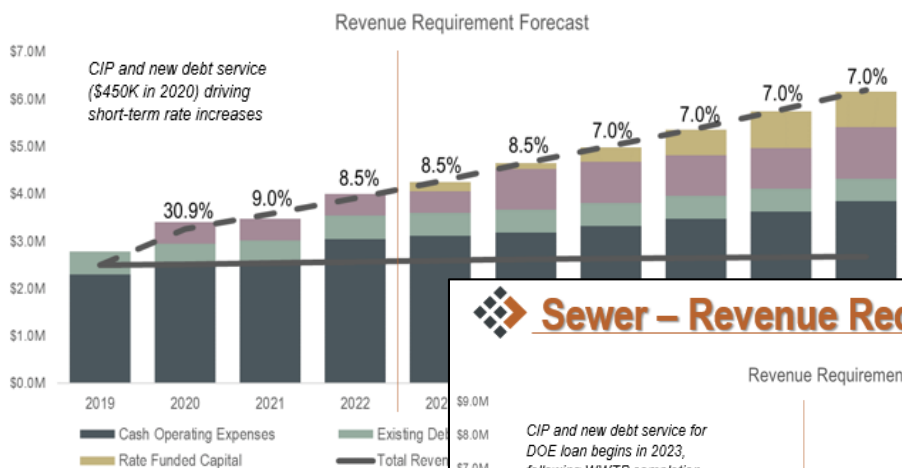


# Recap: Revenue Requirements Analysis

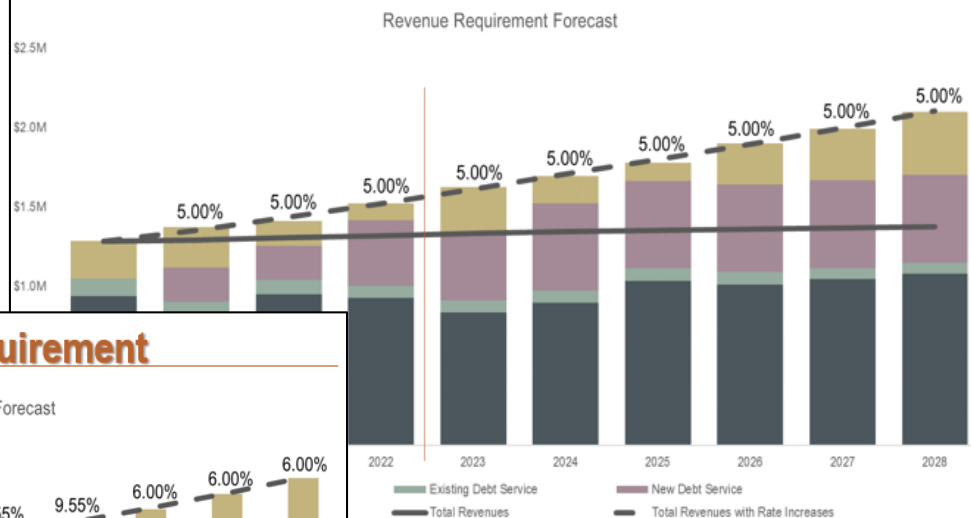
- ♦ **What:** Determine what annual level of adjustment to rates is needed to fully fund utility operations in each year.
- ♦ **Outcome:** Council reviewed on Aug 14 and 19.



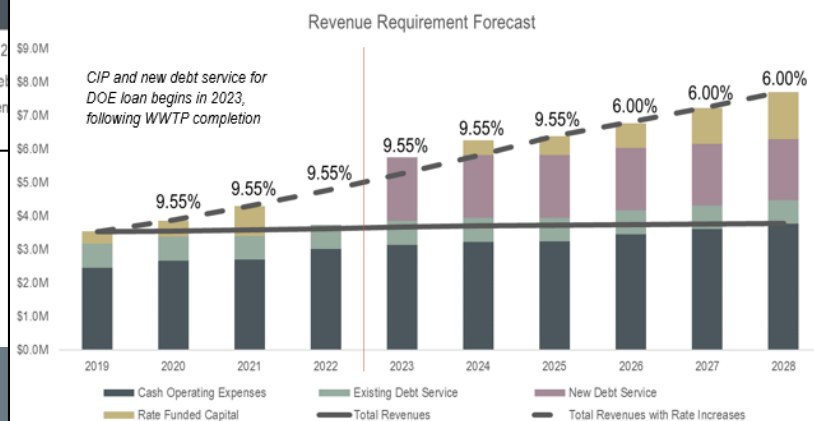
## Water – Revenue Requirement



## Stormwater – Revenue Requirement



## Sewer – Revenue Requirement





## **What Is A Connection Fee**

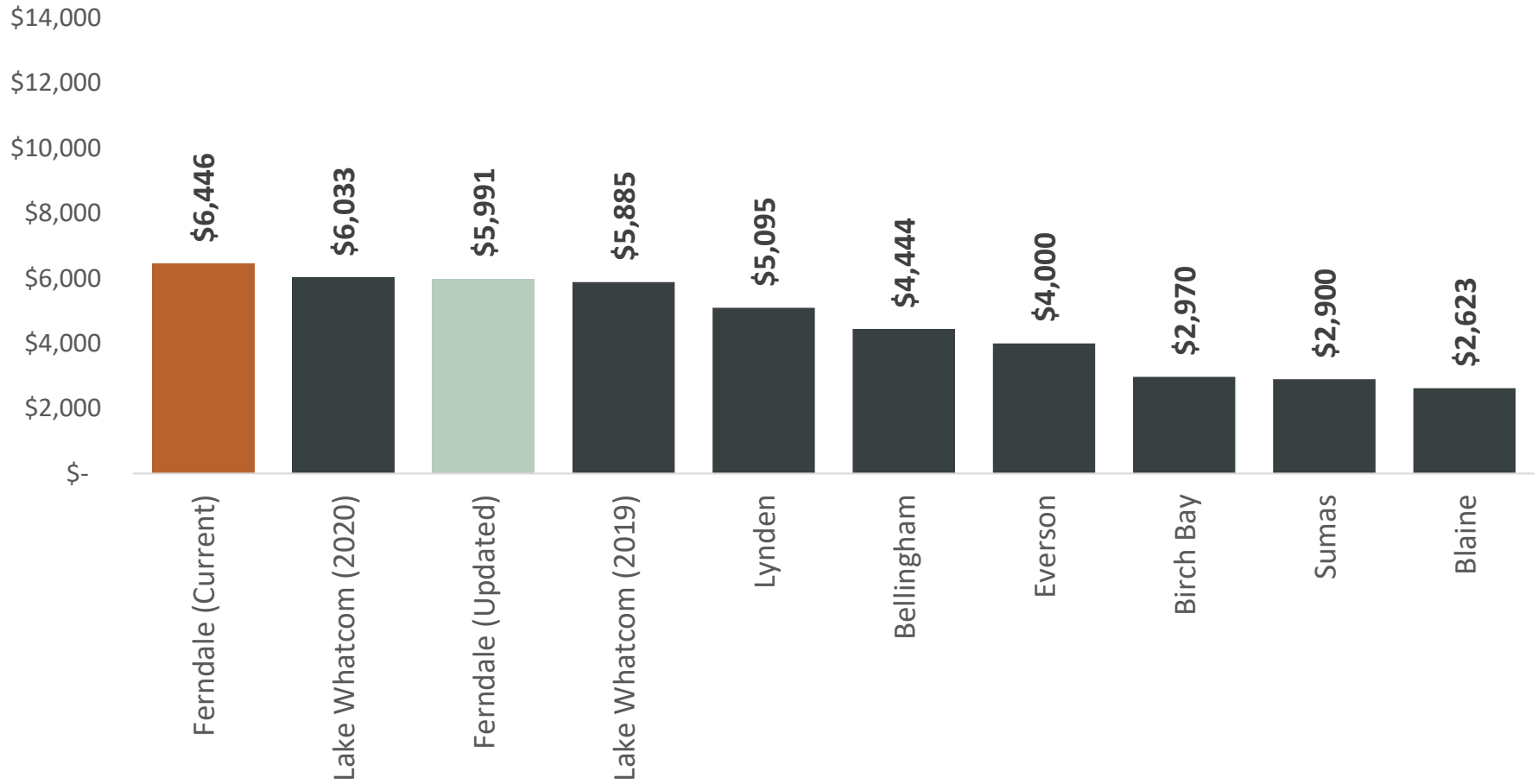
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- ◆ **One-time charge imposed as a condition of service on new development or on increased system demand.**
- ◆ **Represents a prorated share of the capital investment made to provide system capacity.**
- ◆ **Governing state law: RCW 35.92.025: *In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



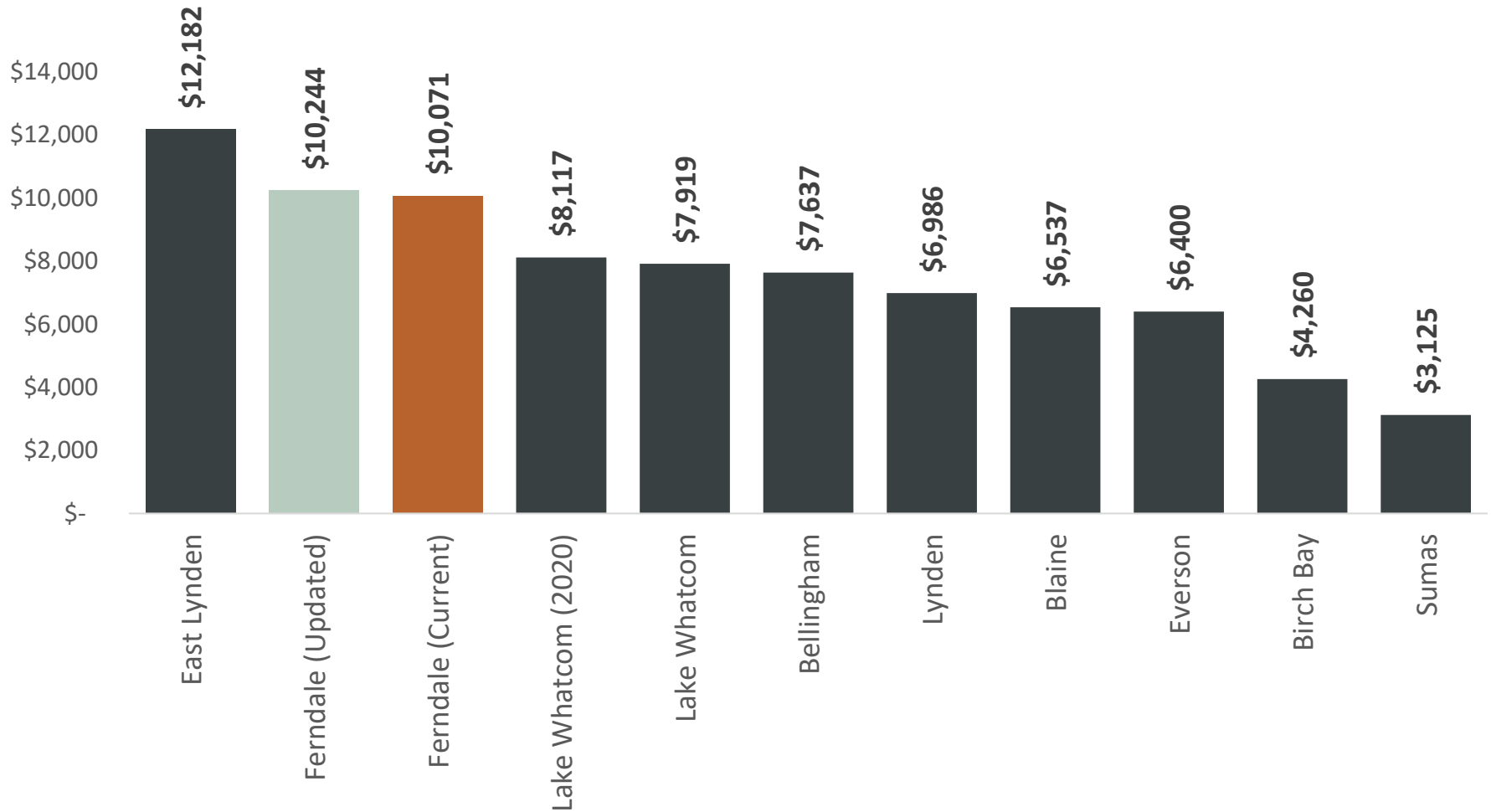
# Current vs Updated Connection Fee

## Water Utility





# Current vs Updated Connection Fee Sewer Utility







# **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**

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- ◆ **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

- Customer
- Meters & Services
- Base Demand (Average Use)
- Peak Demand (Peak Use)
- Fire Protection

### Sewer Utility Functions

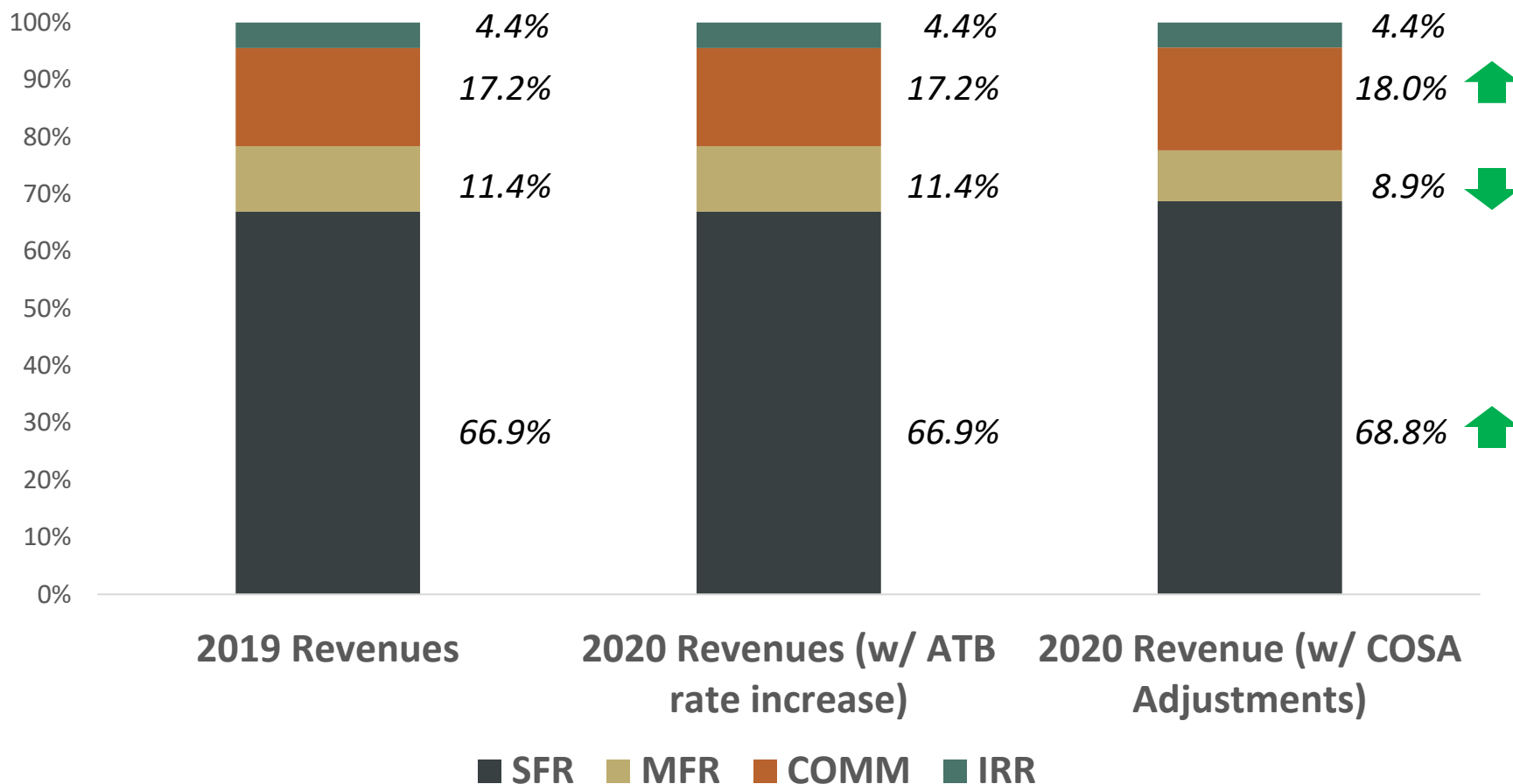
- Customer
- Flow
- Strength
  - Suspended Solids (TSS)
  - Biochemical Oxygen Demand (BOD)

## ◆ Step 2: Develop allocation factors using class specific information

## ◆ Step 3: Allocate costs to customer classes

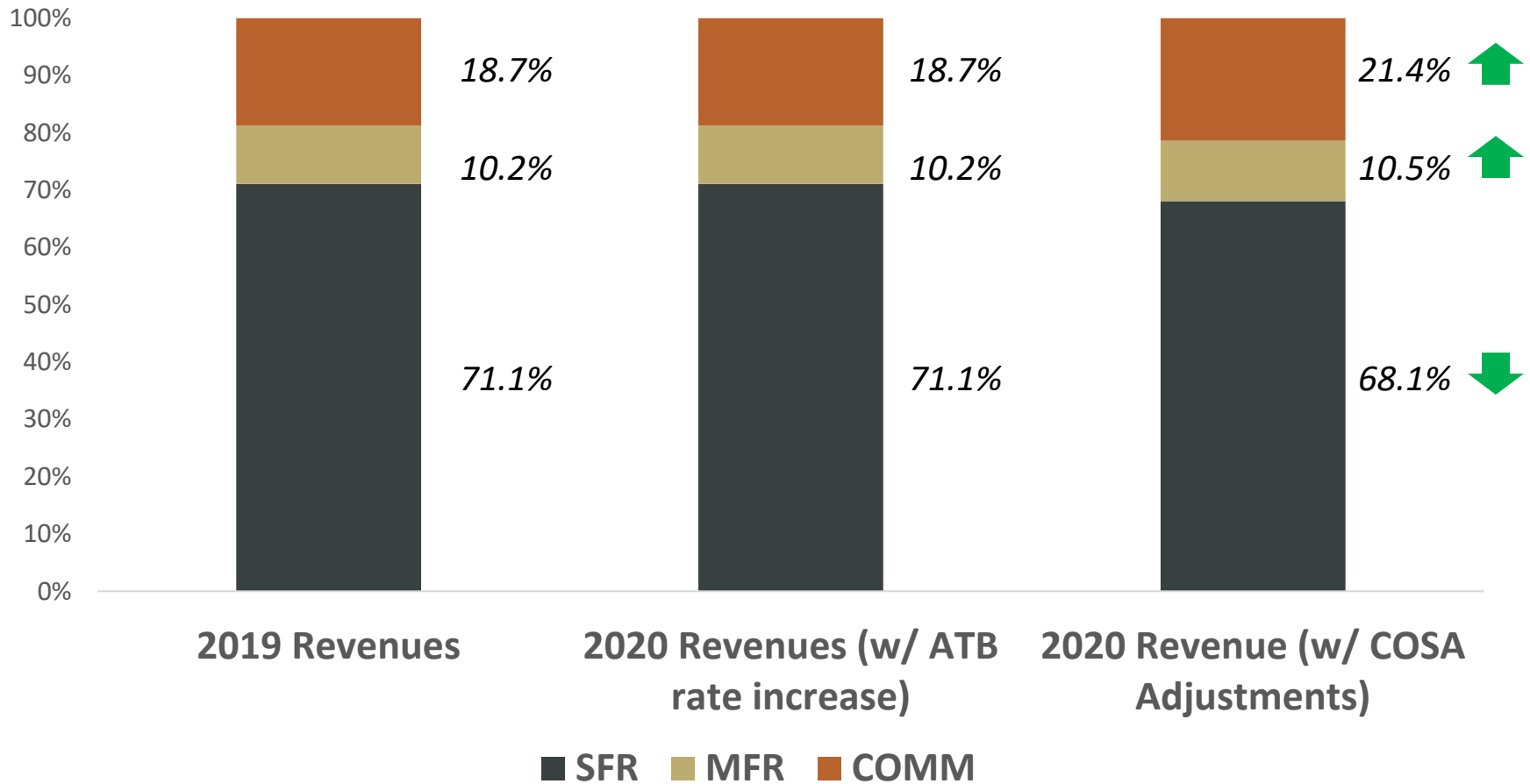


# Water Cost of Service – COS Based Shifts Were Insignificant; No Changes Recommended





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



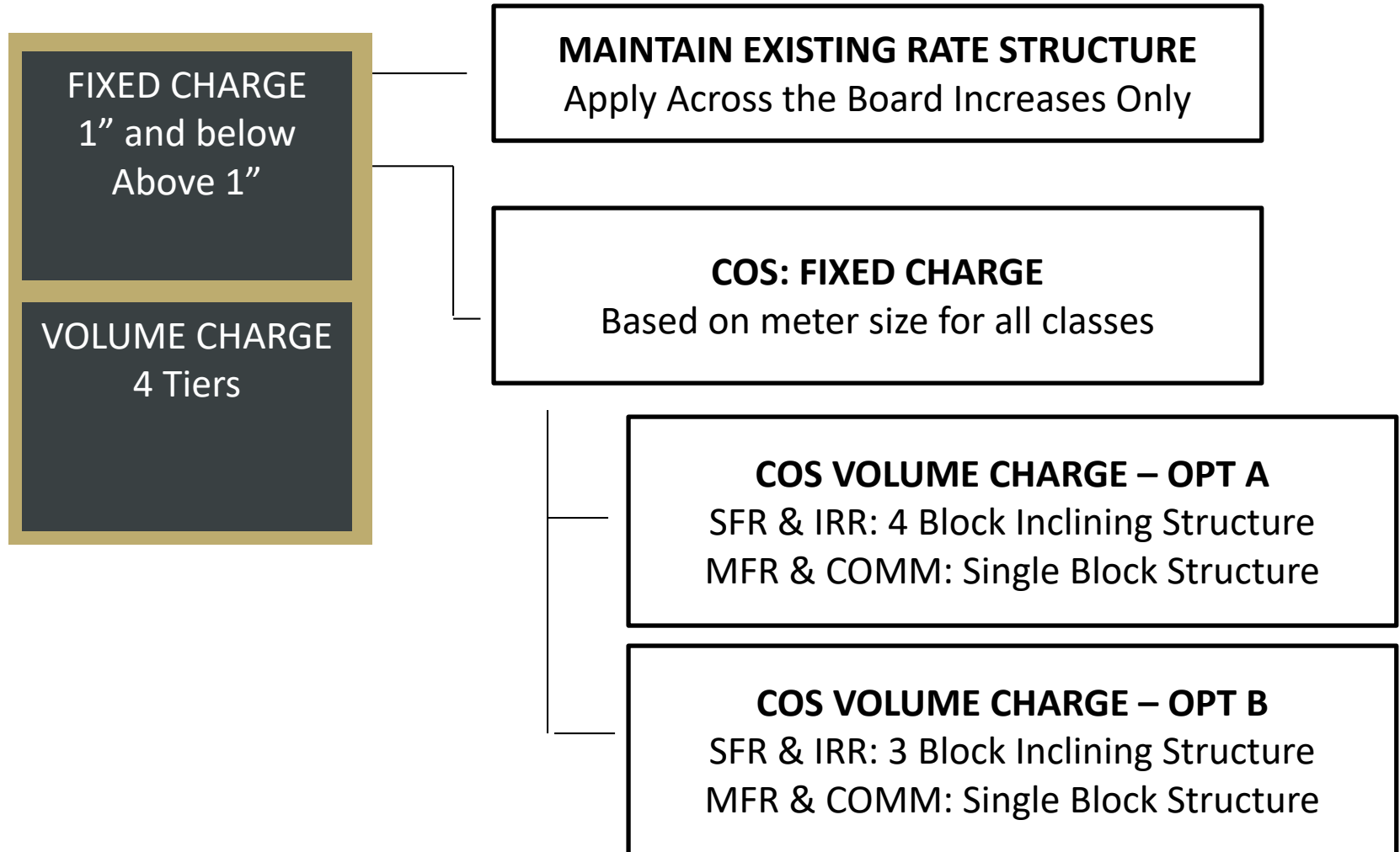


## **Guiding Principles in Rate Design**

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

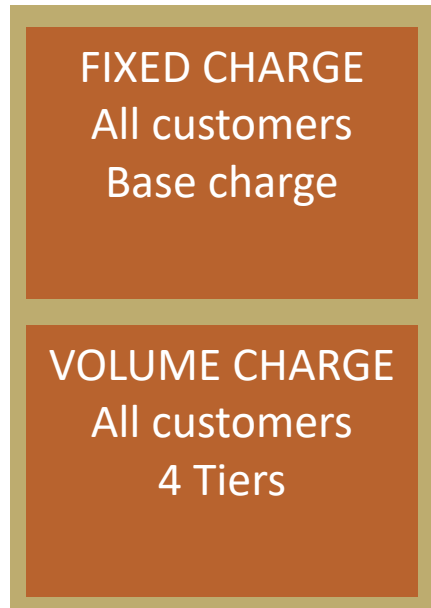


# Water Rate Design – Options





# Sewer Rate Design – Options



**MAINTAIN EXISTING RATE STRUCTURE**  
Apply Across the Board Increases Only

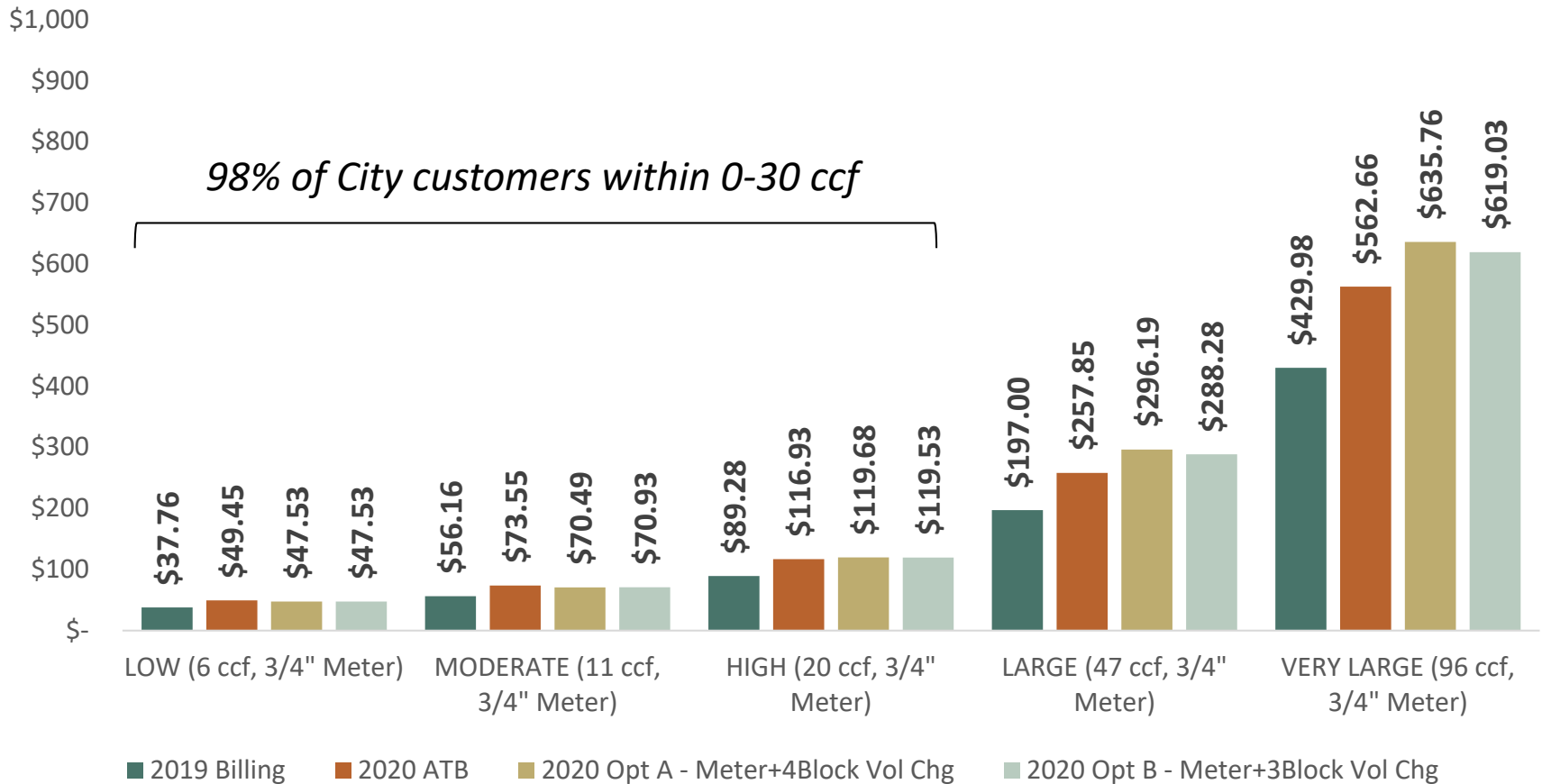
**COS: OPTION A**  
SFR: Base Charge only  
Non-SFR: Base Charge + Uniform Volume Charge

**COS: OPTION B**  
SFR: Base Charge + Winter Volume Charge  
Non-SFR: Base Charge + Uniform Volume Charge



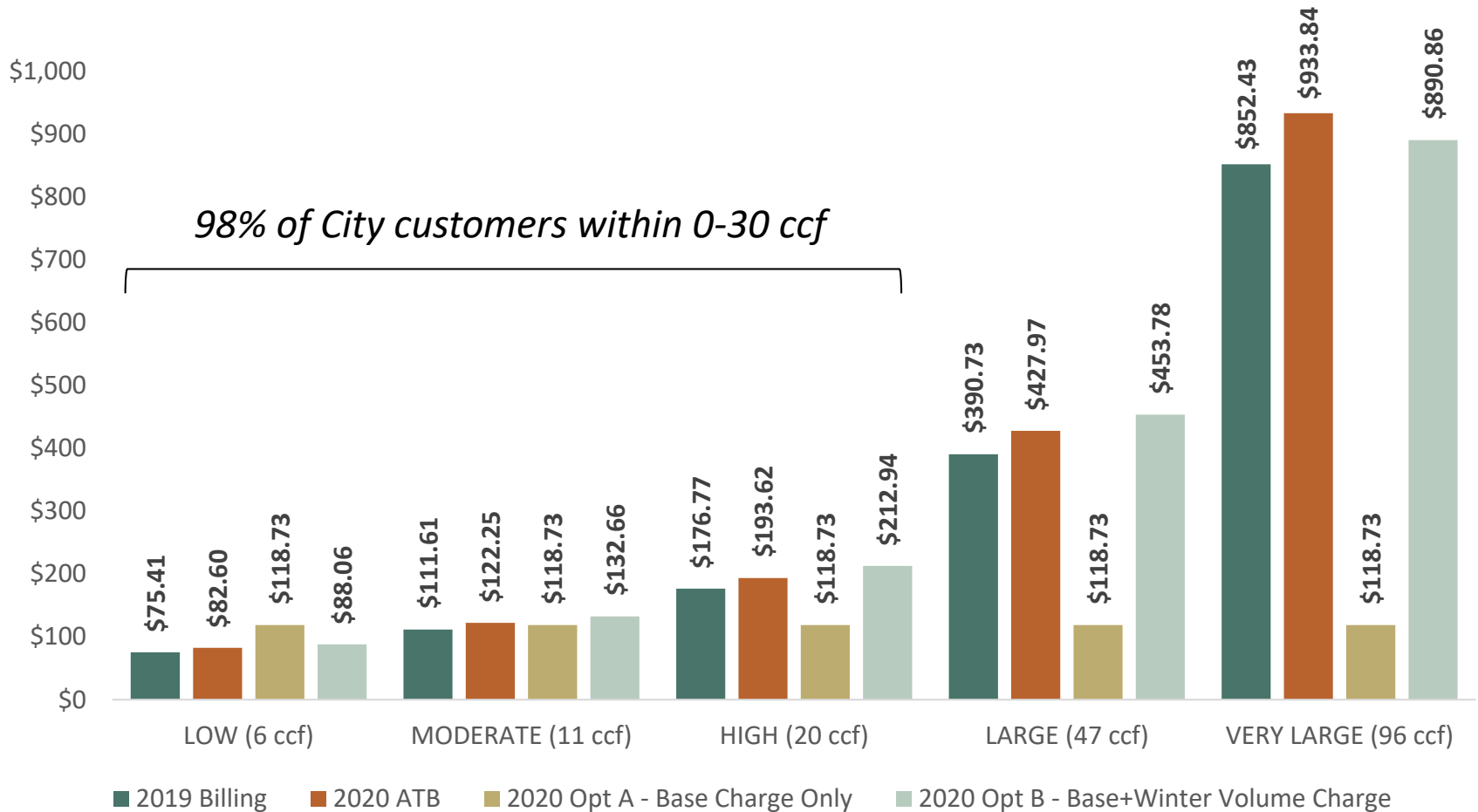


# SFR Sample Bi-Monthly Bills - WATER





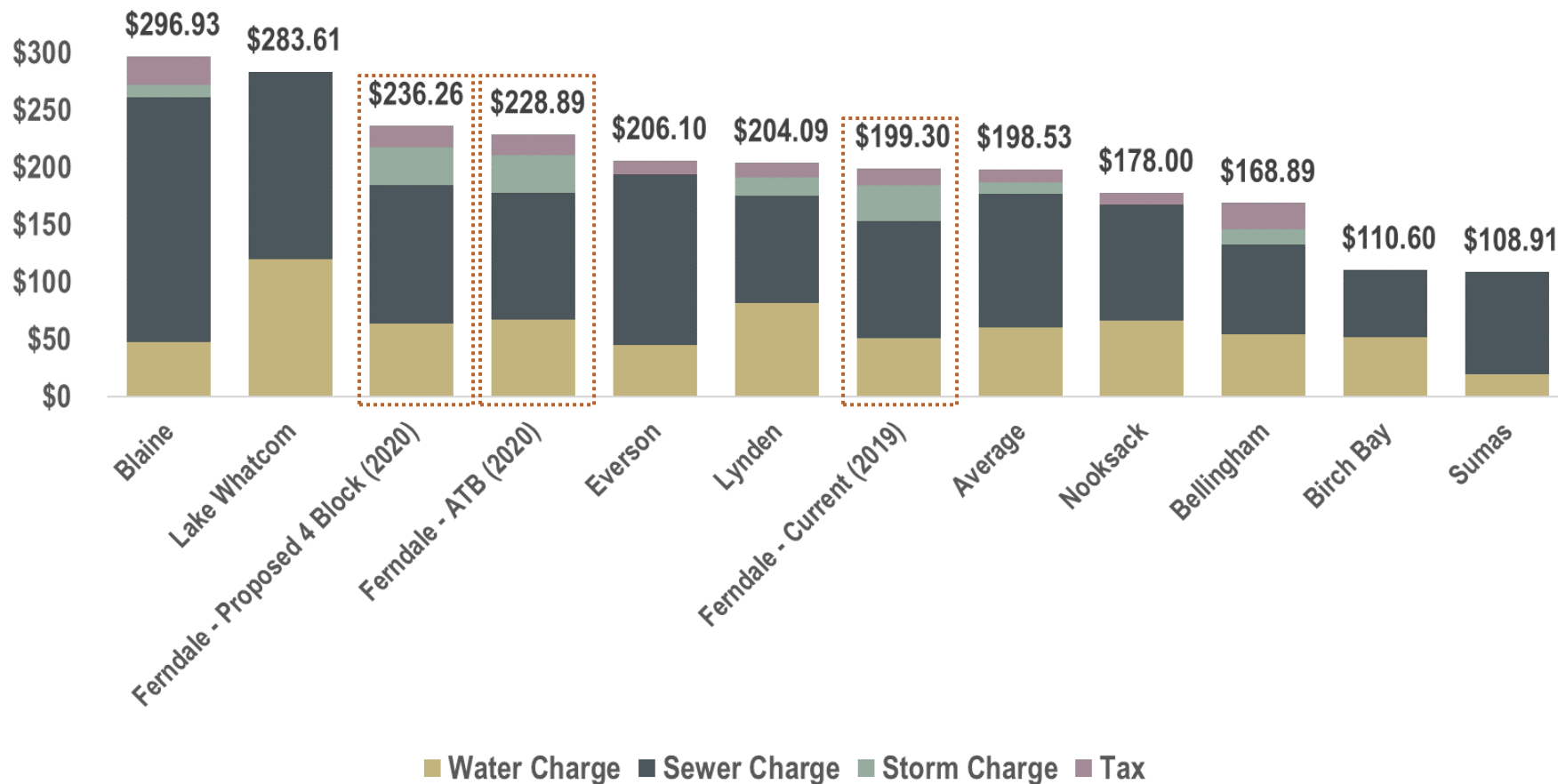
# SFR Sample Bi-Monthly Bills - SEWER





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

Total Single Family Bimonthly Utility Bill By Jurisdiction - 11 ccf Bimonthly Usage



*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.



# Recap

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



## **Next Steps**

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- ◆ **Continuation of workshop / discussion or ready to forward to Council for 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 Committee Questions?**

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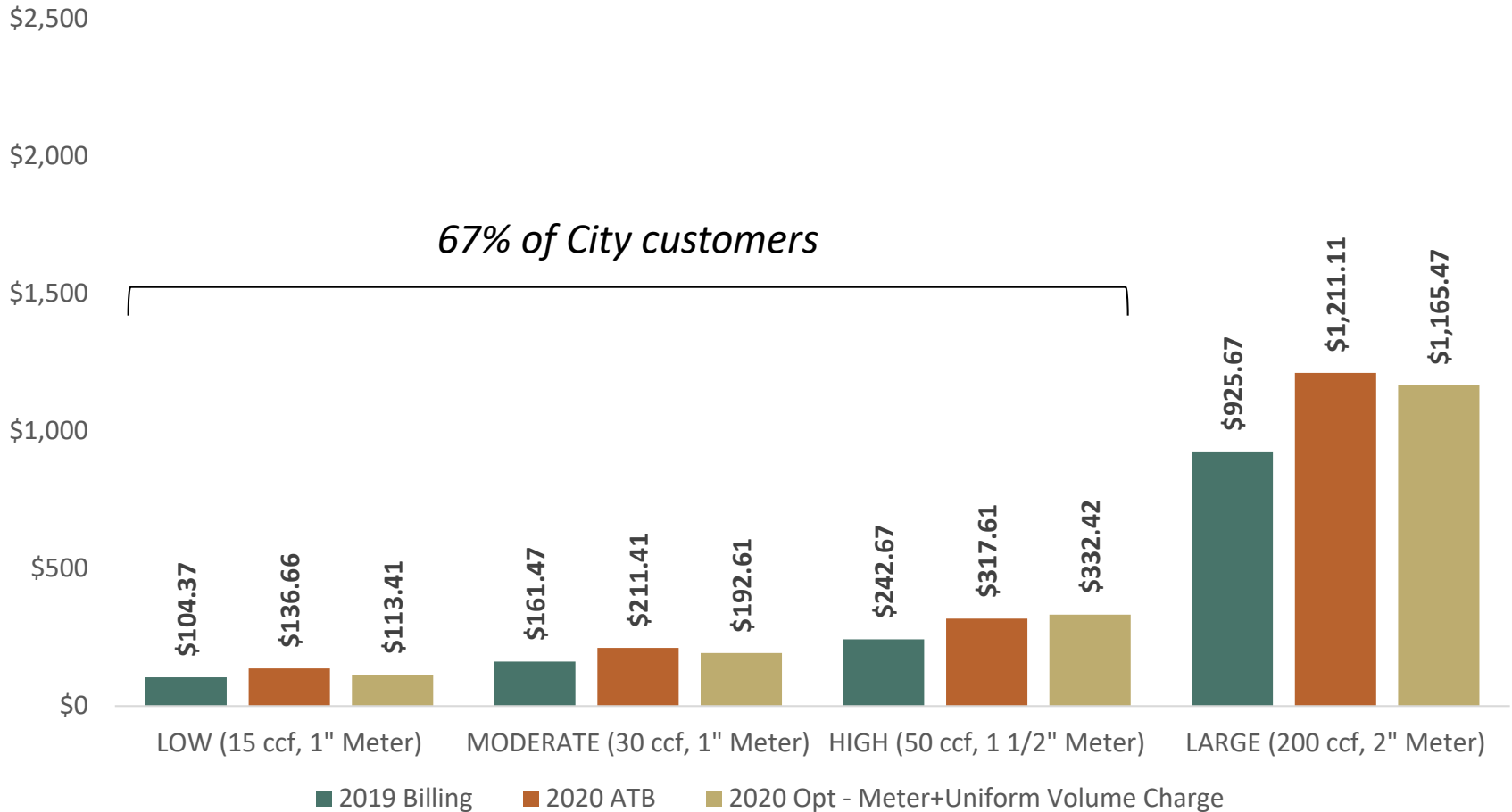


## **Billing Impacts – Other Customer Classes**



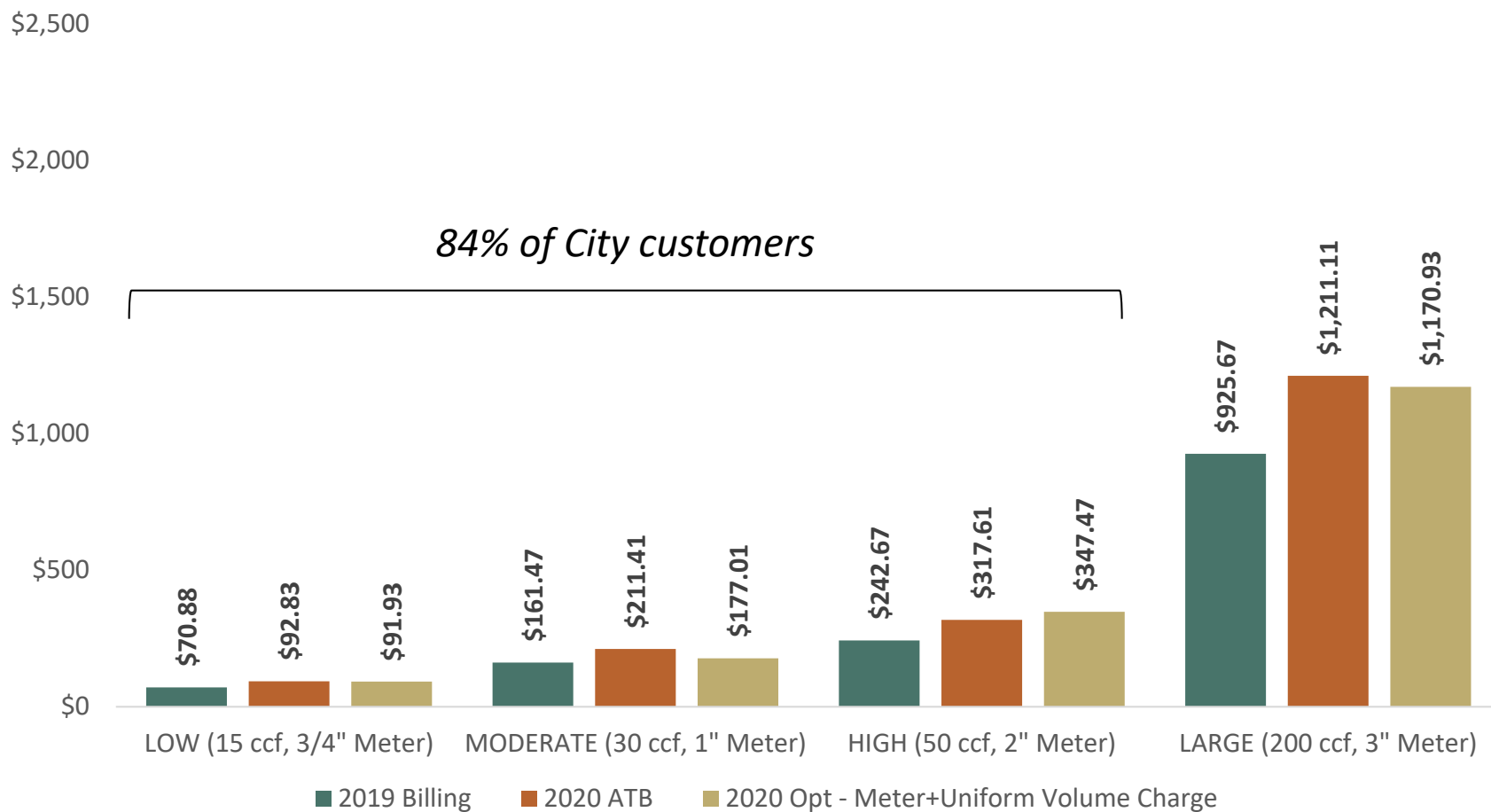


# MFR Sample Bi-Monthly Bills - WATER



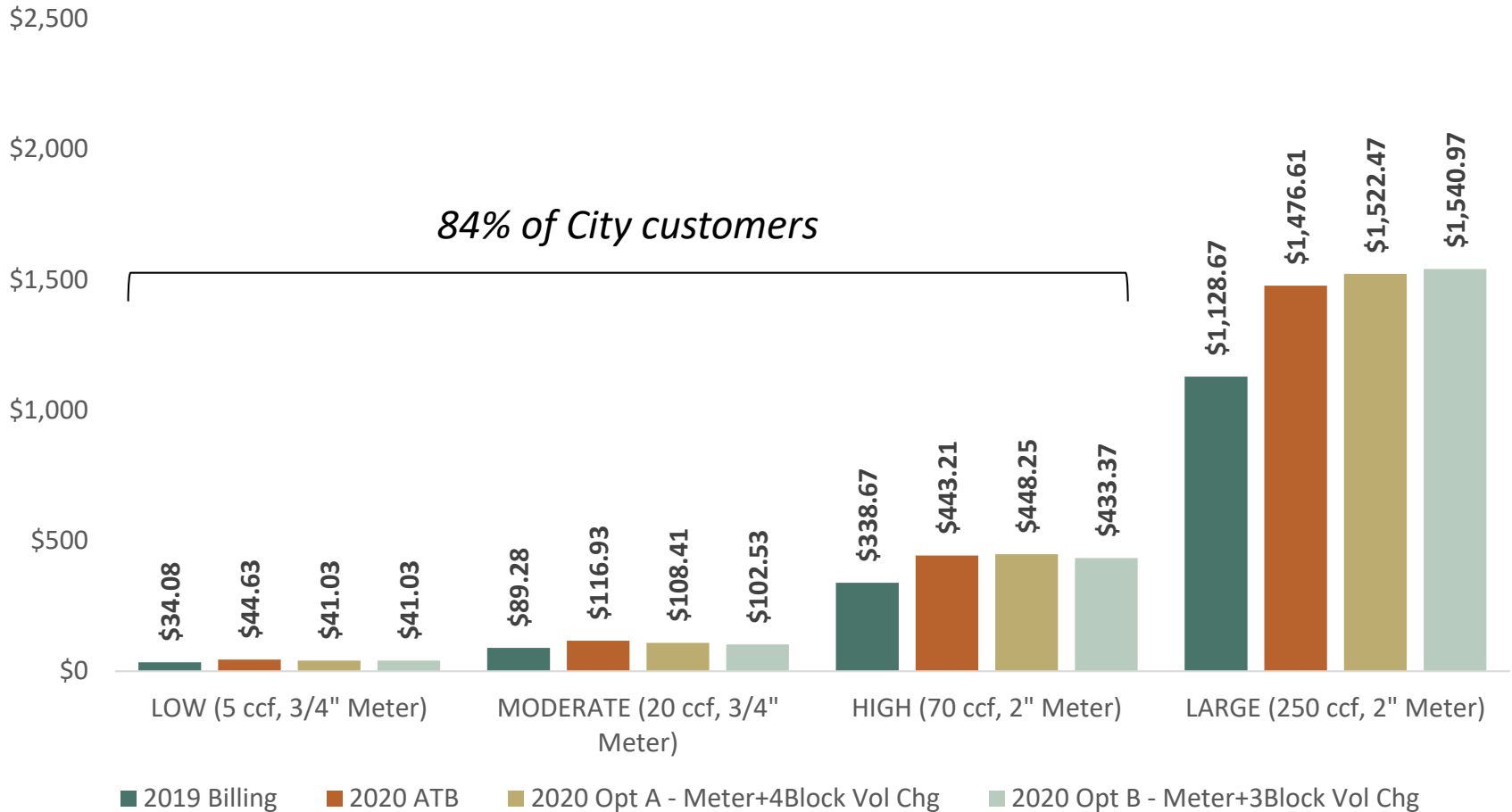


# COMM Sample Bi-Monthly Bills - WATER



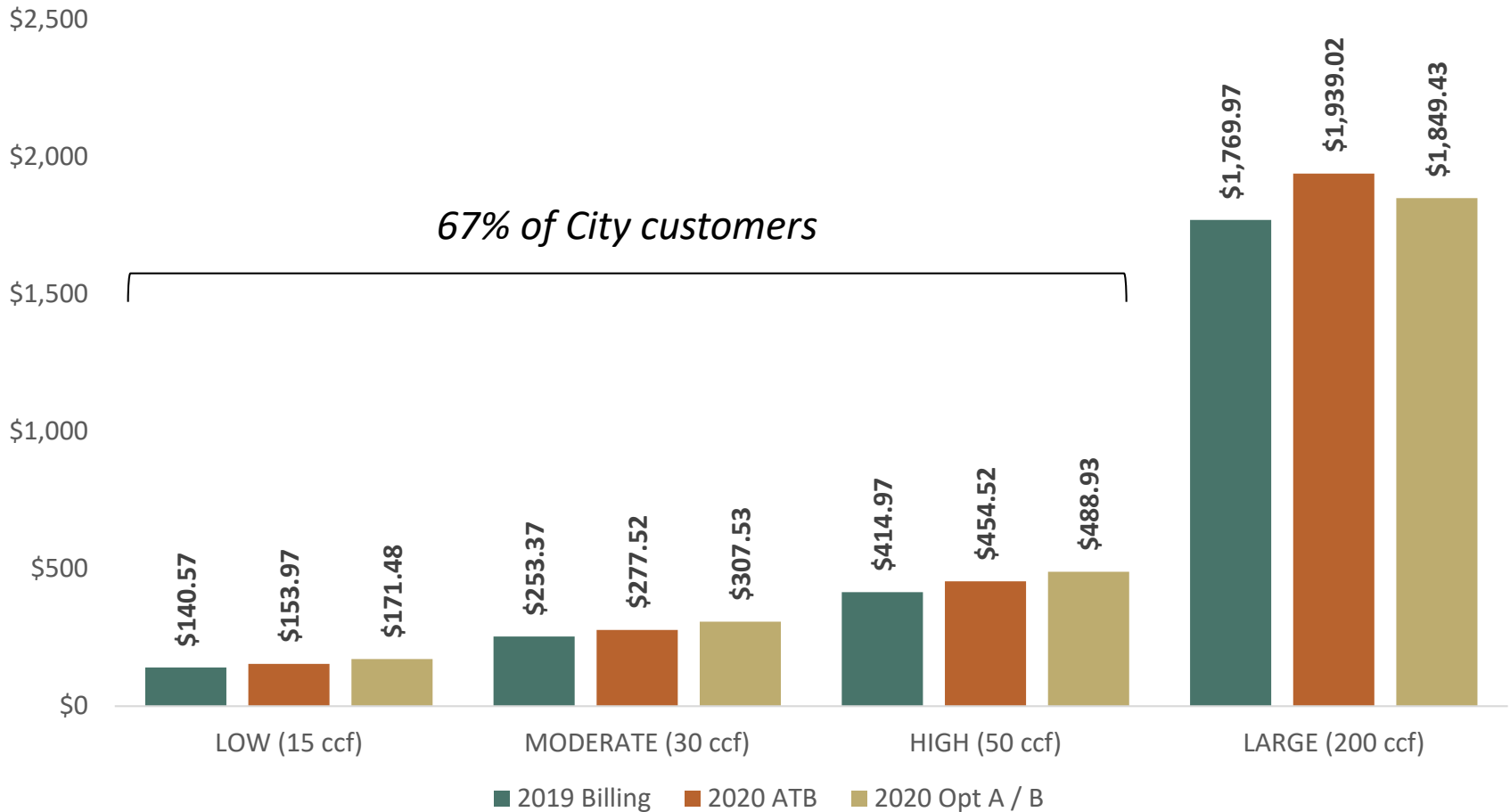


# IRR Sample Bi-Monthly Bills - WATER



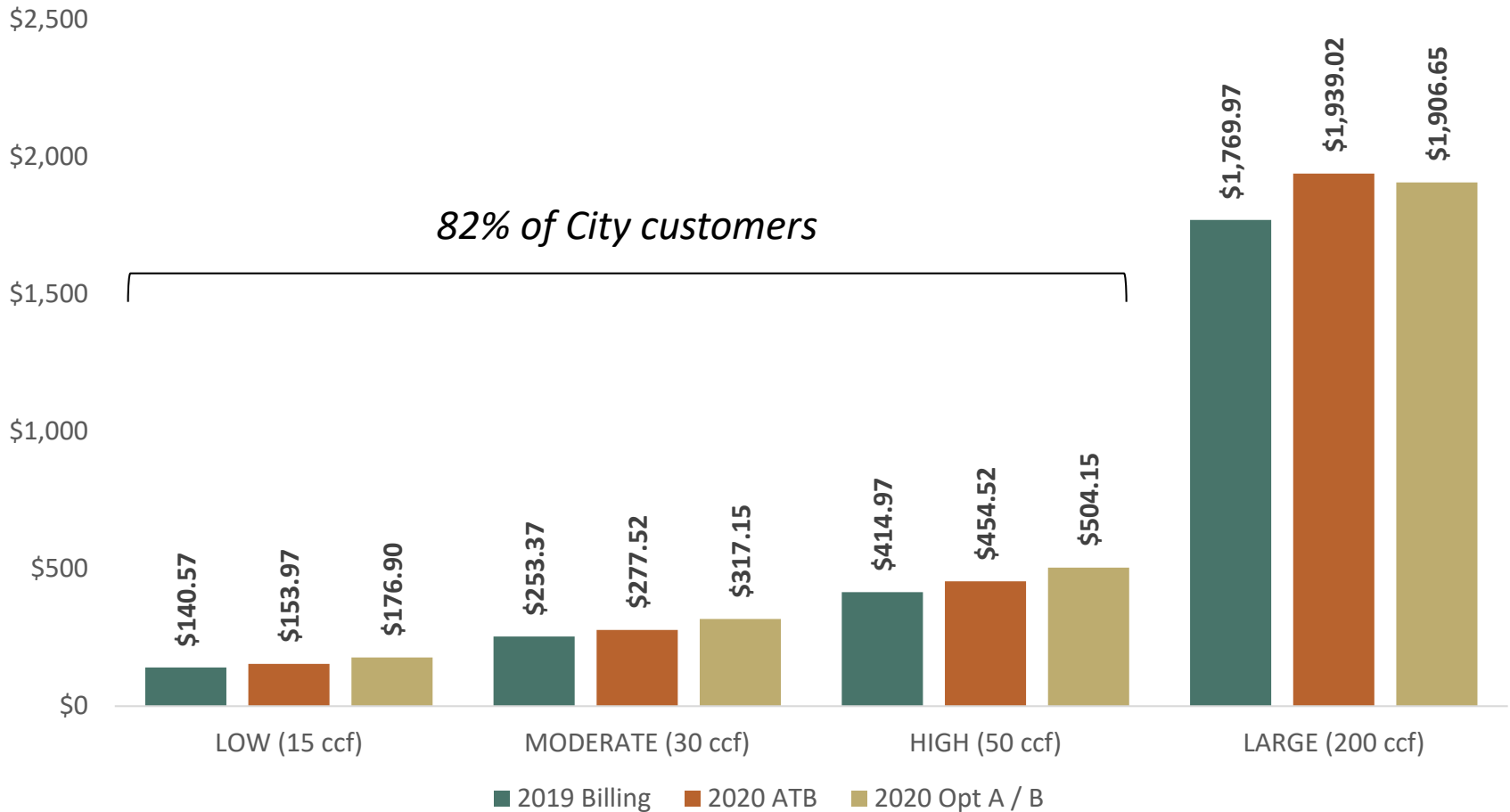


# MFR Sample Bi-Monthly Bills - SEWER





# COMM Sample Bi-Monthly Bills - SEWER





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# 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