



Wastewater Rate Forecast Update



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Purpose of Presentation

- **Communicate updated wastewater rate forecast**
 - » Explain what has changed since Council briefing last December
 - » Discuss key assumptions
 - Updated costs for biosolids project
 - Inflation
 - WIFIA and bond financing
- **Results**
 - Timing and magnitude of needed rate increases
 - Impact in constant 2022 dollars
 - What if?
- **Recommended Rate Strategy**

Updated Rate Forecast





What Has Changed Since December?

- **Delay in beginning series of rate increases**
 - » December: assumed rate increases beginning July 2022, each January after
 - » Now: assume rate increases beginning January 2023, while developing an expanded low-income discount program between now and then
- **Updated capital project cost estimate for Biosolids Resource Recovery project**
 - » December: \$200 million in 2020 dollars
 - » Now:
 - \$259.8 million in 2021 dollars, and
 - \$40 million in additional related capital projects
- **Short-term inflation is now assumed to be higher**
- **However, more favorable borrowing terms**
 - » December: borrowing with bonds only
 - » Now: assume a mix of bonds and WIFIA loan from U.S. EPA
 - WIFIA has a lower interest rate than bonds, plus it allows the option of deferring repayment for up to 5 years



Capital Project Cost Assumptions



- **Regular capital improvement program**
 - » \$11.5 million Roeder Lift Station 2022-2023
 - » \$4 million/year for collection & transmission projects



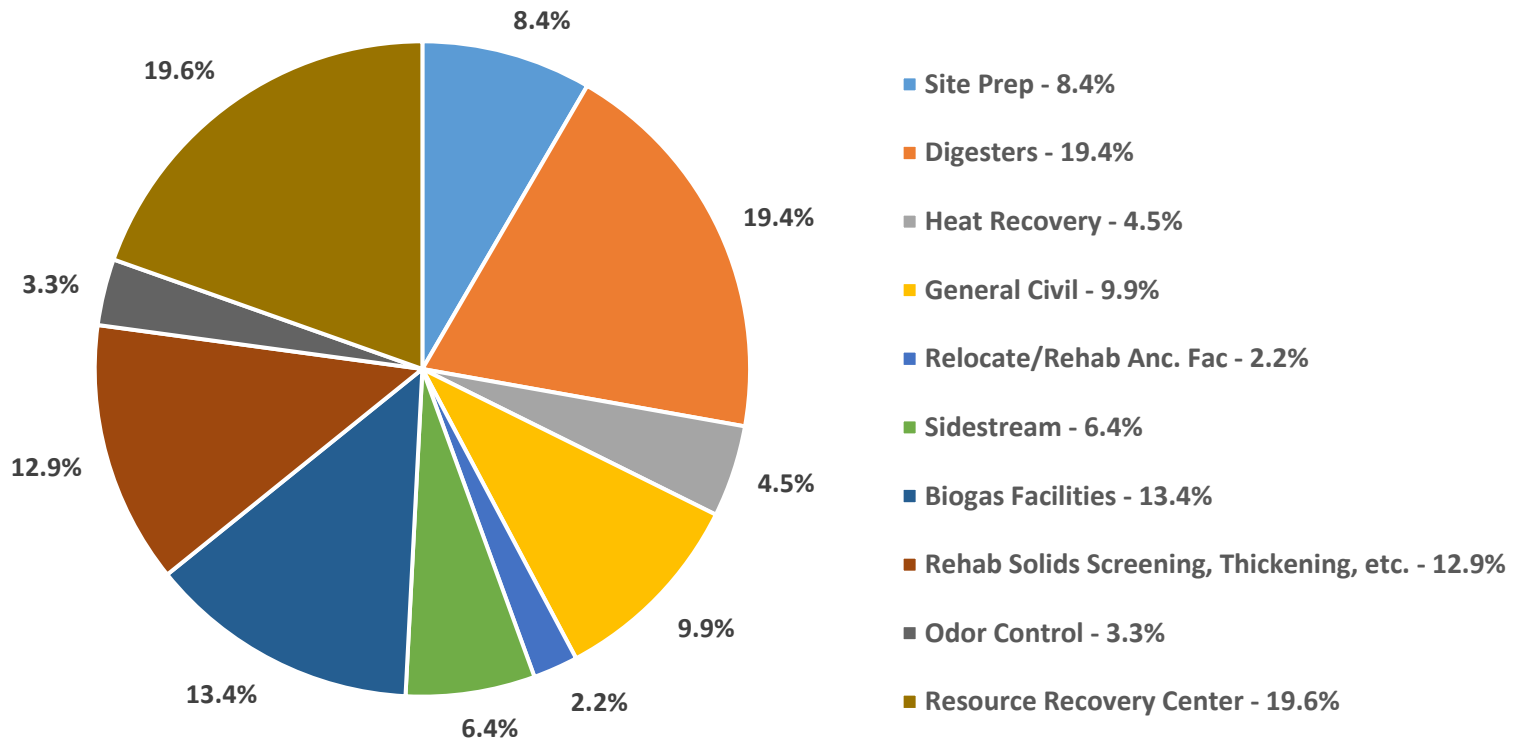
- **Biosolids Resource Recovery project**
 - » Construction 2024-2027, \$259.8 million in 2021 dollars
 - » Plus \$660,000 increase annual O&M, beginning 2027
 - » Also \$40 million of related capital projects



- **Nutrient removal projects (two phases)**
 - » Construction 2028-2035, costs depend on final regulations
 - » Worst case: \$322 million project cost for both phases
 - » Additional O&M: \$3.2 million/year beginning in 2029, plus \$2.6 million/year beginning in 2035



Resource Recovery Project Cost Components





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Inflation and Financing

- **Inflation**

- » Construction inflation is specific to local markets, volatile
- » Forecast assumes: 2022 - 12%, 2023 - 9%, 2024 - 6%, After - 3% / year

- **Debt Financing**

- » Assume City policy minimum debt service coverage of 2.0 is achieved
- » Assume three types of borrowing:
 - WIFIA: About \$136 million
 - Bonds: \$135 million in 2025, \$93 million in 2027
 - Second assumed WIFIA loan for nutrient removal project: About \$233 million in 2029
 - Nutrient removal regulations affect many utilities, not just Bellingham
 - Anticipated pressure for assistance to local governments
 - WIFIA is designed for big projects



Debt Assumptions

	WIFIA #1	Bonds	Bonds	WIFIA #2
When issued?	2024	2025	2027	2029
Proceeds	~\$136 million	\$135 million	\$93 million	~\$233 million
Interest Rate	2%	4%	4%	2%
Term	30 years	30 years	30 years	30 years
Begin Repayment	2029	2025	2027	2034
Annual Debt Service	~\$6.7M/year	~\$8.4M/year	~\$5.8M/year	~\$11.5M/year



Resulting Rates

- **Results of Assumptions:**
 - » **16% per year** rate increases for 7 years (2023-2029)
 - » Then **5.5% per year** rate increases for 5 years (2030-2034), and 2% in 2035
 - » The most important “squeeze year” is 2029. By that time, the rates need to reach a level to allow the City to begin paying the WIFIA debt service and still meet its target coverage of 2.0.
- **All of this is before the expanded low-income program**
 - » With an expanded low-income program, regular rates would need to increase by more than 16% in the first year
 - » Depending on the number of additional participants, the level of discount, and the additional administrative cost, it could add 3-4% to the first-year rate increase



Rate Forecast in Inflation-Adjusted Dollars

Real Impact (Inflation Adjusted)

Assuming Income Rises with Inflation

3.00% Assumed CPI increase per year

17 years between 2022 and 2039

1.65 2039 as a multiple of 2022 costs and incomes

\$49.10 SFR monthly bill in 2022

Real Impact (inflation adjusted)

\$184.99 Projected SFR monthly bill in 2039

\$ 111.92 Equivalent in 2022

228% Real increase in SFR rate from 2022 to 2039

- **Assuming incomes rise by same rate as long-term inflation:**
 - » Real rate increase of 127% by 2039, equivalent to \$111.92 in 2022



Forecast Summary

Summary of May 2022 Rate Forecast						
Year	Rate Increase	Single-Family Monthly Bill	Assumed SF Monthly Bill in 2022 Dollars*	Annual Capital (Rounded, Inflated \$000)	Debt Proceeds	Debt Comments
2022		\$49	\$49	\$26,200	-	
2023	16.0%	\$57	\$55	\$35,600	-	
2024	16.0%	\$66	\$62	\$68,400	136,048,500	WIFIA #1 proceeds
2025	16.0%	\$77	\$70	\$148,600	135,000,000	Bond proceeds
2026	16.0%	\$89	\$79	\$107,700	-	
2027	16.0%	\$103	\$89	\$87,300	93,000,000	Bond proceeds
2028	16.0%	\$120	\$100	\$52,400	-	
2029	16.0%	\$139	\$113	\$77,700	232,500,000	WIFIA #1 pmts begin, WIFIA #2 proceeds
2030	5.5%	\$146	\$116	\$80,100	-	
2031	5.5%	\$154	\$118	\$57,200	-	
2032	5.5%	\$163	\$121	\$45,900	-	
2033	5.5%	\$172	\$124	\$78,500	-	
2034	5.5%	\$181	\$127	\$62,500	-	WIFIA #2 pmts begin
2035	2.0%	\$185	\$126	\$64,300	-	
2036	0.0%	\$185	\$122	\$7,700	-	
2037	0.0%	\$185	\$119	\$8,000	-	
2038	0.0%	\$185	\$115	\$8,200	-	
2039	0.0%	\$185	\$112	\$8,400	-	
Total				\$1,024,700	\$596,548,500	
Cumulative						
2029	192%					
2039	291%					

*Assumes 3% annual income growth to match assumed long-term CPI.



What If?

- **What if the 2024 WIFIA loan were increased to \$181.7 million (49% of increased project cost)?**
 - » In that case, rate increases of 16% would still be needed in 2023 and 2024
 - » However, rate increases from 2025-2029 would not have to be as steep—15%/year instead of 16%/year
- **How much of this rate impact is caused by the incinerator replacement? In other words, what if we only had to fund the biosolids resource recovery project and there were no nutrient removal project?**
 - » Rate increases could be 13.5%/year for seven years, then no further increases after that
- **What if the WIFIA borrowing rate was higher than 2%?**
 - » All else being equal, a 3% WIFIA rate would require rate increases through 2029 of 16.5%/year instead of 16%/year



What If?

- **What if we add off-site thermal decomposition (assuming \$100 million in 2021 dollars, with construction starting in 2026)?**
 - » Would require 22%/year through 2027 followed by 11.5% in 2028 and 2029
- **Current assumed construction inflation is 12% in 2022 and 9% in 2023**
 - » What if it were 10% in 2022 and 8% in 2023?
 - 15.5%/year through 2029
 - » What if it were 14% in 2022 and 10% in 2023?
 - 17%/year through 2029
- **What if a second WIFIA loan is not available and we have to sell bonds in 2029 and beyond?**
 - » 18%/year through 2029



Summary of Sensitivity Analysis

- **Most of the rate increases through 2029 are driven by the replacement of the incinerator**
 - » The nutrient removal regulations lead to increases beyond 2029
- **The financing terms (amount of WIFIA loan, WIFIA rate) make a moderate difference to the rates (0.5-1% per year)**
- **A two-point change in inflation in either direction also makes a moderate difference to the rates (0.5%-1% per year)**
- **The addition of off-site thermal decomposition would make a large difference to the rates because of additional bond financing needed**
 - » 2027 would become the “squeeze year” instead of 2029
 - » In order to get rates high enough by 2027 to absorb the additional debt service, 22% annual increases would be needed in the five years from 2023 through 2027



Summary of Sensitivity Analysis

- **Assuming a second WIFIA loan makes a notable difference to the rates (2% per year through 2029), mainly because of the ability to defer repayment after drawing the money in 2029**
 - » Assuming a second WIFIA loan does mean accepting the risk of steeper increases in the years 2028 and 2029 if it turns out that a second WIFIA loan is not awarded
 - » However, the WIFIA loan program is designed for large projects like this, and we think it is reasonable risk
- **After considering the various ways the forecast could be better or worse, we recommend that the City begin to implement overall increases of 16% per year beginning in 2023.**
 - » Again, an expanded low-income discount program will mean a shift of the rate burden, so customers who are not low-income would see a one-time increase in 2023 that is higher than 16% - amount to be determined

Recommended Rate Strategy





Key Uncertainties

- **Key uncertainties will be resolved by the spring of 2024**
 - » The WIFIA rate will be known
 - » The biosolids resource recovery construction will be under contract, reflecting actual market conditions instead of assumed inflation
 - » More info about nutrient removal regulations
 - “Worst case” cost estimate assumes a very strict regulatory standard, but a more moderate standard is possible
- **However, each year of further delay in beginning the rate increases makes the increases that much steeper**
 - » Somehow, we have to reach a cumulative rate increase of about **192%** by 2029, because debt service will increase from \$3.4 million/year to \$25.3 million/year during that time
- **The only way to achieve a smooth pattern of rate increases is to begin them before we have perfect information**



Recommended Rate Strategy

- **Goal: a smooth pattern of rate increases**
- **Move rates up to a high enough level by 2029 to pay increased debt service**
- **Recommended next steps**
 - » **May 2022 – Authorize formal WIFIA application**
 - City would be choosing to re-invest in infrastructure
 - Application includes the overall rate forecast
 - » July-Sept. 2022 - Propose affordability changes; discuss with Council
 - » Sept.-Oct. 2022 - Adopt multi-year schedule of rate increases
 - For 2023, 16% plus impact of expanded low-income program
 - For 2024-2029, 16% per year
 - » Planned rate review in mid-2024
 - Key uncertainties resolved by then
 - If warranted, can adjust multi-year rate schedule at that time

Questions?

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