



CITY OF BETHEL
PUBLIC WORKS COMMITTEE
THURSDAY, JULY 6, 2023, 5:30 PM

LOCATION: 300 CHIEF EDDIE HOFFMAN HIGHWAY, BETHEL, ALASKA
JOIN ZOOM MEETING: <https://us06web.zoom.us/j/82789796061?pwd=EFpYA3hBCU1VZKPQME1FD1P2UXCODZ09>
MEETING ID: 827 8979 6061
PASSCODE: 044846
888 475 4499 US TOLL-FREE 833 548 0276 US TOLL-FREE
833 548 0282 US TOLL-FREE 877 853 5257 US TOLL-FREE

MEMBERS		STAFF
Ryan Butte	Juan Delgado	Ex-Officio Members: Bill Arnold, Public Works Director
Robert Lekander	Mark Springer, Council Rep.	Anna Larson, Administrative Assistant
		pwadmin@cityofbethel.net
		907-543-3110

1. CALL TO ORDER
2. ROLL CALL
3. PEOPLE TO BE HEARD – FIVE MINUTES PER PERSON
4. APPROVAL OF AGENDA
5. NEW BUSINESS
 - A. FCS Group: Utility Rate Study (William Arnold)
6. ADJOURNMENT

Posted 6/27/2023 at City Hall, AC Co., Swanson’s, and the Post Office.

Anna Larson, Ex-Officio Staff



Utility Rate Study

Public Works Committee Meeting

Chase Bozett, Project Consultant

Angie Sanchez Virnoche,

Principal

May 17, 2023



City Utility Background

- **10 years since the last rate study**
- **Annual 3% rate increases written in Municipal Code for several years**
 - » Concerns about affordability
- **Study initiated to evaluate the utility's financial sustainability**
- **Piping projects on the horizon**
 - » Better understand the hauled vs piped systems costs



FCS Group Scope

- **Review individual utility past performance**
- **Project forward utility revenues and expenses**
- **Forecast rate increases for individual utility sufficiency**
- **Allocate costs cost to hauled or piped systems and compare to revenue**
- **Validate customer billing data and customer billing statistics**
- **Establish zones and rates related to the cost to serve customers**



Agenda

- **Utility Rate Study Overview**
- **Study Foundation**
- **Initial Results**
 - » Revenue Requirement
 - » Cost of Service
 - » Rate Design
- **Decision Points**



Why Are Rate Studies Important?

Your Utility Is An Enterprise Fund

- Revenues need to cover utility costs
- Quantifies policies, priorities, and initiatives
- Tells the “true” cost of providing service

Transparency

- Communicates impact of financial decisions
- Public meetings

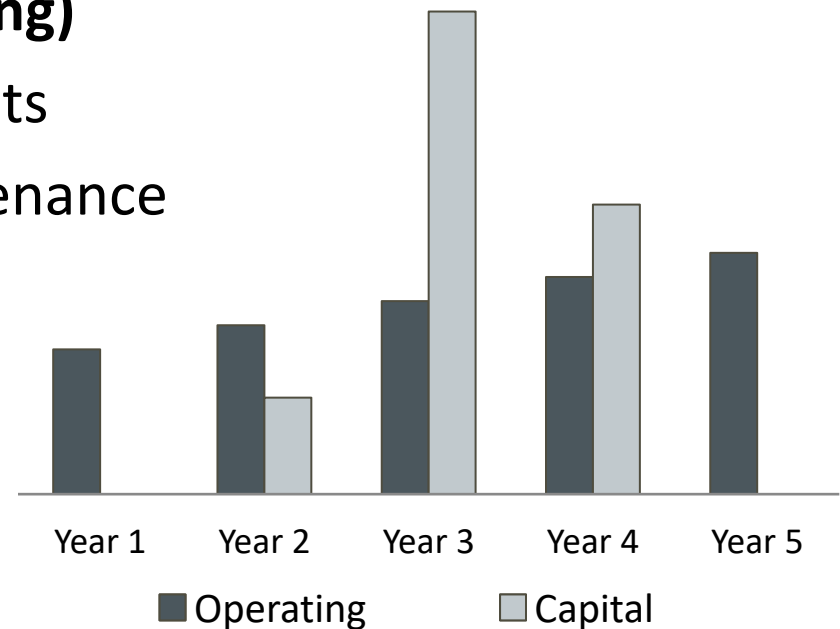


Introduction to Utility Rate Making

- **Utility rates are set to recover the cost of providing service**

- **Operating costs (regular / ongoing)**

- » Employee salaries and benefits
- » Routine inspections & maintenance
- » Professional services
- » Utilities / power / fuel



- **Capital costs (periodic)**

- » Infrastructure replacement
- » Facility expansions and upgrades



Common Components of a Rate Study

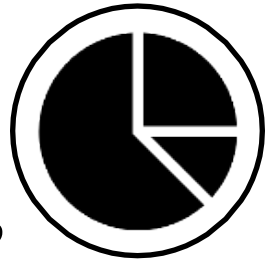
- **Revenue Requirement**

What revenue adjustments are needed to cover each utility's costs?



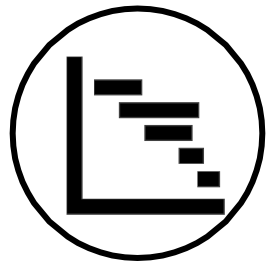
- **Cost of Service Analysis**

Do the utility's rates recover costs equitably from customers?



- **Rate Design**

How should revenue be collected by customer?





Study Foundation



**Forecast
Basis**
FY 2023 Budget



**Customer
Growth**
0.7% - 0.8%
Annual Increase



**Expense
Inflation**
3.0% to 8.0%
annual cost
inflation



**Operating
Reserve Target**
30 days O&M



**Capital Funding
Target**
\$1 million
annually



The background of the slide is a blurred image of a financial spreadsheet. A dark blue arrow points from the left edge towards the right, partially overlapping the text. The spreadsheet contains various numerical values, including '100,000', '10,000', '10,000', '75,000', and '\$205,000'.

Revenue Requirement



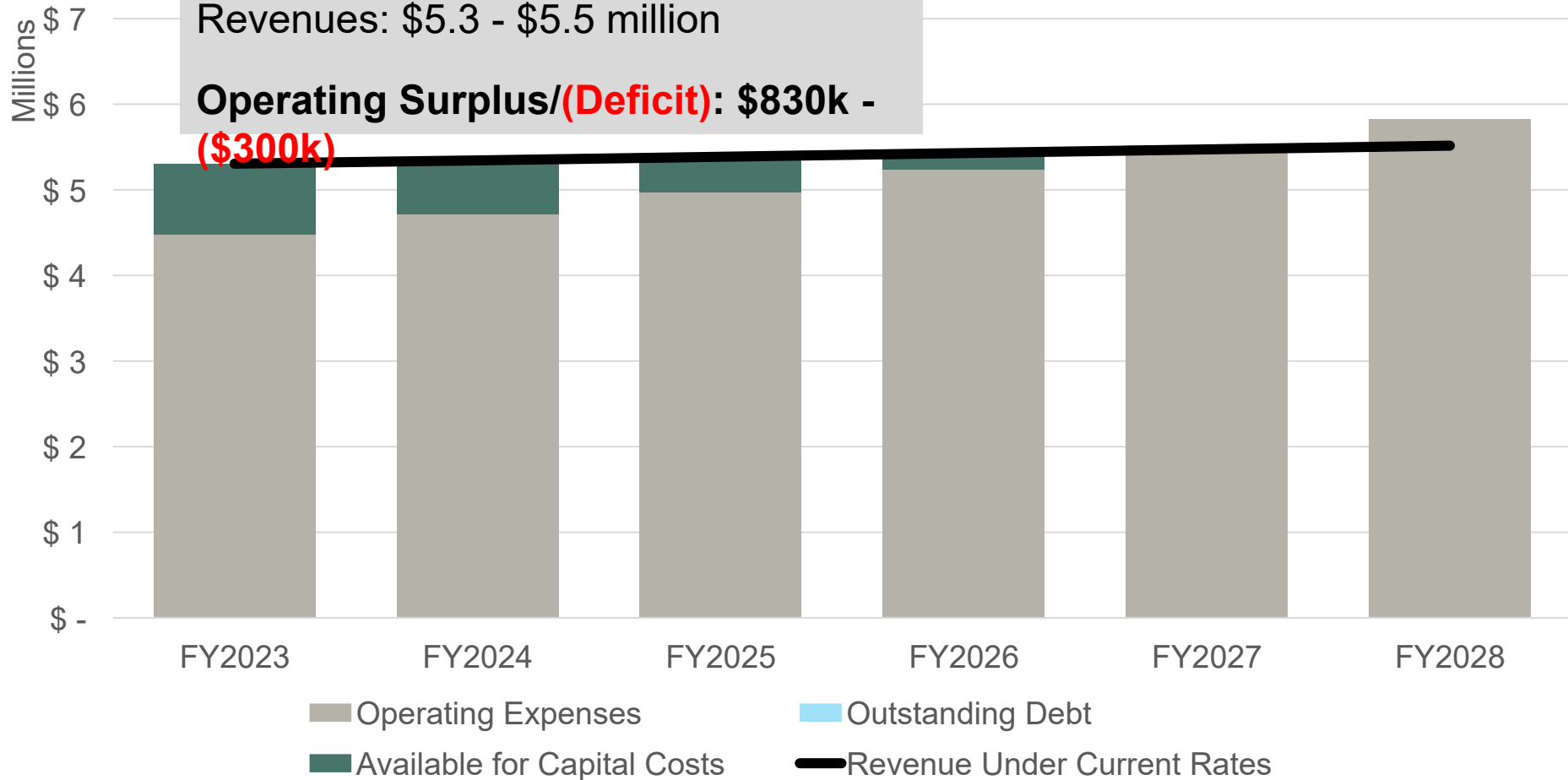
Water Utility Baseline

Operating Costs: \$4.5 - \$5.8 million

Outstanding Debt: No debt service

Revenues: \$5.3 - \$5.5 million

Operating Surplus/(Deficit): \$830k - (\$300k)





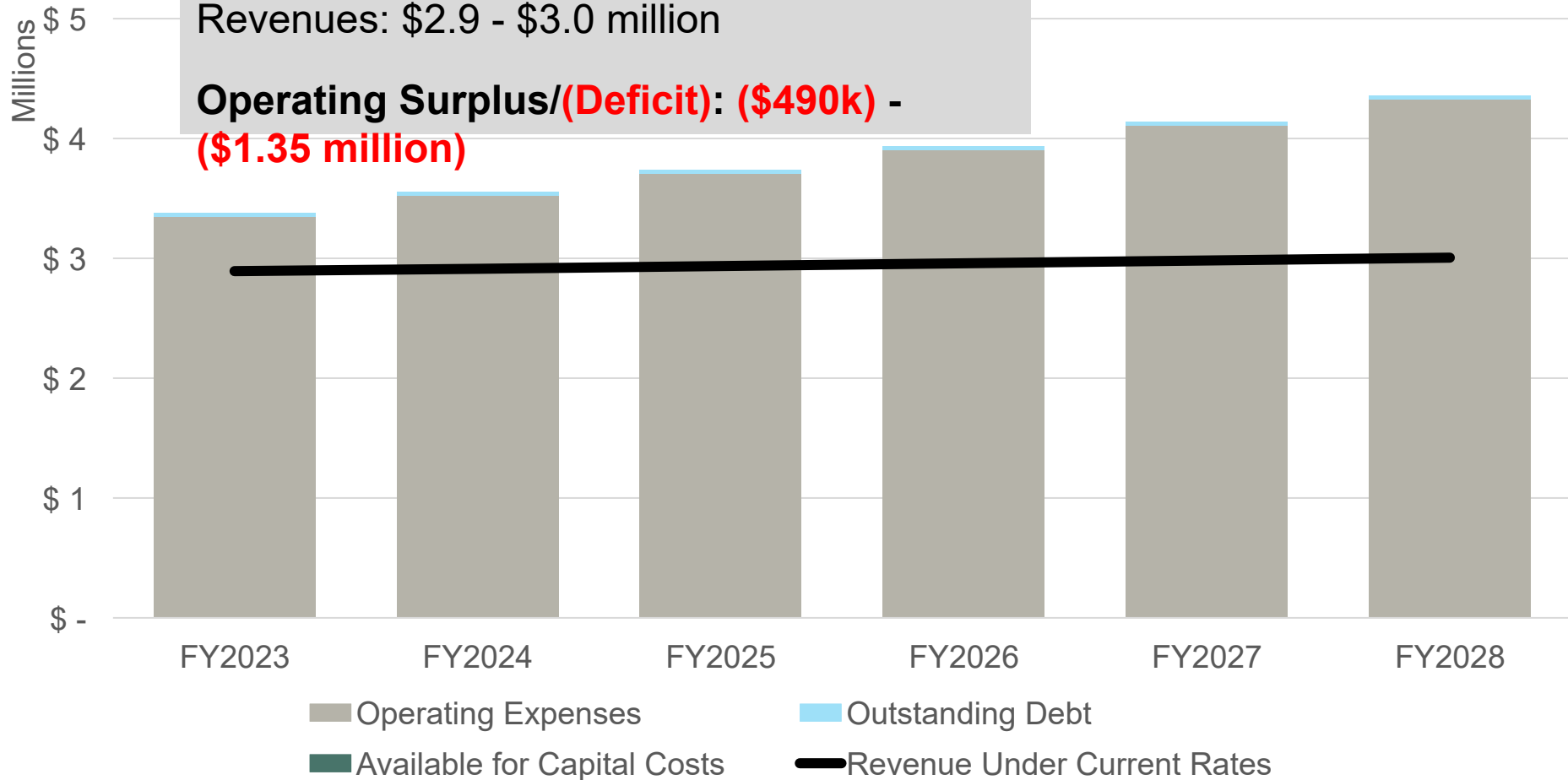
Sewer Utility Baseline

Operating Costs: \$3.35 - \$4.3 million

Outstanding Debt: \$35k annually

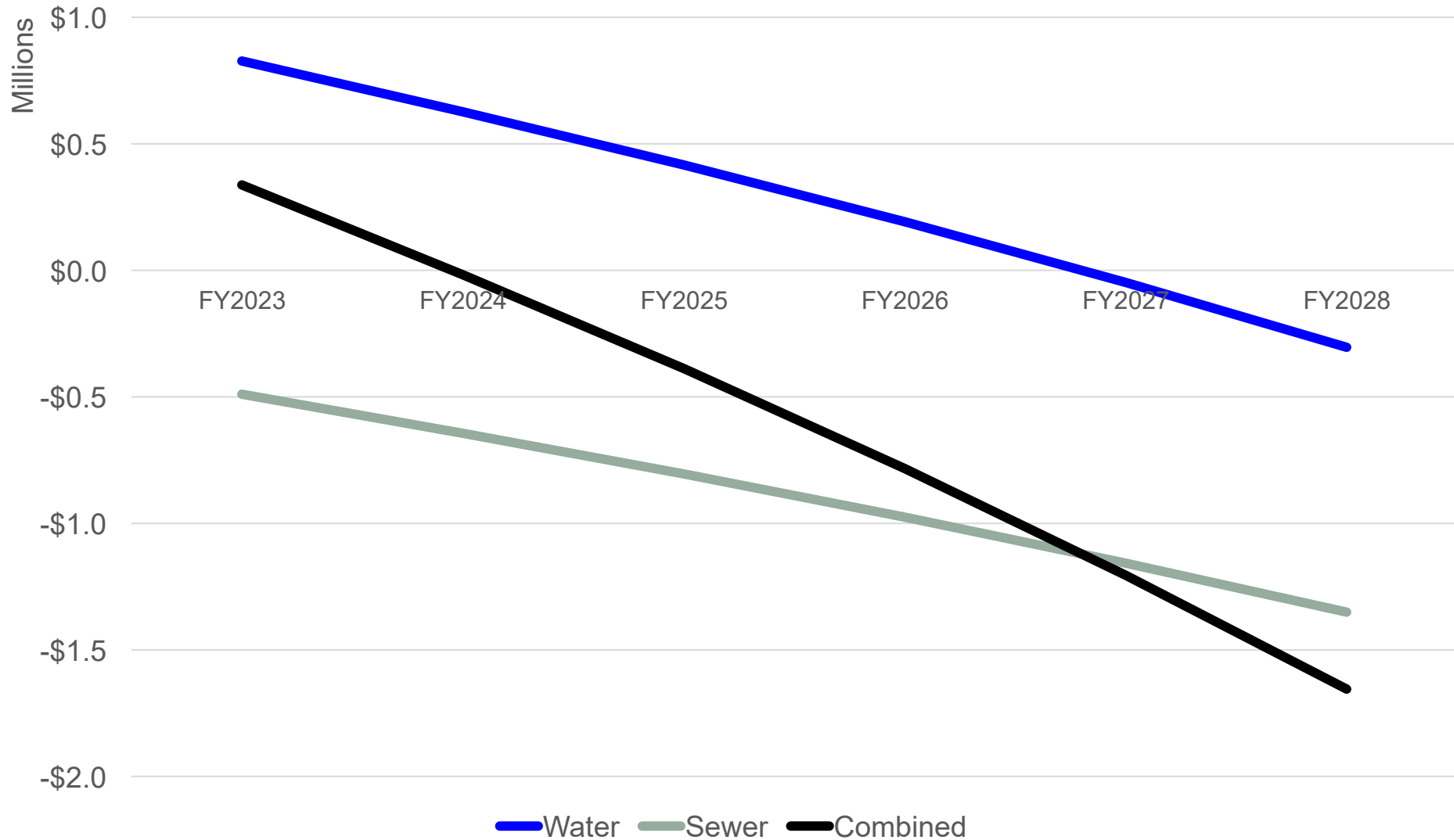
Revenues: \$2.9 - \$3.0 million

**Operating Surplus/(Deficit): (\$490k) -
(\$1.35 million)**





Cash Flow Under Current Rates





Proposed Rate Increases (FY 2024 – FY 2028)

- **Water:**

- » Service Charges: 3.5% across the board (ATB) annual increases
- » Subscription Charges: 3.5% annual increases

- **Sewer:**

- » Service Charges: 9.5% across the board (ATB) annual increases
- » Subscription Charges: 3.5% annual increases



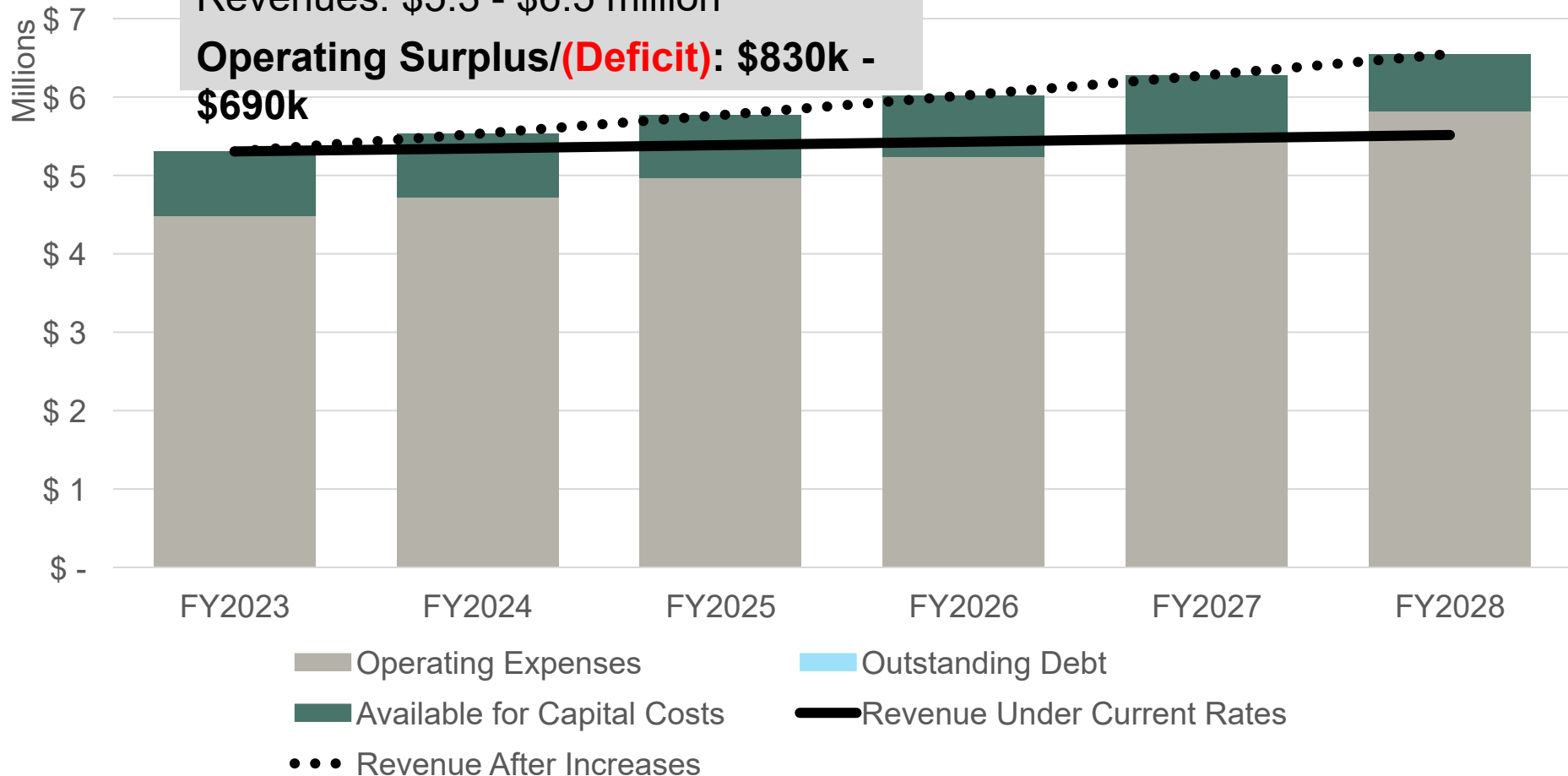
Water Utility After Increases

Operating Costs: \$4.5 - \$5.8 million

Outstanding Debt: No debt service

Revenues: \$5.3 - \$6.5 million

Operating Surplus/(Deficit): \$830k - \$690k





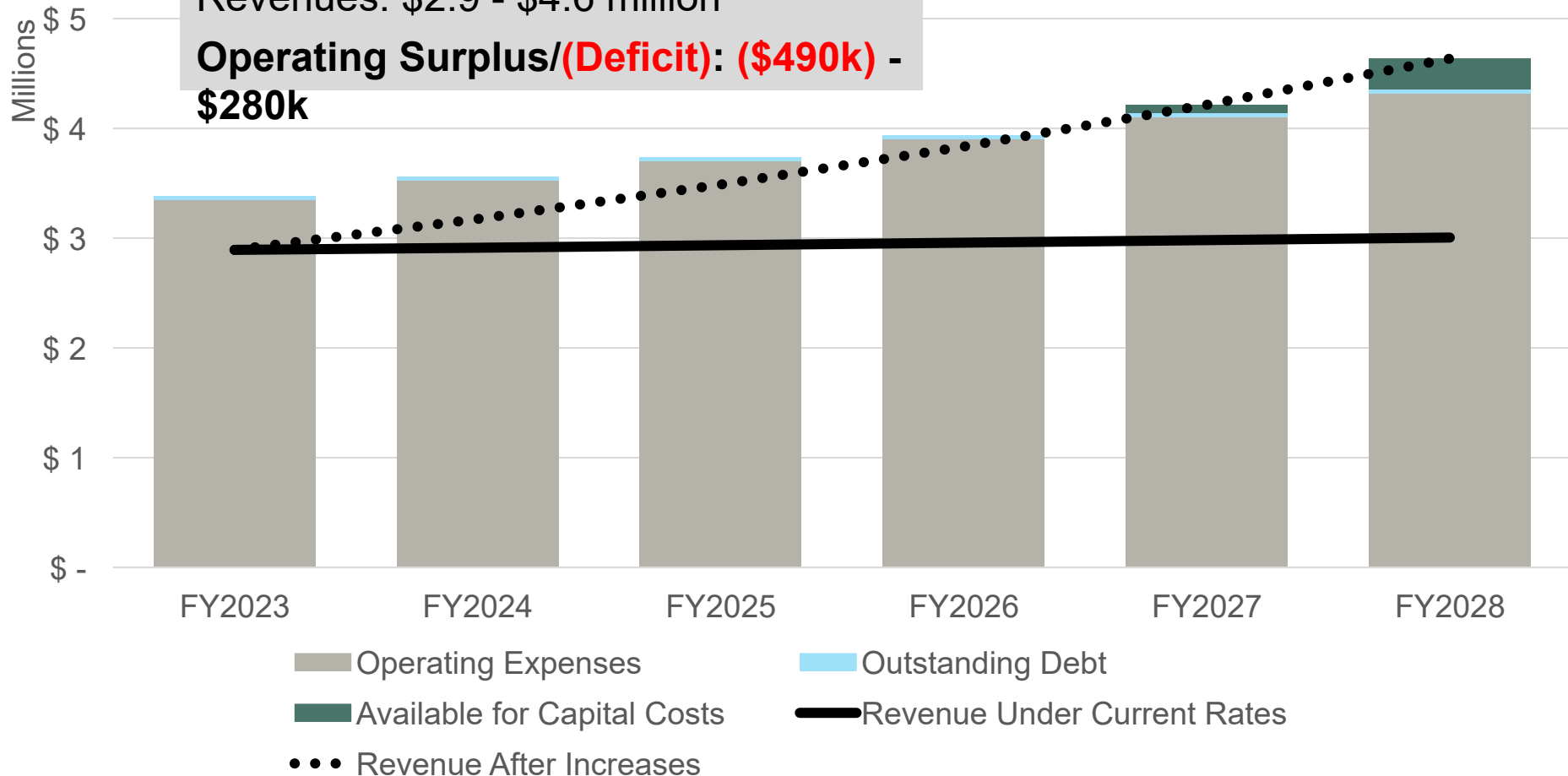
Sewer Utility After Increases

Operating Costs: \$3.35 - \$4.3 million

Outstanding Debt: \$35k annually

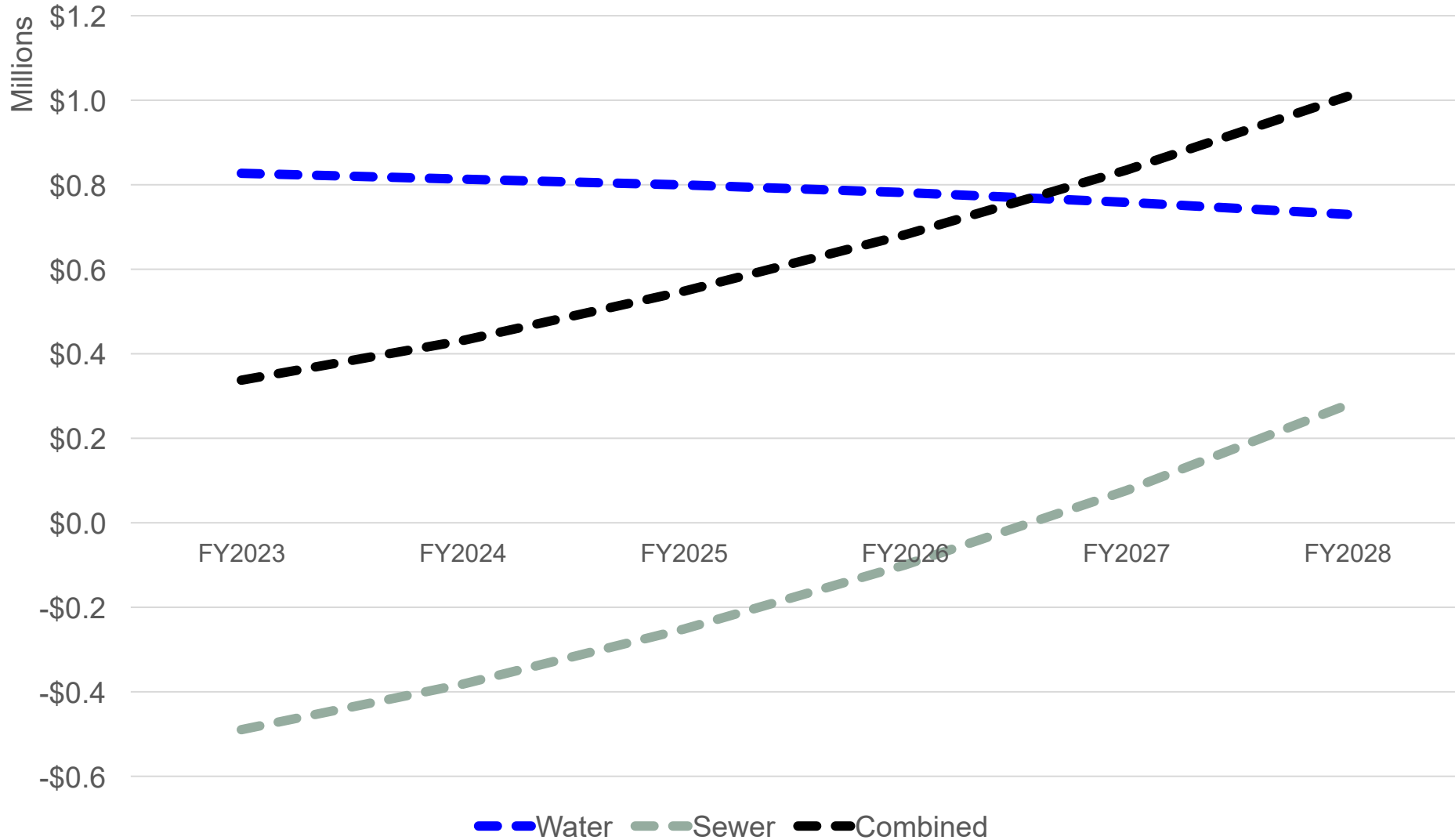
Revenues: \$2.9 - \$4.6 million

Operating Surplus/(Deficit): (\$490k) - \$280k





Combined Cash Flow After Increase



Cost of Service



Cost of Service Objectives

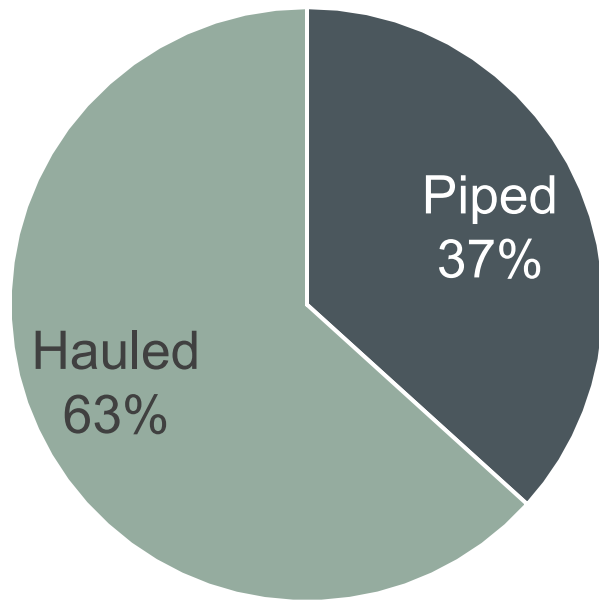
- **Allocate individual line items to hauled or piped utility costs**

Expense	Allocation Factor	% Hauled	% Piped
Admin	Based on customer counts	75	25
Hauled Budget	All to hauled	100	0
Piped Budget	All to piped	0	100
Water Treatment Budgets	Based on water consumption	35	65
Sewer Lagoon Budgets	Based on sewer disposal	47	53

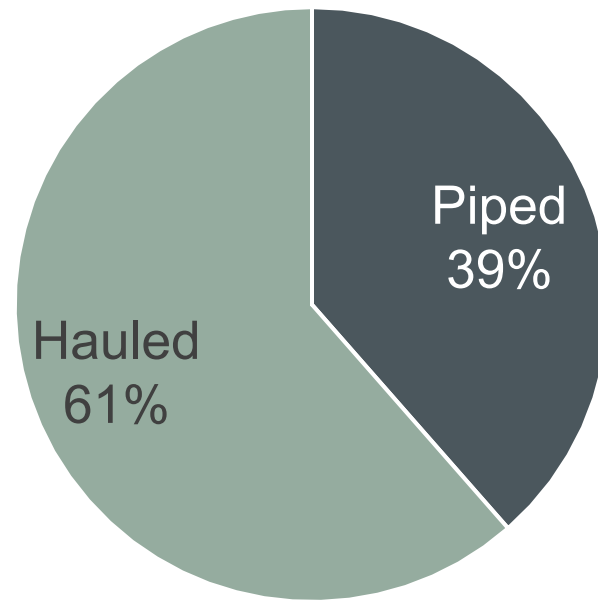
- **Make changes to rate to achieve cost of service results**
 - » Typically changes of less than 5% do not require an adjustment

Water Cost of Service

Current Rate Revenue Collection



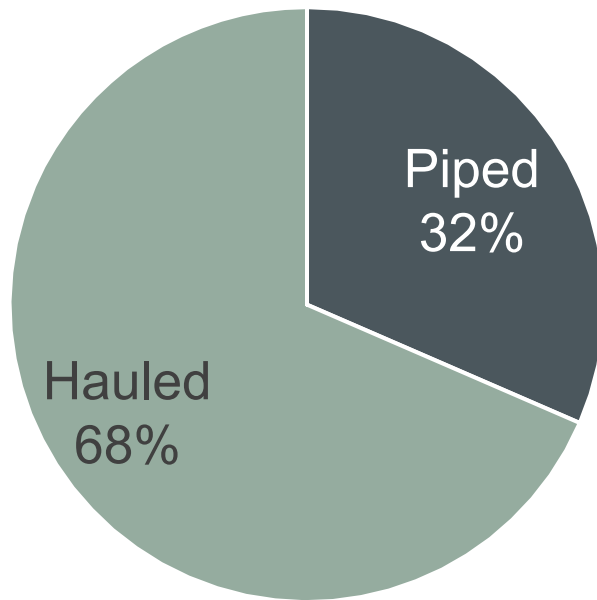
Cost of Service Allocation



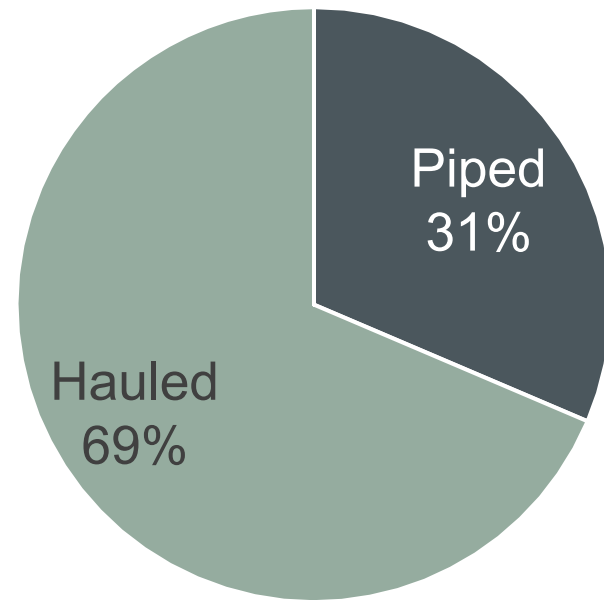
- **Current shifts in Cost of Service less than +/- 5 percent**
- **No changes in revenue collection between classes recommended**

Sewer Cost of Service

Current Rate Revenue Collection



Cost of Service Allocation



- **Current shifts in Cost of Service less than +/- 5 percent**
- **No changes in revenue collection between classes recommended**



Rate Design



Current Hauled Rate Design (Water Zone 1)

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Haul
100	\$21.15	\$36.86	\$73.47	\$141.45	\$209.45	\$277.46	\$58.36
150	\$22.67	\$39.90	\$80.06	\$154.59	\$229.19	\$307.13	\$71.77
200	\$24.19	\$42.91	\$87.58	\$172.13	\$263.72	\$358.62	\$90.47
250	\$25.73	\$46.46	\$95.11	\$194.66	\$298.66	\$410.39	\$93.82
300	\$27.23	\$51.28	\$105.10	\$215.36	\$330.77	\$451.88	\$97.13
350	\$28.74	\$55.67	\$114.23	\$234.21	\$360.08	\$491.71	\$100.42
400	\$30.26	\$59.63	\$122.45	\$251.26	\$386.51	\$528.13	\$103.75
450	\$31.78	\$63.18	\$129.75	\$266.49	\$410.11	\$560.68	\$107.04
500	\$33.30	\$44.56	\$136.21	\$279.83	\$430.88	\$589.33	\$113.68
550	\$36.00	\$74.14	\$152.56	\$313.67	\$483.34	\$661.51	\$115.34
600	\$37.23	\$76.57	\$157.52	\$323.78	\$498.76	\$686.06	\$117.01
650	\$42.15	\$86.86	\$178.93	\$368.22	\$545.20	\$778.02	\$120.31
700	\$43.52	\$89.67	\$184.68	\$379.95	\$566.88	\$802.37	\$123.62
750	\$44.94	\$92.57	\$190.60	\$392.04	\$604.34	\$827.47	\$126.95
800	\$51.71	\$106.77	\$220.14	\$453.58	\$700.25	\$949.19	\$130.26
850	\$53.38	\$110.21	\$227.13	\$467.79	\$722.04	\$989.85	\$133.59
900	\$55.09	\$113.71	\$234.28	\$482.40	\$744.40	\$1,020.20	\$136.90
1,000	\$58.67	\$121.00	\$249.16	\$512.74	\$790.74	\$1,083.14	\$143.51
1,200	\$70.24	\$145.10	\$299.32	\$616.97	\$951.87	\$1,286.47	\$156.78
1,400	\$81.82	\$169.18	\$349.48	\$721.21	\$1,113.02	\$1,489.78	\$170.03
1,500	\$99.47	\$198.93	\$397.87	\$795.72	\$1,193.59	\$1,591.43	\$176.66
1,750	\$113.80	\$227.61	\$455.21	\$910.41	\$1,365.61	\$1,820.82	\$193.21
2,000	\$128.15	\$256.28	\$512.56	\$1,025.11	\$1,537.66	\$2,050.19	\$209.80
2,500	\$156.82	\$313.63	\$627.24	\$1,256.60	\$1,881.72	\$2,508.95	\$267.12
3,000	\$185.48	\$370.96	\$741.94	\$1,483.87	\$2,225.79	\$2,967.71	\$276.12

City of Bethel
Hauled Water Rates
07/01/2022
Zone 1

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Haul
3,500	\$214.16	\$428.31	\$856.62	\$1,713.24	\$2,569.87	\$3,426.47	\$309.56
4,000	\$246.43	\$494.53	\$992.83	\$1,993.09	\$3,007.55	\$4,015.80	\$419.72
4,500	\$246.43	\$494.53	\$992.83	\$1,993.09	\$3,007.55	\$4,015.80	\$452.73
5,000	\$313.63	\$627.24	\$1,254.49	\$2,508.96	\$3,667.99	\$5,017.92	\$485.91
6,000							\$515.00
7,000							



Current Hauled Rate Design (Water Zone 2)

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Haul
100	\$33.82	\$62.17	\$128.29	\$251.13	\$373.99	\$496.80	\$131.12
150	\$35.34	\$65.20	\$134.88	\$264.30	\$393.71	\$523.12	\$132.59
200	\$36.86	\$68.22	\$141.45	\$277.46	\$413.44	\$549.42	\$138.09
250	\$38.36	\$71.27	\$148.04	\$290.61	\$433.17	\$575.76	\$139.60
300	\$39.90	\$74.31	\$154.59	\$303.76	\$452.90	\$602.06	\$141.12
350	\$41.40	\$77.33	\$161.20	\$316.92	\$472.64	\$628.37	\$142.64
400	\$42.91	\$80.37	\$167.78	\$330.08	\$492.38	\$654.67	\$144.16
450	\$44.44	\$83.42	\$174.35	\$343.22	\$512.12	\$681.01	\$145.67
500	\$45.95	\$86.44	\$180.95	\$356.38	\$531.85	\$707.31	\$147.19
550	\$47.46	\$89.49	\$187.50	\$369.54	\$551.59	\$733.62	\$148.72
600	\$49.00	\$92.52	\$194.09	\$382.71	\$571.31	\$759.92	\$150.21
650	\$50.51	\$95.54	\$200.66	\$395.86	\$591.05	\$786.24	\$151.75
700	\$52.03	\$98.60	\$207.25	\$409.02	\$610.79	\$812.56	\$153.26
750	\$51.98	\$101.63	\$213.81	\$422.19	\$630.51	\$838.87	\$154.79
800	\$55.06	\$106.77	\$220.14	\$454.64	\$700.25	\$949.19	\$156.30
850	\$56.58	\$110.21	\$227.13	\$467.79	\$722.04	\$989.85	\$157.82
900	\$58.10	\$113.71	\$234.28	\$482.40	\$744.40	\$1,020.20	\$159.34
1,000	\$61.14	\$121.00	\$249.16	\$512.74	\$790.74	\$1,083.14	\$162.37
1,200	\$70.24	\$145.10	\$299.32	\$616.97	\$951.87	\$1,286.74	\$168.44
1,400	\$81.82	\$169.18	\$349.48	\$721.21	\$1,113.02	\$1,489.78	\$174.52
1,500	\$99.47	\$198.93	\$397.87	\$795.72	\$1,193.59	\$1,591.43	\$177.55
1,750	\$113.80	\$27.61	\$455.21	\$910.41	\$1,365.61	\$1,820.82	\$193.21
2,000	\$128.15	\$256.28	\$512.56	\$1,025.11	\$1,537.66	\$2,050.19	\$209.80
2,500	\$156.82	\$313.63	\$627.24	\$1,256.60	\$1,881.72	\$2,508.95	\$267.12
3,000	\$185.48	\$370.96	\$741.94	\$1,483.87	\$2,225.79	\$2,967.71	\$276.12

City of Bethel
Hauled Water Rates
07/01/2022
Zone 2

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Haul
3,500	\$214.16	\$428.31	\$856.62	\$1,713.24	\$2,569.87	\$3,426.47	\$309.25
4,000	\$246.43	\$494.53	\$992.83	\$1,993.09	\$3,000.75	\$4,015.80	\$419.62
4,500	\$246.43	\$494.53	\$992.83	\$1,993.09	\$3,000.75	\$4,015.80	\$452.77
5,000	\$313.63	\$627.24	\$1,254.49	\$2,508.96	\$3,667.99	\$5,017.92	\$485.91
6,000	\$295.63	\$591.23	\$1,182.48	\$2,364.95	\$3,547.43	\$4,729.87	\$515
7,000	\$295.63	\$591.23	\$1,182.48	\$2,364.95	\$3,547.43	\$4,729.87	\$552.21



Current Hauled Rate Design (Sewer)

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Haul
100	\$27.05	\$48.19	\$96.75	\$189.05	\$280.60	\$372.16	\$77.65
150	\$28.20	\$50.48	\$102.43	\$198.95	\$295.48	\$392.00	\$78.80
200	\$29.35	\$52.77	\$107.41	\$208.87	\$310.36	\$411.85	\$83.54
250	\$30.50	\$55.05	\$112.35	\$218.80	\$325.24	\$431.67	\$85.13
300	\$31.63	\$57.33	\$117.31	\$228.73	\$340.12	\$451.51	\$86.72
350	\$32.77	\$59.63	\$122.28	\$238.64	\$355.00	\$471.34	\$88.29
400	\$33.92	\$61.92	\$127.23	\$248.55	\$355.00	\$491.15	\$89.87
450	\$35.06	\$64.20	\$132.20	\$258.47	\$384.74	\$511.00	\$91.45
500	\$36.20	\$66.50	\$137.16	\$268.38	\$399.61	\$530.84	\$93.04
550	\$37.36	\$68.79	\$142.12	\$278.30	\$414.48	\$550.68	\$94.61
600	\$38.50	\$71.07	\$147.08	\$288.21	\$429.37	\$570.50	\$96.19
650	\$39.65	\$73.35	\$152.03	\$298.12	\$444.24	\$590.34	\$97.78
700	\$40.78	\$75.65	\$156.99	\$308.05	\$459.12	\$610.17	\$99.35
750	\$41.94	\$77.93	\$161.96	\$317.97	\$473.99	\$630.02	\$100.93
800	\$43.06	\$80.23	\$166.90	\$327.87	\$488.85	\$649.84	\$102.51
850	\$44.22	\$82.52	\$171.87	\$337.80	\$503.74	\$669.68	\$104.10
900	\$45.95	\$85.95	\$176.81	\$347.73	\$518.62	\$689.50	\$105.68
1,000	\$47.66	\$89.39	\$186.74	\$367.55	\$548.36	\$729.19	\$108.8
1,200	\$52.22	\$98.55	\$206.57	\$407.22	\$607.85	\$808.50	\$115.15
1,400	\$56.80	\$107.70	\$226.41	\$446.89	\$667.36	\$887.85	\$121.52
1,500	\$59.08	\$112.96	\$236.34	\$466.72	\$697.11	\$927.50	\$124.65
1,750	\$64.83	\$123.71	\$261.12	\$516.29	\$771.49	\$1,026.68	\$132.53
2,000	\$70.54	\$135.16	\$285.91	\$565.91	\$845.88	\$1,125.84	\$140.46
2,500	\$81.99	\$158.03	\$335.49	\$665.06	\$994.63	\$1,324.17	\$156.26
3,000	\$93.43	\$180.93	\$385.06	\$764.23	\$1,143.38	\$1,522.52	\$172.06

City of Bethel
Hauled Sewer Rates
07/01/2022

Capacity	1 Time/Month	2 Times/Month	1 Time/Week	2 Times/Week	3 Times/Week	4 Times/Week	Extra Haul
3,500	\$104.86	\$205.13	\$434.65	\$863.39	\$1,292.12	\$1,720.85	\$186.72
4,000	\$135.16	\$264.38	\$565.91	\$1,125.84	\$1,685.81	\$2,245.78	\$276.07
4,500	\$135.16	\$264.38	\$565.91	\$1,125.84	\$1,685.81	\$2,245.78	\$293.72
5,000	\$158.03	\$310.13	\$665.06	\$1,324.17	\$1,983.32	\$2,642.46	\$311.37
6,000	\$175.64	\$345.55	\$741.97	\$1,478.17	\$2,214.40	\$2,950.60	\$320.19
7,000	\$197.87	\$389.98	\$838.25	\$1,670.74	\$2,503.23	\$3,335.71	\$346.68
12,000	\$317.72	\$629.81	\$1,358.16	\$2,710.75	\$4,063.32	\$5,415.89	\$364.33



Rate Design Objectives

- **Determine costs based on actual cost to provide service**
 - » Incorporate distance-based rates
- **Consolidate rate schedule**
- **Provide additional transparency for customers**
- **Ease staff time in billing related tasks**



Explanation of Proposed Zones

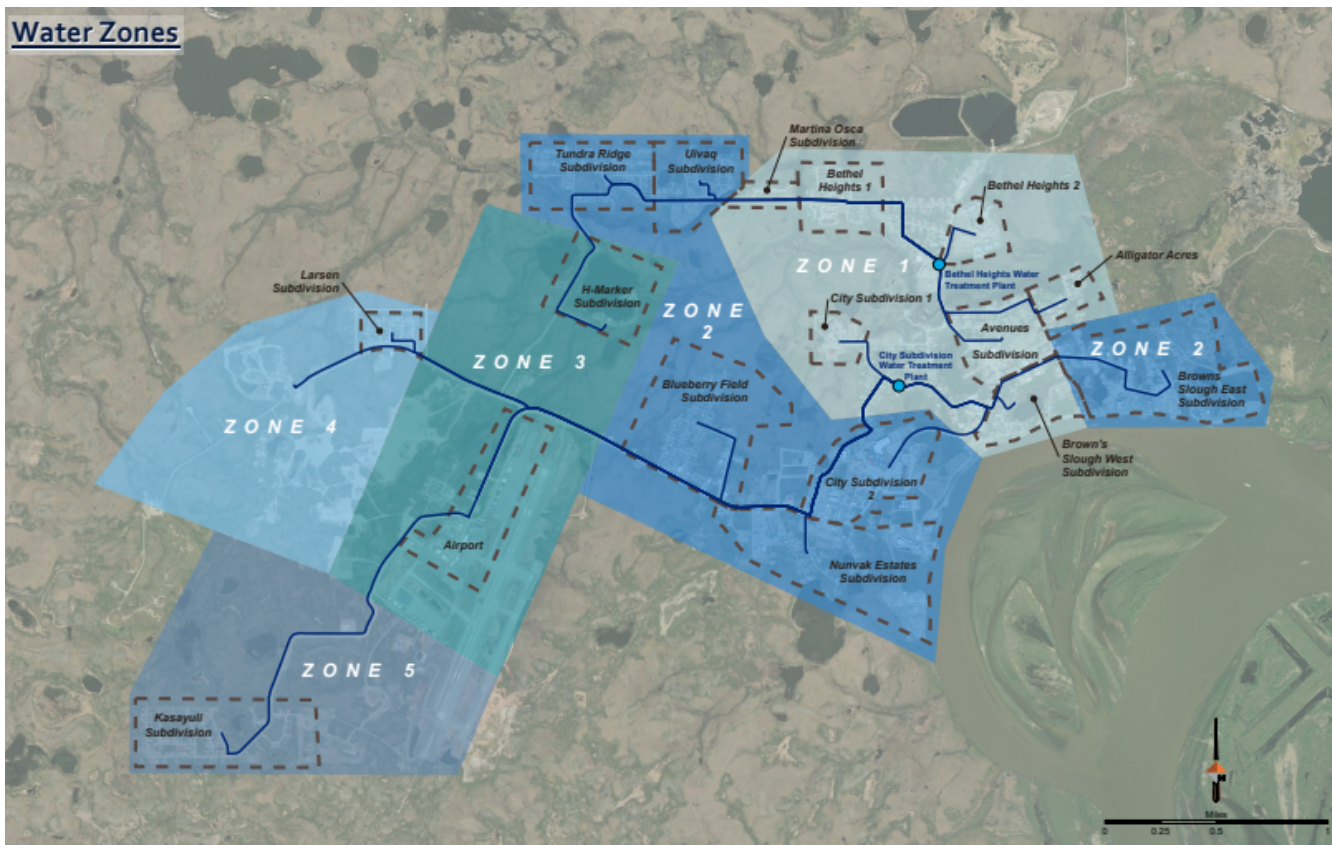
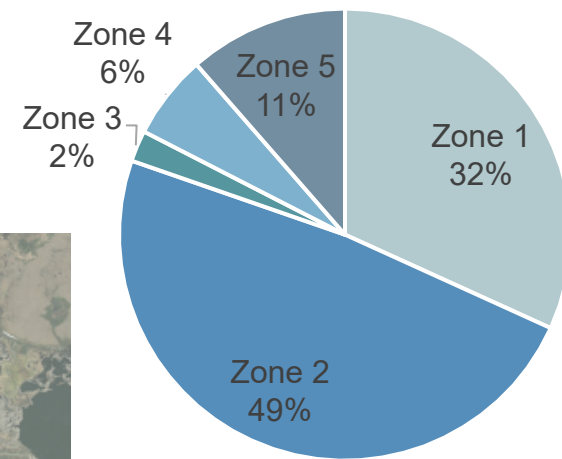
- Based on distance from nearest water treatment plant or distance to nearest sewer drop-off

Subdivision	Nearest Water Treatment	Zone
Bethel Heights 2	0.30	1
City Subdivision 1	0.39	1
Avenues Subdivision	0.53	1
Bethel Heights 1	0.63	1
Brown's Slough West Subdivision	0.64	1
Alligator Acres	0.82	1
Martina Osca Subdivision	0.93	1
Nunvak Estates Subdivision	1.04	2
City Subdivision 2	1.07	2
Uivaq Subdivision	1.36	2
Brown's Slough East Subdivision	1.54	2
Blueberry Field Subdivision	1.76	2
Tundra Ridge Subdivision	1.76	2
Airport	2.71	3
H-Marker Subdivision	2.71	3
Larson Subdivision	3.03	4
Sidney Street	3.42	4
Kasayuli Subdivision	4.74	5

Subdivision	Nearest Sewer Dropoff	Zone
Bethel Heights 1	0.55	1
Blueberry Field Subdivision	0.66	1
Airport	0.88	1
Bethel Heights 1	0.91	1
Nunvak Estates Subdivision	1.12	2
Avenues Subdivision	1.15	2
Larson Subdivision	1.15	2
Martina Osca Subdivision	1.20	2
H-Marker Subdivision	1.23	2
Brown's Slough West Subdivision	1.42	2
Alligator Acres	1.45	2
City Subdivision 2	1.45	2
City Subdivision 1	1.48	2
Sidney Street	1.54	2
Uivaq Subdivision	1.64	2
Tundra Ridge Subdivision	2.03	3
Brown's Slough East Subdivision	2.19	3
Kasayuli Subdivision	2.82	3



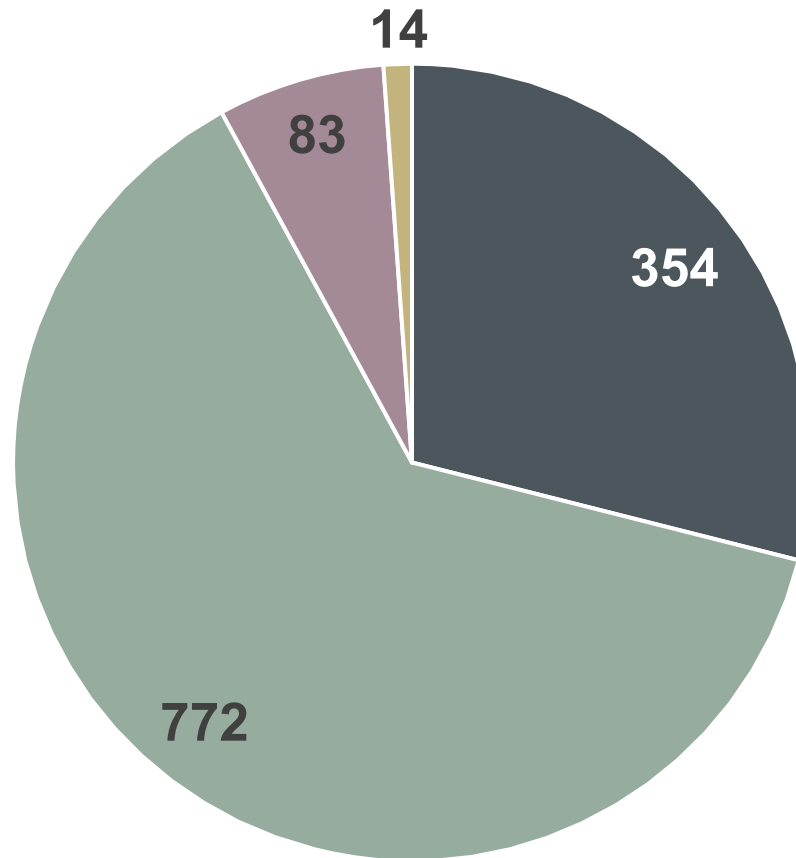
Proposed Water Zones



Subdivision	Water Zone
Airport	3
Aiviq Subdivision	2
Alligator Acres	1
Avenues Subdivision	1
Bethel Heights 1	1
Bethel Heights 2	1
Blueberry Field Subdivision	2
Brown's Slough East Subdivision	2
Brown's Slough West Subdivision	1
City Subdivision 1	1
City Subdivision 2	2
H-Marker Subdivision	3
Kasayuli Subdivision	5
Larson Subdivision	4
Martina Osca Subdivision	1
Nunvak Estates Subdivision	2
Sidney Street	4
Tundra Ridge Subdivision	2



Water Tank Size (Accounts)



■ 500 gallons or under

■ 1,001 - 2,000 gallons

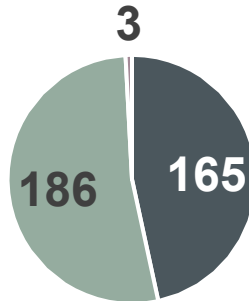
■ 501 - 1,000 gallons

■ Above 2,000 gallons

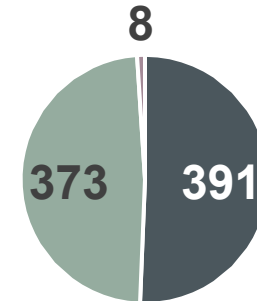


Water Pick-Up Frequency by Gallon Distribution

500 or Less



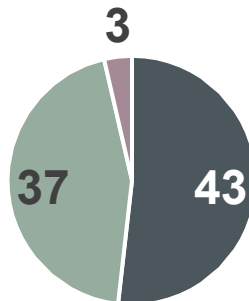
501 - 1,000



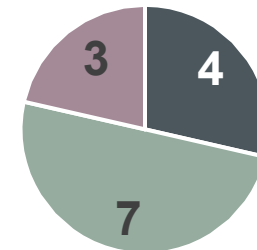
■ 1-2 per month ■ 1-2 per week ■ 3-4 per week

■ 1-2 per month ■ 1-2 per week ■ 3-4 per week

1,001 – 2,000



Over 2,000



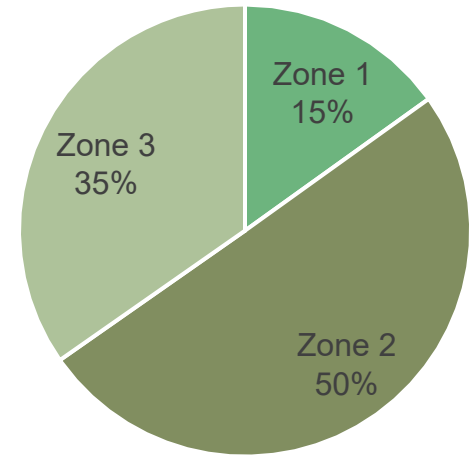
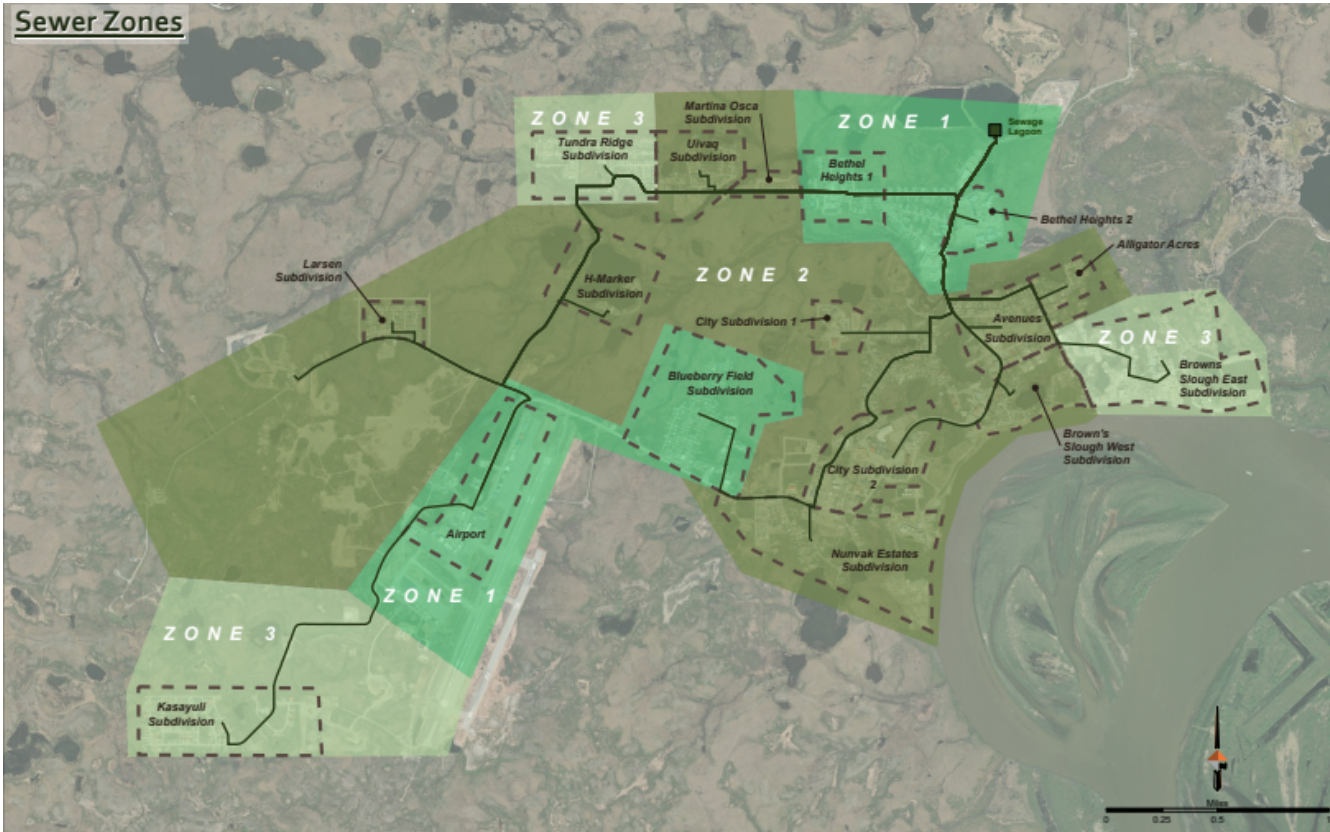
■ 1-2 per month ■ 1-2 per week ■ 3-4 per week

■ 1-2 per month ■ 1-2 per week ■ 3-4 per week



Proposed Sewer Zones

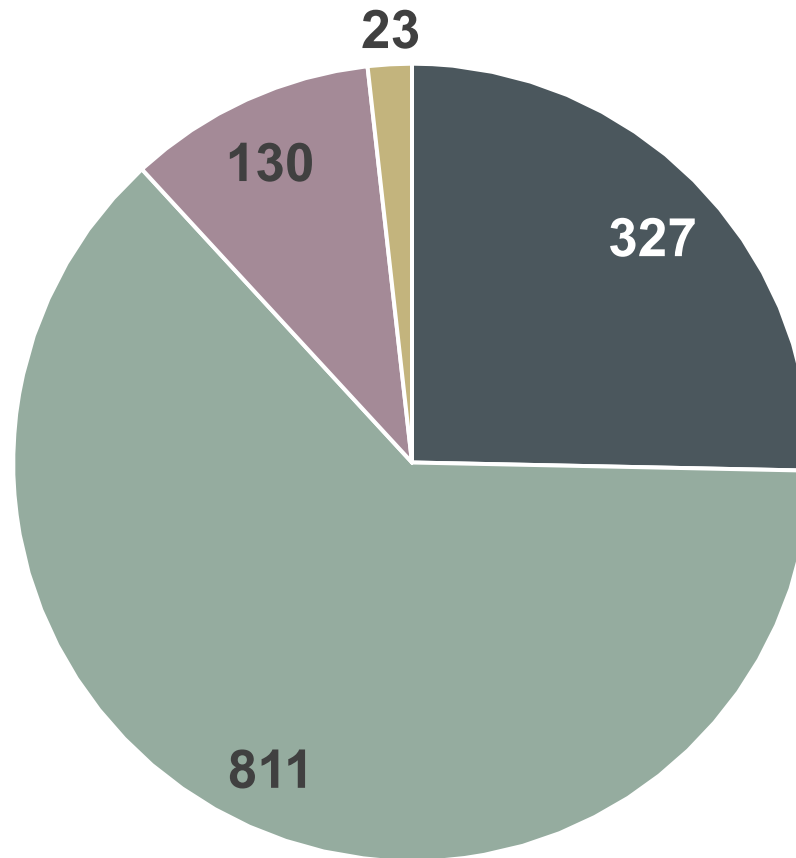
Sewer Zones



Subdivision	Sewer Zone
Airport	1
Aiviq Subdivision	2
Alligator Acres	2
Avenues Subdivision	2
Bethel Heights 1	1
Bethel Heights 2	1
Blueberry Field Subdivision	1
Brown's Slough East Subdivision	3
Brown's Slough West Subdivision	2
City Subdivision 1	2
City Subdivision 2	2
H-Marker Subdivision	2
Kasayuli Subdivision	3
Larson Subdivision	2
Martina Osca Subdivision	2
Nunvak Estates Subdivision	2
Sidney Street	2
Tundra Ridge Subdivision	3



Sewer Tank Size (Accounts)



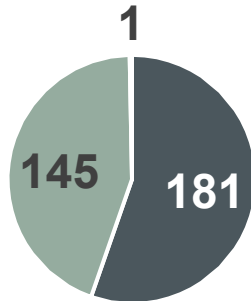
■ 500 gallons or under

■ 501 - 1,000 gallons

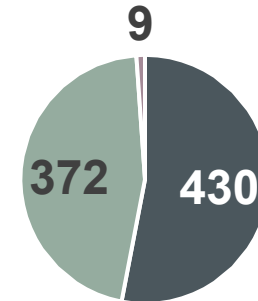


Sewer Pick-Up Frequency by Gallon Distribution

500 or Less



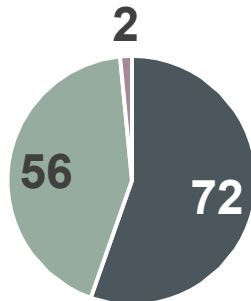
501 - 1,000



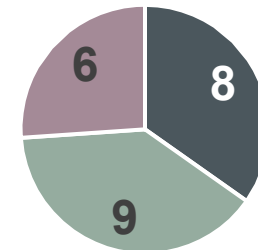
■ 1-2 per month ■ 1-2 per week ■ 3-4 per week

■ 1-2 per month ■ 1-2 per week ■ 3-4 per week

1,001 – 2,000



Over 2,000



■ 1-2 per month ■ 1-2 per week ■ 3-4 per week

■ 1-2 per month ■ 1-2 per week ■ 3-4 per week



Comparison of Charges

Component	Current	Proposed
Tank Size	Rates for 100 – 12,000 gallon tanks	Normalized to 1,000 gallons Based on pumping time
Frequency	Monthly – 4 times per week	Charged based on trips per month
Zones	2 water zones 1 sewer zone	5 water zones 3 sewer zones Based on average time to zone



Example of Charge Development

Zone Demand	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Total
Annual Deliveries	15,528	25,352	1,992	2,860	6,284	52,016
Annual Demand	10,948,400	21,568,200	2,182,600	2,536,800	6,761,200	43,997,200

Zone Annual Time Requirement	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Total
Delivery Time Requirement						
Annual Set-Up/Takedown Time, in hours	3,882	6,338	498	715	1,571	13,004
Water Pumping Time, in hours	2,147	4,229	428	497	1,326	8,627
Transit Time Requirement						
Travel Time to/from Zone, in hours	228	899	136	211	704	2,179
Total Time	6,257	11,466	1,062	1,424	3,601	23,810
<i>Allocation Percentage</i>	26.3%	48.2%	4.5%	6.0%	15.1%	100.0%

Zone Cost Allocations	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Total
	\$ 873,054	\$ 1,599,882	\$ 148,239	\$ 198,673	\$ 502,471	\$ 3,322,319

Zone Charges	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Set-up/Takedown Cost per Delivery	\$ 36.93	\$ 39.83	\$ 44.44	\$ 45.20	\$ 50.52
Water Delivery Cost per 1,000 Gallons	27.36	27.36	27.36	27.36	27.36



Rate Schedule (Includes Increases)

Water Rate Design	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Delivery Charge	\$36.93	\$39.83	\$44.44	\$45.20	\$50.52
Cost per 1,000 gallons	\$27.36				
Sewer Rate Design	Zone 1	Zone 2	Zone 3		
Haul Away Charge	\$28.90	\$30.60	\$33.40		
Cost per 1,000 gallons	\$7.13				



Sample Customer: 500 gallons 2x Month

	Existing		ATB		Proposed Rate Design				
	Zone 1	Zone 2	Zone 1	Zone 2	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Monthly Rate	\$ 64.56	\$ 86.44	\$ 66.82	\$ 89.47					
Delivery Charge					73.87	79.66	88.88	90.40	101.05
Volume Charge					27.36	27.36	27.36	27.36	27.36
Subscription	10.14	10.14	10.49	10.49	10.49	10.49	10.49	10.49	10.49
Total Monthly Bill	\$ 74.70	\$ 96.58	\$ 77.31	\$ 99.96	\$ 111.72	\$ 117.51	\$ 126.73	\$ 128.25	\$ 138.90
<i>Rate Increase Change</i>			\$ 2.61	\$ 3.38					
			<i>Zone 1 ATB Change</i>		\$ 34.41	\$ 40.20	\$ 49.42	\$ 50.94	\$ 61.59
			<i>Zone 2 ATB Change</i>		\$ 11.76	\$ 17.55	\$ 26.77	\$ 28.29	\$ 38.94

	Existing	ATB	Proposed Rate Design		
			Zone 1	Zone 2	Zone 3
Current Charge	\$ 66.50	\$ 72.82			
Delivery Charge			57.79	61.21	66.80
Volume Charge			7.13	7.13	7.13
Subscription	10.14	10.49	10.49	10.49	10.49
Total Monthly Bill	\$ 76.64	\$ 83.31	\$ 75.41	\$ 78.83	\$ 84.42
<i>Rate Increase Change</i>		\$ 6.67			
		<i>ATB Change</i>	\$ (7.90)	\$ (4.48)	\$ 1.11



Sample Customer: 1,000 gallons 1x Month

	Existing		ATB		Proposed Rate Design				
	Zone 1	Zone 2	Zone 1	Zone 2	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5
Monthly Rate	\$ 58.67	\$ 61.14	\$ 60.72	\$ 63.28					
Delivery Charge					36.93	39.83	44.44	45.20	50.52
Volume Charge					27.36	27.36	27.36	27.36	27.36
Subscription	10.14	10.14	10.49	10.49	10.49	10.49	10.49	10.49	10.49
Total Monthly Bill	\$ 68.81	\$ 71.28	\$ 71.21	\$ 73.77	\$ 74.78	\$ 77.68	\$ 82.29	\$ 83.05	\$ 88.37
<i>Rate Increase Change</i>			\$ 2.40	\$ 2.49					
			<i>Zone 1 ATB Change</i>		\$ 3.57	\$ 6.47	\$ 11.08	\$ 11.84	\$ 17.16
			<i>Zone 2 ATB Change</i>		\$ 1.01	\$ 3.91	\$ 8.52	\$ 9.28	\$ 14.60

	Existing	ATB	Proposed Rate Design		
			Zone 1	Zone 2	Zone 3
Current Charge	\$ 47.66	\$ 52.19			
Delivery Charge			28.90	30.60	33.40
Volume Charge			7.13	7.13	7.13
Subscription	10.14	10.49	10.49	10.49	10.49
Total Monthly Bill	\$ 57.80	\$ 62.68	\$ 46.52	\$ 48.22	\$ 51.02
<i>Rate Increase Change</i>		\$ 4.88			
		<i>ATB Change</i>	\$ (16.16)	\$ (14.46)	\$ (11.66)



Decision Points

- **Piped Customers**

- » Water: 3.5% ATB annual rate increases
- » Sewer 9.5% ATB annual rate increases

- **Hauled Customers**

- » Water
 - 3.5% ATB annual rate increases
 - Adopted new rate design (includes 3.5% annual rate increases)
 - ATB increases after FY 2024
- » Sewer
 - 9.5% ATB annual rate increases
 - Adopted new rate design (includes 9.5% annual rate increases)
 - ATB increases after FY 2024

- **All customers**

- » 3.5% annual subscription charge increases

Thank you!

Questions?

Angie Sanchez Virnoche
Principal
(425) 336 - 4157
AngieS@FCSGroup.com

Chase Bozett
Project Consultant
(425) 615 – 6235
ChaseB@FCSGroup.com

www.fcsgroup.com