

CITY OF GOLDEN

Utility Rate Citizen Committee Meeting #4

May 21, 2019



Agenda

- Rate structure alternatives assumptions
- Drainage rate alternatives and customer impacts
- Wastewater rate alternatives and customer impacts
- Top ranked pricing objectives
- Water rate alternatives and customer impacts



Assumptions

- Alternatives based on the initial pricing objectives selected by the URCC
- Results are for illustrative purposes
- All scenarios are revenue neutral
 - › Values based on 2020 projected expenditures
 - › Rate alternatives recover the same level of revenue as existing rates
- Alternatives based on a cost of service analysis



Assumptions update

- Water utility
 - › Updated price ratios to reflect peaking characteristics
 - › Updated class peaking factors using new billing data
 - › Seasonal rate alternative includes high and low use seasons
- Wastewater utility
 - › No updates to data



Golden current rate structures

Water Service Charge	
Meter Size Inches	Service Charge \$ per bill
3/4"	\$4.43
1"	4.90
1 1/4" & 1 1/2"	10.07
2"	12.15
3"	55.60
4"	66.81
6"	87.34
8"	114.41
10"	150.07
12"	197.18

Water Volume Rate	
Treated, \$ per 1,000 gal	\$5.26
Bulk Water, \$ per 1,000 gal	\$6.26

Wastewater Rates	
Service Charge, \$ per bill	\$12.11
Volume rate, \$ per 1,000 gal	\$2.61
Strength Charges	
BOD, \$ per lb, >300 mg/l	\$0.466049
TSS, \$ per lb, >300 mg/l	\$0.261723
[1] Residential based on February water use.	
[2] Commercial based on actual use.	

Drainage Rates	
Single family, \$ per bill	\$4.22
Multifamily, \$ per unit (4 units or less)	\$4.22
Multifamily >4 Units and Commercial, \$ per sq ft impervious area	\$0.0022



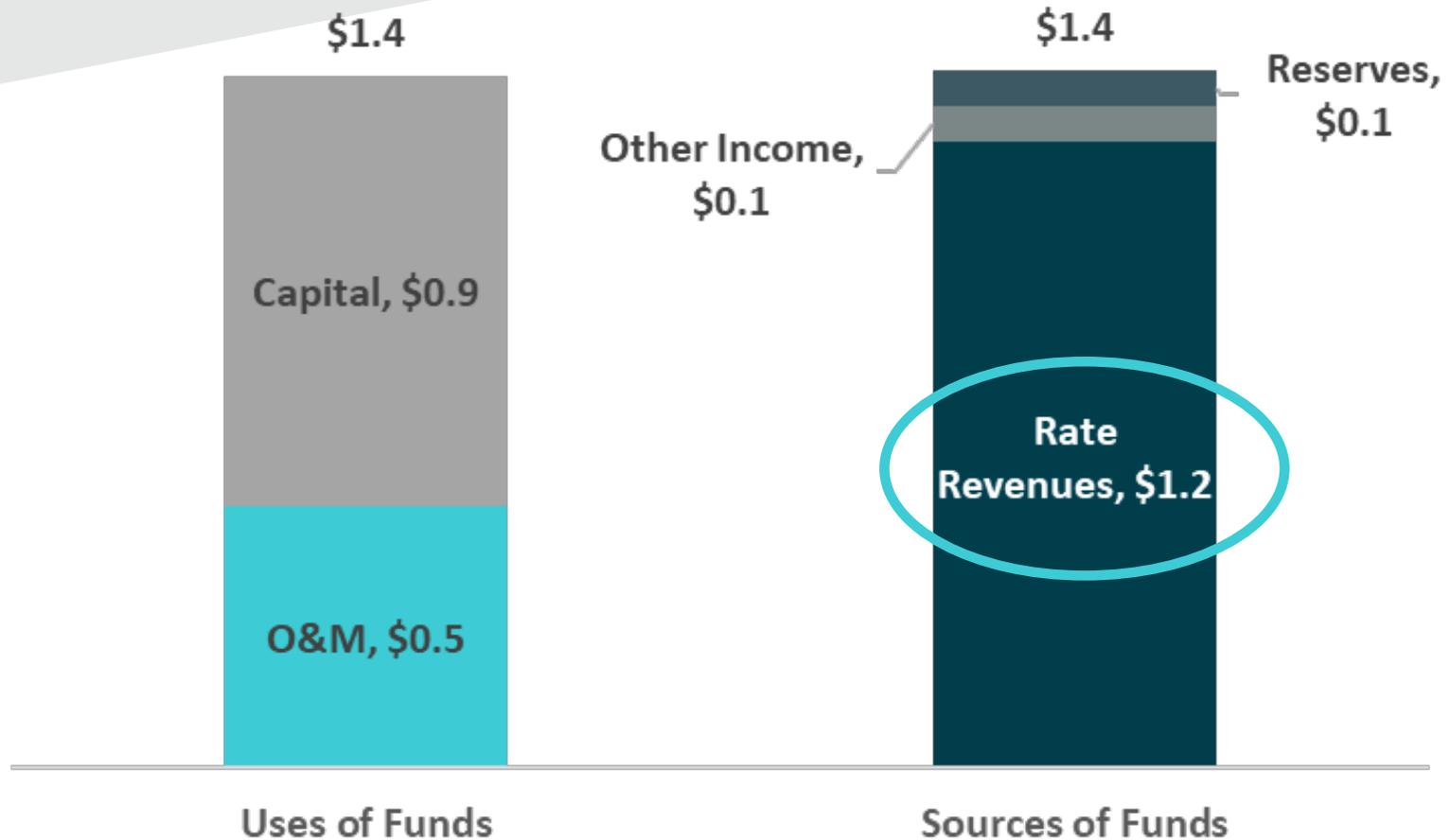
Drainage Utility

Cost of service

Rate structure alternatives

Customer impacts

2020 drainage revenue requirement revenue neutral (millions)



Drainage

Comparison of COS and revenue under existing rates

Customer Class	COS	Revenue at Existing Rates	Change - \$	Change %
Residential and units <=4	\$354,383	\$256,086	\$98,296	38.4%
Comm and MF >4 units	\$884,000	\$982,296	(\$98,296)	-10.0%
Total	\$1,238,382	\$1,238,382	\$0	0%



Drainage

Existing and alternatives

Customer Class	Existing	Alternative 1 COS
Residential	\$4.22 per unit per bill	\$0.00198 per sq. ft. [1]
Commercial	\$0.0022 per sq. ft. [1]	\$0.00198 per sq. ft. [1]

[1]Per square foot of impervious area

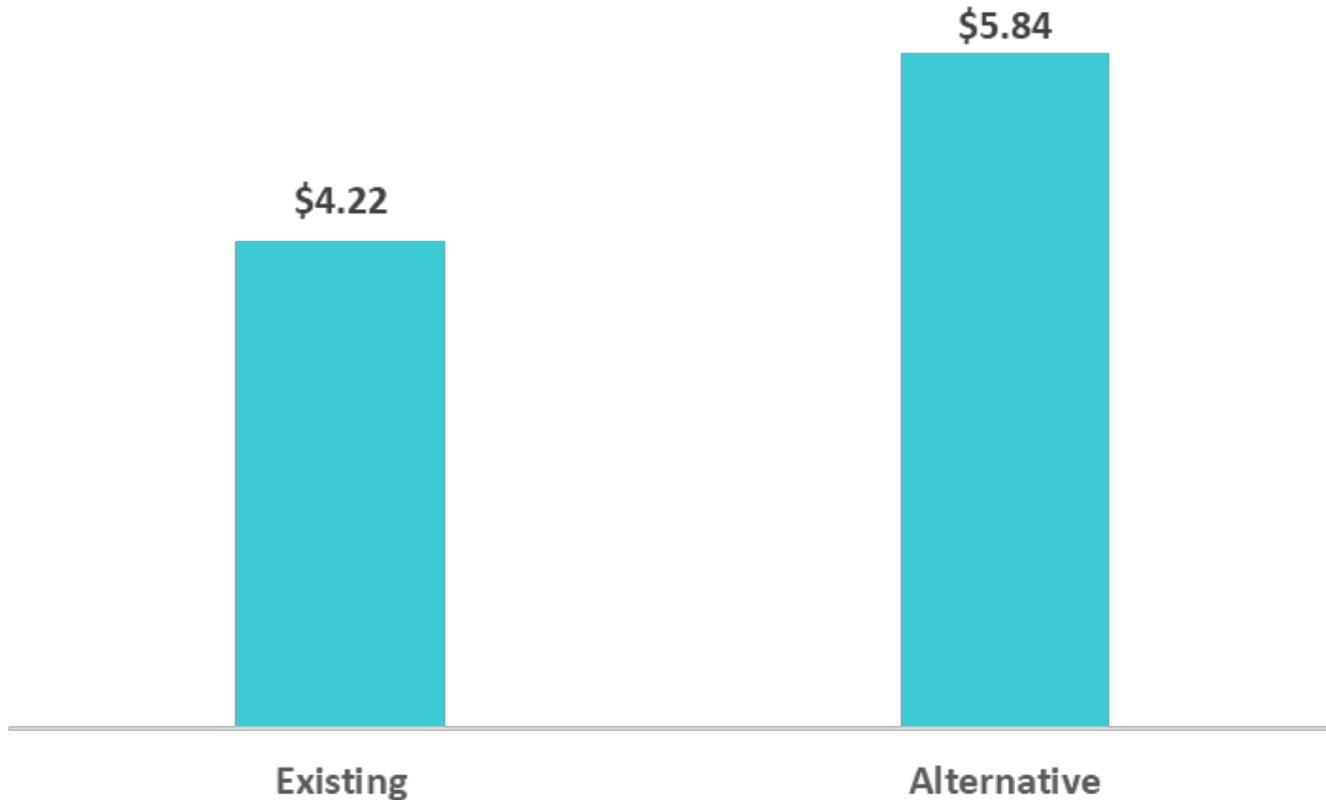


Drainage

Sample monthly bill

Residential

Impervious area = 2,950 square feet



Drainage

Sample monthly bill

Commercial

Impervious area = 15,000 square feet



Drainage

Sample monthly bill

Commercial

Impervious area = 40,000 square feet



Wastewater Utility

Cost of service

Rate structure alternatives

Customer impacts

Wastewater pricing objectives

- Essential use affordability
 - › A rate structure should provide essential water use at the lowest possible cost while allowing the utility to generate revenue sufficient to maintain its financial health
- Equity between classes
 - › Costs are recovered proportionately from each customer class' rate structure based on their unique demand characteristics

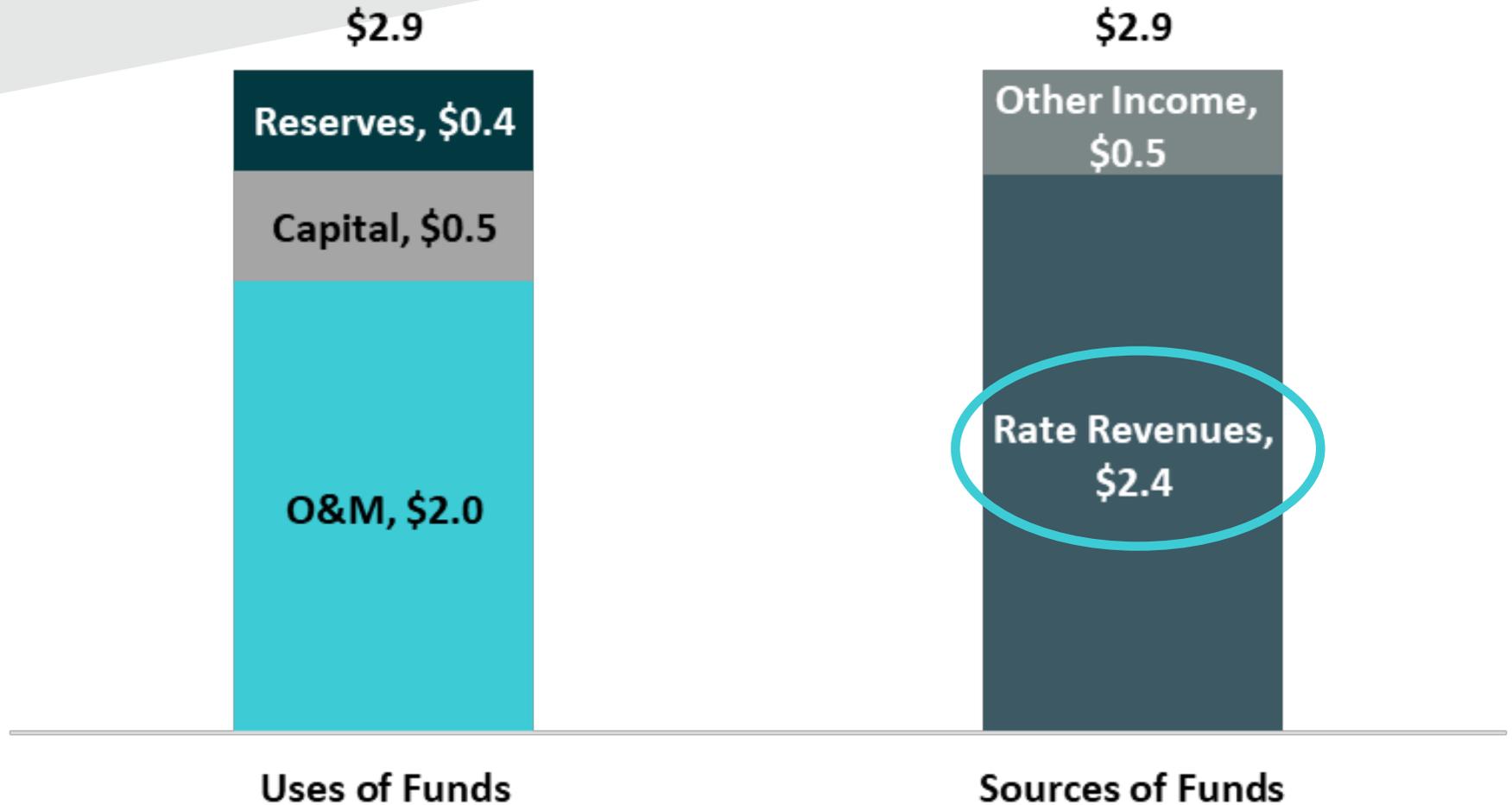


Wastewater pricing objectives

- Equity within classes
 - › Intraclass equity is maximized when the rate structure results in individual customers paying, to the maximum extent possible, an amount that approximates their unique contribution to their customer class revenue requirement
- Revenue stability
 - › Rate structure should generate stable and predictable revenues sufficient to meet annual revenue requirements and bond covenants



2020 wastewater revenue requirement – revenue neutral (millions)



Wastewater Comparison of COS and revenue under existing rates

Customer Class	COS	Revenue at Existing Rates	Change \$	Change %
Residential	\$753,501	\$1,057,055	(\$303,554)	-28.7%
Non-Residential	\$1,660,258	\$1,356,704	\$303,554	22.4%
Total	\$2,413,759	\$2,413,759	\$0	0%



Wastewater service charges – Existing and alternatives

- Service charge alternative same for all classes and meter sizes
- Recovers cost of billing, meters, general admin
- Percent of revenue recovered through fixed charge
 - › Existing: 33.6%
 - › Alternative 1: 16.7%
 - › Alternative 2: 20.0%

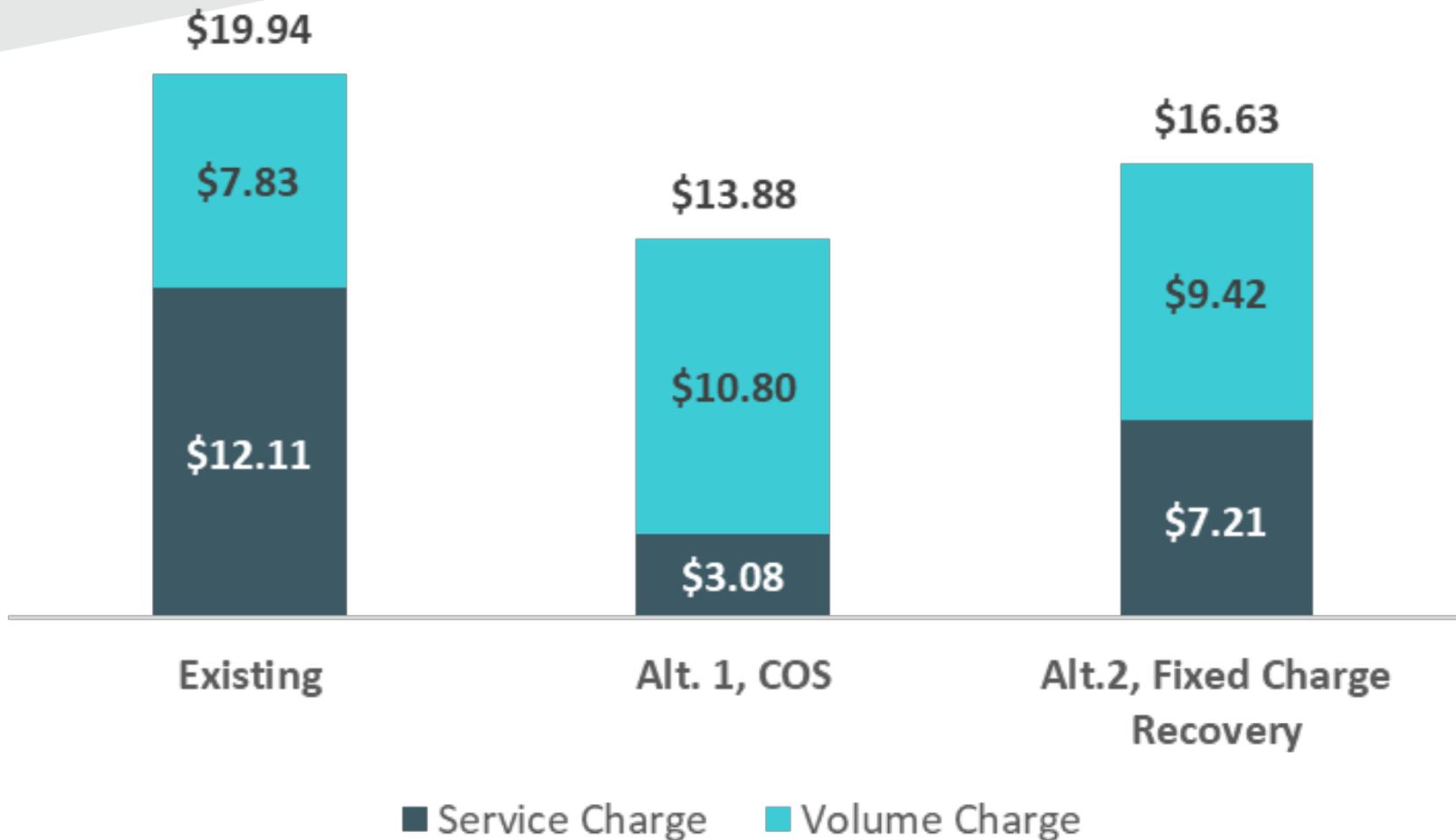


Wastewater Existing and alternatives

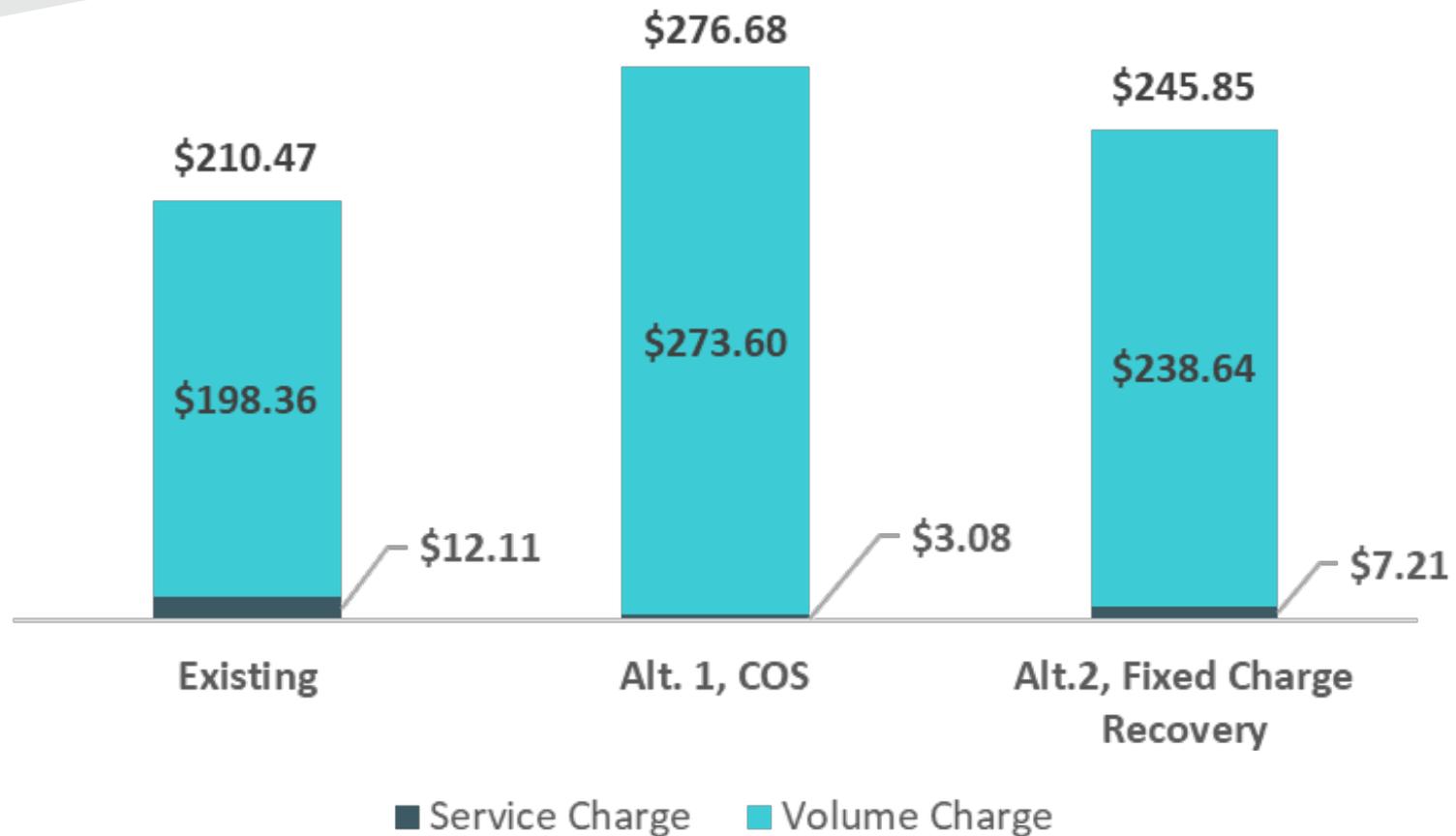
Rate Component	Existing	Alternative 1 COS	Alternative 2 Fixed Charge Recovery
Service charge, \$ per bill	\$12.11	\$3.08	\$7.21
Volume charge, \$ per kgal	\$2.61	\$3.60	\$3.14



Wastewater Sample monthly bill 3,000 gallons



Wastewater Sample monthly bill 76,000 gallons



Water Utility

Pricing objectives

Cost of service

Rate structure alternatives

Customer impacts

Water pricing objectives

- Conservation
 - › The rate structure should contain a pricing signal that encourages the wise use of water
- Essential use affordability
 - › A rate structure should provide essential water use at the lowest possible cost while allowing the utility to generate revenue sufficient to maintain its financial health

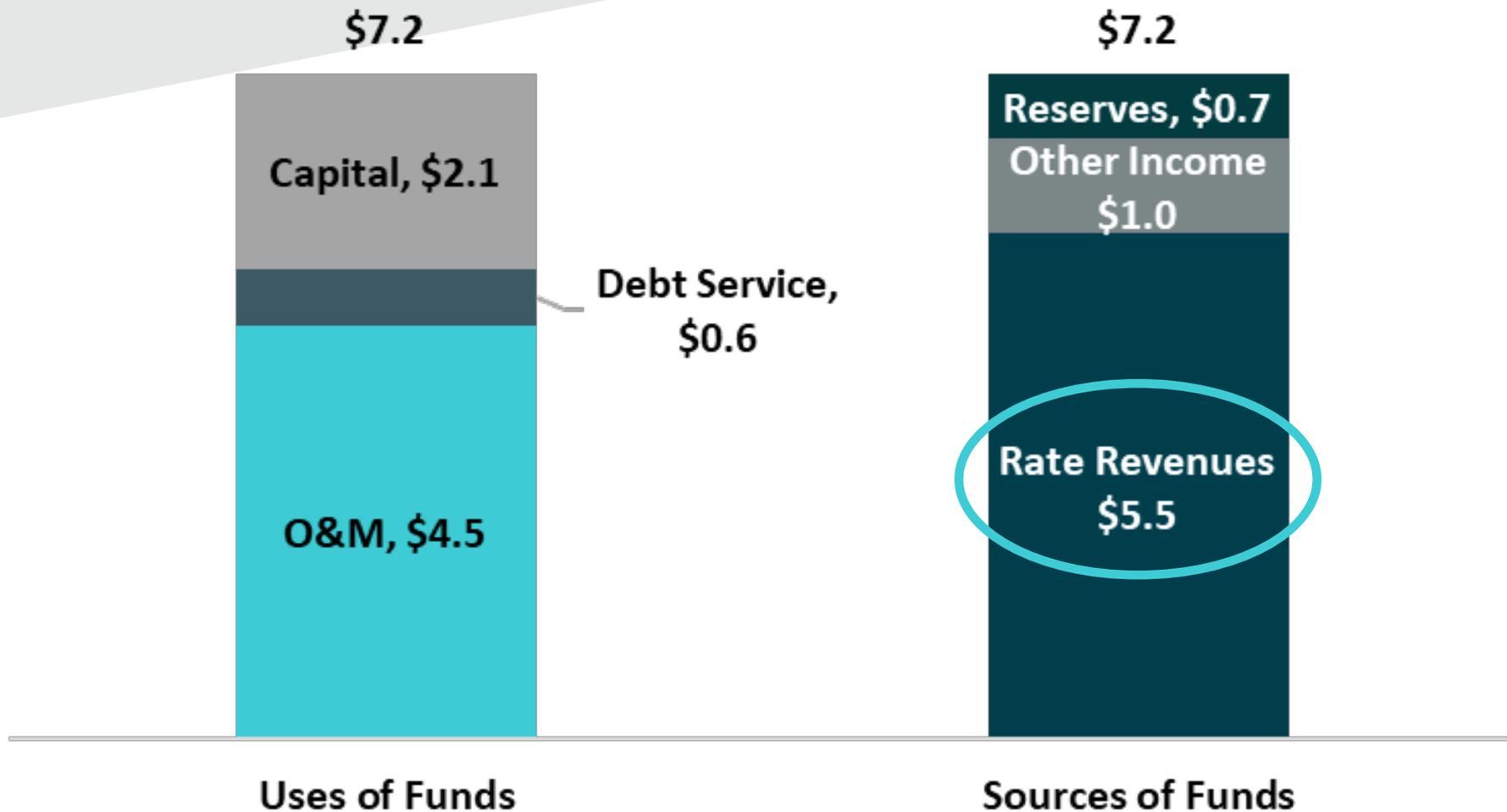


Water pricing objectives

- Equity between classes
 - › Costs are recovered proportionately from each customer class' rate structure based on their unique demand characteristics
- Revenue stability
 - › Rate structure should generate stable and predictable revenues sufficient to meet annual revenue requirements and bond covenants



2020 water revenue requirement (millions)



Water

Comparison of COS and revenue under existing rates

Customer Class	COS	Revenue at Existing Rates	Change \$	Change %	COS Volume Rate per kgal
Residential	\$2,042,829	\$2,008,517	\$35,312	1.8%	\$5.59
Comm/MF	\$2,460,108	\$2,798,783	(\$338,675)	-12.1%	\$4.36
Irrigation	\$988,283	\$684,920	\$303,363	44.3%	\$6.73
Total	\$5,492,220	\$5,492,220	\$0	0%	



Water service charge

- Existing service charge based on meter size
 - › Recovers approximately 6.6% of total rate revenue
- Service charge alternative
 - › Based on meter size
 - › Same for all classes
 - › Recovers cost of billing, meters, general admin
 - › Recovers approximately 9.4% of total rate revenue



Water service charge – Existing and alternative Applies to all classes

Meter Size	Existing	Alternative
5/8 x 3/4	\$4.43	\$7.31
1	\$4.90	\$7.79
1 ¼ x 1 ½	\$10.07	\$8.99
2	\$12.15	\$10.43
3	\$55.60	\$14.28
4	\$66.81	\$18.62
6	\$87.34	\$30.65



Water volume rate alternatives

Residential

- Uniform
- ~~Fixed inclining block~~
- AWC fixed
- Seasonal

Commercial/ Multifamily

- Uniform
- ~~AWC Peak~~
- Seasonal

Irrigation

- Uniform
- Fixed inclining block



Residential

Existing and alternative volume rates

Seasonal Rate			
Season	% of Vol	Existing, per kgal	Seasonal, per kgal
Low Use (Nov - March)	21.4%	\$5.26	\$2.67
High Use (April - Oct)	78.6%	\$5.26	\$6.41



Residential Volume by tier for AWC alternatives

AWC + Fixed				
Block	Threshold, kgal	Block 2 +10	Block 2 +15	Block 2 +20
1	AWC, min. 5 [1]	56.4%	56.4%	56.4%
2	AWC + x	29.6%	35.2%	38.1%
3	> AWC + x	14.0%	8.4%	5.5%

[1] Threshold is set at the maximum of AWC or 5,000 gallons. Customer is billed based on actual usage.



Residential volume rates

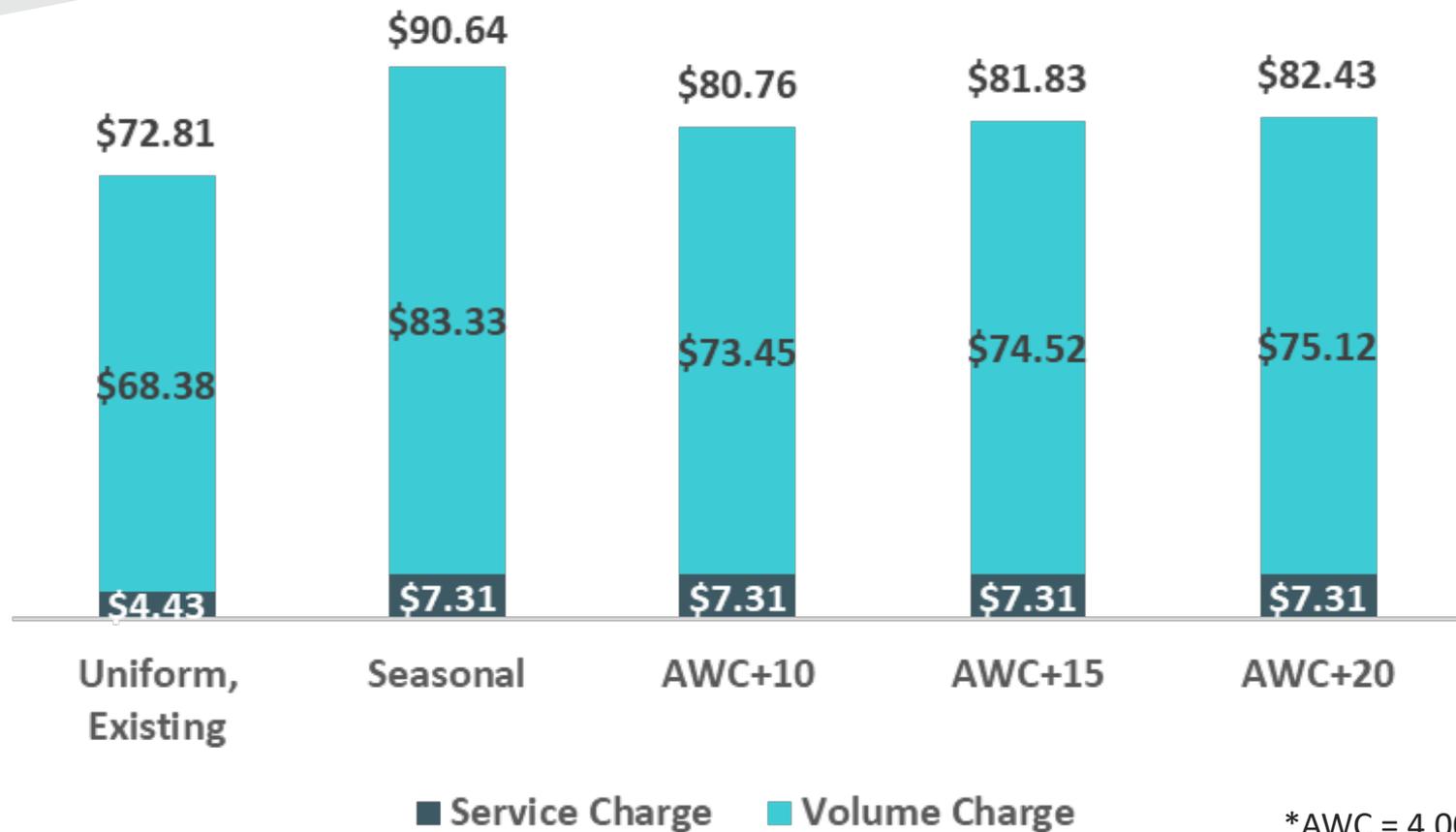
Existing and AWC alternatives

AWC + Fixed					
Block	Threshold (kgal)	Existing	Block 2 +10	Block 2 +15	Block 2 +20
1	AWC, min. 5 [1]	\$5.26	\$4.77	\$4.84	\$4.88
2	AWC + x	\$5.26	\$6.20	\$6.29	\$6.34
3	> AWC + x	\$5.26	\$7.63	\$7.74	\$7.81

[1] Threshold is set at the maximum of AWC or 5,000 gallons. Customer is billed based on actual usage.

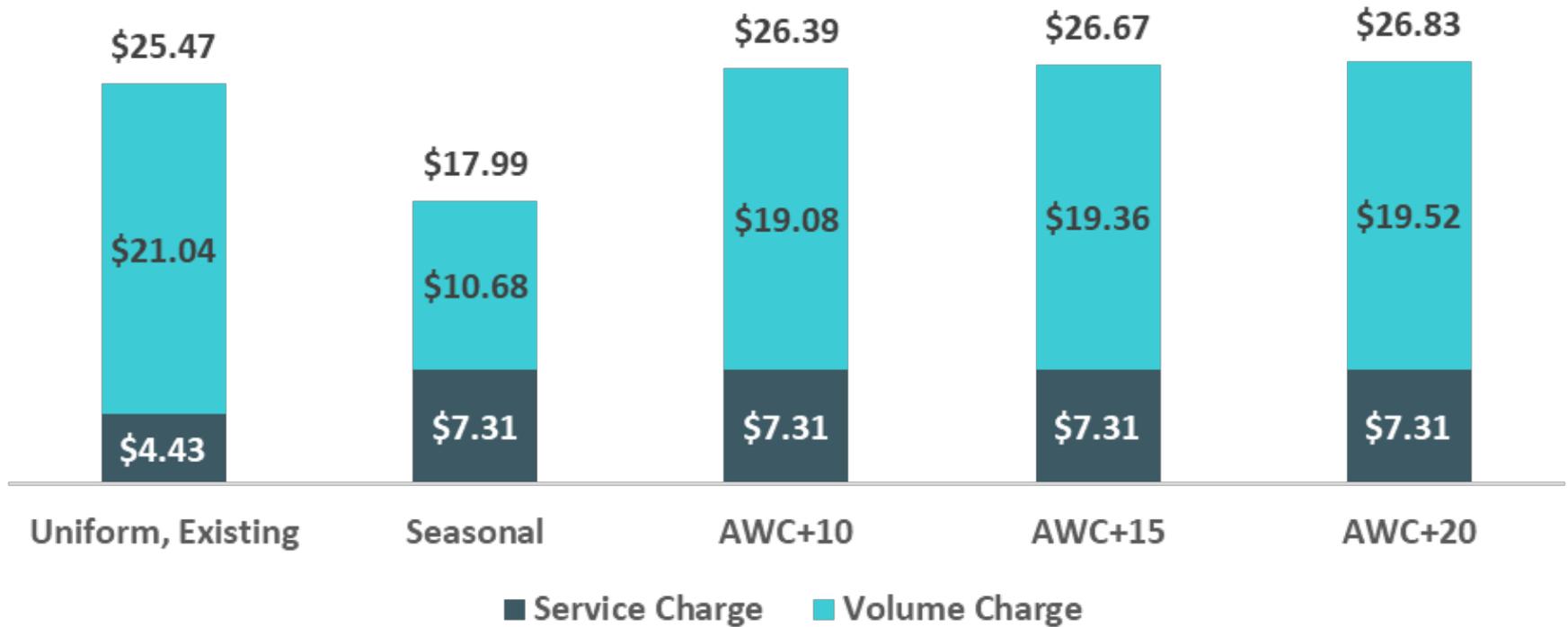


Residential Typical summer monthly bill 13,000 gallons



*AWC = 4,000

Residential Typical winter monthly bill 4,000 gallons



*AWC = 4,000

Commercial/Multifamily

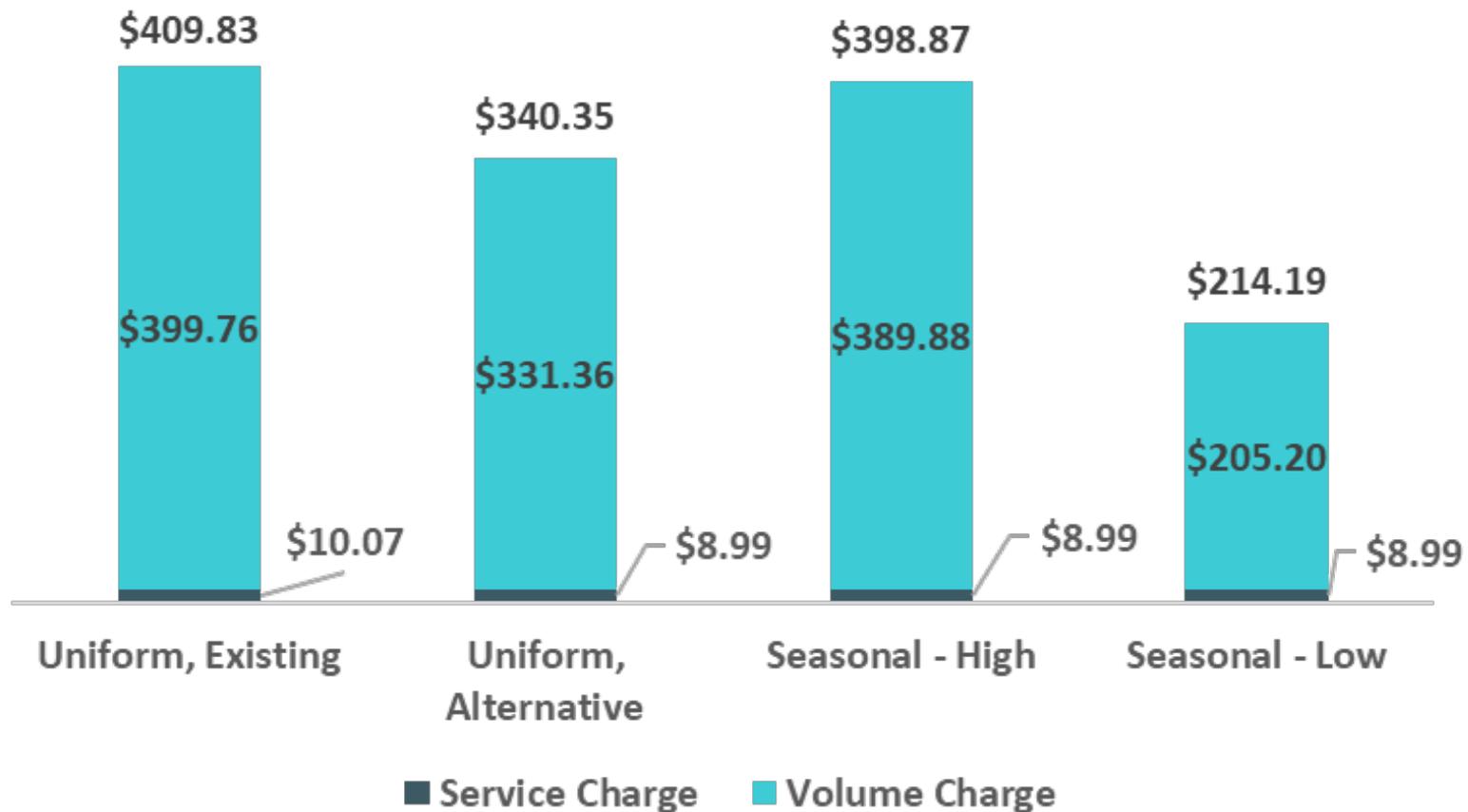
Existing and alternative volume rates

Uniform Rate	
Existing, per kgal	Alternative, per kgal
\$5.26	\$4.36

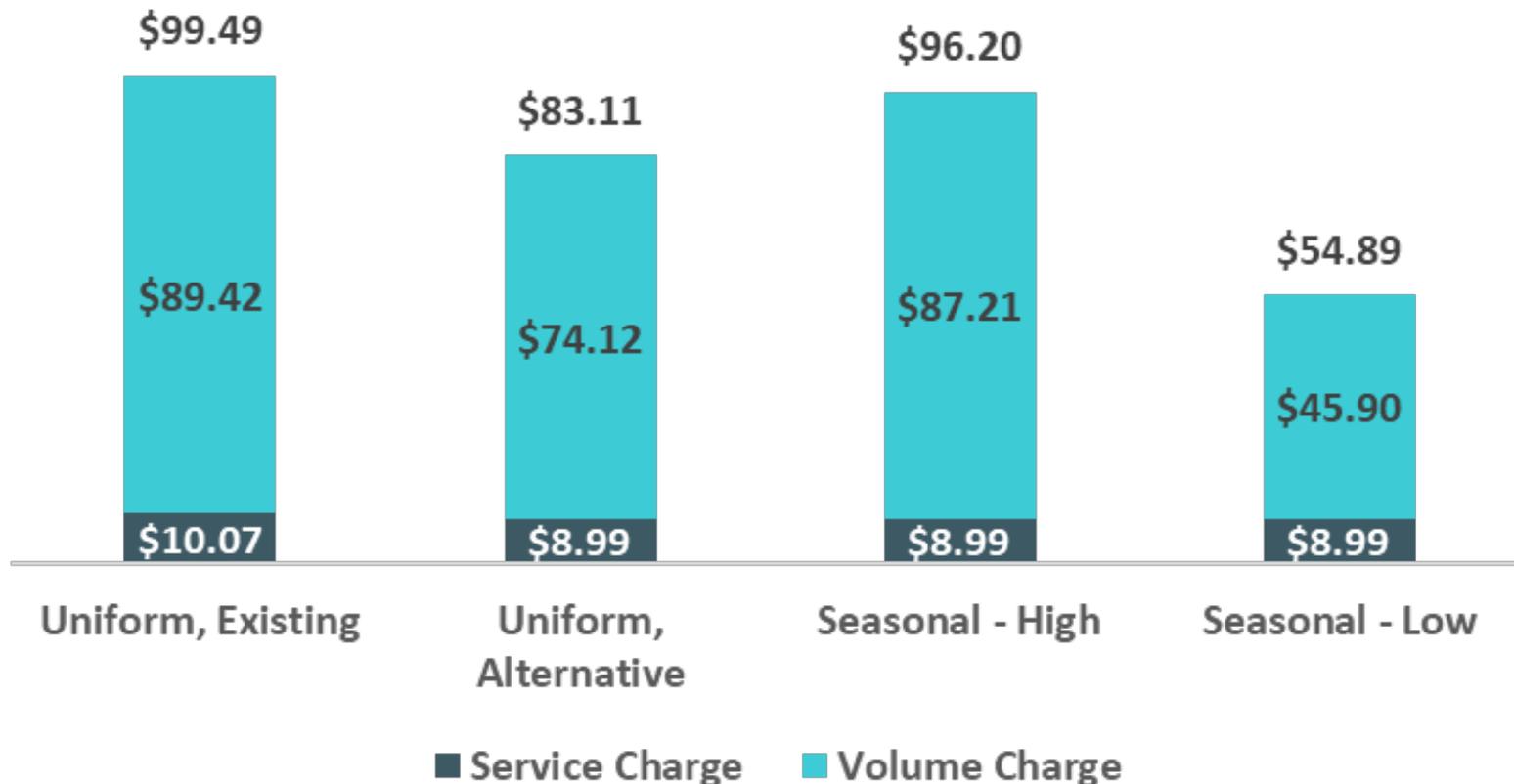
Seasonal Rate			
Season	% of Vol	Existing, per kgal	Seasonal, per kgal
Low Use (Nov - March)	31.8%	\$5.26	\$2.70
High Use (April - Oct)	68.2%	\$5.26	\$5.13



Commercial/Multifamily Sample monthly bill 76,000 gallons 1.5" meter



Commercial/Multifamily Sample monthly bill 17,000 gallons 1.5" meter



Irrigation

Existing and alternative volume rates

Uniform Rate	
Existing, per kgal	Alternative, per kgal
\$5.26	\$6.73



Irrigation

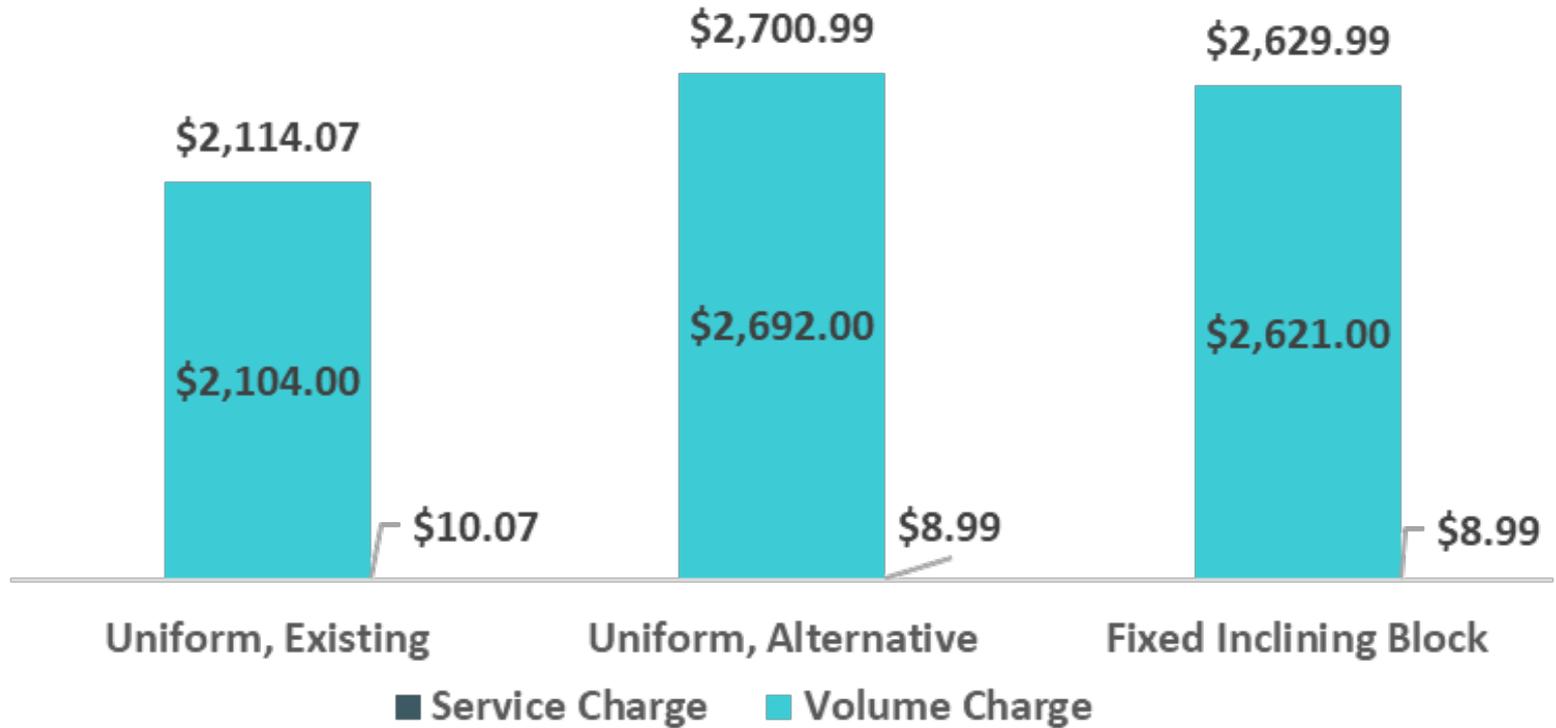
Existing and alternative volume rates

Fixed Inclining				
Block	Block (Kgal)	% of Vol	Existing, per kgal	Alternative, per kgal
1	0 – 100	47.4%	\$5.26	\$6.20
2	100 – 500	41.2%	\$5.26	\$6.67
3	>500	11.%	\$5.26	\$7.88



Irrigation

Sample monthly bill for high -volume user
400,000 gallons
1.5" meter

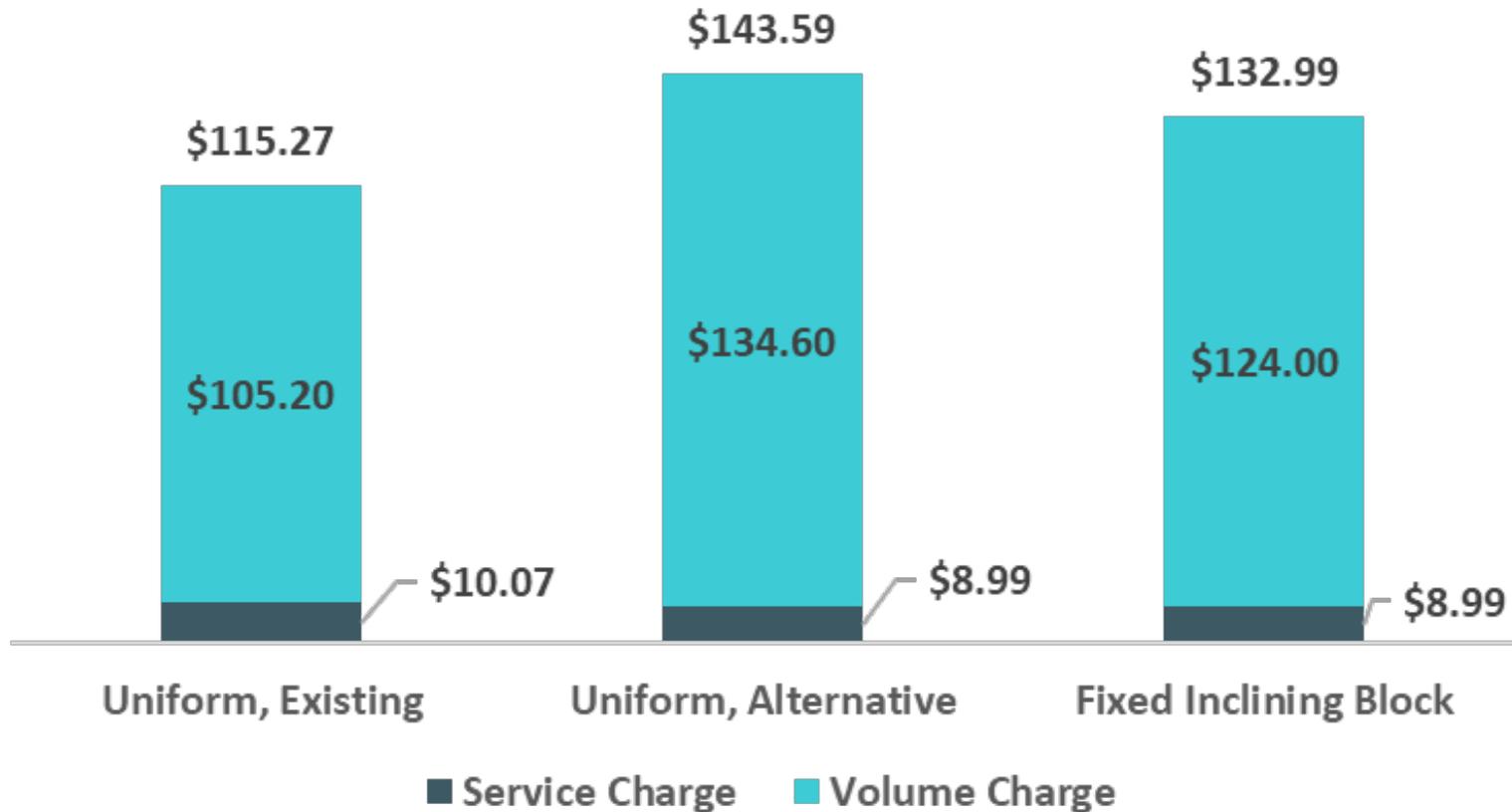


Irrigation

Sample monthly bill for low -volume user

20,000 gallons

1.5" meter



Thank You
