City of Detroit

Marion County, Oregon

Water Rate Study

June 2023

Project No. 2006-007-22

HBH
CONSULTING
ENGINEERS

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Executive Summary

Introduction

It has been over 15 years since the City of Detroit last performed an analysis of its water user rates as part of a master plan. In 2018, Business Oregon recommended incremental rate increases over a period of approximately five years as a part of the terms of the loan. The 2020 wildfires prevented the necessary increases from being put into place. In February 2023, the City Council authorized HBH Consulting Engineers, Inc. to assess and evaluate the financial health of the City's water system. The primary objective of this study is to evaluate the water systems' existing and future revenue and financial requirements for a 5-year planning period. A recommendation for the City's updated rate structure will be provided based on this evaluation.

User Characteristics

The City of Detroit provides water services to the residents within the City's urban growth boundary (UGB).

As of February 2023, the City provides water service to 364 customers. For this short-term study, future system growth has been assumed to be negligible.

The City bills based on connection class (residential or commercial) and size of connection. In spring of 2018 the City passed a resolution (Resolution No 599) that approved water rate increases. The current rates are as follows:

Table ES.1 – Existing Water Rate Structure

	Fixed Rate	Consumption Rate
¾ inch	$ 60.00	$ 1.50 per 1,000 gallons over 9,000
1 inch	$ 90.00	$ 1.50 per 1,000 gallons over 9,000
1 1/2 inch to 2 inch	$ 176.00	$ 1.50 per 1,000 gallons over 9,000
Commercial	**Fixed Rate**	**Consumption Rate**
¾ inch	$ 80.00	$ 4.70 per 1,000 gallons over 4,000
1 inch	$ 125.00	$ 4.70 per 1,000 gallons over 4,000
1 1/2 inch to 2 inch	$ 253.00	$ 4.70 per 1,000 gallons over 4,000

* Non-profit organizations such as the postal service and the City of Detroit are billed as commercial connections.

The average residential customer has a ¾" meter and the average residential monthly water usage is significantly less than 9000 gallons per month. Therefore, the average water rate for residential customers is $60 a month.

Financial Plans

It is important that the City charge the actual cost of providing water services to its customers. Developing a sound financial plan is the key to full-cost pricing. The main components of financial plans include projecting the systems' total operational cost (revenue requirements) over the period and comparing that to the expected revenues during the same period. This study presents the 5-year financial plan for the City's water systems.

Revenue requirements for the water system were analyzed for the budget years FY2022/2023 to FY2027/2028. Annual revenue requirements for the City of Detroit's water system include operation and maintenance (O&M) costs, debt service, capital outlay costs, and reserve funds. Total O&M costs were projected to rise with inflation at a rate of 5% annually for the short term, based on the consumer price index (CPI), obtained from the US Bureau of Labor and Statistics.

Currently the system has a substantial operating deficiency. With the rates as they are now, the water system will not be able to provide enough income to remain solvent through the 2023/2024 fiscal year. The 2023/2024 fiscal year budget requires a substantial rate increase to balance the budget.

Rate Design

A number of factors should be considered when developing a rate structure that is appropriate for the City. At a minimum, utility rates should be sufficient to generate revenues required to support operations, maintain and develop capital infrastructure, and preserve (or enhance) the financial integrity of the utility system as well as make debt service payments and reserve contributions. The goal of ratemaking is to design rates that balance rate objectives in a manner that reflects community values.

The City's existing water rates are shown in Table ES.1. They are based on a monthly billing schedule. The City also has fees for other items including: service connection charge, reconnect fee, meter installation or removal, and late charge, but these do not provide enough revenue to have an impact on this study.

Various strategies for water rate increases are presented in Section 4.4.

Recommendations

The financial analysis of the City's water system indicates that existing rates are not sufficient to meet basic operation and maintenance requirements. It is recommended that the City raise its rates in order to secure the financial health of the system and maintain its publicly funded critical infrastructure.

The goal of rate-making is to balance the water system's finances to provide self-sufficiency and financial independence. This means that the water system generates enough revenue to pay for O&M, debt services, contingency, and capital improvements needed by the system. However, raising the rates to the level required to provide funds for all capital improvements by the end of their design life may create undue hardship for consumers.

To distribute the burden of future Capital Improvements equitably over time, it is recommended that the City plan to fund many its large Capital Improvement projects through loans. This helps to make sure that the water system users who benefit from system improvements are the same users who pay for them.

As part of the loan agreement with Business Oregon, the City of Detroit is required to maintain a Water Reserve Fund with a minimum contingency of 20% of the annual loan servicing payment, or $27,444.42 per year. HBH does not feel this is a sufficient reserve fund as it would not allow the City to build sufficient reserves to complete a significant emergency public works project. Rather, HBH recommends an annual Water Revenue of 120% of O&M Costs + 5% Depreciated Asset Value + Debt Servicing, as shown in later sections. This sets the water revenue target at $427,901 for the 2023/2024 fiscal year. In evaluating future rate increases, a target revenue that is 120% of O&M Costs + 5% Depreciated Asset Value + Debt Servicing should be maintained, and it is important to keep in mind that these numbers will increase with time.

Section 1
Introduction

1.1 Background

It has been over 15 years since the City of Detroit last performed an analysis of its water user rates as part of a master plan. In 2018, Business Oregon recommended a series of rate increases as a part of the terms or the loan. The 2020 wildfires prevented the necessary increases from being put into place. In February 2023, the City Council authorized HBH Consulting Engineers, Inc. to assess and evaluate the financial health of the City's water system. The primary objective of this study is to evaluate the water systems' existing and future revenue and financial requirements for a 5-year planning period. A recommendation for the City's updated rate structure will be provided based on this evaluation.

1.2 Authorization

The City of Detroit City Council authorized the firm HBH Consulting Engineers, Inc. to conduct a water rate study in February 2023. Services are in accordance with this professional services contract and the HBH proposal for the work which was presented to the City in February 2023.

1.3 Report Contents & Organization

This rate study includes financial analysis of the City's water systems and makes recommendations based on these findings. For convenience, this report has been organized into the following sections:

Executive Summary - Provides a brief overview of the report, highlighting the main points.

Introduction - Gives background and describes the organization of the report.

User Characteristics - Describes the specific characteristics of the water users and how these characteristics impact the rates and revenue requirements.

Financial Plans – Determines the revenue requirements for the City for the 5-year planning period which is necessary to evaluate the water rates.

Rate Design - Discusses the existing rates, rate-making approaches, and rate structure options.

Recommendations - Discusses the City's financial plan and provides several options for raising rates to create a balanced budget.

Appendix - Provides additional background information.

1.4 Acknowledgements

HBH Consulting Inc. would like to thank the City of Detroit for their assistance and cooperation in this study. In particular, we would like to express our appreciation to the following individuals for their extra efforts in this regard:

Michelle Connor, City Recorder

Lindsay Meyer, City Clerk

Section 2
User Characteristics

The City of Detroit provides water services to the residents within the City's urban growth boundary (UGB). As of February 2023, the City provides water service to 364 customers. For this short-term study, future system growth has been assumed to be negligible.

Customer water usage patterns have a direct impact on the operational costs as well as the revenue generated by the system. Therefore, it is important to have an understanding of customer characteristics in order to evaluate equitable cost recovery among classes of user. However, it should be noted that not all operational costs are directly related to usage.

2.1 Existing Customer Classes

Customers with similar characteristics are typically divided into categories or classes to determine rates more fairly. The common classes are residential and commercial. These classes can be further sub-divided. For example, residential can be divided into single- and multi-family users. Customer classes for the City of Detroit's water system are subdivided by meter size:

- Residential on ¾" meter
- Residential on 1" meter
- Residential on 1½"–2" meter
- Commercial Businesses on ¾" meter
- Commercial Businesses on 1" meter
- Commercial Businesses on 1½"–2" meter

2.2 Usage Characteristics

As of February 2023, the City provides water service to 364 customers. For this short-term study future system growth has been assumed to be negligible.

2.2.1 Customers & Connection Types

The average residential customer has a ¾" meter, and the average residential monthly water usage is significantly less than 9000 gallons per month. Therefore, the average water rate for residential customers is $60 a month.

The City bills based on connection class (residential or commercial) and size of connection. In spring of 2018 the City passed a resolution (Resolution No 599) that approved water rate increases. The current rates are as follows:

Table 2-1 – Existing Water Rate Structure

	Fixed Rate	Consumption Rate
¾ inch	$ 60.00	$ 1.50 per 1,000 gallons over 9,000
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Non-profit organizations such as the postal service and the City of Detroit are billed as commercial connections.

An inventory of existing accounts for the City's water system is provided in **Error! Reference source not found.**. As this table shows, residential customers are the predominant users, representing over 95% of customer accounts.

Table 2-2 – Water Users by Category 2023

	Water System	
Residential	**Connections**	
Residential	348	95.60%
Total Commercial	16	4.40%
Commercial Businesses on ¾" meter	8	2.20%
Commercial Businesses on 1" meter	4	1.10%
Commercial Businesses on 1½"–2" meter	4	1.10%
Total	**364**	

Table 2-3 shows the user characteristics that were collected as part of the 2008 Water Master plan. In the wake of the 2020 fires, the total number of connections has rebounded near to where it was in 2008 However, there are only two thirds as many commercial connections as there were in 2008.

Table 2-3– Water User Characteristics From the 2008 Water Master Plan

Category	Connections
Residential	351
Full-Time Users	92
Monthly Weekend Users	61
Seasonal Users	198
Commercial Users	22
Total	373

The 2008 Water Master Plan describes the population of Detroit as 174 for full time residents and 777 for part time residents for a total of 951 people, as estimated by the Detroit City staff at the time. The City estimated that the household density for the part-time residents was 3 people per household, which equated to a part time population of 777 people based upon the part time resident meter connections.

The water system has a small number of users who consume a disproportionate amount of water during the summer months. This is likely due to water use for irrigation purposes. High volumes of water use during peak season puts a higher strain on the system than the same total water use spread out over the entire year. This is because the system is sized for peak season, and this capacity must be maintained year-round. Table 2-4 contains a summary of these large consumers.

Table 2-4 – Large Consumers During Peak Summer Month

Users Consuming Greater than 20,000 Gallons	Number of Users	Consumption	% of Users	% of Consumption
Total	21	1,088,707	5.8%	53.6%
Residential Users	18	813,381	4.9%	40.0%
Commercial Users	3	275,326	0.8%	13.5%

*(August-September 2022 Billing Cycle)

The Portland State University Oregon Population Forecast Program March 2021 Population Projection predicted An AAGR of 1.3% for the period 2020-2045. https://www.pdx.edu/population-research/sites/g/files/znldhr3261/files/2021-03/Marion_final.pdf
However, population projections for this area tend to be unreliable. This number cannot be depended upon for rate revenues because of the high degree of uncertainty around growth projections in this area. To be conservative, it has been assumed that no new connections will be added to the system in the next five years.

2.2.2 Water Use

Annual Water Use

The fire in September of 2020 had a dramatic impact on the City of Detroit. In its wake, water system use has been irregular as homes and businesses are repaired and rebuilt. Annual water usage for the City's system was analyzed for the billing cycled from June-July 2021 to February – March of 2023. In July-August of 2022, 122 users were added to the system, which represents over quarter of the current users. As a result, usages were determined from the City's utility billing records for the eight-month period from July-August 2022 to February-March 2023.
Traditionally a larger usage sample is used to determine system usage. For this reason a conservative approach will be taken until more user data is available. As of February 2023, the City provides water service to 364 customers (348 residential connections and 16 commercial connections.) Of these accounts, 63 of them have used less than 250 gallons each month for the period analyzed. There were 98 users that consumed less than 10 gallons a month for two months or more during the period analyzed. The average annual usage for each customer class is presented in Table 2-5. As this table shows, the majority of the City's water is used by residential customers. However, commercial usage represents nearly 16% of the average annual water consumption even though it represents less than 5% of the total connections.

The average residential account uses approximately 82.1 gallons of water per day or 2,493 gallons per month. This is low. The low usage is primarily due to the area's large part-time population, which results in many residential homes having very little water usage for a significant portion of the year.

Table 2-5 – Existing Water Usage

Customer Class	Average Annual Water Usage (gallons)[1]	Average Annual Usage per Account (Gallons per Year)	Average Usage per Account (Gallons per Month)
Residential	10,409,419	29,912	2,493
Commercial	2,610,579	163,161	13,597

In Detroit, peak water demand occurs during summer months. During the eight-month period analyzed, the August- September billing cycle had the highest water use, with a total water use of 2,032,000 gallons during the one-month billing cycle or Max Month demand of 67,733 gpd.

When the 2008 Water Master Plan was written, total yearly water loss was 13.3 million gallons per year. This averaged 44.1% of the water supplied to the system. Due to the recent distribution system upgrades, current water loss varies between 5% and 35%. This is expected to rise as the system ages.

Table 2-6 – Water Demand in As Documented in the 2008 Water Master Plan

Unit Demand	gpd	gpd/EDU	gpcd (full-time population)	gpcd (full-time and part-time population)
Average Day, ADD	93,578	214	538	98
Max. Month, MMD	163,977	375	942	172
Max. Day, MDD	285,000	652	1,638	300

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Section 3
Financial Plans

3.1 Overview

It is important that the City charge the actual cost of providing water services to its customers in order to ensure sufficient revenue is obtained to cover the cost of operating the system, as well as providing funds for future investments. The US Environmental Protection Agency (EPA) refers to this concept as "full-cost pricing". Ideally, full-cost pricing:

- Ensures rates are a sufficient and stable source of funds. Charging the full cost for the water system will ensure the systems' financial health, enabling the City to provide safe drinking water now and in the future.

- Provides information on costs to customers. How much customers are asked to pay sends a signal about the value of the product they are purchasing. Charging the full cost of the provided water service will help customers recognize the value of these services and be more mindful of their water use.

The key to full-cost pricing is developing a sound financial plan. The main components of financial plans include projecting the systems' total operational cost (revenue requirements) over a long-term period and comparing that to the expected revenues during the same period. This section presents 5-year financial plans for the City's water system.

3.2 Revenue Requirements

Revenue requirements for the water system were analyzed for the budget years FY2022/2023 to FY2027/2028. Annual revenue requirements for the City of Detroit's Water system includes:

1. *Operation and Maintenance (O&M) Costs*. O&M costs are the routine costs of operating and maintaining a utility system in order to provide service. Examples of O&M costs are chemicals and electricity used at plants, personnel, and administrative expenses.

2. *Capital Outlay Costs*. Capital costs are the resources used to acquire or construct capital assets, such as pipelines, treatment plant improvements, vehicles, machinery, equipment, and other infrastructure. These costs include current revenue-funded improvements (pay-as-you-go) and planned annual contributions to funds for such purposes.

3. *Debt Service* Expenditures. This includes ongoing debt service requirements for principal and interest payments on outstanding bonds.

4. *Water Reserve Funds: This includes funds to account for late or missed payments, leak forgiveness, fluctuations in usage, population reduction, legal obligations for debt servicing, emergency repairs, and some capital improvements.*

The components of the financial plans are discussed in more detail below.

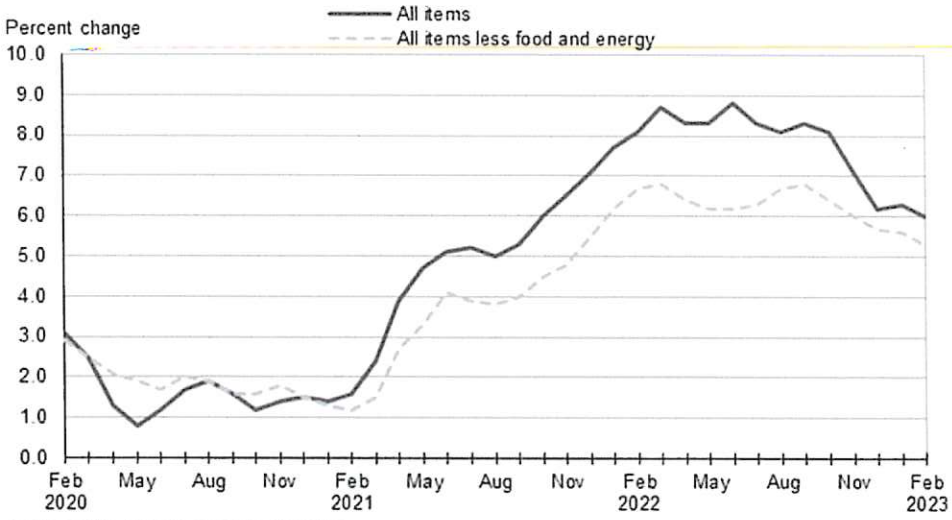
3.2.1 Operation & Maintenance Costs

Operations and maintenance (O&M) costs are the costs required to operate and maintain the water system. Associated costs include personnel, materials and services costs, and administrative transfers. O&M costs will increase as cost of living rises. The City will need yearly incremental increases to account for inflation and cost of living increases.

To determine inflation rates, the consumer price index (CPI) was obtained from the US Bureau of Labor Statistics. Consumer Price Index, West Region — February 2023 : Western Information Office : U.S. Bureau of Labor Statistics (bls.gov)
Currently, annual inflation is 6%. It is anticipated that, in the long term, this inflation rate will decrease to historical averages. However, in the next five years, there is a reasonable probability that inflation rates may remain high, so yearly inflation factors should be evaluated periodically based on data from the US Bureau of Labor Statistics.

Figure 3-1 – CPI, from the US Bureau of Labor Statistics

Chart 1. Over-the-year percent change in CPI-U, West region, February 2020–February 2023



Source: U.S. Bureau of Labor Statistics.

Water System

The water system has experienced an increase in O&M costs in recent years. High inflation levels are partially responsible for this. The 2022/2023 Fiscal year saw a large amount of staff turnover, which incurred additional costs that are not expected to be indicative of the average year. Based on extrapolation from the first 8 months of the fiscal year for FY2022/2023, and staff salary information, O&M costs were estimated 2023/2024 fiscal year. The proposed O&M budget for FY2023/2024 is $366,022. This includes current loan payments, but no capital improvement projects. The FY2023/2024 budget includes a 3% cost of living wage increase for current employees. Table 3-1 includes a detailed breakdown of Water System Operational & Maintenance Costs for the 2023/2024 fiscal year. The average percentage of the annual budget for each expense category is presented in Figure 3-1.

Figure 3-2 –Percentage of Water Budget Allocated to Each Sector (FY 2023/2024)

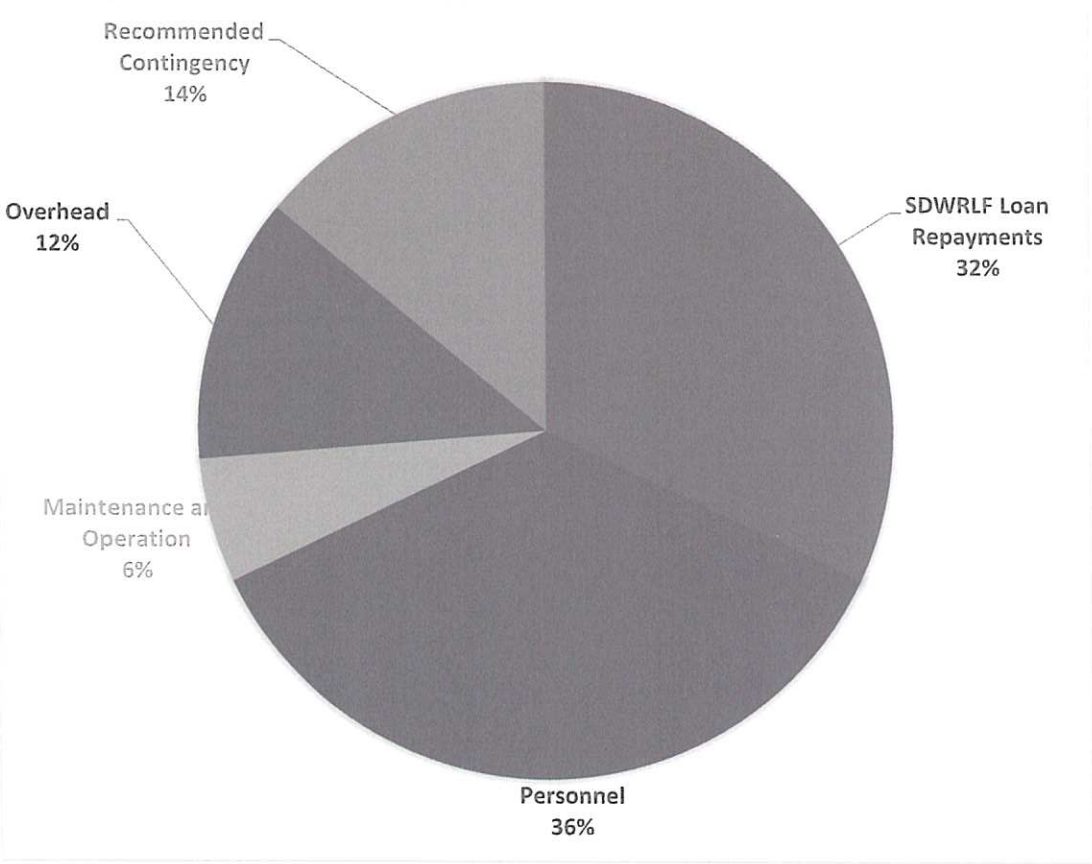


Table 3-1 –Water System Current Costs

Item No.	Item Description	2023-2024 Average Month	2023-2024 Annual Amount
SDWRLF Loan Repayments			
1	Phase 1 Water Improvements	$5,090.51	$61,086.07
2	Phase 2 Water Improvements (Disbursed)	$6,344.67	$76,136.00
Subtotal (Loan Repayments)		*$11,435.17*	*$137,222.07*
Payroll			
Water Fund Personnel (E2-001)			
3	Derek Willett (Operator)	$4,810.00	$57,720.00
4	Robert Bruce (Operator Part Time)	$500.00*	$6,000.00
5	Michael Vetter (2h Every 4 wks)	$32.83	$393.93
6	Richard Cain (2hr Every 4 wks)	$32.83	$393.93
7	5% Operator Overtime Allowance	$236.89	$2,842.67
Subtotal (Water Fund Personnel)		*$5,612.54*	*$67,350.53*
City Recorder (E2-002)			
6	City Recorder (50%)	$2,101.33	$25,215.95
Clerk (E2003)			
7	City Clerk (50%)	$1,785.33	$21,423.96
Benefits			
Employee Benefits		*$3,303.83*	*$39,646.00*
Subtotal (Payroll + Benefits)		*$12,803.04*	*$153,636.44*
Maintenance and Operation			
8	Miscellaneous parts on Hand	$916.67	$11,000.00
9	Pump Maintenance	$83.33	$1,000.00
10	PRV Maintenance	$208.33	$2,500.00
11	Distribution Valve Replacement	$333.33	$4,000.00
12	Chemicals (Chlorine and Citric Acid)	$375.00	$4,500.00
13	Membrane Replacement	$151.67	$1,820.00
Subtotal		*$2,068.33*	*$24,820.00*
Overhead			
14	Audit	$550.00	$6,600.00
15	Utilities	$775.00	$9,300.00
16	Office Admin	$500.00	$6,000.00
17	Legal	$62.50	$750.00
18	Insurance	$962.08	$11,545.00
19	Dues, Fees, Training	$300.00	$3,600.00
20	Truck Maintenance/Fuel	$449.83	$5,398.00
21	Water Fund Analysis	$250.00	$3,000.00
22	Software	$541.67	$6,500.00
23	Mileage	$20.83	$250.00
Subtotal		*$4,411.92*	*$52,943.00*
Total Existing Costs		**$30,718**	**$368,622**

**This number reflects an average for the entire year - Bob Bruce receives $600/month to oversee the water system as a certified operator, plus an hourly wage for assistance on an as-needed basis. He is expected to retire in the middle of the 2023/2024 fiscal year when Derick Willett receives his operator certification.*

3.2.2 Capital Improvement Programs

Capital improvement projects that the Water System will need within the next 5 years are summarized in Table 3-2. Projects that will receive separate funding from an external source have been excluded. A new Water Master Plan is legally required every 20 years. To fulfill this requirement, the City will need to begin a new Water Master Plan in 2027 in order to have it completed in 2028.

It should be assumed that the costs for capital improvement projects will increase annually with inflation. In 2028, as a part of the Water Master Plan, new CIPs should be identified, and rates should be adjusted appropriately to plan for these future projects.

3.2.3 Debt Service Expenditure

Large capital outlay projects constructed by the City have traditionally been at least partially funded by loans. Currently, the City's debt services amount to $137,222 in annual payments on loans for its water system.

Property Taxes as an Option to fund Debt Service Expenditure:
Some cities choose to fund a portion of the debt service through property taxes. This is a reasonable policy direction. Property tax support for utility improvements is common in small communities, particularly with seasonal populations. If there is a significant or total reliance on volume or use charges to support necessary capital improvements and operational expense, then the cost burden is disproportionately allocated to year-round system users. At the same time, the water system is sized and available to serve all customers whether they are seasonal or year-round. Therefore, a funding mechanism such as a property tax is a reasonable element of an overall funding package that proportionately allocates system costs to all users that benefit from having on-demand access to these systems. Property taxes provide a mechanism for year-round recovery costs from residential property owners, even during periods of vacancy and from commercial customers who benefit from the tourist economy. The City of Detroit may wish to consider this as an option.

Table 3-2 – Water System 5-Year Capital Improvement Plan

Improvement Description	Total Project Costs[1]	Year Needed
Slow Sand Filter Media Replacement	$350,878	2033
Distribution System Upgrades	$681,350	2028
SDC Study	$10,000	2025
Water Master Plan	$70,000	2027
Total Capital Improvement Costs	**$1,112,228**	

[1] Costs in 2023 dollars

3.3 Revenue Requirements from Rates

User rates are the primary mechanism used to fund the City's water system. Additional revenue sources include connection fees, system development charges (SDCs), and miscellaneous fees, however, none of these provide a large or consistent source of income. For this reason, they have been assumed to be zero for this analysis. Future customer growth is likely to occur to a certain extent, but the City's growth has been sporadic, and cannot be depended upon to meet budgeting needs. It has been assumed that growth will not occur during the period of this rate study.

3.3.1 Revenue Required from Rates

Typically, revenues from rates are combined with non-rate revenues (such as interest income, or SDC charges) to balance the City's water budget. However, for the City of Detroit, non-rate revenue does not generate enough reliable income to have an impact on this analysis.

The following assumptions have been made to determine whether the City's current rate structure will generate sufficient funds:

- Forecasted revenue from rates is based on existing consumption patterns
- Additional connections will not be added to the system during the 5-year planning period.

The aftermath of the 2020 wildfires prevented the City from making the incremental rate increases that that would have been necessary to balance the water system budget and pay for debt servicing for the recently completed water system improvements. As a result, the City needs to implement a much larger rate increase. Currently the system has a substantial operating deficiency. With the rates as they are now, the water system will not be able to provide enough income to remain solvent through the 2025/2026 fiscal year. The FY2023/24 budget requires a substantial rate increase in order to balance the budget so that the City can break even.

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Section 4
Rate Design

4.1 Introduction

Water rates can be structured in a variety of ways to meet City objectives. In developing a rate structure, a number of factors should be considered, in addition to recovering costs, when selecting the most appropriate rate structure, including:

1. *Rate Stability*. Customers are more likely to pay for rate increases if their rates are generally stable. A single, large increase can lead to "rate shock" and opposition to the increase. It is far better to increase rates by 20 percent per year for 5 years than 100 percent once every 5 years.

2. *Rate Predictability*. It is important for the City to have a general estimate of the revenue it expects to receive each year from its water system.

3. *Customer Needs*. Differences in customer needs can affect the cost of providing water service to them, or their ability to pay for that service. For example, some residential customers may have low fixed incomes and therefore may have difficulty paying their water bills. Faced with these types of issues, the City may consider a rate structure that allows for different rates for customers with different needs within a single customer class.

The most common rate structure includes a fixed charge per metered connection per billing period and a consumption charge that varies based on water usage. Fixed charges may or may not include a quantity allowance and may vary by water meter size or customer class. Consumption charges may also be structured in a number of different ways, including uniform volume rates, declining block rates, or inclining block rates.

At a minimum, utility rates should be sufficient to generate revenues required to support operations, maintain and develop capital infrastructure, and preserve (or enhance) the financial integrity of the utility system. In addition, there are a number of other technical and policy objectives that utilities set out to achieve in developing rate structures for utility services. The particular structure selected usually depends on local considerations. The goal of ratemaking involves designing rates that balance inherently conflicting rate objectives in a manner that reflects community values.

The information presented in this section is based on the assumption previously noted in this study. Significant changes in growth rates or usage patterns may require a reassessment of the water rates presented. In addition, if the City substantially revises its O&M budget or capital financing plan, discussed in Section 3.2, the rates should be reviewed and may require adjustment.

4.2 Existing Rates

The City's existing water rates are shown in Table 4-1. There are based on a monthly billing schedule. The City's water rates are structured to include a fixed rate and a consumption rate based on water usage.

Table 4-1 – Existing Water Rate Structure

Residential	Fixed Rate	Consumption Rate
¾ inch	$ 60.00	$ 1.50 per 1,000 gallons over 9,000
1 inch	$ 90.00	$ 1.50 per 1,000 gallons over 9,000
1 1/2 inch to 2 inch	$ 176.00	$ 1.50 per 1,000 gallons over 9,000
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4.3 Rate Making Approaches

The two primary approaches to cost recovery for rate making are *Fixed and Variable Cost Pricing* and *Functional Allocation*.

Fixed & Variable Costs

This rate approach takes into consideration that there are both fixed costs and variable costs that affect the expenses of the City. Fixed costs are unaffected by the system use over the course of the rate setting period. Variable costs vary depending on the level of use of the water system.

In terms of equity, understanding the cost structure from a fixed and variable perspective is important, particularly for systems with a high percentage of customers who are seasonal. The more revenue recovery that is shifted to volume rates, the more full-time residents tend to pay toward the system costs. This is because their use on an annual basis tends to be greater than seasonal residents. However, while seasonal residents and visitors may use less water year-round, they have a significant impact on water system capacity needs. System capacity is based on peak use, which generally occurs in the summer when the seasonal residents and tourist activity is also at its peak. System capacity requires maintenance year-round, even when it is not being fully utilized. Cost recovery through fixed charges, therefore, takes on added importance for addressing equity concerns in seasonal communities like Detroit. This provides a mechanism for year-round recovery of capacity costs from all users who contribute to the need for this capacity.

Functional Allocations

This approach considers how costs relate to the various functions performed by the City. With the *Functional Allocation* approach the customers that use more water would pay more for the system improvements and other items considered under function allocation.

As the majority of water utility costs are generally associated with providing water to customers (e.g., supply, treatment, pumping, transmission, storage), the functional allocation approach will tend to yield greater revenue recovery on the basis of volume, compared to fixed/variable approach.

When considering volume charges there are different ways they are structured. These include:

- ***Uniform Volume Rates*** - Charges the same rate per unit of water regardless of the amount of water that is used.

- ***Declining Block Rates*** - Provides reduced rates for greater water consumption. This type of structure reduces the water rate for large water users within a system. This is typically seen in communities with water intensive industries such as a cannery.

- ***Inclining Block Rates*** - Provides higher rates for greater water consumption. This type of structure increases the water rate for large water users within a system. Inclining block rates provide a conservation approach to water rate setting. By charging more for greater amounts of water used, customers are encouraged to conserve water.

- ***Seasonal Rates*** - Seasonal period rates differentiate between base and discretionary water use. The base is typically based on winter water usage and the discretionary is typically based upon the additional summer water usage. The base usage is based on one rate and the discretionary usage is charged at a higher rate. This is a form of inclining block rate implemented over a time-differentiated basis.

4.4 Rate Structure Options

The City has historically used a flat rate to pay for fixed costs and a uniform volume rate for water usage above a fixed amount. The existing rate structure includes a 9,000 gallon per month usage allowance for residential customers and 4,000 gallons per month for commercial customers within its fixed rate.

The water rates were analyzed using a fixed rate with allowance, plus a water consumption rate. As noted previously, the City must increase its water rates in order to generate sufficient revenue to ensure the financial health of the water system. Necessary water rate increases were determined using a uniform rate structure above the fixed allowance, where a uniform volume water rate is charged per 1,000 gallons. The results of the water rate analysis are presented as options in Section 5.

Section 5
Recommendations

5.1 Financial Planning & Conclusions

The City of Detroit's financial plan must consider the City's expenditures and required revenues. As discussed in Section 3.2, these expenses include operation and maintenance costs, debt service, and reserve fund. Required revenues should not only cover these expenses, but also provide for future operating and contingency reserves.

The financial plan scenarios used to develop the recommendations in this report are based on the data and assumptions available at the time the study was completed (i.e., spring 2023). Therefore, it is recommended that the City continue to monitor and evaluate its financial plans regularly and make adjustments as needed.

Funding Capital Improvements Through Loans
To distribute the burden of future Capital Improvements equitably over time, it is recommended that the City plan to fund the majority of its large Capital Improvement projects through loans. This helps to make sure that the water system users who benefit from system improvements are the same users who pay for them.

Minimum Contingency for Compliance with Business Oregon
To comply with the terms of the City's existing loans from Business Oregon, the City must collect a minimum amount of income from user fees. The Contract states:

"The Recipient shall charge rates and fees in connection with the operation of the System which, when combined with other gross revenues, are adequate to generate Net Revenues each fiscal year at least equal to 120% of the annual debt service due in the fiscal year on the Loan and any outstanding obligation payable from or secured by a lien on and pledge of Net Revenues that is superior to or on parity with the OBDD Lien."

OBDD recently waived this 120% requirement for both loans in repayment while the City rebuilds in the wake of the 2020 wildfires. This waive will last through the 2022 fiscal year.

If the City does not comply with the terms of its existing loans, it will severely damage the City's ability to acquire new loans for future capital improvements. If the City can't fund capital improvements through loans, it will have to save in advance to fund all future capital improvements. This would require a substantial increase to water rates far above the current recommended rates included in this report. It is imperative that the City remain in compliance with the contract terms of its existing loans.

Supplementing Rate Revenue with Interest Revenue
In the short term, the City may be able to supplement its rate revenue with Interest revenue. The water system has a significant amount of funds that are slated for projects related to the fires. If these funds are placed in a high interest savings account, they may be able to generate revenue to supplement the

rate revenues until the funds must be used for their intended purpose. This potential source of revenue has not been fully explored yet and so it was not available to include in this analysis. It is recommended that the City evaluate this option as a means to supplement income from user rates and avoid or delay future rate increases.

Conservation, Water System Costs, and Tradeoffs

Water system's costs are primarily dictated by the size of the water treatment plant. That is to say, the main cost of producing water lies in sizing the water system to be able to meet peak demand. Once the system is built, those costs are mostly fixed. That means that whether the system is running at 50% capacity or 90% capacity during the peak hour will not have a large impact on the cost of operating the water system (though it will have an impact). However, once the system demand exceeds the capacity of the treatment system, this additional demand becomes very expensive because it requires additional Capital Improvements Projects to expand the treatment plant. The City of Detroit's Required Water System Capacity is driven by usage patterns during the peak summer months. This means that, for the City of Detroit, water conservation during the summer will have a substantial impact on system costs, which means a substantial impact on water bills overall.

As described in Chapter 2 of this report, the Detroit water system includes a handful of users who consume a disproportionate amount of the water system's production capacity during peak season. While some of this may be due to leaks, the majority of this consumption likely comes from irrigation. Large lawns can consume a lot of water during peak season, but users may also be inclined to overwater if there is no financial incentive to practice waterwise irrigation strategies. As shown on table 2-4, during the peak month in 2022, just 21 users consumed over half the water used in the system. Most of this consumption came from residential users. Just 18 residential users consumed 40% of the water produced during peak season. This kind of use will drive a need for expansion of the water system.

Evaluation of usage patterns within the system showed that large leaks were sometimes left unrepaired for several months. It is recommended that the water system limit leak forgiveness to one month.

City's Preferred Allowance And Usage Charge

Higher consumptions rates and lower allowances were explored. This would have allowed for lower fixed rates. However, during work sessions, HBH interpreted council preferences to limit the reduction in consumption allowance to no less than 6,000-gallons and have a consumption rate no higher than $4 per 1,000-gallons. The intention of council was to encourage irrigation of landscaping and promote a positive aesthetic of Detroit. The tradeoff is that lower consumption prices increases the burden of rate revenue that must be placed on residential fixed rates and commercial businesses. It is recommended that the City evaluate the change in consumption patterns that result from the new rates and consider placing more of the burden of future increases on the City's consumption rates.

It has been noted that higher consumption rates and lower allowances encourage conservation, which in turn saves on system costs because water conservation allows the water system to continue to function with fewer expansions. An allowance of 6,000 gallons with a rate of $4 per 1,000 gallons may not achieve this objective to the extent that the City my wish. However, it limits the shock to users who have become accustomed to an extremely low rate for water usage with a very large allowance.

5.2 Rate Increase Evaluation and Recommendation

Rates Model

A model was constructed using the metered usage from the first eight months of the 2022/2023 fiscal year. As noted previously over 100 connections were added July of 2022, which is a substantial fraction of the total connections, so usage data prior to that is not considered indicative of use patterns moving forward.

The City estimates that it received an average of approximately $24,000/month during the first eight months of the 2022/2023 fiscal year. This equates to approximately $288,000/year in revenue at the current rates. During that time, the Water system provided $1,722.45 in leak forgiveness. The Water system also made adjustments to the water bills of Residents who wanted a meter pulled and offered credits transferred from a previous connection.

The income from the 2022/2023 fiscal year was used to validate the model. The model estimates that the 2022/2023 fiscal year would have produced an income of approximately $292,000. This includes leak forgiveness. However, it does not include the fact that connections were added during the period. The model was designed to create accurate projections going forward, so it assumes the connections added over the course of the eight months will be there for the full year going forward. In July 2022, there were 260 connections. In March 2023, there were 364 connections. This includes:

1. A 1.5 inch commercial connection ($253/month) added March of 2023.
2. A 3/4 inch commercial connection ($80/month) added this March of 2023.
3. A 3/4 Commercial connection ($80/month) added August 2022
4. A 3/4 Commercial - $80/month added September of 2022

These added connections account for approximately $4,200 in revenue.

New User Classes

Zero Water User

The City Council expressed a desire to introduce a new class of residential user connection to accommodate users who currently have an active water service but are not consuming any water. For this reason, a "Zero User" class will be formally added. The purpose of this is to not place an undue burden on residential customers who are maintaining the right to have potable water in Detroit but have not been consuming water for an extended period. To be considered a Zero User, residential customers would need to use less than 250 gallons of water each month for the preceding 12-month period. Users accepted as "Zero Users" would maintain that status until the customer uses more than 250 gallons in a month. That user would then switch over to a regular user. The Zero User class is not currently offered for Commercial Users. Customers who are active users that wish to become "Zero Users" would fill out an application with the City. Once the application is approved by the City, the user's water rate would be reduced to the Zero User rate. If during any of the following 12 months, the user exceeds 250 gallons of water consumed in any given month, the user will automatically be switched back to a regular user and will owe back in fees the difference between the Zero User rate and the regular residential rate for that year. The City may determine an additional penalty to apply. This is intended to eliminate customers from switching between "Zero Users" and "regular users" on a seasonal basis. The purpose of this program is intended solely for customers who will be away from Detroit for a period in excess of 12 months.

Commercial User Class Hotel/Motel/Apartments/RVs

City Council opted to create a new commercial user class for hotels, motels, apartments, RV parks and any commercial rental property with multiple rental units being fed off of one meter. This is intended to distribute the financial burden of the water system more equitably. For hotels, motels, apartments, and RV parks, the City will charge a per-unit flat-rate monthly fee in addition to the base commercial meter charge. Like the base meter charges, this monthly charge must be paid year-round, even if the unit is only available for rent seasonally. The surcharge would apply to each apartment/room/RV hook-up on the property (not simply ones actively utilized) and would be billed monthly throughout the year with **no proposed exemption for RV parks, hotels, or other businesses that reduce or eliminate rooms during winter months or otherwise**.

Rates

As discussed previously in this chapter, counsel preferences expressed in work sessions as interpreted by HBH are shown in the following user rates:

Table 5-1 – Proposed Water Rate Structure

Residential			Commercial		
	Proposed Rate	Previous Rate		Proposed Rate	Previous Rate
Res Allow:	**6000**	9000	Com Res Allow:	**2000**	4000
Res Fixed Rate:	**See Tables**	$60.00	Com Fixed Rate 3/4:	**$118.40**	$80.00
Consumption Rate per 1000 gallons:	**$4.00**	$1.50	Com Fixed Rate 1:	**$185.00**	$125.00
"Zero" User Allowance	**250**		Com Fixed Rate 1.5:	**$374.44**	$253.00
"Zero" User	**$60.00**		Consumption Rate	**$10.00**	$4.70
			Room Surcharge	**See Table**	NA

Tables 5.2 and 5.3 contain red, yellow, green, and blue highlights. The red cells are intended to show revenue targets that, if selected, would cause the City to have insufficient revenue to cover costs and maintain compliance with the Business Oregon Loan terms. Values shown in yellow would allow the City to meet all Water System obligations but would not meet the HBH recommended Water Reserve Fund allotment. Values shown in Green meet all financial obligations of the water system and maintain a healthy contribution to the reserve fund. Finally, values shown in blue indicate rates that may be in excess of what the system needs to operate.

Table 5-2 Water Fund Revenue Requirements & Recommendations

Business Oregon Requirement	$396,066	O&M Plus 120% of Debt Servicing
Minimum Recommendation	$414,901	120% of O&M Costs Plus Debt Servicing
HBH Recommendation	$427,901	120% of O&M Costs + 5% Depreciated Asset Value + Debt Servicing
Max Recommendation	$460,777	125% of Annual Expenses

5-3 Water Fund Revenue For Varying Fixed Residential Rates and Room Surcharges

Residential Fixed Rate	Room/RV Surcharge Rate Per Unit								
	10	15	20	25	30	35	40	45	50
70	$360,490	$366,010	$371,530	$377,050	$382,570	$388,090	$393,610	$399,130	$404,650
71	$363,886	$369,406	$374,926	$380,446	$385,966	$391,486	$397,006	$402,526	$408,046
72	$367,282	$372,802	$378,322	$383,842	$389,362	$394,882	$400,402	$405,922	$411,442
73	$370,678	$376,198	$381,718	$387,238	$392,758	$398,278	$403,798	$409,318	$414,838
74	$374,074	$379,594	$385,114	$390,634	$396,154	$401,674	$407,194	$412,714	$418,234
75	$377,470	$382,990	$388,510	$394,030	$399,550	$405,070	$410,590	$416,110	$421,630
76	$380,866	$386,386	$391,906	$397,426	$402,946	$408,466	$413,986	$419,506	$425,026
77	$384,262	$389,782	$395,302	$400,822	$406,342	$411,862	$417,382	$422,902	$428,422
78	$387,658	$393,178	$398,698	$404,218	$409,738	$415,258	$420,778	$426,298	$431,818
79	$391,054	$396,574	$402,094	$407,614	$413,134	$418,654	$424,174	$429,694	$435,214
80	$394,450	$399,970	$405,490	$411,010	$416,530	$422,050	$427,570	$433,090	$438,610
81	$397,846	$403,366	$408,886	$414,406	$419,926	$425,446	$430,966	$436,486	$442,006
82	$401,242	$406,762	$412,282	$417,802	$423,322	$428,842	$434,362	$439,882	$445,402
83	$404,638	$410,158	$415,678	$421,198	$426,718	$432,238	$437,758	$443,278	$448,798
84	$408,034	$413,554	$419,074	$424,594	$430,114	$435,634	$441,154	$446,674	$452,194
85	$411,430	$416,950	$422,470	$427,990	$433,510	$439,030	$444,550	$450,070	$455,590
86	$414,826	$420,346	$425,866	$431,386	$436,906	$442,426	$447,946	$453,466	$458,986
87	$418,222	$423,742	$429,262	$434,782	$440,302	$445,822	$451,342	$456,862	$462,382
88	$421,618	$427,138	$432,658	$438,178	$443,698	$449,218	$454,738	$460,258	$465,778
89	$425,014	$430,534	$436,054	$441,574	$447,094	$452,614	$458,134	$463,654	$469,174
90	$428,410	$433,930	$439,450	$444,970	$450,490	$456,010	$461,530	$467,050	$472,570
91	$431,806	$437,326	$442,846	$448,366	$453,886	$459,406	$464,926	$470,446	$475,966
92	$435,202	$440,722	$446,242	$451,762	$457,282	$462,802	$468,322	$473,842	$479,362
93	$438,598	$444,118	$449,638	$455,158	$460,678	$466,198	$471,718	$477,238	$482,758
94	$441,994	$447,514	$453,034	$458,554	$464,074	$469,594	$475,114	$480,634	$486,154
95	$445,390	$450,910	$456,430	$461,950	$467,470	$472,990	$478,510	$484,030	$489,550
96	$448,786	$454,306	$459,826	$465,346	$470,866	$476,386	$481,906	$487,426	$492,946
97	$452,182	$457,702	$463,222	$468,742	$474,262	$479,782	$485,302	$490,822	$496,342
98	$455,578	$461,098	$466,618	$472,138	$477,658	$483,178	$488,698	$494,218	$499,738
99	$458,974	$464,494	$470,014	$475,534	$481,054	$486,574	$492,094	$497,614	$503,134
100	$462,370	$467,890	$473,410	$478,930	$484,450	$489,970	$495,490	$501,010	$506,530

HBH's recommended rate is a **$90**-per-month fixed rate for residential and a **$10**-per-unit-per-month surcharge for commercial RVs and Motels. These rates were selected for recommendation by HBH because they represent a balanced distribution of impacts between residential and commercial users. There are many reasonable ways to reach the recommended target revenue for the 2023/2024 fiscal year rate increase, as shown in the table above. However, it's important to note that the far-right side of the table would place an undue burden on businesses and is not recommended.

User Rates in Practice

Representative Users

Usage for households with two, four, and six full-time residents were estimated using data from the USGS. The USGS Estimated Use of Water in the United States in 2015 found that Each American uses an average of 82 gallons of water a day at home. https://www.epa.gov/watersense/statistics-and-facts.

The options for water-efficient fixtures have increased dramatically since 2015, so the average household uses less water than in 2015. Detroit City staff members with two or more persons in their household have stated that they use less than 3,000 gallons of water per month without implementing any extreme water conservation measures.

Commercial Light Seasonal Consumption on a 1" Connection is a hypothetical user that consumes 2,500 gallons for three months, then 500 gallons for the remainder of the year.

Commercial Moderately High Seasonal Consumption on 3/4" Connection
Is a Hypothetical User that consumes 10,000 gallons for three months, then 1,000 gallons for the remainder of the year.

Commercial Light Consumption on 3/4" Connection is a Hypothetical user that consumes 2,500 gallons for three months, then 1,000 gallons for the remainder of the year. The remainder of the representative users' annual pricing is based on the usage of actual users during the 2022/2023 year.

Table 5.4 – Recommended Water Rates

Residential	Fixed Rate	Consumption Rate		
¾ inch	$90.00	$4.00	per 1,000 gallons over	6000
1 inch	$120.00	$4.00	per 1,000 gallons over	6000
1 1/2 inch to 2 inch	$206.00	$4.00	per 1,000 gallons over	6000
Zero Water User	$60.00	Less than 250 gallon/every month		
Commercial	**Fixed Rate**	**Consumption Rate**		
¾ inch	$118.40	$10.00	per 1,000 gallons over	2000
1 inch	$185.00	$10.00	per 1,000 gallons over	2000
1 1/2 inch to 2 inch	$374.44	$10.00	per 1,000 gallons over	2000
For RV Parks and Motels there is a $10 per unit surcharge				

The following tables show generic rates based on hypothetical USGS user data and a few real users selected to represent user groups. These estimates do not account for specific individual habits. They are intended to show estimated ranges of potential bills and do not guarantee any user will fall into any of the following categories. Individual water bills will vary from the examples.

July -August Water Bill

	Monthly Water Use	Monthly Water Bill Fixed	Usage Charge	Total Charge
Residential				
A Household with Two Full Time Residents on 3/4" Connection	5000	$90.00	$0.00	$90.00
A Household with Four Full Time Residents on on 3/4" Connection	10000	$90.00	$16.00	$106.00
A Household with Six Full Time Residents on 3/4" Connection	15000	$90.00	$36.00	$126.00
A Seasonally High Consumption Water User on 3/4" Connection	20,000	$90.00	$56.00	$146.00
A Seasonal Very High Consumption Water User on 3/4" Connection	30,000	$90.00	$96.00	$186.00
Commercial				
A Seasonally High Consumption Water User on 1 1/2" Connection	25,000	$374.44	$230.00	$604.44
City of Detroit on 1 1/2" Connection	49,000	$374.44	$470.00	$844.44
Moderately High Water Seasonal Consumption on 1" Connection	17,000	$185.00	$150.00	$335.00
Light Seasonal Consumption on 1" Connection	3,000	$185.00	$10.00	$195.00
Moderately High Seasonal Consumption on 3/4" Connection	10,000	$118.40	$80.00	$198.40
Light Consumption on 3/4" Connection	3,000	$118.40	$10.00	$128.40

January-February Water Bill

	Monthly Water Use	Monthly Water Bill Fixed	Usage Charge	Total Charge
Residential				
A Household with Two Full Time Residents on 3/4" Connection	5000	$90.00	$0.00	$90.00
A Household with Four Full Time Residents on on 3/4" Connection	10000	$90.00	$16.00	$106.00
A Household with Six Full Time Residents on 3/4" Connection	15000	$90.00	$36.00	$126.00
A Seasonally High Consumption Water User on 3/4" Connection	3,000	$90.00	$0.00	$90.00
A Seasonal Very High Consumption Water User on 3/4" Connection	3,000	$90.00	$0.00	$90.00
Commercial				
A Seasonally High Consumption Water User on 1 1/2" Connection	0	$374.44	$0.00	$374.44
City of Detroit on 1 1/2" Connection	1,000	$374.44	$0.00	$374.44
Moderately High Water Seasonal Consumption on 1" Connection	2,000	$185.00	$0.00	$185.00
Light Seasonal Consumption on 1" Connection	1,000	$185.00	$0.00	$185.00
Moderately High Seasonal Consumption on 3/4" Connection	1,000	$118.40	$0.00	$118.40
Light Consumption on 3/4" Connection	1,000	$118.40	$0.00	$118.40

Annual

	Monthly Average Water Bill	Annual Water Cost
Residential		
A Household with Two Full Time Residents on 3/4" Connection	$90.00	$1,080.00
A Household with Four Full Time Residents on on 3/4" Connection	$106.00	$1,272.00
A Household with Six Full Time Residents on 3/4" Connection	$126.00	$1,512.00
A Seasonally High Consumption Water User on 3/4" Connection	$104.00	$1,248.00
A Seasonal Very High Consumption Water User on 3/4" Connection	$114.00	$1,368.00
Commercial		
A Seasonally High Consumption Water User on 1 1/2" Connection	374	$4,493.28
City of Detroit on 1 1/2" Connection	562	$6,741.75
Moderately High Water Seasonal Consumption on 1" Connection	$217.96	$2,615.52
Light Seasonal Consumption on 1" Connection	$187.50	$2,250.00
Moderately High Seasonal Consumption on 3/4" Connection	$138.40	$1,660.80
Light Consumption on 3/4" Connection	$120.90	$1,450.80

5.6 Conclusion

The end goal of any system is to be fully self-funded, balancing the water system's finances to provide self-sufficiency and financial independence.

As part of the loan agreement with Business Oregon, the City of Detroit is required to maintain a Water Reserve Fund with a minimum contingency of 20% of the annual loan servicing payment, or $27,444.42 per year. HBH does not feel this is a sufficient reserve fund as it would not allow the City to build sufficient reserves to complete a significant emergency public works project. Rather, HBH recommends an annual Water Revenue of 120% of O&M Costs + 5% Depreciated Asset Value + Debt Servicing, as shown in the table above. This sets the water revenue target at $427,901 for the 2023/2024 fiscal year. In evaluating future rate increases, a target revenue that is 120% of O&M Costs + 5% Depreciated Asset Value + Debt Servicing should be maintained, and it is important to keep in mind that these numbers will increase with time.

As per preferences expressed by City Council, the proposed water rate structure is intended to meet City obligations through one large rate increase rather than incremental rate increases over the next five years. The proposed rate structure does not factor in yearly cost of living increases. HBH recommends anticipating a 3% increase in O&M costs (payroll, benefits, and overhead costs, not including debt servicing). It is recommended that the City Council should evaluate water rates on a yearly basis to determine adjustments needed to cover cost of living increases to expenses and maintain an annual Water Revenue of 120% of O&M Costs + 5% Depreciated Asset Value + Debt Servicing.

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Appendices

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RESOLUTION NO 651

A RESOLUTION ESTABLISHING WATER RATES FOR THE CITY OF DETROIT WATER DEPARTMENT AND REPEALING RESOLUTION NUMBER 599

WHEREAS, the Detroit City Council approved a water rate increases on June 13, 2023 to meet water improvement loan requirements; and

WHEREAS, the Detroit City Council finds it necessary to implement the water rate increase beginning July 1, 2023.

THEREFORE, BE IT HEREBY RESOLVED that the following rates have been established:

A) Monthly Base Rates:

Standard multipliers	**Residential**	**Commercial**
¾ inch	$82.00	$118.40
1 inch	$135.00	$185.00
1½ inch to 2 inch	$215.00	$374.44
Zero User Rate	$60.00	NA
Room/RV Hookup Surcharge (per Room/Hookup per month)	NA	$12.00

B) Water Consumption Included in Base Rate:

Residential
6,000 Gallons per month

Commercial
2,000 Gallons per month

C) Rate Per 1,000 Gallons over Base Rate:

Residential
$4.00/1,000 Gallon

Commercial
$10.00/1,000 Gallons

D) Monthly Residential Charges:

Single family, multi family, vacant residential property, connected to the water system and residents on commercial property will be charged the following:

- ¾ " connection $82.00 per month plus $4.00 per 1,000 gallons over 6,000 gallons used
- 1" connection $135.00 per month plus $4.00 per 1,000 gallons over 6,000 gallons used
- 1½" – 2" connection $215.00 per month plus $4.00 per 1,000 gallons over 6,000 gallons used
- "Zero User" Connection $60.00 per month

A "Zero User" is defined as a residential user that consumes less than 250 gallons per month over twelve (12) consecutive months. Any month with a usage above 250 gallons will remove the Zero User status. Users who wish to become Zero Users may apply in writing for Zero User status to the City. If the City approves the request the user will begin being billed at the "Zero User" rate at the beginning of the next month. If in any given month, the user consumes more than 250 gallons within the first twelve months (12) following the acceptance of Zero User status, the user will automatically and immediately be switched back to a regular user with monthly charges as defined in this section. Additionally, the user will be back charged the difference between the standard residential rate and the Zero User rate for each month the user was listed as a Zero User.

E) Monthly Commercial Business Charges:

- Commercial Businesses on ¾" meter: $118.40 per month plus $10.00 per 1,000 gallons over 2,000 gallons used.

- Commercial Businesses on 1" meter: $185.00 per month plus $10.00 per 1,000 gallons over 2,000 gallons used.
- Commercial Business on 1½"–2" meter: $374.44 per month plus $10.00 per 1,000 gallons over 2,000 gallons used.

F) Monthly Government and Non-Profit Business charges:

Non-profit organizations, churches, and other government agencies connected to the city's water system will be billed at the residential rate. This includes, but is not limited to, the Fire Department and Oregon Department of Transportation.

G) Additional Fees

1. Security Deposits:
   A Security deposit for a connection will be charged in the amount of three (3) times the established monthly rate. No interest will be paid on deposits. A deposit will be applied to the water account after two (2) years if no delinquencies occur.

2. Reconnect Fees:
   a. SERVICE SHUT OFF – A reconnect fee for service that has been shut off for any reason other than repairs will be $100.00. In addition, at the time service is reconnected, the customer will be charged the amount equal to the monthly service charge and late fees, times the number of months the service was disconnected, up to one (1) year. After one (1) year, the water meter will be removed.
   b. SERVICE SHUT OFF AND METER REMOVED – When a customer requests that a meter be reinstalled, the customer will be charged the cost of the meter and labor for installing the meter. This cost will be a minimum of $410.00 under normal circumstances. If there are abnormal conditions, such as the meter box being destroyed or removed, or the location of the meter has been filled and requires more labor and material (meter box) to install, the actual cost to the City will be added to the minimum cost. In addition, the customer will be charged for monthly service charges and late fees, times the number of months the service was discontinued, up to thirteen (13) months.

c. SERVICE SHUT OFF AT CUSTOMER REQUEST – The reconnect fee for service that has been shut off by customer request will be the amount of revenue that the service would have generated for the number of months not in use, up to one (1) year, plus $100.00 turn on fee. After one (1) year the meter will be removed and the customer will need to reapply for a new service connection along with paying the established fee.

d. SERVICE SHUT OFF FOR FREEZE PROTECTION – A customer is required to have own shut-off valve. However, in the rare event that the City needs to shut off service at a city meter to prevent freezing, the City will turn service back on free of charge during regular business hours, or, when requested by a customer, a minimum of $50.00 if the City is required to turn service back on between the hours of 4:00 PM to 9:00 PM. To qualify for this service the customer's water account must be current.

3. Service Calls:
   a. $30.00 fee will be charged if a disconnect notice is delivered to property.
   b. $60.00 fee will be charged for any after-hours, weekend, or Holiday service request related to any problem located on the property side of the water meter, or related to the property owner's shut-off valve in the meter. The actual cost of labor in excess of two (2) hours and any needed parts shall be charged to the customer and are extra.

4. Late Payments:
   All bills paid after the due date, but in the same month as billing, will be charged a $5.00 late fee.

5. New Service, Meter Installation:
   The minimum charge for a new service is $410.00. In the event there are additional costs for labor and materials, the actual cost to the City will be added to the minimum cost charged to the customer.

6. Room/RV Hookup Surcharge:
   All Hotels, Motels, RV Parks, and all other commercial properties with multiple rental units with the potential for overnight occupancy on one commercial meter will be charged a surcharge rate of $12 per month for each room, unit, or hookup present on the property. This surcharge will be charged each month, regardless of whether or not the room, unit, or hookup, is occupied. Businesses that close rentals on a seasonal basis will continue to be charged the surcharge rate during each month of the year.

All fees, deposits, and delinquent bills must be paid before water service is restored.

H) Special Fee's and Provisions:

1. **Meter Tests:**

Persons protesting the accuracy of a water service meter must submit a written request for testing, along with a deposit of the actual cost, to send it to the factory.

A. Tests must be completed within 30 days.
B. All service fees are due, as prescribed, during this time.
C. Should a meter be found to be inaccurate, deposits will be returned and the meter will be repaired or replaced.

2. Excessive Use Due to Leaks:

A. Should excessive use occur, due to an undetected private water line leak or other problem not immediately detected, the water department will consider exemption of part of the excessive bill, upon request, and subject to (1) below.

(1) Exemptions will be considered only when a leak is repaired, or the problem resolved, within 14 days of detection or notification.

(2) Exemption requests will be subject to a review of past history and previous exemptions to avoid misuse of this provision.

(3) Exemptions will not be made for frozen water leaks. It is the owner's responsibility to shut off the water to prevent freezing.

This resolution shall take effect July 1, 2023.

The above Resolution rate increase was approved and declared adopted by the City Council of the City of Detroit, Marion County, Oregon on the 13th day of June 2023.

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Ayes: ___ Nays: ___ Absent: ___

ATTEST

Signed: _____
James R Trett, Mayor

by: _____
Michelle Connor, City Recorder