



## PUBLIC WORKS DEPARTMENT

MAYOR: Lauren McLean | DIRECTOR: Stephan Burgos

# MEMO

**TO:** Mayor and Council  
**FROM:** Steve Burgos, Public Works Director  
**CC:** Courtney Washburn  
**DATE:** August 19, 2020  
**RE:** Water Renewal Utility Plan: Financial Capacity and Affordability

---

### EXECUTIVE SUMMARY

This memo is the fifth in a series of six memos that Water Renewal Services will deliver to city council to provide background information on the elements that comprise the Water Renewal Utility Plan. City council action on the recommended plan will be requested once all background materials have been delivered. This memo summarizes the financial capacity and affordability considerations that have guided the development of the plan and identifies future decisions that will be needed during implementation.

Financial capacity describes Water Renewal Services' ability to generate revenue to support ongoing operational costs and expected capital expenditures. Water Renewal Services operates as an enterprise fund within the city meaning revenues from user rates and user fees are collected to cover the cost of operations and capital funding. In 2019, the utility generated over \$65 million in revenue and had capital and operating expenses of just over \$60 million. The difference in these funds went to pay for future, planned expenses. Implementing the actions recommended in the plan will require further significant investment. These additional investments may drive the city to consider additional approaches to generating revenue to balance affordability and generational equity concerns with anticipated needs.

Maintaining the affordability of services while also meeting the needs of an aging and growing system requires careful planning and execution. While Boise's current water renewal rates are affordable per EPA guidelines, the impact on lower income groups cannot be overlooked. Understanding this impact and identifying potential strategies for mitigating these impacts is a key concern.

Decisions on an approach to generating revenue and affordability programs will be needed in the future. A cost of service study is currently underway to explore these topics in more detail and will generate recommendations in the coming months. For

now, however, an initial overview of both of these topics is important as the Water Renewal Utility Plan is considered.

## **INTRODUCTION**

The Water Renewal Utility Plan will recommend investments needed by Water Renewal Services for the next 20 years. Previous memos to city council have described the expected needs to address several objectives including continued investment in existing infrastructure, increases in capacity to accommodate a growing city, upgrades necessary to meet regulatory requirements, and additional uses of our water to meet community expectations. These investments will both sustain the system we have today and allow us to build a more robust and resilient system for the future of our community.

As the utility considers these investments, it must also consider how they will be paid for. As an enterprise fund that is funded through user rates and fees, this requires consideration of the utility's financial capacity defined as the ability to generate revenue to support ongoing operational costs and expected capital expenditures. Because of the anticipated additional investments, the city will need to consider additional funding strategies to generate revenue while balancing affordability concerns with anticipated needs. This memo presents considerations for several potential funding approaches, which will be further discussed after the Water Renewal Utility Plan is adopted.

As we consider changes to funding strategies, maintaining the affordability for our community is a key concern. Many communities look to customer assistance programs, which are designed to offset the burden for the lowest income customers, as a way of addressing affordability concerns. This memo describes considerations for affordability in our community and how it could be addressed moving forward.

## **BACKGROUND AND APPROACH**

### **FINANCIAL CAPACITY**

Water Renewal Services operates as an enterprise fund within the city's financial structure. User rate revenues and fees are collected to cover the cost of operations and capital funding. In 2010, the utility collected nearly \$33.7 million in revenue from user rates and fees (Figure 1). This revenue was used to pay \$20.4 million in operating expenses and \$13.4 million in capital projects. Since 2010, the revenue collected has grown year-over-year to \$65.7 million in 2019. This revenue increase was needed to cover growing operational costs and capital expenditures related to growth, regulatory requirements and infrastructure condition during this period. Examples of the increased costs include the addition of the Dixie Drain Phosphorus Removal Facility, capital investments at the West Boise Water Renewal Facility to improve phosphorus removal, reinvestment in the existing infrastructure at the Lander Street Water Renewal Facility, and increased staffing to support these facilities that are all required to meet regulatory compliance.



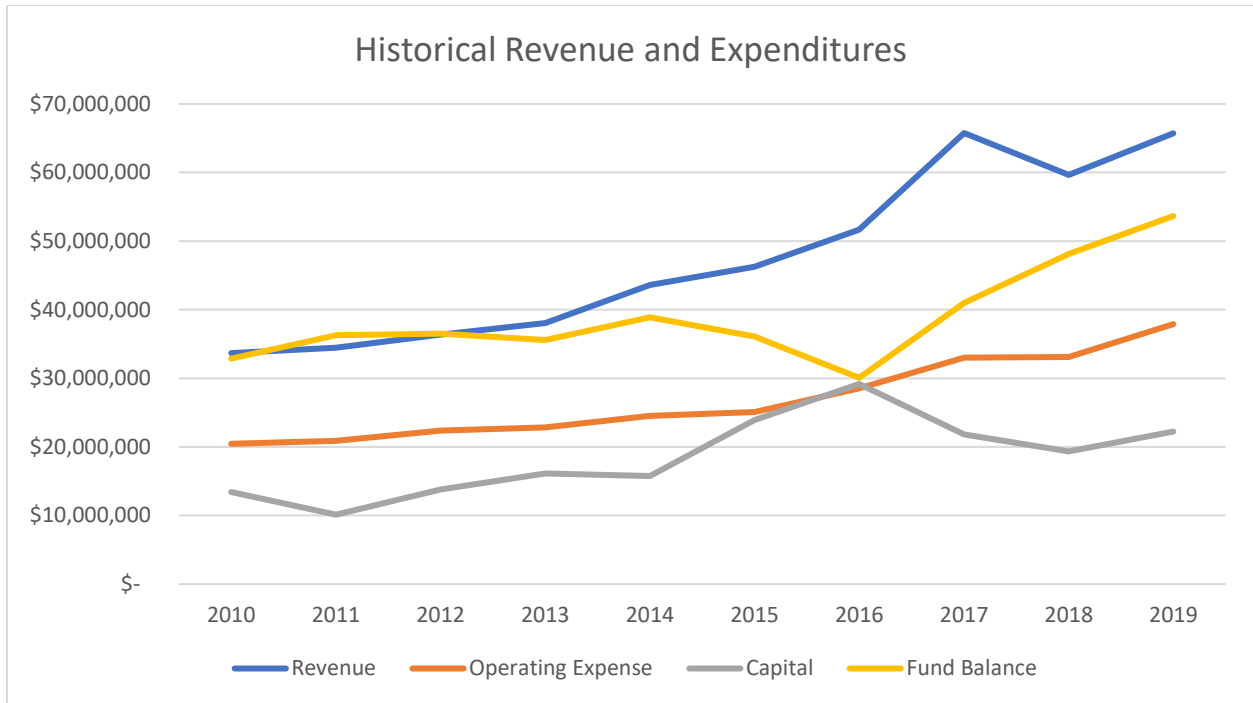


Figure 1. Historical revenue and expenditures

The city traditionally has rate and fee-funded capital improvements and rate-funded operations and maintenance (O&M) expenses. Rates are typically adjusted annually to cover the anticipated costs for upcoming capital and operating expenses. Since 1979, the city has regularly adjusted rates which have averaged approximately five percent annually. Connection fees have also been adjusted throughout the same period.

Net income is the funding available to the city as a result of deducting cash operating and financing expenses from the revenue earned from rates and fees paid by customers for providing services. The primary source of revenue is derived from the rates charged to customers for the city's water renewal services. Secondary sources of operating income include miscellaneous fees, charges, and other income not related to utility rate revenue. Net cash flow is often used either as a source of direct investment in capital projects in the current period or to increase cash reserves to make funds available as investment capital in a future period.

Connection fee charges are part of a set of "growth pays for growth" policies. The term "connection fee" can refer to a charge that recovers the cost of installing the physical service connection but, in this context, it is also a charge based on a proportionate share of the infrastructure costs the city has already incurred to provide the system capacity necessary to serve new customers. Compared to operating cash flows, income from connection fees is relatively less predictable and tied to the local building economy. Connection fee income is only realized when new connections to the water renewal system are requested. Therefore, when the pace of development slows or speeds up, the income from these sources slows or increases accordingly. The utility has

collected an average of approximately \$6.5 million annually in recent years through connection fees.

## **AFFORDABILITY**

Central to the topic of affordability are two concepts: the ability to pay and the willingness to pay. The EPA has maintained a standard whereby average annual sewer bills that are more than two percent of a community's median household income are considered above a community's ability to pay. The ability to pay can be thought of as the financial capacity of the customer. Willingness to pay is more difficult to measure but is important in the context of affordability because it connotes something about the value of the service being provided and its relative importance to members of the community. Even though utility bills may be well within a given household's ability to pay, there may be an unwillingness to do so for several reasons.

Currently, Water Renewal Services' rates average \$410 annually (approximately \$34 per month) for a typical household, which falls well within EPA's standard guideline of two percent of median household income. However, it is important to recognize that even at this rate, utility bills can have an outsized impact on lower income customers. This is demonstrated in Table 1 which shows the cost of a utility bill as a percentage of the household income for multiple US Census-defined income bins within the city. There is a high cost burden (>two percent) for those households making less than \$20,000 per year, which constitutes over 15 percent of the overall community.

**Table 1. Weighted Average Residential Indicator for Boise's WRS Service Area (2018)**

Weighted Average Residential Indicator				
Income Bins	Bin Midpoint	Boise Water Renewal Service Area		
		% Population in Bin	Bill as % of Midpoint	Weighted Impact
< \$10,000	\$5,000	6.8%	8.2%	0.6%
\$10,001-\$15,000	\$12,500	5.0%	3.3%	0.2%
\$15,001-\$20,000	\$17,500	5.4%	2.3%	0.1%
\$20,001-\$25,000	\$22,500	5.2%	1.8%	0.1%
\$25,001-\$30,000	\$27,500	5.0%	1.5%	0.1%
\$30,001-\$35,000	\$32,500	5.5%	1.3%	0.1%
\$35,001-\$40,000	\$37,500	4.5%	1.1%	0.0%
\$40,001-\$45,000	\$42,500	5.3%	1.0%	0.1%
\$45,001-\$50,000	\$47,500	3.9%	0.9%	0.0%
\$50,001-\$60,000	\$55,000	8.9%	0.7%	0.1%
\$60,001-\$75,000	\$67,500	9.9%	0.6%	0.1%
\$75,001-\$100,000	\$87,500	12.5%	0.5%	0.1%
\$100,001-\$125,000	\$112,500	8.0%	0.4%	0.0%
\$125,001-\$150,000	\$137,500	5.1%	0.3%	0.0%



**Table 1. Weighted Average Residential Indicator for Boise's WRS Service Area (2018)**

Weighted Average Residential Indicator				
Income Bins	Bin Midpoint	Boise Water Renewal Service Area		
		% Population in Bin	Bill as % of Midpoint	Weighted Impact
\$150,000-\$200,000	\$175,000	4.3%	0.2%	0.0%
> \$200,000	\$200,000	4.7%	0.2%	0.0%
<b>Weighted Average Residential Burden</b>				<b>1.5%</b>

Table 1 demonstrates that while rates are largely affordable at the community-level, there are some within our community for whom utility bills constitute a much larger percentage of their overall income. The following sections describe how this could be addressed moving forward.

Affordability also affects commercial and industrial customers; however, the effect is more difficult to measure. Water renewal costs can represent sizeable operating expenses for some types of businesses. However, because of the variability in the operations of these businesses, it is difficult to establish a comparable affordability metric as was discussed for residential customers. In the absence of a metric, the city is focused on implementing sound financial policies that consider cost management and offer predictability in future rates to allow for proactive business planning.

During the planning effort, the city reached out to the community multiple times and obtained direct and indirect feedback regarding affordability and the community's willingness to pay. These efforts were described in more detail in the previously distributed Water Renewal Utility Plan: Public Involvement and Community Expectations memo. Throughout the discussions with the community, it is apparent there is a willingness to pay for outcomes the community sees as valuable including protecting the environment, maintaining existing infrastructure, and preparing for the future.

**ANALYSIS:**

**FINANCIAL CAPACITY**

The recommendations from the plan will require additional investment in our water renewal system. As discussed in the first four memos presented to the city council, these investments are required to maintain our existing infrastructure, meet the capacity needs of a growing city, address regulatory requirements, prepare for the impacts of climate change, and meet community expectations. Over the past decade the utility has averaged approximately \$20 million in annual capital expenditures (Figure 2). It is expected that this will increase to nearly \$54 million annually in 2020 dollars over the next decade to address the previously noted drivers for capital investments.



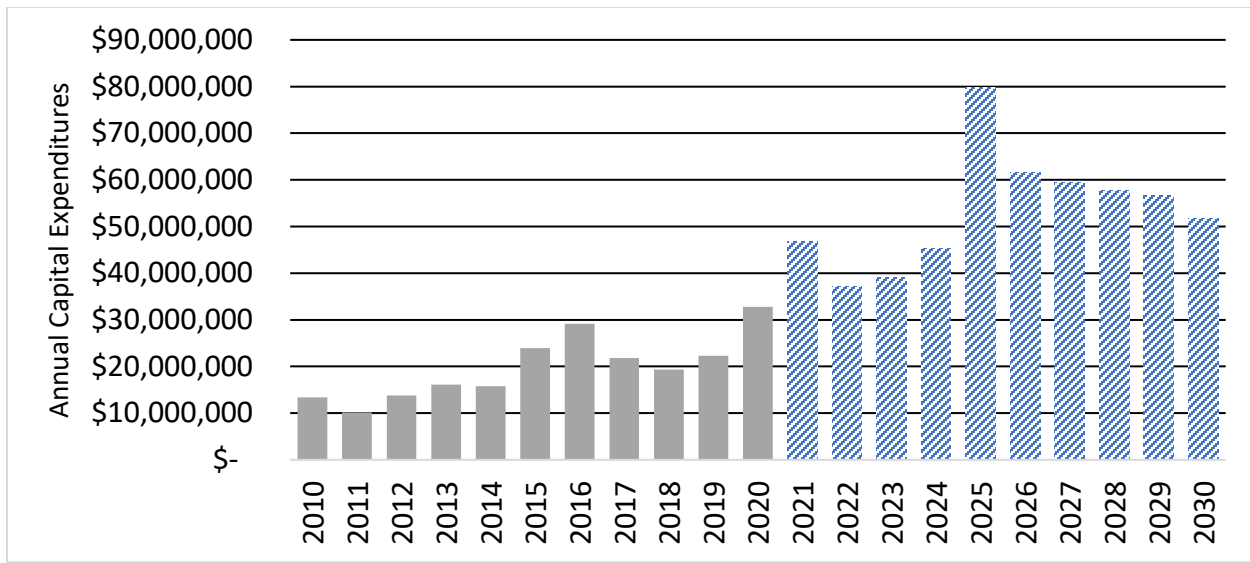


Figure 2. Historical and future annual capital expenditures

Water Renewal Services is considering multiple funding approaches to meet the projected revenue needs moving forward, namely cash and debt funding models. Figure 3 shows a conceptual example of how these funding models compare regarding user rates over time. Historically, the utility has used cash funding (i.e. user rate and fee revenues) for the vast majority of capital projects. As shown in Figure 3, using this approach moving forward would mean higher near-term user rate increases but lower overall costs over the 20-year period. However, because the life of these investments spans multiple generations, with the cash funding model, the current generation may bear more of the burden of investments that will serve future generations. Another potential funding approach is debt funding. Figure 3 shows that this model would limit near-term rate increases but result in higher long-term costs as interest is paid on the debt. An additional benefit of this approach is that current and future generations both pay for the investments thus creating generational equity on costs.

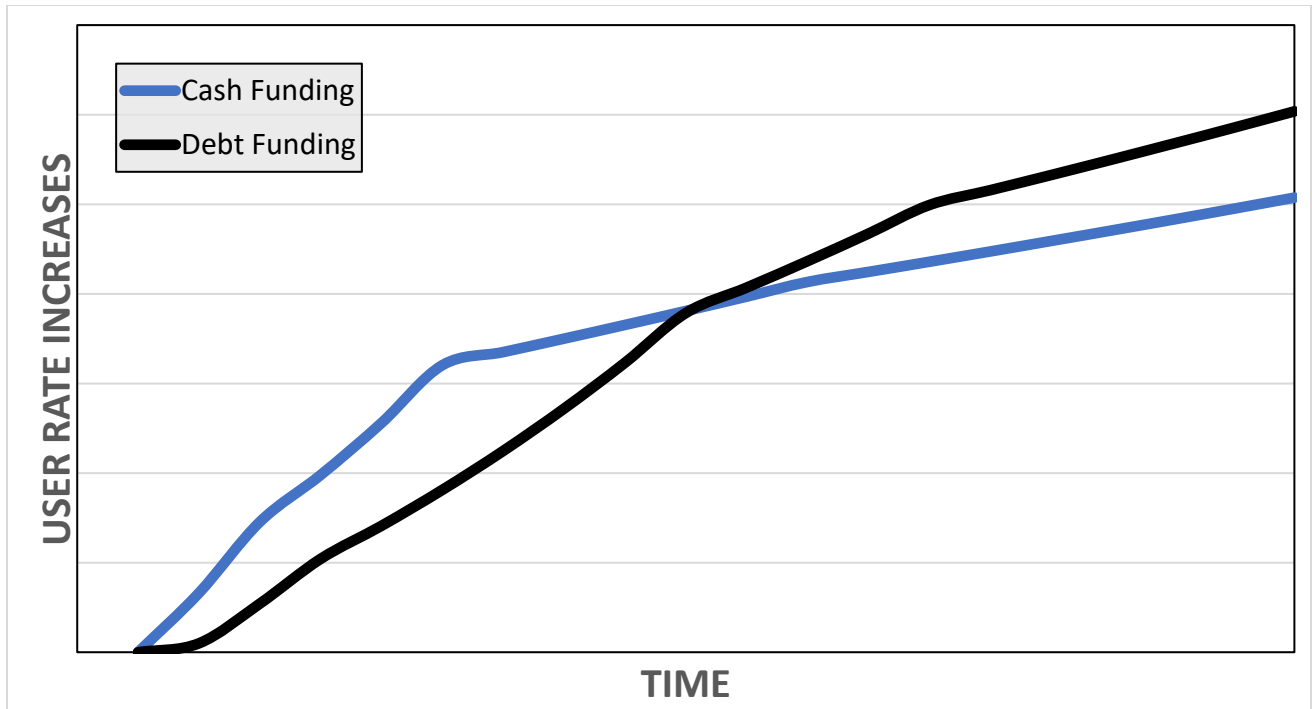


Figure 3. Conceptual example of WRS funding models

Water Renewal Services is in the process of completing a cost of service study. This study will include a detailed evaluation of the user rate increases needed under cash and debt funding models, potential changes to connection fees, and updates to the user rate model. Ultimately, the cost of service study will recommend the financial strategies to support the implementation of the Water Renewal Utility Plan. City council will then be asked to decide on the preferred financial approach.

### **AFFORDABILITY**

Increasing rates in the future will put additional pressure on the affordability concerns. As a response to this pressure, the utility is in the process of developing several strategies to address affordability concerns. These strategies are known as customer assistance programs. The approach to customer assistance programs for each utility is as unique as the communities they serve. While these approaches are unique in their application, they can generally be grouped into several types of approaches.

- **Bill Discounts:** Utilities reduce a customer's bill over the long term in some type of rate structure (variable, volumetric, fixed to service charges, etc.).
- **Flexible Terms:** Utilities help customers through bill forgiveness, timing adjustment, or levelized billing (i.e. dividing total anticipated annual water and sewer bill by 12 to create a predictable monthly bill amount).
- **Lifeline Rate:** Customers pay a subsidized rate for a fixed amount of water, which is expected to cover that customer's basic water needs. When water use exceeds the initial fixed amount of water, the rate increases.

- **Temporary Assistance:** Utilities cover customers on a short-term or one-time basis to prevent disconnection of service.
- **Water Efficiency:** Utilities subsidize water efficiency measures and/or provide financial assistance for leak repairs.

The city currently offers several programs including temporary assistance and bill discounts. However, the use of these programs is currently limited. Moving forward, Water Renewal Services is evaluating expanding the available affordability programs in concert with the overall funding approach for the Water Renewal Utility Plan. Future policy decisions will be needed by the city council on the implementation of these programs, thresholds for utilizing the programs and how they will be implemented and communicated.

### **CONCLUSION:**

Implementing the recommendations from the Water Renewal Utility Plan will require continued investment in our water renewal system. In turn, these investments will require the utility to consider multiple funding approaches and affordability programs moving forward. Decisions on both approaches to generating revenue and affordability programs will be needed in the future after the adoption of the Water Renewal Utility Plan. In preparation for these discussions, a cost of service study is currently underway to explore these topics and will generate recommendations in the coming months for city council consideration and direction.

### **REFERENCE DOCUMENTS:**

A full cost of service study is underway to establish funding needs and consider best approaches to meet them in the future. Memoranda related to the cost of service study are in development to address the topics discussed in this document including:

- Connection and Impact Fees
- Capital Project Funding
- Reserve Policies
- Cost of Capital
- Affordability

The memoranda will be in draft form until after the policy direction on the Water Renewal Utility Plan is received from the mayor and city council at which point they will be adjusted per city council direction if needed and presented in the coming months.

### **RECOMMENDED OR REQUESTED ACTION:**

INFORMATION ONLY.

