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**City of Lindsay  
Water and Wastewater  
Enterprise Financial Plans and  
Rate Recommendations  
Draft Report**

**August 27, 2024**



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS

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August 27, 2024

City of Lindsay  
251 E. Honolulu St.,  
Lindsay, CA 93247

Attention: Daymon Qualls, City Manager

Re: Water and Wastewater Rate Study

Bartle Wells Associates is pleased to submit to the City of Lindsay (City) the attached Draft Water and Wastewater Rate Study. The study presents Bartle Wells Associate's analysis of the operating and non-operating expenses of the City's water and wastewater enterprise funds and provides five-year cash flow projections and rates. The primary purpose of this study was to make recommendations that would achieve their financial sustainability while improving legal compliance and proportionality.

BWA finds that the rates and charges proposed in our report reflect the cost-of-service for each customer, follow generally accepted rate setting principles, and adhere to the substantive requirements of Proposition 218. BWA believes the proposed rates are fair and reasonable to the City's customers.

We have enjoyed working with the City on this rate study and appreciate the assistance of City staff members throughout the project. Please contact us with any future questions about this study and the rate recommendations.

Sincerely,



Erik Helgeson, MBA  
Principal/ Vice President

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## TABLE OF CONTENTS

<b>1</b>	<b>Background &amp; Objectives</b> .....	<b>3</b>
<b>2</b>	<b>Legal Requirements &amp; Rate Methodology</b> .....	<b>4</b>
2.1	Constitutional Rate Requirements .....	4
2.2	Water and Wastewater Rate-Setting Methodology .....	5
<b>3</b>	<b>Water Demand and Customer Characteristics</b> .....	<b>7</b>
3.1	Projected Water Demand.....	7
3.2	Water Services and Equivalent Capacity .....	7
<b>4</b>	<b>Water Finances &amp; Cash Flow Projections</b> .....	<b>9</b>
4.1	Water Financial Overview .....	9
4.2	Water Enterprise Financial Projections .....	9
4.3	Water Cash Flow Projection Scenarios.....	10
4.4	Water Financial Plan Scenario 1: Immediate Revenue Increase.....	12
4.5	Water Financial Plan Scenario 2: Partial Phase-In Revenue Increase .....	14
4.6	Water Financial Plan Scenario 3: Phased-In Revenue Increase .....	16
<b>5</b>	<b>Water Cost of Service Rate Derivation</b> .....	<b>18</b>
5.1	Functional Allocation and Rate Derivation.....	18
5.2	Water Rate Structure Recommendations .....	20
5.3	Rate Derivation .....	21
5.4	Recommended Water Rates.....	23
5.5	Bill Impacts .....	26
<b>6</b>	<b>Regional Water Rate Survey</b> .....	<b>29</b>
<b>7</b>	<b>Water Summary and Recommendations</b> .....	<b>30</b>
<b>8</b>	<b>Wastewater FINANCES AND CASH FLOW Projections</b> .....	<b>31</b>
8.1	Wastewater Financial Overview.....	31
8.2	Wastewater Enterprise Financial Projections .....	31
8.3	Wastewater Cash flow Projection Scenarios.....	32
8.4	Wastewater Financial Plan Scenario 1: Immediate Revenue Increase .....	32
8.5	Wastewater Financial Plan Scenario 2: Partial Phase-In Revenue Increase .....	34
<b>9</b>	<b>Wastewater Cost of Service Analysis and Rate Derivation</b> .....	<b>37</b>
9.1	Wastewater Cost of Service Rate Derivation Process .....	37
9.2	Flows and Loadings.....	38
9.3	Functional Allocation.....	38
9.4	Revenue Requirements by Class .....	41
9.5	Wastewater Rate Structure Recommendations .....	42
9.6	Rate Derivation .....	42
9.7	Recommended Wastewater Rates.....	44
<b>10</b>	<b>Regional Wastewater Rate Survey</b> .....	<b>46</b>
<b>11</b>	<b>Wastewater Summary and Recommendations</b> .....	<b>47</b>

# DRAFT

## TABLES

Table 1. Historic and Projected Metered Water Demand .....	7
Table 2. Water Services and Meter Equivalent Units .....	8
Table 3. Water Cashflow Scenario Comparison.....	11
Table 4. Water Scenario 1 Cash Flow Projection Summary .....	12
Table 5. Projected Revenues & Expenses: Water Scenario 1 .....	13
Table 6. Water Scenario 2 Cash Flow Projection Summary .....	14
Table 7. Projected Revenues & Expenses: Water Scenario 2 .....	15
Table 8. Water Scenario 3 Cash Flow Projection Summary .....	16
Table 9. Projected Revenues & Expenses: Water Scenario 3 .....	17
Table 10. Scenario 1 Functional Allocation .....	19
Table 11. Scenario 2 Functional Allocation .....	20
Table 12. Scenario 3 Functional Allocation .....	20
Table 13. Scenario 1 Rate Derivation .....	21
Table 14. Scenario 2 Rate Derivation .....	22
Table 15. Scenario 3 Rate Derivation .....	22
Table 16. Scenario 1 Recommended Water Rates .....	23
Table 17. Scenario 2 Recommended Water Rates .....	24
Table 18. Scenario 3 Recommended Water Rates .....	25
Table 19. Scenario 1 Bill Impacts.....	26
Table 20. Scenario 2 Bill Impacts.....	27
Table 21. Scenario 3 Bill Impacts.....	28
Table 22. Wastewater Scenario 1 Cash Flow Projection Summary .....	32
Table 23. Projected Wastewater Revenues & Expenses: Scenario 1 .....	33
Table 24. Wastewater Scenario 2 Cash Flow Projection Summary .....	34
Table 25. Projected Wastewater Revenues & Expenses: Scenario 2 .....	35
Table 26. Wastewater Flows and Loading .....	38
Table 27. Scenario 1 Functional Cost Allocation.....	39
Table 28. Scenario 2 Functional Cost Allocation.....	40
Table 29. Scenario 1 Functional Rate Revenue Requirement .....	40
Table 30. Scenario 2 Functional Rate Revenue Requirement .....	40
Table 31. Scenario 1 Allocation Units .....	40
Table 32. Scenario 2 Allocation Units .....	40
Table 33. Scenario 1 Flow and Strength Revenue Requirement by Class.....	41
Table 34. Scenario 2 Flow and Strength Revenue Requirement by Class.....	41
Table 35. Scenario 1 Rate Derivation .....	42
Table 36. Scenario 2 Rate Derivation .....	43
Table 37. Scenario 1 Projected Wastewater Rates.....	44
Table 38. Scenario 2 Projected Wastewater Rates.....	45

# DRAFT

## FIGURES

Figure 1: Cost of Service Rate-Setting Methodology .....	6
Figure 2: Water Scenario 1 Projected Cashflow Graph .....	12
Figure 3: Water Scenario 2 Projected Cashflow Graph .....	14
Figure 4: Water Scenario 3 Projected Cashflow Graph .....	16
Figure 5: Scenario 1 Bill Impacts.....	26
Figure 6: Scenario 2 Bill Impacts.....	27
Figure 7: Scenario 3 Bill Impacts.....	28
Figure 8: Regional Water Rate Survey .....	29
Figure 9: Wastewater Scenario 1 Projected Cashflow Graph .....	34
Figure 10: Wastewater Scenario 2 Projected Cashflow Graph .....	36
Figure 11: Wastewater Cost of Service Analysis and Rate Derivation Process .....	37
Figure 12: Regional Wastewater Rate Survey .....	46

## Appendix A - Water and Wastewater Financial Plans

## Glossary of Terms

<b>Terms</b>	<b>Descriptions</b>
<b>AWWA</b>	American Water Works Association
<b>BWA</b>	Bartle Wells Associates
<b>CCF</b>	One hundred Cubic Feet
<b>CIP</b>	Capital Improvement Projects
<b>City</b>	The City of Lindsay
<b>COS</b>	Cost of Service
<b>Cost Allocation</b>	Apportioning expenses to utility user fees and rates in order to charge customers proportionally to the level of benefit they receive
<b>CPI</b>	Consumer Price Index/Indices
<b>Enterprise Fund</b>	Funds are established to account for governmental activities that provide goods or services primarily to the public at large on a consumer fee basis
<b>Fixed Charges</b>	A charge that is held constant over a period of time and applied at even intervals
<b>FYE</b>	Fiscal Year End (June 30)
<b>General Fund</b>	The main operating fund for the City
<b>M1 Manual</b>	"Principles of Water Rates, Fees, and Charges: Manual of Water Supply Practices M1", 6 <sup>th</sup> edition published by AWWA
<b>Meter Equivalent Ratios</b>	The ratio of a water meter's maximum safe flow in comparison to a smaller water meter
<b>Multi-family</b>	Utility customers meeting the criteria of the multi-family class
<b>O&amp;M</b>	Operations and maintenance
<b>Prop. 218</b>	Proposition 218, Added Articles 13C & 13D to the California Constitution
<b>R&amp;R</b>	Repair and Replacement
<b>Rate Setting Period</b>	Limited to five (5) years under Prop. 218.
<b>Revenue Requirements</b>	The amount of future funding which needs to be recovered from an enterprise's user fees/rates
<b>Solvent</b>	Able to pay long-term debts and other financial obligations
<b>Volumetric Rates</b>	Utility rate based on a metered volume of water

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## 1 BACKGROUND & OBJECTIVES

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### **Background**

In 2024, the City engaged BWA to perform a rate study analyzing the capital and operating costs associated with the City's water and wastewater utilities and to determine recovery of costs for providing water and wastewater utility services. This report along with all included exhibits and appendixes presents BWA's analysis of the operating and non-operating expenses of the City's water and wastewater enterprises. The primary purpose of this study was to analyze the City's enterprise funds and make recommendations that enhance the financial sustainability of each enterprise and to review utility rates to ensure that they adhere to the State's legal requirements.

### **Rate Study Objectives**

Key goals and objectives of the financial plans and rate studies for the water and wastewater enterprises include developing rates that:

- Capture enough revenues to move forward with and complete capital projects that will provide City of Lindsay water rate payers with clean and safe drinking water.
- Capture enough revenues to move forward with and complete capital projects and that will ensure reliable wastewater collection and treatment for City of Lindsay wastewater rate payers.
- Recover the costs of providing utility services including operating costs, capital costs, and build prudent reserves to ensure the water and wastewater funds continue to operate as financially self-sustaining Enterprise Funds.
- Are fair and equitable to all customers.
- Are easy to understand and implement.
- Comply with the substantive cost-of-service requirements of the California Constitution, Article 13D, Section 6 (established by Proposition 218) and the general mandate of Article 10, Section 2 that prohibits the wasteful use of water.
- Support the City's long-term operational and financial stability.

This report summarizes key findings and recommendations for overall rate revenue increases over the next five years. The full set of tables are included in the appendix to this report.

## 2 LEGAL REQUIREMENTS & RATE METHODOLOGY

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### 2.1 Constitutional Rate Requirements

The California Constitution includes two key articles that directly govern or impact the City's water and wastewater rates: Article 10 and Article 13D. The water rate recommendations developed in this study were designed to comply with constitutional mandates, provisions of the California Water Code and Government Code. In accordance with California constitutional provisions, the proposed rates are designed to a) recover the City's cost of providing service, b) recover revenues in proportion to the cost for serving each customer, and c) promote conservation and discourage waste.

#### *Article 10, Section 2*

Article 10, Section 2 of the California Constitution was established by voter-approval in 1976 and requires public agencies to maximize the beneficial use of water, prevent waste, and encourage conservation. Section 2 states that:

*It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare.*

#### *Article 13D, Section 6*

Proposition 218 was adopted by California voters in 1996 and added Articles 13C and 13D to the California Constitution. Article 13D, Section 6 governs property-related charges, which the California Supreme Court subsequently ruled includes ongoing utility System Charges such as water, wastewater, and garbage rates. Article 13D, Section 6 establishes a) procedural requirements for imposing or increasing property-related charges, and b) substantive requirements for those charges. Article 13D also requires voter approval for new or increased property-related charges but exempts rates for water, wastewater, and garbage service from this voting requirement if the appropriate procedure is followed.

The substantive requirements of Article 13D, Section 6 require the City's water rates to meet the following conditions:

- 1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

- 2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
- 3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
- 4) No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property in question.

## 2.2 Water and Wastewater Rate-Setting Methodology

The California Constitution does not give agencies leeway to arbitrarily set rates purely based on policy preferences. Instead, it provides agencies with flexibility to implement rates within a framework established by Articles 10 and 13D. Together, these Articles establish that rates should both a) discourage waste and encourage conservation of water, and b) not exceed the costs of service attributable to each parcel or customer.

Water utilities have used a wide range of approaches or perspectives for allocating and recovering their costs for providing service, and these costs are most commonly recovered from a combination of fixed and variable charges. The percentage of revenues derived from the fixed and variable charges varies for each agency. They should be proportional to each system's expenditures and must not exceed the cost of providing service. A higher level of fixed charges provides better revenue stability and less dependence on variable sales. On the other hand, higher dependence on volumetric revenues provides a greater conservation incentive.

Depending on perspective, the same costs can reasonably be allocated 100 percent to fixed revenue recovery, 100 percent to variable rate recovery, or to some combination of the two. For example, debt service used to fund water treatment facilities can legitimately be treated as a) a fixed annual cost that should be recovered from fixed charges, b) a cost related to providing water supply to meet customer demand and therefore a cost that should be recovered from variable rates, or c) a cost that can be recovered from both fixed and variable rates in recognition of the two alternative perspectives.

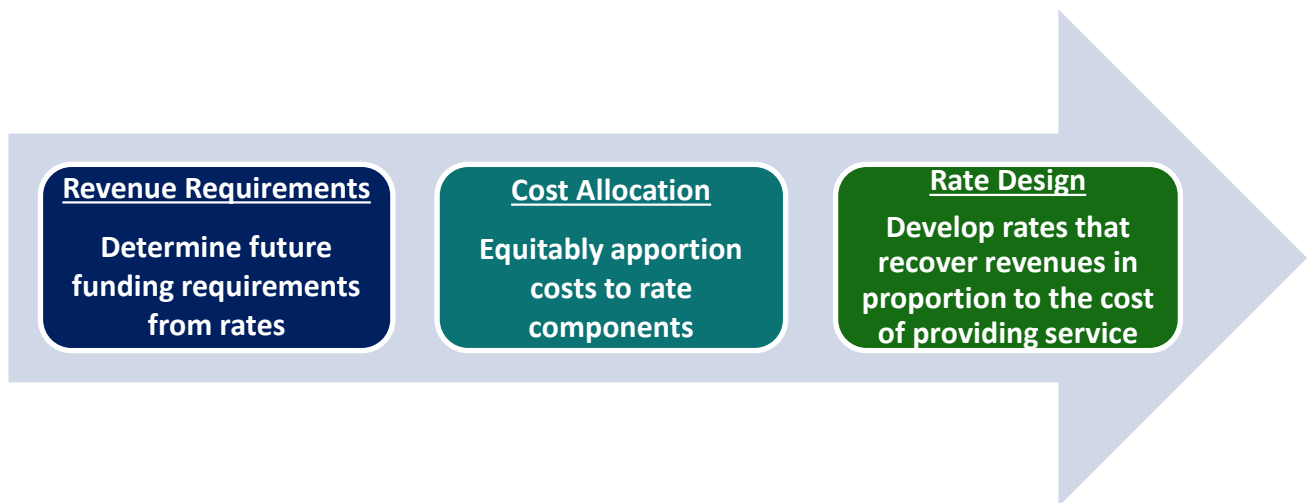
Many of the utility's costs are variable costs that vary by water consumption including personnel, supplies, and utilities. However, a portion of these variable costs can reasonably be apportioned to fixed rate recovery, and vice-versa with fixed costs. For example, a share of the fixed cost of salaries related to water production can reasonably be recovered from usage-based charges as these costs are incurred to provide water supply to meet customer demand. Likewise, debt service payments may be fixed annual costs, but it is reasonable to recover some of these costs from usage-based rates as the costs are incurred to fund infrastructure that will improve the water delivery system.

Ultimately, there is no single correct way to allocate or attribute costs. Hence, five similar agencies may have five different rate structures provided each agency can establish a reasonable cost basis for their own particular rate structure within the parameters of meeting the various requirements of the California Constitution.

While there is no single correct approach, BWA believes that costs should be allocated within a reasonable range of fixed and variable allocation that reflects both a) underlying cost causation, to the extent such causation can reasonably be determined or estimated, and b) the policy preferences of the agency in cases where a range of reasonable approaches can be justified.

BWA uses a straightforward methodology to establish equitable charges that recover the cost of providing service and fairly apportion costs. The general methodology is summarized in the following figure.

**Figure 1: Cost of Service Rate-Setting Methodology**



### 3 WATER DEMAND AND CUSTOMER CHARACTERISTICS

#### 3.1 Projected Water Demand

Projected FY 24/25 water demand is based on the metered demand for FY 23/24. The City’s main source of water is groundwater sourced from three wells. The City has an additional highly contaminated well source that may be utilized only to avoid running dry which would compromise the system’s infrastructure and leave the City’s water customers without clean drinking water for several months. In 2022, the City faced this exact scenario and submitted an emergency water allocation request to the U.S Bureau of Reclamation for health and safety, which was subsequently granted. Since then, the City remains in Stage 4 of its water conservation plan which limits outdoor watering. This City is unlikely to allow higher water use before the construction and operation of new well water sources.

**Table 1. Historic and Projected Metered Water Demand**

Metered Water Use	FY 21-22	FY 22-23	FY 23-24	Projected FY 24/25
Water Use (CCF)	864,757	779,017	779,094	<b>779,094</b>

#### 3.2 Water Services and Equivalent Capacity

Each connection to the City’s water system is considered one service. Some of the City's fixed costs are reasonably recovered on a per-customer basis, while others should be recovered based on the capacity required to serve each customer. The size of a customer’s meter reflects the portion they require of the water system’s capacity. A significant percentage of the costs of any water system is related to its requirement to deliver water to any customer instantaneously at any time, up to the maximum safe flow capacity of a customer’s meter. Simply put, as the size of a customer’s water meter increases, the instantaneous demand it can place on the City’s water system increases.

Fixed charges for each meter size are based on the capacity of a meter relative to the capacity of smallest meter size (e.g., a 5/8 inch meter) in the City’s system. In this study, the relative capacity of a meter size, referred to as an Equivalent Demand Unit (EDU), is calculated by dividing the capacity of a given meter size by the capacity of a 5/8” meter. The meter equivalent ratios used are proportional to the maximum safe flow of a 5/8" meter. The sum of all EDU’s reflects the total capacity of the water enterprise.

The following table contains the counts of water services and calculations of meter equivalent units. Total meter equivalent units for each meter size are derived by multiplying the meter equivalent ratio by the number of services at each meter size.

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**Table 2. Water Services and Meter Equivalent Units**

<b>Meter Size</b>	<b>Customer Count<sup>[1]</sup></b>	<b>AWWA Capacity Factor<sup>[2]</sup></b>	<b>Equivalent Demand Units</b>	<b>Annual Equivalent Demand Units</b>
5/8"	2,454	1.0	2,454.0	29,448.0
1"	485	1.7	808.3	9,700.0
1.5"	28	3.3	93.3	1,120.0
2"	88	5.3	469.3	5,632.0
3"	14	10.7	149.3	1,792.0
4"	20	16.7	333.3	4,000.0
6"	4	33.3	133.3	1,600.0
8"	2	53.3	106.7	1,280.0
<b>Total</b>	<b>3,095</b>		<b>4,547.7</b>	<b>54,572.0</b>

<sup>[1]</sup> Customer data as of July 2024 provided by staff.

<sup>[2]</sup> Capacity factors based on AWWA operating capacity standards by meter size.

## 4 WATER FINANCES & CASH FLOW PROJECTIONS

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### 4.1 Water Financial Overview

- Bartle Wells Associates conducted an independent evaluation of the water enterprise's finances. Key observations include:
- The Water Fund is not solvent. The Water Fund has no reserves and is relying on General Fund revenue to subsidize the enterprise. Even with no capital spending, the enterprise's expenses will exceed revenues by \$97,000 in FY 2024-2025. The City has indicated that the General Fund does not have the capacity to provide more transfers to the Water Enterprise.
- The Water Feasibility Study performed in 2023 identified numerous deficiencies in the water system. The City's capital spending projections used in this study reflect close to a minimum level capital spending and do not include all the projects identified in the feasibility study. Over the next ten years it is projected that the capital projects will cost \$26.3 million.
- The water enterprise has not raised rates since 2009. From 2009 to 2024, the Consumer Price Index has increased by 46%. This means that an item that cost \$10.00 in 2009 will cost \$14.60 today.
- The enterprise needs to begin to accumulate reserves to be prepared for water use fluctuations, remain able to operate during a disaster and qualify for grants or low-cost financing.
- The City will need to raise water rate revenue to exceed expenses in order to qualify for any grants or low-cost financing.
- This report explores the financial plan and rates for three different capital scenarios which are described throughout the remainder of this report.

### 4.2 Water Enterprise Financial Projections

BWA developed long-term cash flow projections to determine the water enterprise's annual revenue requirements and project required water rate revenue increases. The financial projections incorporate the latest information available as well as reasonable and slightly conservative assumptions. Key information and assumptions include:

#### Reserves

- The water enterprise began FY 24/25 with a negative reserve balance. BWA recommends the water enterprise build one year of operating expenses in reserves. At a minimum, the water enterprise should hold at least three months of operating expenses in reserve.

## **Revenue Assumptions**

- Interest income is estimated based on projected reserve levels. Future projections are estimated based on a conservative interest earning estimate of 1%. Actual interest amounts will vary based on reserves and future interest earning rates.
- As new construction can be unpredictable, BWA did not escalate revenues for growth in its projections. Recommended rates are the maximum rates the City can adopt, which is why BWA uses conservative estimates when making revenue projections.

## **Expense Assumptions**

- Operating and maintenance costs are based on the FY 2024-2025 budget and escalate at 4% in FY 2025-2026 and at an annual rate of 4% thereafter to account for future cost inflation.
- The Water Enterprise will need to fund at least \$2.2 million in capital spending from rates in the next five years.
- Street Improvement Program costs are expected to be reduced by over \$240,000 per year based on the results of the Street Impact Fee Study performed by the City.

## **4.3 Water Cash Flow Projection Scenarios**

The water enterprise is operating at a large annual deficit, has no reserve, and General Fund support is no longer available. There are also system deficiencies that urgently need to be addressed with capital projects. The Water Enterprise needs to significantly increase rate revenue over the next five years to address these issues. This report explores the financial plans and rates for three different rate revenue scenarios which are as follows:

- Scenario 1 – Immediate Revenue Increase. In this scenario there is an immediate rate revenue increase bringing revenue up to the necessary level in the first year followed by even inflationary revenue increases over the next four years. In FY 28/29, the final year of noticed rate increases, this scenario will have the lowest rates and highest reserve level of the three scenarios.
- Scenario 2 – Partial Phase-in Revenue Increase. In this scenario there are large increases in rate revenue over the next two years bringing revenue up to the necessary level in the second year followed by even inflationary revenue increases over the next three years. In FY 28/29, the final year of noticed rate increases, this scenario will have the rates in between the other two scenarios and the lowest reserve level of the three scenarios.
- Scenario 3 – In this scenario rate revenues are increased near the minimum prudent amount to reach necessary revenue level in the fifth year (FY 28/29). In the final year of noticed rate increases, this scenario will have the highest rates and a reserve level in the middle of the other scenarios.



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The following table shows a comparison of the three scenarios.

**Table 3. Water Cashflow Scenario Comparison**

<b>Water Rate Scenarios</b>	<b>Jan. 1, 2025</b>	<b>Jan. 1, 2026</b>	<b>Jan. 1, 2027</b>	<b>Jan. 1, 2028</b>	<b>Jan. 1, 2029</b>
<b>No Change in Rates</b>					
Rate Revenue Increase (\$)	\$0	\$0	\$0	\$0	\$0
Rate Revenue Increase (%)	0.0%	0.0%	0.0%	0.0%	0.0%
Ending Reserve Balance	-\$164,384	-\$745,420	-\$1,283,623	-\$2,468,156	-\$3,907,298
<b>Scenario 1</b>					
Rate Revenue Increase (\$)	\$622,164	\$151,097	\$158,652	\$166,584	\$174,914
Rate Revenue Increase (%)	70.0%	5.0%	5.0%	5.0%	5.0%
Ending Reserve Balance	\$457,780	\$1,201,198	\$2,149,757	\$2,624,090	\$3,019,307
<b>Scenario 2</b>					
Rate Revenue Increase (\$)	\$444,403	\$533,283	\$159,985	\$167,984	\$176,383
Rate Revenue Increase (%)	50.0%	20.0%	5.0%	5.0%	5.0%
Ending Reserve Balance	\$280,018	\$857,230	\$1,829,681	\$2,329,510	\$2,751,913
<b>Scenario 3</b>					
Rate Revenue Increase (\$)	\$311,082	\$599,944	\$449,958	\$344,968	\$189,732
Rate Revenue Increase (%)	35.0%	25.0%	15.0%	10.0%	5.0%
Ending Reserve Balance	\$146,698	\$489,264	\$1,403,041	\$2,077,087	\$2,770,615

In future years, the City can re-evaluate its finances and revenue requirements and adjust rates as needed based on updated projections. However, while the City always has the flexibility to implement rate adjustments that are lower than adopted pursuant to Proposition 218, future rates cannot exceed adopted increases without going through the Proposition 218 process again. Rates adopted pursuant to Proposition 218 are essentially future rate caps.

### 4.4 Water Financial Plan Scenario 1: Immediate Revenue Increase

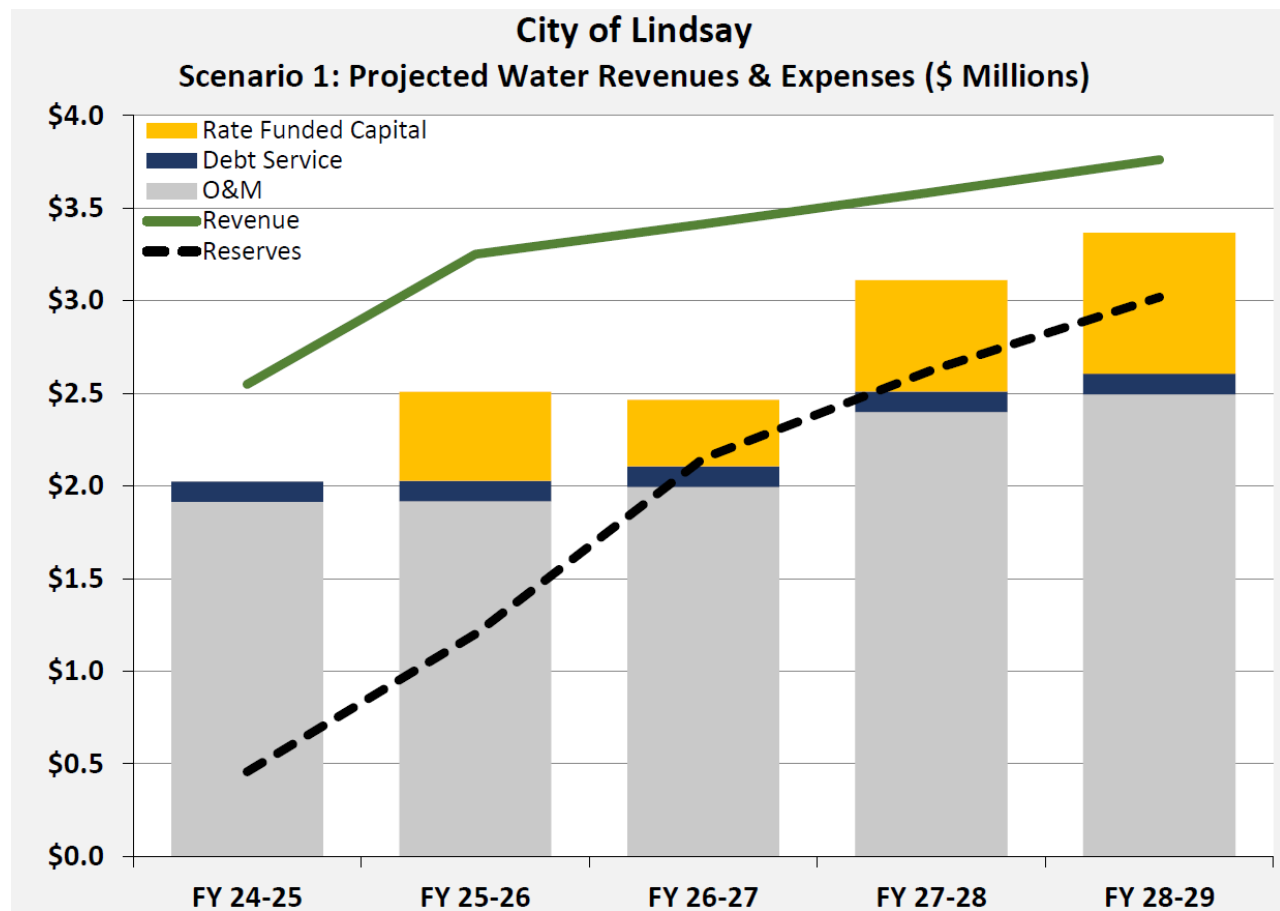
The following section presents a financial plan for the water enterprise for a scenario which immediately recovers the annual operating revenue requirements. A summary of the key elements of the five-year cash-flow projections for this scenario is displayed in the following table.

**Table 4. Water Scenario 1 Cash Flow Projection Summary**

Scenario 1: Immediate Revenue Increase	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
Ending Reserves	\$457,780	\$1,201,198	\$2,149,757	\$2,624,090	\$3,019,307
Rate Revenue Increase	\$622,164	\$151,097	\$158,652	\$166,584	\$174,914

The following figure shows cash flow projections incorporating the assumptions described above. The rate projections shown on the following table are designed to fund the City’s cost of providing service while maintaining balanced budgets and building prudent minimal levels of fund reserves each year.

**Figure 2: Water Scenario 1 Projected Cashflow Graph**



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Detailed, long-term, cash-flow projections for this scenario are shown in the following table.

**Table 5. Projected Revenues & Expenses: Water Scenario 1**

Water Operating Cashflow	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	-\$67,791	\$457,780	\$1,201,198	\$2,149,757	\$2,624,090
<b>Revenues</b>					
<b>Rate Revenue</b>					
Current Rate Revenue	\$1,777,611	\$3,021,939	\$3,173,036	\$3,331,688	\$3,498,272
<i>Rate Revenue Increase</i>	<i>70.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>
Rate Increase Revenue	\$1,244,328	\$151,097	\$158,652	\$166,584	\$174,914
Mid-Year Rate Increase Adjustment <sup>1</sup>	-622,164	-75,548	-79,326	-83,292	-87,457
<b>Total Rate Revenue</b>	<u>2,399,775</u>	<u>3,097,487</u>	<u>3,252,362</u>	<u>3,414,980</u>	<u>3,585,729</u>
Non-Rate Revenue	149,600	149,600	149,600	149,600	149,600
Interest on Reserves (1.0%)	0	4,578	12,012	21,498	26,241
<b>Total Revenue</b>	<u>\$2,549,375</u>	<u>\$3,251,665</u>	<u>\$3,413,974</u>	<u>\$3,586,077</u>	<u>\$3,761,570</u>
<b>Expenses</b>					
Operating Expenses	\$1,913,930	\$1,918,517	\$1,995,258	\$2,400,068	\$2,496,071
Existing Debt Service	109,874	109,874	109,874	109,874	109,874
New Debt Service	0	0	0	0	0
Rate Funded Capital	0	479,856	360,282	601,802	760,408
<b>Total Expenses</b>	<u>\$2,023,804</u>	<u>\$2,508,247</u>	<u>\$2,465,414</u>	<u>\$3,111,744</u>	<u>\$3,366,353</u>
<b>Net Revenues</b>	<u>\$525,571</u>	<u>\$743,418</u>	<u>\$948,560</u>	<u>\$474,333</u>	<u>\$395,217</u>
<b>Ending Reserve Balance</b>	<u>\$457,780</u>	<u>\$1,201,198</u>	<u>\$2,149,757</u>	<u>\$2,624,090</u>	<u>\$3,019,307</u>
<i>Debt Coverage (Target 1.3)</i>	<i>5.78</i>	<i>12.13</i>	<i>12.91</i>	<i>10.79</i>	<i>11.52</i>
<b>Capital Funding</b>					
	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>					
Use of Debt Proceeds	\$0	\$0	\$0	\$0	\$0
Other / Grant Funding	0	0	6,650,000	0	0
Rate Funded Capital	0	479,856	360,282	601,802	760,408
<b>Total Capital Revenue</b>	<u>\$0</u>	<u>\$479,856</u>	<u>\$7,010,282</u>	<u>\$601,802</u>	<u>\$760,408</u>
<b>Total Capital Expenditures</b>	<u>\$0</u>	<u>\$479,856</u>	<u>\$7,010,282</u>	<u>\$601,802</u>	<u>\$760,408</u>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.

### 4.5 Water Financial Plan Scenario 2: Partial Phase-In Revenue Increase

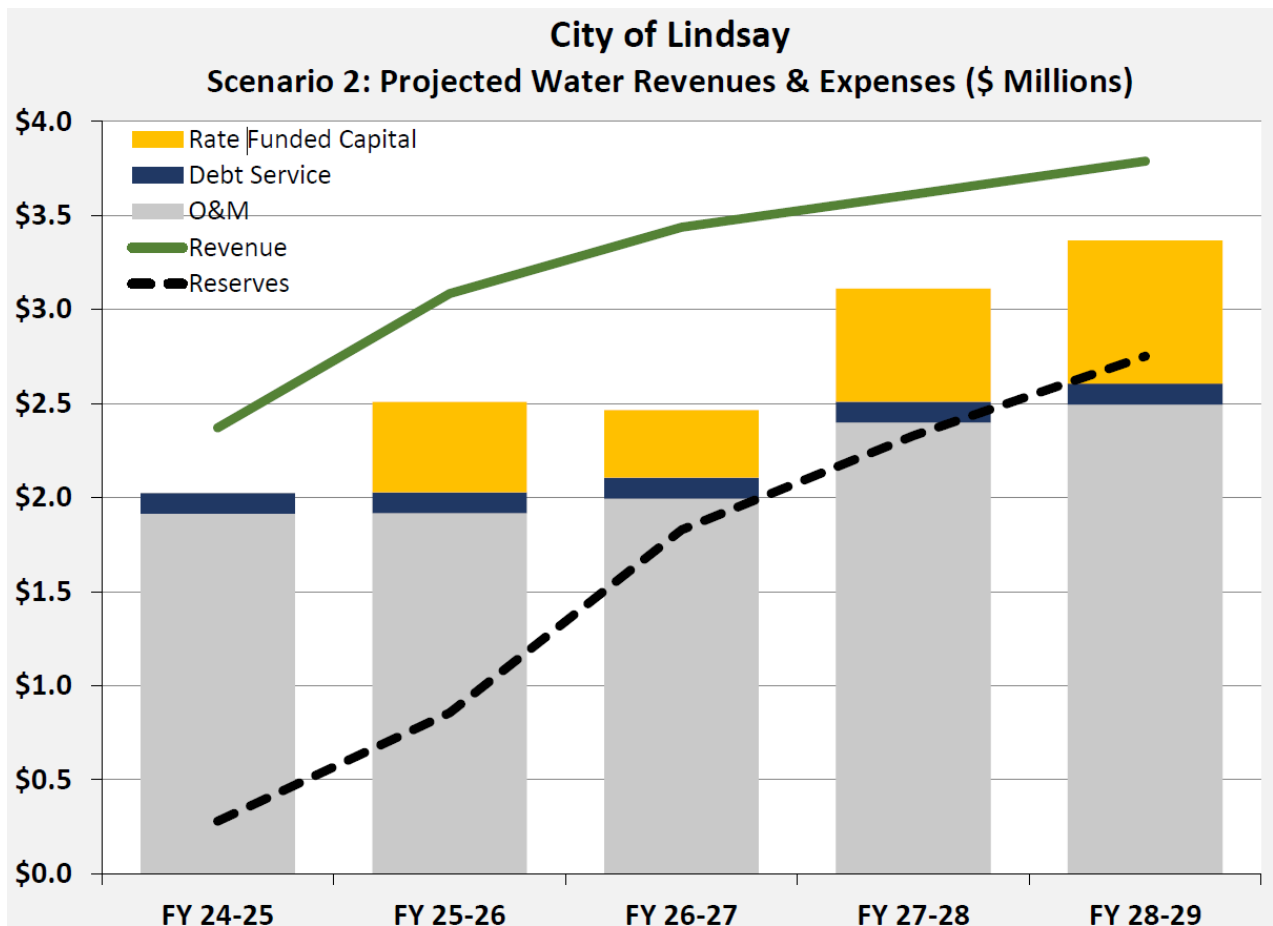
The following section presents a financial plan for the water enterprise for a scenario which includes a more gradual recovery of financial sustainability for the water enterprise than Scenario 1, but quicker than Scenario 3. This represents the moderate revenue recovery scenario. A summary of the key elements of the long-term cash-flow projections for this scenario is displayed in the following table.

**Table 6. Water Scenario 2 Cash Flow Projection Summary**

Scenario 2: Reduced Revenue Recovery	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
Ending Reserves	\$280,018	\$857,230	\$1,829,681	\$2,329,510	\$2,751,913
Rate Revenue Increase	\$444,403	\$533,283	\$159,985	\$167,984	\$176,383

The following figure shows cash flow projections incorporating the assumptions described above. The rate projections shown on the following table are designed to fund the City’s cost of providing service while maintaining balanced budgets and building prudent minimal levels of fund reserves over a two year period.

**Figure 3: Water Scenario 2 Projected Cashflow Graph**



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Detailed, long-term, cash-flow projections for this scenario are shown in the following table.

**Table 7. Projected Revenues & Expenses: Water Scenario 2**

Water Operating Cashflow	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	-\$67,791	\$280,018	\$857,230	\$1,829,681	\$2,329,510
<b>Revenues</b>					
Rate Revenue					
Current Rate Revenue	\$1,777,611	\$2,666,417	\$3,199,700	\$3,359,685	\$3,527,669
<i>Rate Revenue Increase</i>	<i>50.0%</i>	<i>20.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>
Rate Increase Revenue	\$888,806	\$533,283	\$159,985	\$167,984	\$176,383
Mid-Year Rate Increase Adjustment <sup>1</sup>	-444,403	-266,642	-79,993	-83,992	-88,192
Total Rate Revenue	2,222,014	2,933,058	3,279,693	3,443,677	3,615,861
Non-Rate Revenue	149,600	149,600	149,600	149,600	149,600
Interest on Reserves (1.0%)	0	2,800	8,572	18,297	23,295
<b>Total Revenue</b>	<b>\$2,371,614</b>	<b>\$3,085,459</b>	<b>\$3,437,865</b>	<b>\$3,611,574</b>	<b>\$3,788,756</b>
<b>Expenses</b>					
Operating Expenses	\$1,913,930	\$1,918,517	\$1,995,258	\$2,400,068	\$2,496,071
Existing Debt Service	109,874	109,874	109,874	109,874	109,874
New Debt Service	0	0	0	0	0
Rate Funded Capital	0	479,856	360,282	601,802	760,408
<b>Total Expenses</b>	<b>\$2,023,804</b>	<b>\$2,508,247</b>	<b>\$2,465,414</b>	<b>\$3,111,744</b>	<b>\$3,366,353</b>
<b>Net Revenues</b>	<b>\$347,810</b>	<b>\$577,212</b>	<b>\$972,451</b>	<b>\$499,830</b>	<b>\$422,403</b>
<b>Ending Reserve Balance</b>	<b>\$280,018</b>	<b>\$857,230</b>	<b>\$1,829,681</b>	<b>\$2,329,510</b>	<b>\$2,751,913</b>
<i>Debt Coverage (Target 1.3)</i>	<i>4.17</i>	<i>10.62</i>	<i>13.13</i>	<i>11.03</i>	<i>11.77</i>
<b>Capital Funding</b>					
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>					
Use of Debt Proceeds	\$0	\$0	\$0	\$0	\$0
Other / Grant Funding	0	0	6,650,000	0	0
Rate Funded Capital	0	479,856	360,282	601,802	760,408
<b>Total Capital Revenue</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
<b>Total Capital Expenditures</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.

### 4.6 Water Financial Plan Scenario 3: Phased-In Revenue Increase

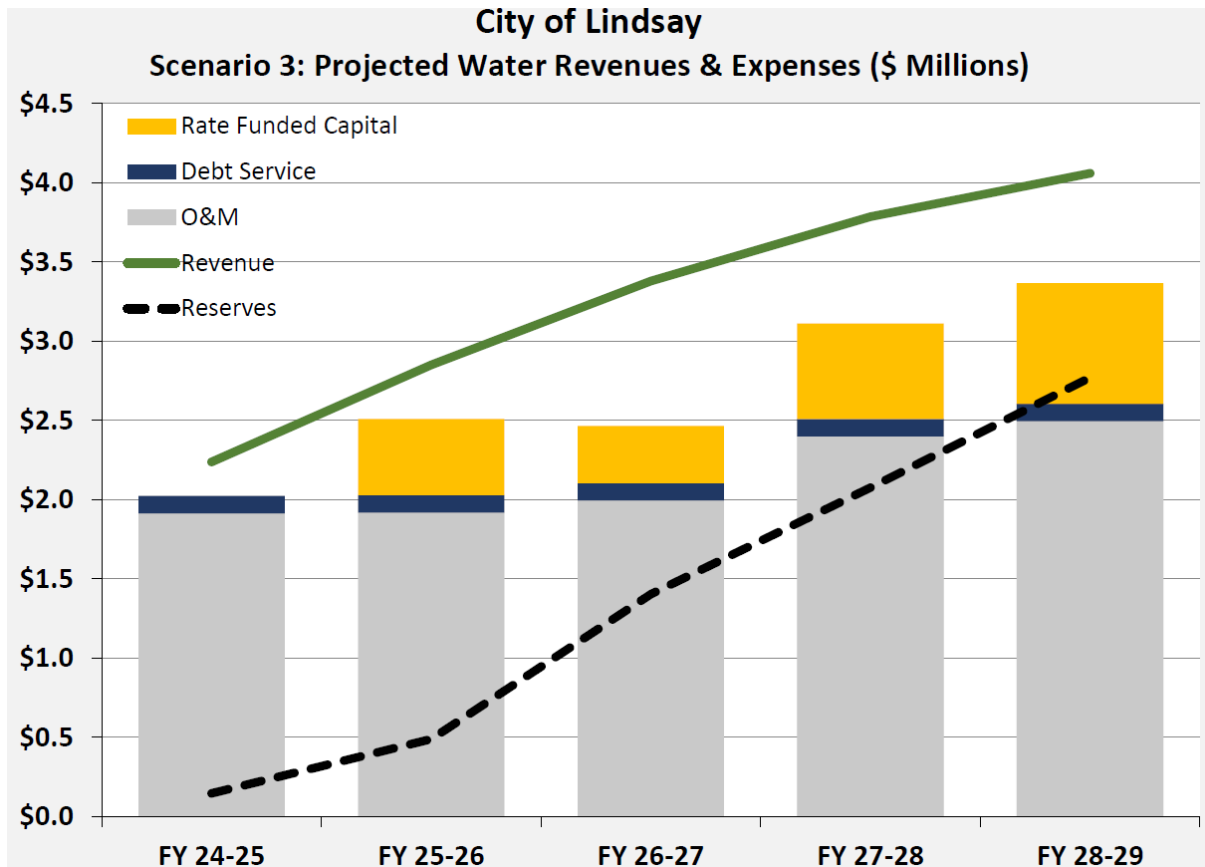
The following section presents a financial plan for the water enterprise for a scenario which includes a prolonged schedule for recovery of financial sustainability for the water enterprise than Scenario 1 and Scenario 3. This represents the most gradual revenue recovery scenario. A summary of the key elements of the long-term cash-flow projections for this scenario is displayed in the following table.

**Table 8. Water Scenario 3 Cash Flow Projection Summary**

Scenario 3: Prolonged Revenue Recovery	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
Ending Reserves	\$146,698	\$489,264	\$1,403,041	\$2,077,087	\$2,277,615
Rate Revenue Increase	\$311,082	\$599,944	\$449,958	\$344,968	\$189,732

The following figure shows cash flow projections incorporating the assumptions described above. The rate projections shown on the following table are designed to fund the City’s cost of providing service.

**Figure 4: Water Scenario 3 Projected Cashflow Graph**



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Detailed, long-term, cash-flow projections for this scenario are shown in the following table.

**Table 9. Projected Revenues & Expenses: Water Scenario 3**

Water Operating Cashflow	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	-\$67,791	\$146,698	\$489,264	\$1,403,041	\$2,077,087
<b>Revenues</b>					
Rate Revenue					
Current Rate Revenue	\$1,777,611	\$2,399,775	\$2,999,719	\$3,449,677	\$3,794,644
<i>Rate Revenue Increase</i>	<i>35.0%</i>	<i>25.0%</i>	<i>15.0%</i>	<i>10.0%</i>	<i>5.0%</i>
Rate Increase Revenue	\$622,164	\$599,944	\$449,958	\$344,968	\$189,732
Mid-Year Rate Increase Adjustmen	-311,082	-299,972	-224,979	-172,484	-94,866
Total Rate Revenue	<u>2,088,693</u>	<u>2,699,747</u>	<u>3,224,698</u>	<u>3,622,160</u>	<u>3,889,510</u>
Non-Rate Revenue	149,600	149,600	149,600	149,600	149,600
Interest on Reserves (1.0%)	<u>0</u>	<u>1,467</u>	<u>4,893</u>	<u>14,030</u>	<u>20,771</u>
<b>Total Revenue</b>	<b>\$2,238,293</b>	<b>\$2,850,814</b>	<b>\$3,379,190</b>	<b>\$3,785,791</b>	<b>\$4,059,881</b>
<b>Expenses</b>					
Operating Expenses	\$1,913,930	\$1,918,517	\$1,995,258	\$2,400,068	\$2,496,071
Existing Debt Service	109,874	109,874	109,874	109,874	109,874
New Debt Service	0	0	0	0	0
Rate Funded Capital	<u>0</u>	<u>479,856</u>	<u>360,282</u>	<u>601,802</u>	<u>760,408</u>
<b>Total Expenses</b>	<b>\$2,023,804</b>	<b>\$2,508,247</b>	<b>\$2,465,414</b>	<b>\$3,111,744</b>	<b>\$3,366,353</b>
<b>Net Revenues</b>	<b>\$214,489</b>	<b>\$342,567</b>	<b>\$913,776</b>	<b>\$674,047</b>	<b>\$693,528</b>
<b>Ending Reserve Balance</b>	<b>\$146,698</b>	<b>\$489,264</b>	<b>\$1,403,041</b>	<b>\$2,077,087</b>	<b>\$2,770,615</b>
<i>Debt Coverage (Target 1.3)</i>	<i>2.95</i>	<i>8.49</i>	<i>12.60</i>	<i>12.61</i>	<i>14.23</i>
<b>Capital Funding</b>					
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>					
Use of Debt Proceeds	\$0	\$0	\$0	\$0	\$0
Other / Grant Funding	0	0	6,650,000	0	0
Rate Funded Capital	<u>0</u>	<u>479,856</u>	<u>360,282</u>	<u>601,802</u>	<u>760,408</u>
<b>Total Capital Revenue</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
<b>Total Capital Expenditures</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.

## 5 WATER COST OF SERVICE RATE DERIVATION

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### 5.1 Functional Allocation and Rate Derivation

There must be a cost based nexus between the revenue requirement from the cash flow and the proposed rates. The nexus is created by allocating the expenses and offsetting non-rate revenues to functional components and then dividing each functional component's revenue requirements by the allocations units most reasonably related to each function. A functional component reflects a grouping of the utility's expenses whose magnitude is driven by the quantity of a specific unit-of-measure. For example, costs allocated to the customer functional component are driven by the number of customers served by the water enterprise.

The functional components used in this study are as follows:

- **Capacity-** Fixed costs are recovered per meter. Fixed costs or costs related to system capacity were allocated to this category.
- **All Volume-** Costs reasonably recovered volumetrically were allocated to this category. Volumetric costs are recovered per unit of volume (CCF) based on all projected demand.

Related expenses and non-rate revenues were grouped into the following allocation categories before being allocated to each functional category:

- **Administration-** expenses were allocated 95% to Capacity and 5% to All Volume to reflect that these costs are driven by the overall capacity of the system which is driven by the projected volume of water sold.
- **Maintenance-** expenses are related to maintaining and operating the water system. These costs are allocated 50% to Capacity and 50% to All Volume because these costs are related to the overall capacity of the system which is driven by the projected volume of water sold.
- **Source of Supply-** expenses were allocated 100% to All Volume to reflect that these costs are incurred to meet the volumetric needs of the City. These costs include the costs associated with wells and groundwater supply.
- **Transmission & Distribution-** expenses are related to the delivery of water throughout the system. These costs are allocated 20% to Capacity and 80% to All Volume because these costs are related to the overall capacity of the system which is driven by the projected volume of water sold.
- **Utilities-** The allocation represents that most of these costs are variable and caused by pumping and treatment, but some of these costs are fixed. Utility expenses are allocated 10% to Capacity and 90% to All Volume because these costs are related to the overall capacity of the system which is driven by the projected volume of water sold.
- **Water Purchases-** expenses consist of imported water purchases. They are allocated 100% to All Volume to reflect that these costs are incurred to meet the volumetric needs of the City.



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- **Water Treatment-** expenses consist of the cost to treat water to potable standards. They are allocated are allocated 20% to Capacity and 80% to All Volume because these costs related to the overall capacity of the system which is driven by the projected volume of water sold.
- **Debt Service-** expenses are allocated 50% to Capacity and 50% to All Volume because these costs related to the overall capacity of the system which is driven by the projected volume of water sold.
- **Capital-** expenses are allocated 50% to Capacity and 50% to All Volume because these costs related to the overall capacity of the system which is driven by the projected volume of water sold.

The following tables show a breakdown of the water utility’s expenses and offsetting revenues and how they are allocated by function. The proportional allocation is then applied to the rate revenue requirement so that the rates are proportional to the cost of service provided. To recover the allocated revenue requirements proportionally to the service provided, a unit cost must be derived. Critical to this step is using the unit which relates to the function.

The allocation amounts are based on the average of the of the prosed rate period, because it reflects a completed capital improvement plan in operation.

**Table 10. Scenario 1 Functional Allocation**

Functional Allocation	Amount	Offsetting Allocation		Capacity	All Volume	Total
		Revenue	Amount			
Administration	\$1,139,775	-\$143,100	\$996,675	95%	5%	100%
Maintenance	\$111,369	\$0	\$111,369	50%	50%	100%
Source of Supply	\$271,791	\$0	\$271,791	0%	100%	100%
Transmission & Distribution	\$95,794	\$0	\$95,794	20%	80%	100%
Utilities	\$337,979	\$0	\$337,979	10%	90%	100%
Water Purchases	\$253,484	\$0	\$253,484	0%	100%	100%
Water Treatment	\$70,975	\$0	\$70,975	20%	80%	100%
Debt Service	\$54,937	\$0	\$54,937	50%	50%	100%
Capital	\$440,470	-\$6,500	\$433,970	50%	50%	100%
<b>Functional Allocation \$</b>				<b>\$1,314,130</b>	<b>\$1,312,842</b>	<b>\$2,626,973</b>
<b>Functional Allocation %</b>				<b>50.02%</b>	<b>49.98%</b>	<b>100%</b>
<b>Revenue Requirement</b>				<b>\$1,511,574</b>	<b>\$1,510,365</b>	<b>\$3,021,939</b>

**Table 11. Scenario 2 Functional Allocation**

Functional Allocation	Offsetting Allocation		Amount	Capacity	All Volume	Total
	Amount	Revenue				
Administration	\$1,139,775	-\$143,100	\$996,675	95%	5%	100%
Maintenance	\$111,369	\$0	\$111,369	50%	50%	100%
Source of Supply	\$271,791	\$0	\$271,791	0%	100%	100%
Transmission & Distribution	\$95,794	\$0	\$95,794	20%	80%	100%
Utilities	\$337,979	\$0	\$337,979	10%	90%	100%
Water Purchases	\$253,484	\$0	\$253,484	0%	100%	100%
Water Treatment	\$70,975	\$0	\$70,975	20%	80%	100%
Debt Service	\$54,937	\$0	\$54,937	50%	50%	100%
Capital	\$440,470	-\$6,500	\$433,970	50%	50%	100%
<b>Functional Allocation \$</b>				<b>\$1,314,130</b>	<b>\$1,312,842</b>	<b>\$2,626,973</b>
<b>Functional Allocation %</b>				<b>50.02%</b>	<b>49.98%</b>	<b>100%</b>
<b>Revenue Requirement</b>				<b>\$1,333,742</b>	<b>\$1,332,675</b>	<b>\$2,666,417</b>

**Table 12. Scenario 3 Functional Allocation**

Functional Allocation	Offsetting Allocation		Amount	Capacity	All Volume	Total
	Amount	Revenue				
Administration	\$1,139,775	-\$143,100	\$996,675	95%	5%	100%
Maintenance	\$111,369	\$0	\$111,369	50%	50%	100%
Source of Supply	\$271,791	\$0	\$271,791	0%	100%	100%
Transmission & Distribution	\$95,794	\$0	\$95,794	20%	80%	100%
Utilities	\$337,979	\$0	\$337,979	10%	90%	100%
Water Purchases	\$253,484	\$0	\$253,484	0%	100%	100%
Water Treatment	\$70,975	\$0	\$70,975	20%	80%	100%
Debt Service	\$54,937	\$0	\$54,937	50%	50%	100%
Capital	\$440,470	-\$6,500	\$433,970	50%	50%	100%
<b>Functional Allocation \$</b>				<b>\$1,314,130</b>	<b>\$1,312,842</b>	<b>\$2,626,973</b>
<b>Functional Allocation %</b>				<b>50.02%</b>	<b>49.98%</b>	<b>100%</b>
<b>Revenue Requirement</b>				<b>\$1,200,367</b>	<b>\$1,199,408</b>	<b>\$2,399,775</b>

## 5.2 Water Rate Structure Recommendations

Bartle Wells Associates reviewed the City’s water rates and has the following recommendations to improve compliance with the requirements of Proposition 218:

1. Update fixed charges to reflect the American Water Works Association (AWWA) maximum safe flow meter equivalent ratios.
2. Bill multi-family customers fixed charges based on meter size instead of on a per EDU basis.
3. Apply volumetric rates to every metered volumetric unit and remove any volumetric units included within a fixed charge.
4. Charge outside city customers the same rates charged to inside city customers.

### 5.3 Rate Derivation

The recommended rates incorporate some modifications to the City’s water rate structure designed to align rates with the current cost of providing service and reflect policy input provided by the City. Due to these modifications, impacts to water bills will vary based on customer class and water use when the first-year proposed rates are implemented.

#### **Monthly Fixed Service Charge**

This charge applies to all active services. It recovers the Capacity functional component revenue requirement on a per EDU basis. The unit costs per EDU varies by meter size. EDU ratios are based on the AWWA meter equivalent ratio for each meter size as described in Section 3.2.

#### **Volumetric Charge**

This charge applies to every unit of water sold. It recovers the All Volume functional component revenue requirement on a unit (CCF) basis.

The following tables show the rate derivation of the fixed and volumetric charges for each scenario.

**Table 13. Scenario 1 Rate Derivation**

<b>Allocation Units</b>	<b>Capacity</b>	<b>All Volume</b>
<i>Unit of Measure</i>	<i>EDU</i>	<i>CCF</i>
Allocation Units	54,572	779,094
Revenue Requirement	<u>\$1,511,574</u>	<u>\$1,510,365</u>
<b>Unit Cost (\$/Unit)</b>	<b>\$27.70</b>	<b>\$1.94</b>

<b>Monthly Fixed Charge Calculation</b>		<b>Monthly Capacity Component</b>	<b>Monthly Fixed Charge</b>
	<b>Capacity Factor</b>		
5/8"	1.00	\$27.70	<b>\$27.70</b>
3/4"	1.00	\$27.70	<b>\$27.70</b>
1"	1.67	\$46.16	<b>\$46.16</b>
1.5"	3.33	\$92.33	<b>\$92.33</b>
2"	5.33	\$147.73	<b>\$147.73</b>
3"	10.67	\$295.45	<b>\$295.45</b>
4"	16.67	\$461.65	<b>\$461.65</b>
6"	43.33	\$1,200.28	<b>\$1,200.28</b>
8"	53.33	\$1,477.26	<b>\$1,477.26</b>

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**Table 14. Scenario 2 Rate Derivation**

Allocation Units		Capacity	All Volume
<i>Unit of Measure</i>		<i>EDU</i>	<i>CCF</i>
Allocation Units		54,572	779,094
Revenue Requirement		<u>\$1,333,742</u>	<u>\$1,332,675</u>
<b>Unit Cost (\$/Unit)</b>		<b>\$24.44</b>	<b>\$1.71</b>

Monthly Fixed Charge			
Calculation	Capacity Factor	Monthly Capacity Component	Monthly Fixed Charge
5/8"	1.00	\$24.44	\$24.44
3/4"	1.00	\$24.44	\$24.44
1"	1.67	\$40.73	\$40.73
1.5"	3.33	\$81.47	\$81.47
2"	5.33	\$130.35	\$130.35
3"	10.67	\$260.69	\$260.69
4"	16.67	\$407.33	\$407.33
6"	43.33	\$1,059.07	\$1,059.07
8"	53.33	\$1,303.47	\$1,303.47

**Table 15. Scenario 3 Rate Derivation**

Allocation Units		Capacity	All Volume
<i>Unit of Measure</i>		<i>EDU</i>	<i>CCF</i>
Allocation Units		54,572	779,094
Revenue Requirement		<u>\$1,200,367</u>	<u>\$1,199,408</u>
<b>Unit Cost (\$/Unit)</b>		<b>\$22.00</b>	<b>\$1.54</b>

Monthly Fixed Charge			
Calculation	Capacity Factor	Monthly Capacity Component	Monthly Fixed Charge
5/8"	1.00	\$22.00	\$22.00
3/4"	1.00	\$22.00	\$22.00
1"	1.67	\$36.66	\$36.66
1.5"	3.33	\$73.32	\$73.32
2"	5.33	\$117.31	\$117.31
3"	10.67	\$234.62	\$234.62
4"	16.67	\$366.60	\$366.60
6"	43.33	\$953.16	\$953.16
8"	53.33	\$1,173.12	\$1,173.12

## 5.4 Recommended Water Rates

The following tables show a 5-year schedule of recommended water rates for each scenario.

**Table 16. Scenario 1 Recommended Water Rates**

<b>Monthly Volumetric Rates</b>	<b>FY 24-25</b>	<b>January 1, 2025</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Tier 1 (0-5 CCF)	\$0.00	\$1.94	\$2.04	\$2.15	\$2.26	\$2.38
Tier 2 (5+ CCF)	\$1.02	\$1.94	\$2.04	\$2.15	\$2.26	\$2.38
<b>Monthly Fixed Rates</b>	<b>FY 24-25</b>	<b>January 1, 2025</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Multi-Unit (Per Unit)	\$19.97	Based on Meter Size				
<i>Meter Size</i>						
5/8"	\$19.97	\$27.70	\$29.09	\$30.54	\$32.07	\$33.67
3/4"	\$19.97	\$27.70	\$29.09	\$30.54	\$32.07	\$33.67
1"	\$27.53	\$46.16	\$48.47	\$50.89	\$53.43	\$56.10
1 1/2"	\$35.71	\$92.33	\$96.95	\$101.80	\$106.89	\$112.23
2"	\$50.00	\$147.73	\$155.12	\$162.88	\$171.02	\$179.57
3"	\$69.19	\$295.45	\$310.22	\$325.73	\$342.02	\$359.12
4"	\$85.88	\$461.65	\$484.73	\$508.97	\$534.42	\$561.14
6"	\$102.55	\$1,200.28	\$1,260.29	\$1,323.30	\$1,389.47	\$1,458.94
8"	\$121.68	\$1,477.26	\$1,551.12	\$1,628.68	\$1,710.11	\$1,795.62
Fire Stand-By	\$13.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

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**Table 17. Scenario 2 Recommended Water Rates**

<b>Monthly Volumetric Rates</b>	<b>FY 24-25</b>	<b>January 1, 2025</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Tier 1 (0-5 CCF)	\$0.00	\$1.71	\$2.06	\$2.17	\$2.28	\$2.40
Tier 2 (5+ CCF)	\$1.02	\$1.71	\$2.06	\$2.17	\$2.28	\$2.40
<b>Monthly Fixed Rates</b>	<b>FY 24-25</b>	<b>January 1, 2025</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Multi-Unit (Per Unit)	\$19.97	Based on Meter Size				
<i>Meter Size</i>						
5/8"	\$19.97	\$24.44	\$29.33	\$30.80	\$32.34	\$33.96
3/4"	\$19.97	\$24.44	\$29.33	\$30.80	\$32.34	\$33.96
1"	\$27.53	\$40.73	\$48.88	\$51.32	\$53.89	\$56.58
1 1/2"	\$35.71	\$81.47	\$97.76	\$102.65	\$107.78	\$113.17
2"	\$50.00	\$130.35	\$156.42	\$164.24	\$172.45	\$181.07
3"	\$69.19	\$260.69	\$312.83	\$328.47	\$344.89	\$362.13
4"	\$85.88	\$407.33	\$488.80	\$513.24	\$538.90	\$565.85
6"	\$102.55	\$1,059.07	\$1,270.88	\$1,334.42	\$1,401.14	\$1,471.20
8"	\$121.68	\$1,303.47	\$1,564.16	\$1,642.37	\$1,724.49	\$1,810.71
Fire Stand-By	\$13.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

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**Table 18. Scenario 3 Recommended Water Rates**

<b>Monthly Volumetric Rates</b>	<b>FY 24-25</b>	<b>January 1, 2025</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Tier 1 (0-5 CCF)	\$0.00	\$1.54	\$1.93	\$2.22	\$2.45	\$2.58
Tier 2 (5+ CCF)	\$1.02	\$1.54	\$1.93	\$2.22	\$2.45	\$2.58
<b>Monthly Fixed Rates</b>	<b>FY 24-25</b>	<b>January 1, 2025</b>	<b>January 1, 2026</b>	<b>January 1, 2027</b>	<b>January 1, 2028</b>	<b>January 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Multi-Unit (Per Unit)	\$19.97	Based on Meter Size				
<i>Meter Size</i>						
5/8"	\$19.97	\$22.00	\$27.50	\$31.63	\$34.79	\$36.53
3/4"	\$19.97	\$22.00	\$27.50	\$31.63	\$34.79	\$36.53
1"	\$27.53	\$36.66	\$45.83	\$52.70	\$57.97	\$60.87
1 1/2"	\$35.71	\$73.32	\$91.65	\$105.40	\$115.94	\$121.74
2"	\$50.00	\$117.31	\$146.64	\$168.64	\$185.50	\$194.78
3"	\$69.19	\$234.62	\$293.28	\$337.27	\$371.00	\$389.55
4"	\$85.88	\$366.60	\$458.25	\$526.99	\$579.69	\$608.67
6"	\$102.55	\$953.16	\$1,191.45	\$1,370.17	\$1,507.19	\$1,582.55
8"	\$121.68	\$1,173.12	\$1,466.40	\$1,686.36	\$1,855.00	\$1,947.75
Fire Stand-By	\$13.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

## 5.5 Bill Impacts

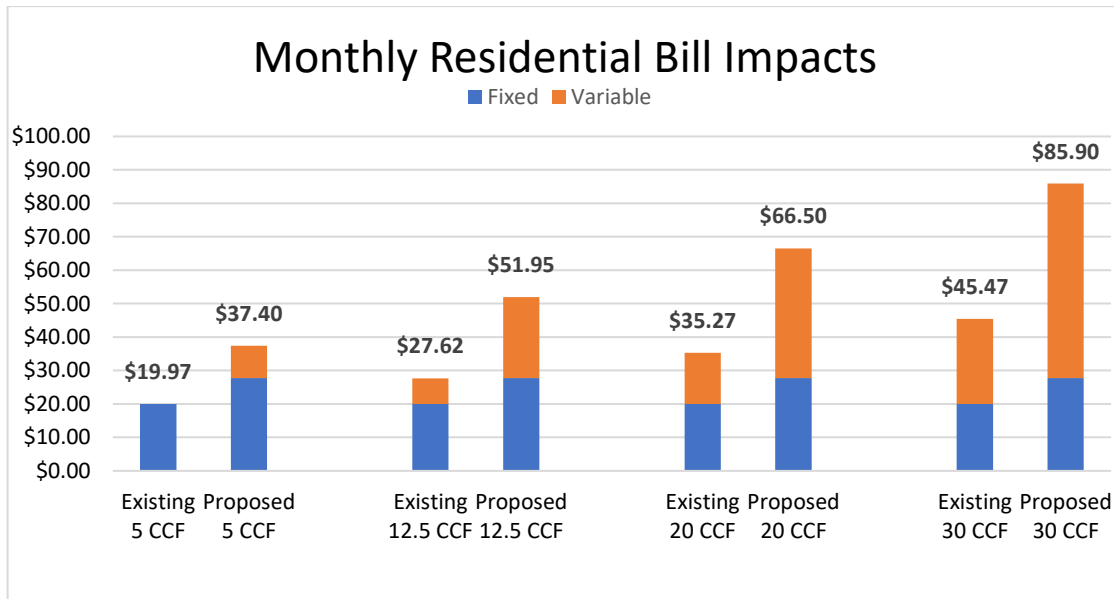
The following tables show the impacts of the proposed water rates on a range of single-family customers with different levels of consumption for each scenario.

**Table 19. Scenario 1 Bill Impacts**

Rate Category	Existing Rates	Proposed Rates
Tier 1 (0-5 CCF)	\$0.00	\$1.94
Tier 2 (5+ CCF)	\$1.02	\$1.94
5/8" Monthly Fixed	\$19.97	\$27.70

Water Use	Existing Bill	Proposed Bill	Change (\$)	Change (%)
5	\$19.97	\$37.40	\$17.43	87.3%
12.5	\$27.62	\$51.95	\$24.33	88.1%
20	\$35.27	\$66.50	\$31.23	88.5%
30	\$45.47	\$85.90	\$40.43	88.9%

**Figure 5: Scenario 1 Bill Impacts**



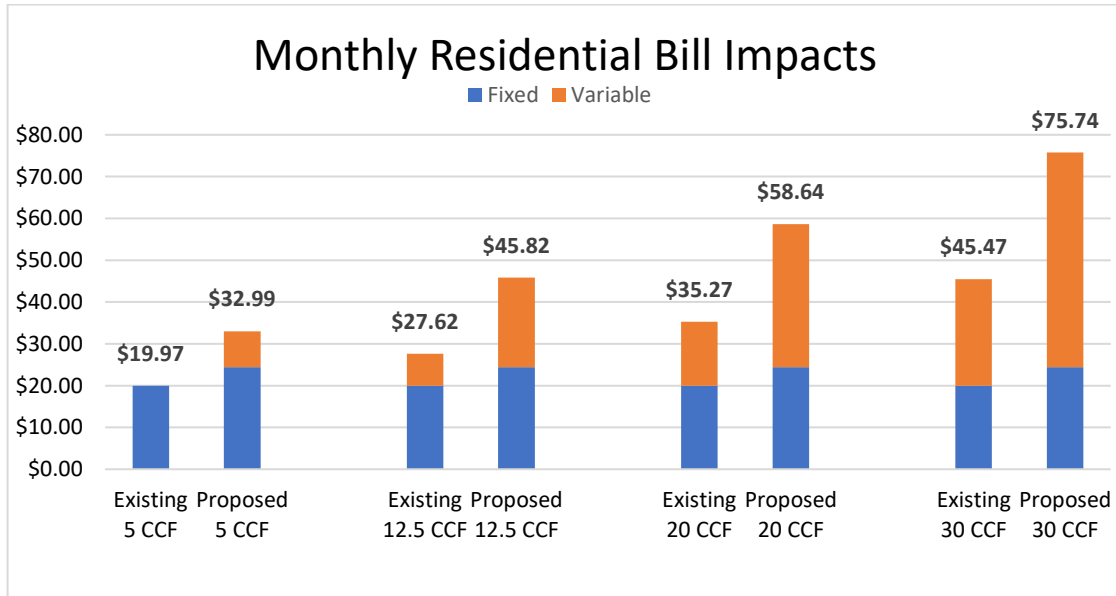


**Table 20. Scenario 2 Bill Impacts**

Rate Category	Existing Rates	Proposed Rates
Tier 1 (0-5 CCF)	\$0.00	\$1.71
Tier 2 (5+ CCF)	\$1.02	\$1.71
5/8" Monthly Fixed	\$19.97	\$24.44

Water Use	Existing Bill	Proposed Bill	Change (\$)	Change (%)
5	\$19.97	\$32.99	\$13.02	65.2%
12.5	\$27.62	\$45.82	\$18.20	65.9%
20	\$35.27	\$58.64	\$23.37	66.3%
30	\$45.47	\$75.74	\$30.27	66.6%

**Figure 6: Scenario 2 Bill Impacts**



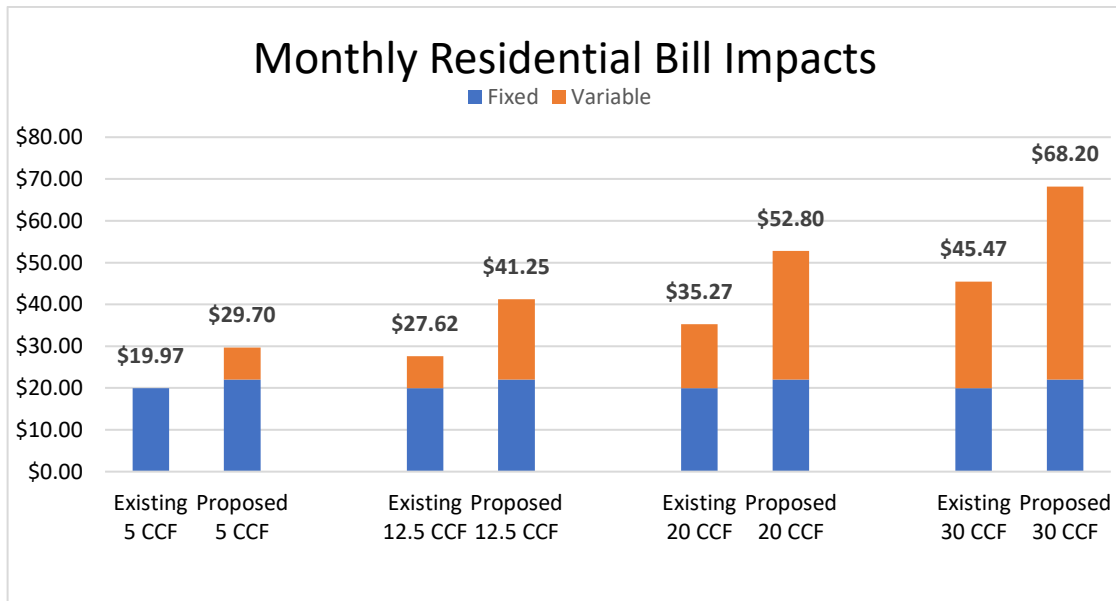
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**Table 21. Scenario 3 Bill Impacts**

Rate Category	Existing Rates	Proposed Rates
Tier 1 (0-5 CCF)	\$0.00	\$1.54
Tier 2 (5+ CCF)	\$1.02	\$1.54
5/8" Monthly Fixed	\$19.97	\$22.00

Water Use	Existing Bill	Proposed Bill	Change (\$)	Change (%)
5	\$19.97	\$29.70	\$9.73	48.7%
12.5	\$27.62	\$41.25	\$13.63	49.3%
20	\$35.27	\$52.80	\$17.53	49.7%
30	\$45.47	\$68.20	\$22.73	50.0%

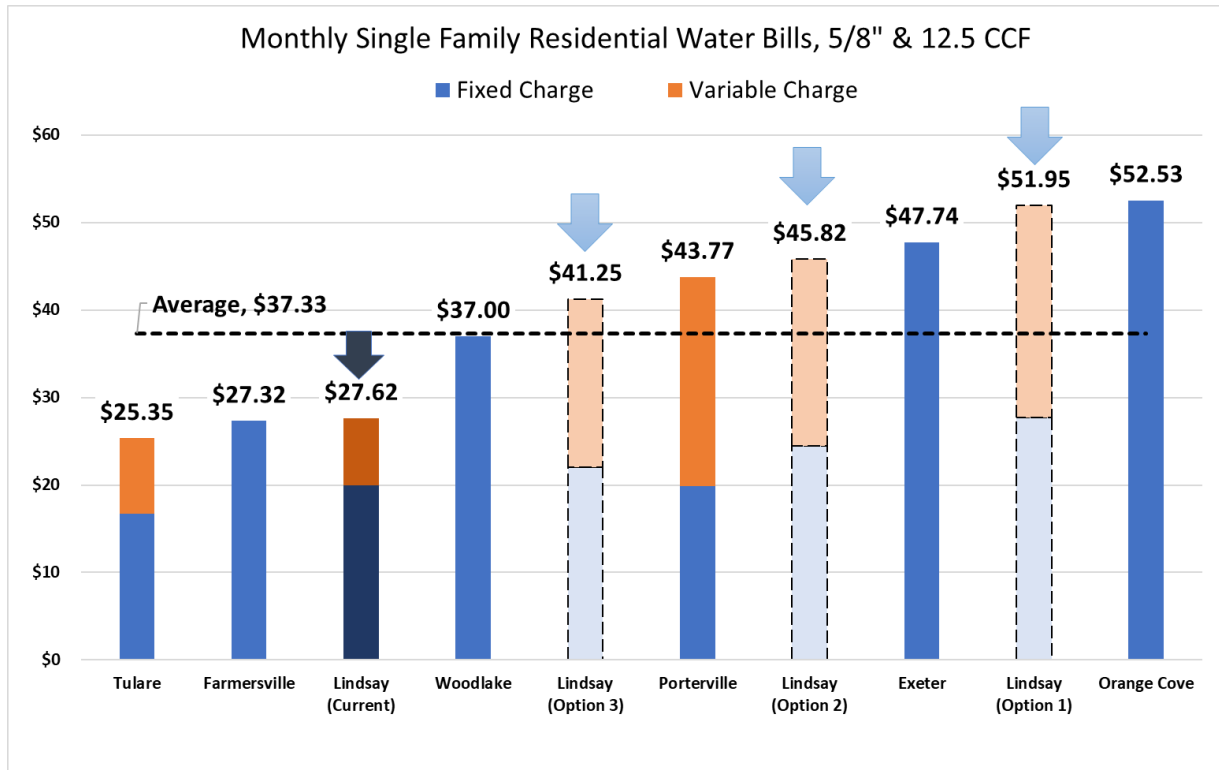
**Figure 7: Scenario 3 Bill Impacts**



## 6 REGIONAL WATER RATE SURVEY

The following chart compares the water bills for a typical single-family home to those of other regional agencies.

**Figure 8: Regional Water Rate Survey**



## **7 WATER SUMMARY AND RECOMMENDATIONS**

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The City has not raised water rates since 2009. The water enterprise is facing the need to significantly increase rate revenues in order to 1) have revenues exceed expenses and not need financial support from the General Fund and 2) have revenues to cash fund capital and 3) qualify for financing and grants to reduce the burden on the City's rate payers

BWA has the following recommendations for the water enterprise:

- The City should raise water rates in an amount large enough to pay for operating expenses, capital projects and to begin to build reserves.
- After the water enterprise's finances are stabilized, BWA recommends the City continue to adopt consistent, incremental increases to prevent the need for larger, one-time rate increases.
- When adopting new rates, BWA recommends the City adopt the recommended rate structure changes to bring the water enterprise's rates into greater compliance with Prop. 218.

## 8 WASTEWATER FINANCES AND CASH FLOW PROJECTIONS

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### 8.1 Wastewater Financial Overview

Bartle Wells Associates conducted an independent evaluation of the wastewater enterprise finances. Key observations include:

- The enterprise is in overall good financial health but will need rate increases to keep revenues in line with rising costs and to cash fund needed capital improvements.
- The City projects capital expenses of \$2.4 million from FY 24/25 through FY 28/29.
- Average wastewater operating expenses from FY 24/25 through FY 28/29 are projected to be \$1.5 million per year.

### 8.2 Wastewater Enterprise Financial Projections

BWA developed long-term cash flow projections to determine the wastewater enterprise's annual revenue requirements and project required wastewater rate revenue increases. The financial projections incorporate the latest information available as well as reasonable and slightly conservative assumptions. Key information and assumptions include:

#### Reserves

- The wastewater enterprise is projected to begin FY 24/25 with about \$1.8 million in reserves. With recommended rate structure changes and proposed rate increases, the wastewater enterprise will need to use reserves to cash fund the projected capital expenses. BWA recommends the City maintain approximately one year of operating expenses in reserve. Reserves will fluctuate based on the timing of capital expenses, but the proposed rates are projected to provide the wastewater enterprise sufficient reserves.

#### Revenue Assumptions

- As new construction can be unpredictable, BWA did not escalate revenues for growth, connection charges, or building permit revenue in its projections. Recommended rates are the maximum rates the City can adopt, which is why BWA uses conservative estimates when making revenue projections.
- Interest income is estimated based on projected reserve levels. Future projections are estimated based on conservative interest earning estimate of 1.0 %. Actual interest amounts will vary based on reserves and future interest earning rates.

## **Expense Assumptions**

- Operating and maintenance costs are based on the FY 24-25 budget and escalate at 4% in FY 25-26 and at an annual rate of 4% thereafter to account for future cost inflation.
- Street Improvement Program costs are expected to be reduced by over \$240,000 per year based on the results of the Street Impact Fee Study performed by the City.

## **8.3 Wastewater Cash flow Projection Scenarios**

This report explores the financial plan and rates for two different revenue recovery scenarios which are as follows:

- Scenario 1 – Immediate Revenue Increases. This scenario implements recommended rate structure changes and 5% annual rate revenue increases in FY 24/25.
- Scenario 2 – Delayed Revenue Increases. This scenario implements recommended rate structure changes in FY 24/25 without increasing revenue. In FY 25/26 7% annual rate revenue increases are implemented. This allows the rate structure changes to take effect without the additional impact of a rate revenue increase.

In future years, the City can re-evaluate its finances and revenue requirements and adjust rates as needed based on updated projections. However, while the City always has the flexibility to implement rate adjustments that are lower than adopted but should maintain the proportionality of the rates. Pursuant to Proposition 218, future rates cannot exceed adopted increases without going through the Proposition 218 process again.

## **8.4 Wastewater Financial Plan Scenario 1: Immediate Revenue Increase**

The following section presents a financial plan for the wastewater enterprise that updates the rate structure for users and immediately recovers the annual operating revenue requirements and maintains operating reserves for the wastewater enterprise. A summary of the key elements of the five-year cash-flow projections for this scenario is displayed in the following table.

**Table 22. Wastewater Scenario 1 Cash Flow Projection Summary**

Scenario 1: Immediate Revenue Recovery	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
Ending Reserves	\$1,356,268	\$1,265,422	\$1,153,939	\$1,437,131	\$1,664,653
Rate Revenue Increase	\$44,766	\$94,009	\$98,710	\$103,645	\$108,828

The rate projections shown on the following table are designed to fund the City’s operating and capital costs while maintaining prudent reserves.

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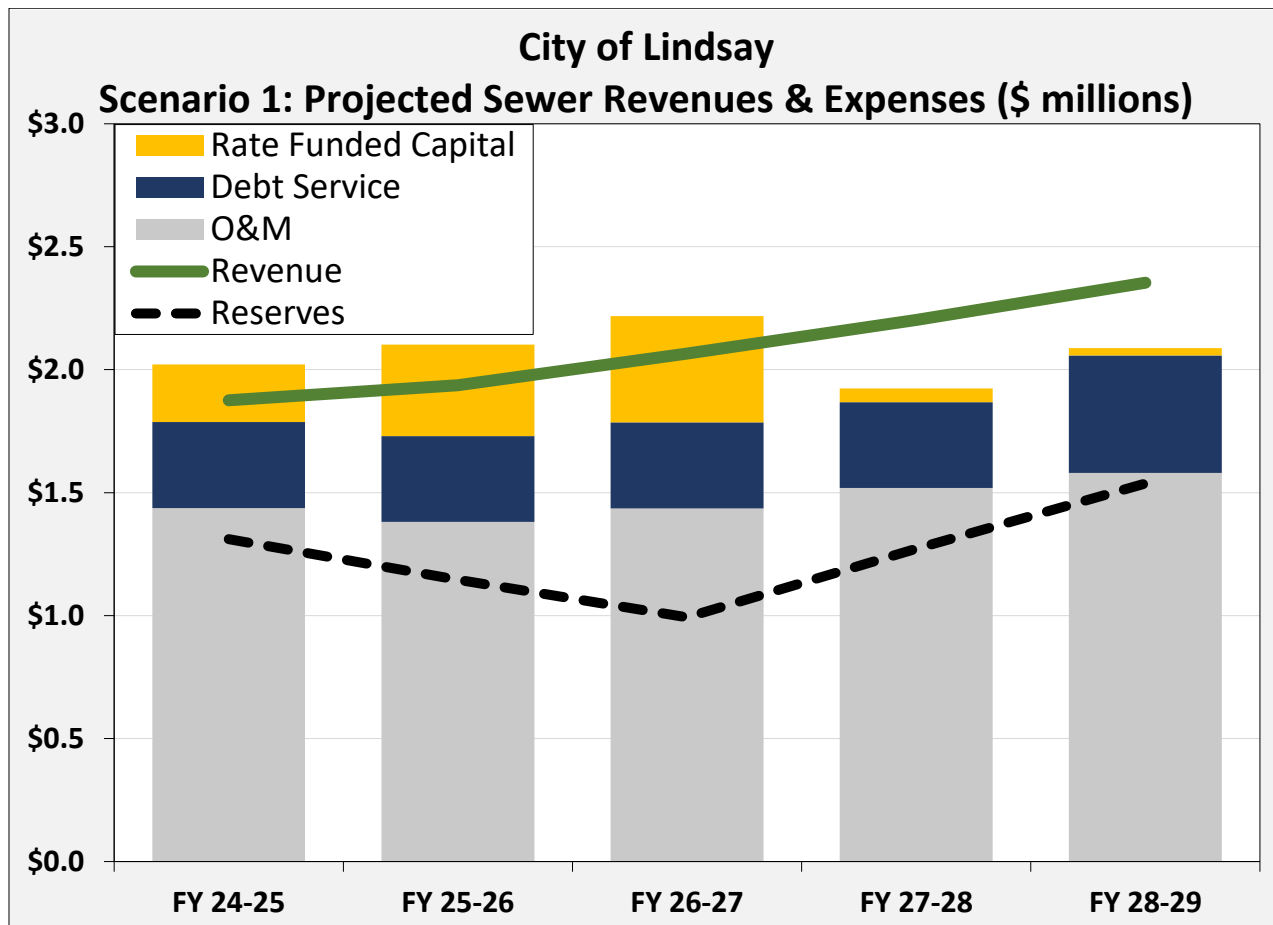
**Table 23. Projected Revenues & Expenses: Wastewater Scenario 1**

Wastewater Operating Cashflow	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	\$1,457,589	\$1,356,268	\$1,265,422	\$1,153,939	\$1,437,131
<b>Revenues</b>					
Rate Revenue					
Current Rate Revenue	\$1,790,657	\$1,880,190	\$1,974,199	\$2,072,909	\$2,176,555
<i>Rate Revenue Increase</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>
Rate Increase Revenue	\$89,533	\$94,009	\$98,710	\$103,645	\$108,828
Mid-Year Rate Increase Adjustment <sup>1</sup>	-44,766	-47,005	-49,355	-51,823	-54,414
Total Rate Revenue	<u>1,835,423</u>	<u>1,927,195</u>	<u>2,023,554</u>	<u>2,124,732</u>	<u>2,230,969</u>
Non-Rate Revenue	70,505	70,505	70,505	70,505	70,505
Interest on Reserve (1.0%)	<u>14,576</u>	<u>13,563</u>	<u>12,654</u>	<u>11,539</u>	<u>14,371</u>
<b>Total Revenues</b>	<b>\$1,920,504</b>	<b>\$2,011,262</b>	<b>\$2,106,714</b>	<b>\$2,206,777</b>	<b>\$2,315,845</b>
<b>Expenses</b>					
Operating Expenses	\$1,437,733	\$1,381,215	\$1,436,463	\$1,518,922	\$1,579,679
Existing Debt Service	349,093	349,093	349,093	349,093	349,093
New Debt Service	0	0	0	0	129,513
Rate Funded Capital	<u>235,000</u>	<u>371,800</u>	<u>432,640</u>	<u>55,570</u>	<u>30,038</u>
<b>Total Expenses</b>	<b>\$2,021,826</b>	<b>\$2,102,108</b>	<b>\$2,218,196</b>	<b>\$1,923,585</b>	<b>\$2,088,323</b>
<b>Net Revenues</b>	<b>-\$101,322</b>	<b>-\$90,846</b>	<b>-\$111,482</b>	<b>\$283,192</b>	<b>\$227,522</b>
<b>Ending Reserve Balance</b>	<b>\$1,356,268</b>	<b>\$1,265,422</b>	<b>\$1,153,939</b>	<b>\$1,437,131</b>	<b>\$1,664,653</b>
<i>Debt Coverage Ratio (Target 1.3)</i>	<i>1.38</i>	<i>1.80</i>	<i>1.92</i>	<i>1.97</i>	<i>2.11</i>
<b>Capital Funding</b>					
	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>					
Use of New Debt Proceeds	\$0	\$0	\$0	\$400,000	\$900,000
Cash Funded Capital	<u>235,000</u>	<u>371,800</u>	<u>432,640</u>	<u>55,570</u>	<u>30,038</u>
<b>Total Capital Revenue</b>	<b>\$235,000</b>	<b>\$371,800</b>	<b>\$432,640</b>	<b>\$455,570</b>	<b>\$930,038</b>
<b>Total Capital Expenditures</b>	<b>\$235,000</b>	<b>\$371,800</b>	<b>\$432,640</b>	<b>\$455,570</b>	<b>\$930,038</b>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.

The following figure shows cash flow projections incorporating the assumptions described above.

Figure 9: Wastewater Scenario 1 Projected Cashflow Graph



### 8.5 Wastewater Financial Plan Scenario 2: Partial Phase-In Revenue Increase

The following section presents a financial plan for the wastewater enterprise that has no increase in the first year to mitigate the impact of a rate structure impact on customers. A summary of the key elements of the five-year cash-flow projections for this scenario is displayed in the following table.

Table 24. Wastewater Scenario 2 Cash Flow Projection Summary

Scenario 2: Reduced Revenue Recovery	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
Ending Reserves	\$1,311,501	\$1,146,343	\$993,179	\$1,271,908	\$1,537,218
Rate Revenue Increase	\$0	\$125,346	\$134,120	\$143,509	\$153,554



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The rate projections shown on the following table are designed to fund the City’s operating and capital costs while maintaining prudent reserves.

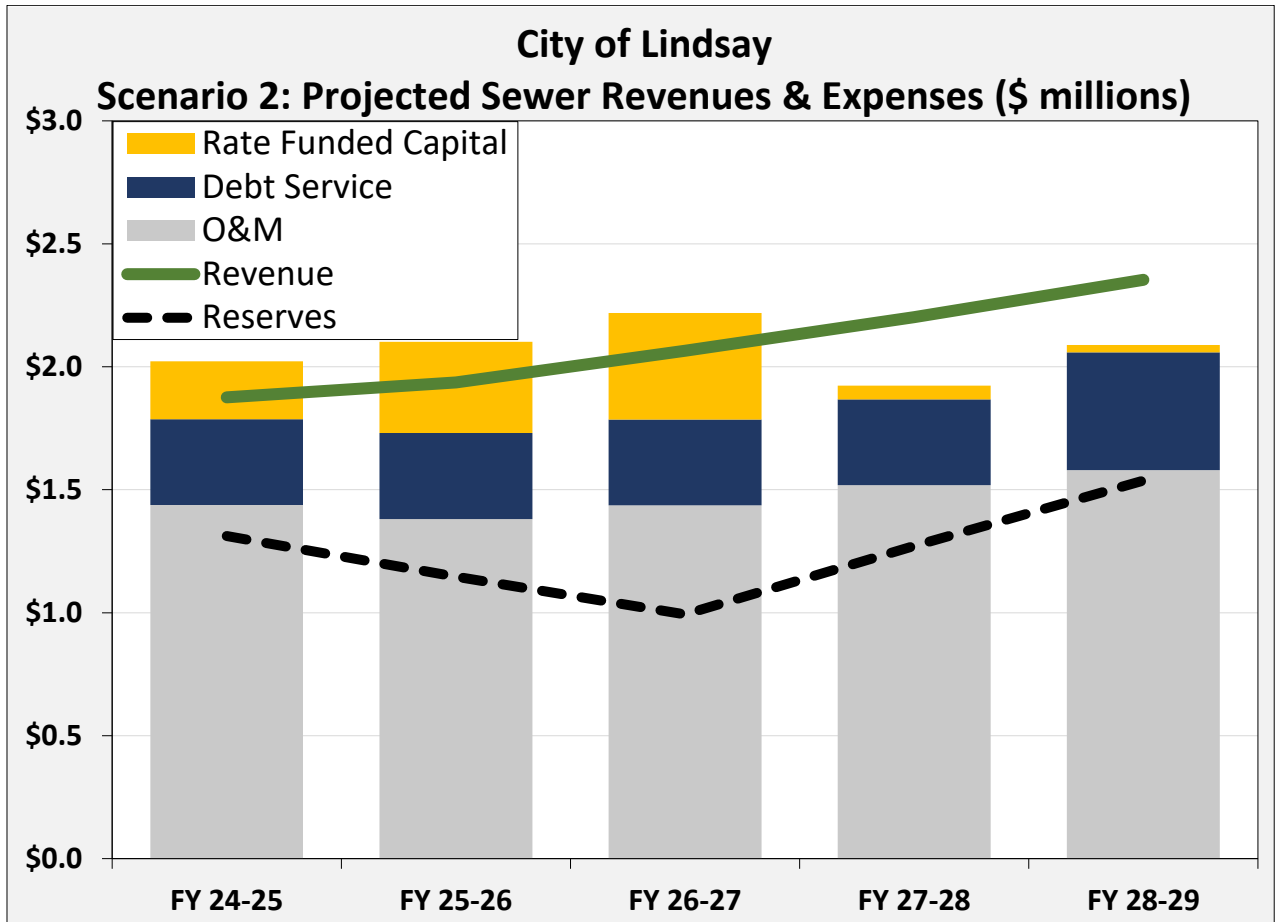
**Table 25. Projected Revenues & Expenses: Wastewater Scenario 2**

Wastewater Operating Cashflow	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	\$1,457,589	\$1,311,501	\$1,146,343	\$993,179	\$1,271,908
<b>Revenues</b>					
Rate Revenue					
Current Rate Revenue	\$1,790,657	\$1,790,657	\$1,916,003	\$2,050,123	\$2,193,632
<i>Rate Revenue Increase</i>		7.0%	7.0%	7.0%	7.0%
Rate Increase Revenue	\$0	\$125,346	\$134,120	\$143,509	\$153,554
Mid-Year Rate Increase Adjustment <sup>1</sup>	0	-62,673	-67,060	-71,754	-76,777
<b>Total Rate Revenue</b>	<u>1,790,657</u>	<u>1,853,330</u>	<u>1,983,063</u>	<u>2,121,878</u>	<u>2,270,409</u>
Non-Rate Revenue	70,505	70,505	70,505	70,505	70,505
Interest on Reserve (1.0%)	14,576	13,115	11,463	9,932	12,719
<b>Total Revenues</b>	<b>\$1,875,738</b>	<b>\$1,936,950</b>	<b>\$2,065,032</b>	<b>\$2,202,314</b>	<b>\$2,353,633</b>
<b>Expenses</b>					
Operating Expenses	\$1,437,733	\$1,381,215	\$1,436,463	\$1,518,922	\$1,579,679
Existing Debt Service	349,093	349,093	349,093	349,093	349,093
New Debt Service	0	0	0	0	129,513
Rate Funded Capital	235,000	371,800	432,640	55,570	30,038
<b>Total Expenses</b>	<b>\$2,021,826</b>	<b>\$2,102,108</b>	<b>\$2,218,196</b>	<b>\$1,923,585</b>	<b>\$2,088,323</b>
<b>Net Revenues</b>	<b>-\$146,088</b>	<b>-\$165,158</b>	<b>-\$153,164</b>	<b>\$278,729</b>	<b>\$265,310</b>
<b>Ending Reserve Balance</b>	<b>\$1,311,501</b>	<b>\$1,146,343</b>	<b>\$993,179</b>	<b>\$1,271,908</b>	<b>\$1,537,218</b>
<i>Debt Coverage Ratio (Target 1.3)</i>	1.25	1.59	1.80	1.96	2.22
<b>Capital Funding</b>					
	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>					
Use of New Debt Proceeds	\$0	\$0	\$0	\$400,000	\$900,000
Cash Funded Capital	235,000	371,800	432,640	55,570	30,038
<b>Total Capital Revenue</b>	<b>\$235,000</b>	<b>\$371,800</b>	<b>\$432,640</b>	<b>\$455,570</b>	<b>\$930,038</b>
<b>Total Capital Expenditures</b>	<b>\$235,000</b>	<b>\$371,800</b>	<b>\$432,640</b>	<b>\$455,570</b>	<b>\$930,038</b>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.

The following figure shows cash flow projections incorporating the assumptions described above.

Figure 10: Wastewater Scenario 2 Projected Cashflow Graph



## 9 WASTEWATER COST OF SERVICE ANALYSIS AND RATE DERIVATION

### 9.1 Wastewater Cost of Service Rate Derivation Process

BWA derived updated wastewater rates that account for both a) the overall rate increases identified in the financial projections, and b) proposed rate structure modifications. The proposed rates are designed to equitably apportion and recover costs from the City’s customer base. The basic methodology used to develop new rates includes the steps summarized in the figure below.

**Figure 11: Wastewater Cost of Service Analysis and Rate Derivation Process**



## 9.2 Flows and Loadings

Estimated flows and loadings of each customer class are based on analysis of recent annual water consumption data and wastewater strength assignments for each customer class.

- Residential flows per unit are based on estimated per capita water use. Residential wastewater strength concentrations are based on estimates previously published by the State Water Resources Control Board (SWRCB).
- Commercial wastewater flows are estimated based on metered water use adjusted to account for outdoor irrigation with an 80% RTS factor. Wastewater strength assignments for commercial customer classes are based on strength estimates previously published by the SWRCB.

The resulting flow and strength projections for each class are shown on the following table and provide the basis for allocating costs and deriving equitable wastewater rates for each customer class.

**Table 26. Wastewater Flows and Loading**

Customer Classification	Sewer Units	Est. Mo. Flow CCF Per Unit	Projected Water Use Units	Projected Wastewater Flow			Strength (mg/l) <sup>9</sup>		Loadings (lbs)			
				CCF <sup>1</sup>	Flow Factor <sup>4</sup>	MG <sup>5</sup>	GPD <sup>6</sup>	BOD <sup>7</sup>	TSS <sup>8</sup>	BOD	TSS	
<b>Residential</b>	3,700	10.0	Dwelling			444,000	332.14	909,959	250	250	693,069	693,069
<b>Non-Residential</b>												
Low Strength	44	Varies	Customer	31,837	80%	25,470	19.05	52,199	130	130	20,674	20,674
Medium Strength	167	Varies	Customer	98,578	80%	78,862	58.99	161,624	250	250	123,101	123,101
High Strength	14	Varies	Customer	5,518	80%	4,414	3.30	9,046	800	600	22,048	16,536
Schools	3,726	0.20	Student			9,089	6.80	<u>18,628</u>	130	130	<u>7,378</u>	<u>7,378</u>
<b>Subtotal Non-residential</b>				<b>135,932</b>		<b>117,835</b>	<b>88</b>	<b>241,498</b>			<b>173,201</b>	<b>167,689</b>
<b>Total</b>						<b>561,835</b>	<b>420</b>	<b>1,151,457</b>			<b>866,270</b>	<b>860,757</b>

<sup>1</sup> "CCF" stands for hundred cubic feet.

<sup>2</sup> Flow factor based on estimated flow returning to sewer.

<sup>3</sup> "MG" stands for million gallons.

<sup>4</sup> "GPD" stands for gallons per day.

<sup>5</sup> "BOD" stands for biochemical oxygen demand.

<sup>6</sup> "TSS" stands for total suspended solids.

## 9.3 Functional Allocation

The next step in the cost of service analysis is to assign wastewater system costs in each allocation category for revenue recovery via the functional cost components of fixed costs, flow, BOD (biochemical oxygen demand), and TSS (total suspended solids). While there is no single correct approach for cost allocation, BWA believes that costs should be allocated within a reasonable range that reflects both a) underlying cost causation, to the extent such causation can reasonably be determined or estimated, and b) the policy preferences of the agency in cases where a range

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of reasonable approaches can be justified. This process is intended to proportionately allocate costs to each functional component to determine the revenue requirement for each component. The allocations to each functional component were based on input from City staff.

The functional cost components used in this study are as follows:

- Fixed – Costs related to fixed system costs were allocated to this category. These costs are allocated based on the projected number of customers.
- Flow – Costs related to system flows were allocated to this category. These costs are allocated based on projected wastewater flows.
- BOD – Costs related to BOD in the system were allocated to this category. These costs are allocated based on projected BOD loadings.
- TSS – Costs related to TSS in the system were allocated to this category. These costs are allocated based on projected TSS loadings.

Related expenses and non-rate revenue were grouped into the following allocation categories before being allocated to each functional category:

- Collections – Expenses in this category are related to wastewater collection.
- Treatment – Expenses in this category are related to wastewater treatment.
- Systemwide – Expenses in this category are related to administration, wages, and maintenance.

The following tables show a breakdown of the wastewater utility’s expenses and offsetting revenues and how they are allocated by function. The result of this allocation is the percent of the revenue requirement associated with each functional allocation category.

**Table 27. Scenario 1 Functional Cost Allocation**

Allocation Category	5-Year Average			Fixed	Flow	BOD	TSS	Total
	Expenses	Less Non-Rate Revenue	Revenue Requirement					
Collections	\$150,076	\$0	\$150,076	20%	75.0%	0%	5%	100%
Treatment	\$310,118	\$0	\$310,118	20%	26.7%	26.7%	26.7%	100%
Systemwide	\$1,892,608	\$70,505	\$1,822,103	85%	5.0%	5.0%	5.0%	100%
Cost Allocation \$				\$1,640,826	\$286,360	\$173,802	\$181,306	\$2,282,294
Cost Allocation %				71%	13%	8%	8%	100%

**Table 28. Scenario 2 Functional Cost Allocation**

Allocation Category	5-Year Average			Fixed	Flow	BOD	TSS	Total
	Expenses	Less Non-Rate Revenue	Requirement					
Collections	\$150,076	\$0	\$150,076	20%	75.0%	0%	5%	100%
Treatment	\$310,118	\$0	\$310,118	20%	26.7%	26.7%	26.7%	100%
Systemwide	\$1,892,608	\$70,505	\$1,822,103	85%	5.0%	5.0%	5.0%	100%
Cost Allocation \$				\$1,640,826	\$286,360	\$173,802	\$181,306	\$2,282,294
Cost Allocation %				71%	13%	8%	8%	100%

The projected rate revenue in FY 24/25 is then multiplied by the allocation percentages.

**Table 29. Scenario 1 Functional Rate Revenue Requirement**

FY 24/25 Functional Rate Revenue Requirement	Fixed	Flow	BOD	TSS	Total
Cost Allocation %	71%	13%	8%	8%	100%
Cost Allocation \$	\$1,334,935	\$244,425	\$150,415	\$150,415	\$1,880,190

**Table 30. Scenario 2 Functional Rate Revenue Requirement**

FY 24/25 Functional Rate Revenue Requirement	Fixed	Flow	BOD	TSS	Total
Cost Allocation %	71%	13%	8%	8%	100%
Cost Allocation \$	\$1,271,366	\$232,785	\$143,253	\$143,253	\$1,790,657

The wastewater rate revenue requirements for each functional component are then divided by the units related to each function to calculate a unit cost for each function.

**Table 31. Scenario 1 Allocation Units**

Allocation Units	Fixed <i>(Customers)</i>	Flow <i>(CCF)</i>	BOD <i>(LBS)</i>	TSS <i>(LBS)</i>
Revenue Requirement	\$1,334,935	\$244,425	\$150,415	\$150,415
Demand Units	<u>3,933</u>	<u>561,835</u>	<u>866,270</u>	<u>860,757</u>
Unit Rate	<b>\$339.42</b>	<b>\$0.44</b>	<b>\$0.17</b>	<b>\$0.17</b>

**Table 32. Scenario 2 Allocation Units**

Allocation Units	Fixed <i>(Customers)</i>	Flow <i>(CCF)</i>	BOD <i>(LBS)</i>	TSS <i>(LBS)</i>
Revenue Requirement	\$1,271,366	\$232,785	\$143,253	\$143,253
Demand Units	<u>3,933</u>	<u>561,835</u>	<u>866,270</u>	<u>860,757</u>
Unit Rate	<b>\$323.26</b>	<b>\$0.41</b>	<b>\$0.17</b>	<b>\$0.17</b>

## 9.4 Revenue Requirements by Class

Revenue requirements for each customer class are calculated by multiplying the unit rates by the corresponding customer class units. The total revenue requirement for each class consists of a variable and fixed revenue requirement. Flow, BOD, and TSS comprise the variable revenue requirement.

**Table 33. Scenario 1 Flow and Strength Revenue Requirement by Class**

Allocation Units	Flow	BOD	TSS	Fixed
	(CCF)	(LBS)	(LBS)	(Customers)
Revenue Requirement	\$244,425	\$150,415	\$150,415	\$1,334,935
Demand Units	<u>561,835</u>	<u>866,270</u>	<u>860,757</u>	<u>3,933</u>
<b>Unit Rate</b>	<b>\$0.44</b>	<b>\$0.17</b>	<b>\$0.17</b>	<b>\$339.42</b>

User Class	Flow	BOD	TSS	Variable Revenue Requirement	Fixed Requirement	Fixed Revenue Requirement	Total Revenue Requirement
	(CCF)	(LBS)	(LBS)	(\$)	(#)	(\$)	(\$)
Residential	444,000	693,069	693,069	\$434,614	3,700	\$1,255,850	\$1,690,464
Commercial Low	25,470	20,674	20,674	\$18,283	44	\$14,934	\$33,217
Commercial Medium	78,862	123,101	123,101	\$77,195	167	\$56,683	\$133,878
Commercial High	4,414	22,048	16,536	\$8,638	14	\$4,752	\$13,390
School	9,089	7,378	7,378	\$6,524	8	\$2,715	\$9,240
<b>Total</b>	<b>561,835</b>	<b>866,270</b>	<b>860,757</b>	<b>\$545,255</b>	<b>3,933</b>	<b>\$1,334,935</b>	<b>\$1,880,190</b>

**Table 34. Scenario 2 Flow and Strength Revenue Requirement by Class**

Allocation Units	Flow	BOD	TSS	Fixed
	(CCF)	(LBS)	(LBS)	(Customers)
Revenue Requirement	\$232,785	\$143,253	\$143,253	\$1,271,366
Demand Units	<u>561,835</u>	<u>866,270</u>	<u>860,757</u>	<u>3,933</u>
<b>Unit Rate</b>	<b>\$0.41</b>	<b>\$0.17</b>	<b>\$0.17</b>	<b>\$323.26</b>

User Class	Flow	BOD	TSS	Variable Revenue Requirement	Fixed Requirement	Fixed Revenue Requirement	Total Revenue Requirement
	(CCF)	(LBS)	(LBS)	(\$)	(#)	(\$)	(\$)
Residential	444,000	693,069	693,069	\$413,918	3,700	\$1,196,048	\$1,609,966
Commercial Low	25,470	20,674	20,674	\$17,412	44	\$14,223	\$31,636
Commercial Medium	78,862	123,101	123,101	\$73,519	167	\$53,984	\$127,503
Commercial High	4,414	22,048	16,536	\$8,227	14	\$4,526	\$12,753
School	9,089	7,378	7,378	\$6,214	8	\$2,586	\$8,800
<b>Total</b>	<b>561,835</b>	<b>866,270</b>	<b>860,757</b>	<b>\$519,291</b>	<b>3,933</b>	<b>\$1,271,366</b>	<b>\$1,790,657</b>

## 9.5 Wastewater Rate Structure Recommendations

Bartle Wells Associates reviewed the City’s wastewater rates and has the following recommendations to improve compliance with the requirements of Proposition 218:

1. Move all non-residential customers, except schools, to the same non-residential rate structure.
2. BWA recommends the non-residential rate structure consist of a monthly fixed charge and a volumetric charge based on the customer's strength.

## 9.6 Rate Derivation

Residential rates are derived by dividing the total amount of costs designated residential rate recovery by the total number of residential fixed billing units.

**Table 35. Scenario 1 Rate Derivation**

<b>Fixed Rate Derivation</b>	<b>Revenue Requirement</b>	<b>Units</b>	<b>Unit Measurements</b>	<b>Annual Rate</b>	<b>Monthly Rate</b>
<i>Class</i>	<i>(\$)</i>			<i>(\$ per unit)</i>	<i>(\$ per unit)</i>
	<i>Total</i>				
<b>Residential</b>	\$1,690,464	3,700	Dwelling	\$456.88	<b>\$38.07</b>
<b>School</b>	\$9,240	3,726	Student	\$2.48	<b>\$0.21</b>
	<i>Fixed</i>				
<b>Non-Residential</b>	\$76,369	225	Customer	\$339.42	<b>\$28.28</b>
<b>Variable Rate Derivation</b>	<b>Revenue Requirement</b>	<b>Units</b>	<b>Unit Measurements</b>		<b>Rate</b>
					<b>(\$ per CCF)</b>
<b>Non-Residential</b>	<i>Variable</i>				
Low	\$18,283	31,837	CCF of Water Use		<b>\$0.57</b>
Medium	\$77,195	98,578	CCF of Water Use		<b>\$0.78</b>
High	\$8,638	5,518	CCF of Water Use		<b>\$1.57</b>



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**Table 36. Scenario 2 Rate Derivation**

Fixed Rate Derivation	Revenue Requirement	Units	Unit Measurements	Annual Rate	Monthly Rate
<i>Class</i>	<i>(\$)</i>			<i>(\$ per unit)</i>	<i>(\$ per unit)</i>
	<u>Total</u>				
<b>Residential</b>	\$1,609,966	3,700	Dwelling	\$435.13	<b>\$36.26</b>
<b>School</b>	\$8,800	3,726	Student	\$2.36	<b>\$0.20</b>
	<u>Fixed</u>				
<b>Non-Residential</b>	\$72,733	225	Customer	\$323.26	<b>\$26.94</b>
<b>Variable Rate Derivation</b>	<b>Revenue Requirement</b>	<b>Units</b>	<b>Unit Measurements</b>		<b>Rate (\$ per CCF)</b>
<b>Non-Residential</b>	<u>Variable</u>				
Low	\$17,412	31,837	CCF of Water Use		<b>\$0.55</b>
Medium	\$73,519	98,578	CCF of Water Use		<b>\$0.75</b>
High	\$8,227	5,518	CCF of Water Use		<b>\$1.49</b>

## 9.7 Recommended Wastewater Rates

The following tables show a 5-year schedule of recommended wastewater rates for each scenario.

**Table 37. Scenario 1 Recommended Wastewater Rates**

<b>Monthly Wastewater Rates</b>	<b>FY 24-25</b>	<b>Jan. 1, 2025</b>	<b>Jan. 1, 2026</b>	<b>Jan. 1, 2027</b>	<b>Jan. 1, 2028</b>	<b>Jan. 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
<b>Residential (Monthly Fixed, per dwelling)</b>						
Single Family	\$36.88	\$38.07	\$39.97	\$41.97	\$44.07	\$46.27
Multi-Family	\$36.88	\$38.07	\$39.97	\$41.97	\$44.07	\$46.27
Mobile Homes	\$36.88	\$38.07	\$39.97	\$41.97	\$44.07	\$46.27
<b>School (Monthly Fixed per Student)</b>	\$0.22	\$0.21	\$0.22	\$0.23	\$0.24	\$0.26
<b>Non-Residential (Fixed + Volumetric)</b>						
Monthly Fixed Charge Per Customer		\$28.28	\$29.69	\$31.18	\$32.74	\$34.37
<u>Volumetric Rates (per CCF)</u>						
Low Flow (Per CCF)		\$0.72	\$0.75	\$0.79	\$0.83	\$0.87
Medium Flow (Per CCF)		\$0.98	\$1.03	\$1.08	\$1.13	\$1.19
High Flow (Per CCF)		\$1.96	\$2.05	\$2.16	\$2.27	\$2.38
<b>Commercial (Monthly Fixed Per Customer)</b>	\$36.88	Non-Residential Volumetric Strength + Fixed Charge				
<b>Laundromats &amp; Car Washes (per CCF)</b>	\$1.85	Non-Residential Medium Strength + Fixed Charge				
<b>Hotels, Motels, &amp; Hospitals (Monthly Fixed per Room)</b>	\$7.28	Non-Residential Medium Strength + Fixed Charge				
<b>Restaurants (per CCF)</b>	\$2.90	Non-Residential High Strength + Fixed Charge				

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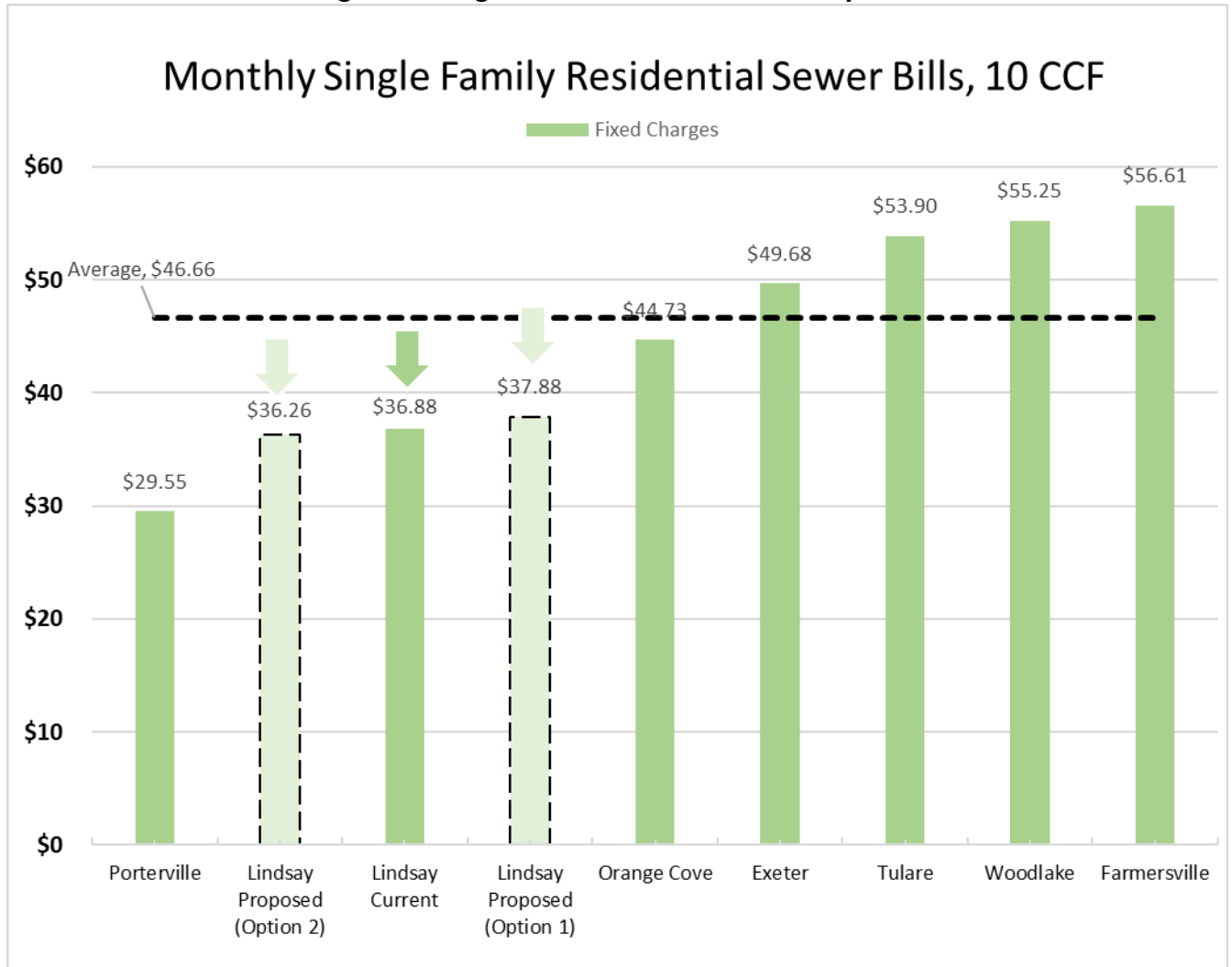
**Table 38. Scenario 2 Recommended Wastewater Rates**

<b>Monthly Wastewater Rates</b>	<b>FY 24-25</b>	<b>Jan. 1, 2025</b>	<b>Jan. 1, 2026</b>	<b>Jan. 1, 2027</b>	<b>Jan. 1, 2028</b>	<b>Jan. 1, 2029</b>
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
<b>Residential (Monthly Fixed, per dwelling)</b>						
Single Family	\$36.88	\$36.26	\$38.80	\$41.51	\$44.42	\$47.53
Multi-Family	\$36.88	\$36.26	\$38.80	\$41.51	\$44.42	\$47.53
Mobile Homes	\$36.88	\$36.26	\$38.80	\$41.51	\$44.42	\$47.53
<b>School (Monthly Fixed per Student)</b>	\$0.22	\$0.20	\$0.21	\$0.23	\$0.25	\$0.26
<b>Non-Residential (Fixed + Volumetric)</b>						
Monthly Fixed Charge Per Customer		\$26.94	\$28.83	\$30.84	\$33.00	\$35.31
<u>Volumetric Rates (per CCF)</u>						
Low Flow (Per CCF)		\$0.68	\$0.73	\$0.78	\$0.84	\$0.90
Medium Flow (Per CCF)		\$0.93	\$1.00	\$1.07	\$1.14	\$1.22
High Flow (Per CCF)		\$1.86	\$1.99	\$2.13	\$2.28	\$2.44
<b>Commercial (Monthly Fixed Per Customer)</b>	\$36.88	Non-Residential Volumetric Strength + Fixed Charge				
<b>Laundromats &amp; Car Washes (per CCF)</b>	\$1.85	Non-Residential Medium Strength + Fixed Charge				
<b>Hotels, Motels, &amp; Hospitals (Monthly Fixed per Room)</b>	\$7.28	Non-Residential Medium Strength + Fixed Charge				
<b>Restaurants (per CCF)</b>	\$2.90	Non-Residential High Strength + Fixed Charge				

## 10 REGIONAL WASTEWATER RATE SURVEY

The following chart compares the wastewater bills for a typical single-family home to those of other regional agencies.

Figure 12: Regional Wastewater Rate Survey



## **11 WASTEWATER SUMMARY AND RECOMMENDATIONS**

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The enterprise is in overall good financial health but will need rate increases to keep revenues in line with rising costs.

BWA has the following recommendations for the wastewater enterprise:

- The City should raise wastewater rates no later than January 1 in FY 2025-2026 to avoid needing larger increases in the future.
- The City should continue to adopt consistent, incremental rate increases on an annual basis to prevent the need for larger, one-time rate increases.

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## **APPENDIX A**

# **Water and Wastewater Financial Plan Tables**

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# City of Lindsay Draft Water Rate Study Tables



**August 27, 2024**

**Water Scenario 1**



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS

# DRAFT

SCENARIO 1

**Table A**  
**City of Lindsay**  
**Projected Operating Expenses**  
**Water Rate Study - Draft 8/27/2024**

Monthly Volumetric Rates	FY 24-25	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Tier 1 (0-5 CCF)	\$0.00	\$1.94	\$2.04	\$2.15	\$2.26	\$2.38
Tier 2 (5+ CCF)	\$1.02	\$1.94	\$2.04	\$2.15	\$2.26	\$2.38
Monthly Fixed Rates	FY 24-25	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Multi-Unit (Per Unit)	\$19.97	Based on Meter Size				
<i>Meter Size</i>						
5/8"	\$19.97	\$27.70	\$29.09	\$30.54	\$32.07	\$33.67
3/4"	\$19.97	\$27.70	\$29.09	\$30.54	\$32.07	\$33.67
1"	\$27.53	\$46.16	\$48.47	\$50.89	\$53.43	\$56.10
1 1/2"	\$35.71	\$92.33	\$96.95	\$101.80	\$106.89	\$112.23
2"	\$50.00	\$147.73	\$155.12	\$162.88	\$171.02	\$179.57
3"	\$69.19	\$295.45	\$310.22	\$325.73	\$342.02	\$359.12
4"	\$85.88	\$461.65	\$484.73	\$508.97	\$534.42	\$561.14
6"	\$102.55	\$1,200.28	\$1,260.29	\$1,323.30	\$1,389.47	\$1,458.94
8"	\$121.68	\$1,477.26	\$1,551.12	\$1,628.68	\$1,710.11	\$1,795.62
Fire Stand-By	\$13.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00



**Table 1**  
**City of Lindsay**  
**Projected Operating Expenses**  
**Water Rate Study - Draft 8/27/2024**

SCENARIO 1

Expenses	Allocation Category	Inflation	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
			<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
General Inflation Factor		General		4.0%	4.0%	4.0%	4.0%
WAGES/BENEFITS/INSURANCES	Administration	General	\$477,201	\$496,289	\$516,141	\$536,786	\$558,258
PERS UNFUNDED LIABILITY	Administration	General	89,700	93,288	97,020	100,900	104,936
RAW CANAL WATER	Water Purchases	General	225,000	234,000	243,360	253,094	263,218
UTILITIES	Utilities	General	300,000	312,000	324,480	337,459	350,958
PROFESSIONAL SERVICES	Administration	General	80,000	83,200	86,528	89,989	93,589
AUDIT SERVICES	Administration	General	15,807	16,440	17,097	17,781	18,492
ENGINEERING	Administration	General	35,000	36,400	37,856	39,370	40,945
WELLS MATERIALS	Source of Supply	General	25,000	26,000	27,040	28,122	29,246
MTNCE MATERIALS & SERVICE	Maintenance	General	5,000	5,200	5,408	5,624	5,849
TREATMENT PLANT MATERIALS	Water Treatment	General	63,000	65,520	68,141	70,866	73,701
REPAIR & MTNCE SERVICES	Maintenance	General	30,000	31,200	32,448	33,746	35,096
DEPART OPERATING SUPPLIES	Administration	General	85,571	88,994	92,554	96,256	100,106
LIABILITY INSURANCE	Administration	General	49,119	51,084	53,127	55,252	57,462
WATER SUPPLY TESTING	Source of Supply	General	50,000	52,000	54,080	56,243	58,493
OTHER SERVICES & CHARGES	Administration	General	64,000	66,560	69,222	71,991	74,871
EMERGENCY REPAIR LINE	Maintenance	General	50,000	52,000	54,080	56,243	58,493
PHONE & VOICE	Administration	General	12,000	12,480	12,979	13,498	14,038
SOFTWARE	Administration	General	14,300	14,872	15,467	16,086	16,729
DUES, SUBSCRIPTIONS	Administration	General	2,500	2,600	2,704	2,812	2,925
VEHICLE FUEL AND OIL	Administration	General	6,500	6,760	7,030	7,312	7,604
VEHICLE REPAIR & MAINT	Administration	General	5,000	5,200	5,408	5,624	5,849
PERMITS / FEES / LICENSES	Administration	General	70,000	72,800	75,712	78,740	81,890
MEETINGS & TRAVEL	Administration	General	5,000	5,200	5,408	5,624	5,849
INFRASTRUCTURE USER FEE	Transmission & Distribution	General	154,232	88,431	91,968	95,647	99,473
VEHICLE REPLACEMENT PROGRAM	Maintenance	General	0	0	0	25,000	26,000
Well 11 O&M	Source of Supply	General	0	0	0	300,000	312,000
<b>Total Operating Expenses</b>			<b>\$1,913,930</b>	<b>\$1,918,517</b>	<b>\$1,995,258</b>	<b>\$2,400,068</b>	<b>\$2,496,071</b>

**Table 2**  
**City of Lindsay**  
**Projected Non-Rate Revenue**  
**Water Rate Study - Draft 8/27/2024**

Non-Rate Revenue	Allocation		FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	Category	Inflation					
			<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
PENALTY & MISC SRV FEES	Administration	None	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
WATER CONNECTION CHARGES	Capital	None	4,500	4,500	4,500	4,500	4,500
NEW UTILITY ACC. SET-UP	Capital	None	2,000	2,000	2,000	2,000	2,000
MISCELLANEOUS OTHER WATER REVENUES	Administration	None	10,000	10,000	10,000	10,000	10,000
Gen Fund Repayment Agreement	Administration	None	68,100	68,100	68,100	68,100	68,100
<b>Total Non-Rate Revenue</b>			<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>

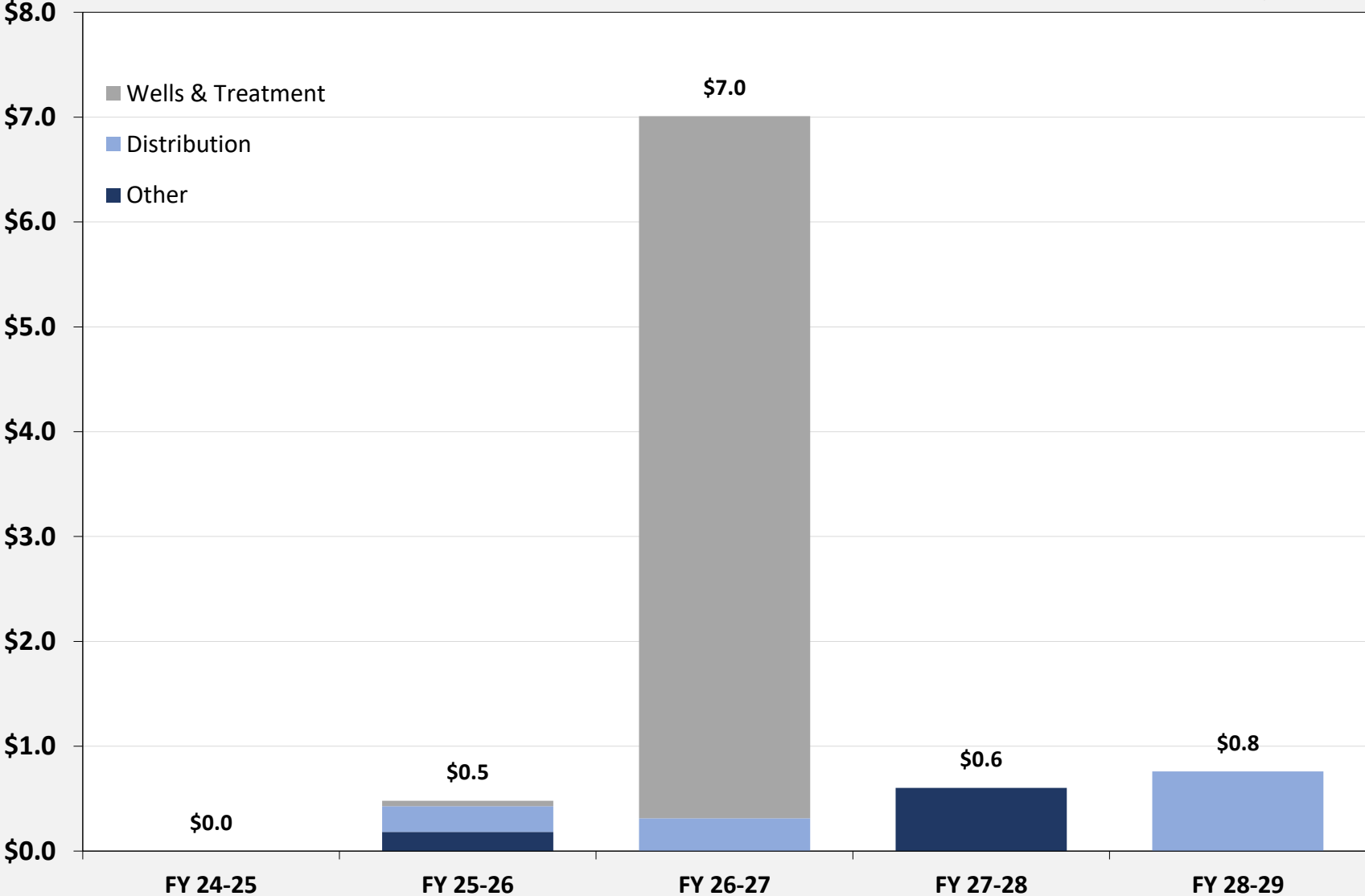
**Table 3**  
**City of Lindsay**  
**Capital Improvement Costs**  
**Water Rate Study - Draft 8/27/2024**

SCENARIO 1

Project Description	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>CIP (Current Dollars)</b>					
<b>CIP Approved Projects</b>					
Fire Flow Study (Water Capacity Study)		50,000			
Fire Flow Infrastructure					250,000
Update Master Plans		175,000			
Scada Expansion					
Pneumatic Valves for Bank A		103,200			
Pneumatic Valves for Bank B		83,200			
Pneumatic Valves for Bank C			83,200		
Pneumatic Valves for Bank D			103,200		
(3) Magnetic Flow Meters			27,000		
(4) Water Treatment Booster Pumps			75,000		
Skip Loader Tractor				35,000	
<b>Pipelines</b>					
1,300 L.F., Main Line Replacement/Dead End Elimination					300,000
<b>Groundwater Wells</b>					
Drinking Water Test Well #1					
New Well #1 (Winter Demand)					
New Well #1 Infrastructure					
Drinking Water Test Well #2					
New Well #2 (Winter Demand)					
New Well #2 Infrastructure					
Drinking Water Test Well #3					
New Well #3 (Winter Demand)					
New Well #3 Infrastructure					
<b>Ground Water Well Treatment</b>					
Well 11 - Infrastructure			5,943,000		
Well 14 - VFD Upgrades			150,000		
Well 15-Upgrades		50,000			
<b>Surface Water Projects</b>					
DBP Mitigation				500,000	
Water Plant Upgrades					
Clarifier Renovations			100,000		
Turnout Upgrades					100,000
WTP Scraper Upgrade					
Water Meters Digital Upgrade					
<b>Tank Improvements</b>					
Storage Tank Improvements					
<b>Total CIP (Current Dollars)</b>	<b>\$0</b>	<b>\$461,400</b>	<b>\$6,481,400</b>	<b>\$535,000</b>	<b>\$650,000</b>
<b>CIP (Inflated Dollars)</b>					
<b>CIP Approved Projects</b>					
Fire Flow Study (Water Capacity Study)	\$0	\$52,000	\$0	\$0	\$0
Fire Flow Infrastructure	\$0	\$0	\$0	\$0	\$292,465
Update Master Plans	\$0	\$182,000	\$0	\$0	\$0
Scada Expansion	\$0	\$0	\$0	\$0	\$0
Pneumatic Valves for Bank A	\$0	\$107,328	\$0	\$0	\$0
Pneumatic Valves for Bank B	\$0	\$86,528	\$0	\$0	\$0
Pneumatic Valves for Bank C	\$0	\$0	\$89,989	\$0	\$0
Pneumatic Valves for Bank D	\$0	\$0	\$111,621	\$0	\$0
(3) Magnetic Flow Meters	\$0	\$0	\$29,203	\$0	\$0
(4) Water Treatment Booster Pumps	\$0	\$0	\$81,120	\$0	\$0
Skip Loader Tractor	\$0	\$0	\$0	\$39,370	\$0
<b>Pipelines</b>					
1,300 L.F., Main Line Replacement/Dead	\$0	\$0	\$0	\$0	\$350,958
<b>Groundwater Wells</b>					
Drinking Water Test Well #1	\$0	\$0	\$0	\$0	\$0
New Well #1 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #1 Infrastructure	\$0	\$0	\$0	\$0	\$0
Drinking Water Test Well #2	\$0	\$0	\$0	\$0	\$0
New Well #2 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #2 Infrastructure	\$0	\$0	\$0	\$0	\$0
Drinking Water Test Well #3	\$0	\$0	\$0	\$0	\$0
New Well #3 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #3 Infrastructure	\$0	\$0	\$0	\$0	\$0
<b>Ground Water Well Treatment</b>					
Well 11 - Infrastructure	\$0	\$0	\$6,427,949	\$0	\$0
Well 14 - VFD Upgrades	\$0	\$0	\$162,240	\$0	\$0
Well 15-Upgrades	\$0	\$52,000	\$0	\$0	\$0
<b>Surface Water Projects</b>					
DBP Mitigation	\$0	\$0	\$0	\$562,432	\$0
Water Plant Upgrades	\$0	\$0	\$0	\$0	\$0
Clarifier Renovations	\$0	\$0	\$108,160	\$0	\$0
Turnout Upgrades	\$0	\$0	\$0	\$0	\$116,986
WTP Scraper Upgrade	\$0	\$0	\$0	\$0	\$0
Water Meters Digital Upgrade	\$0	\$0	\$0	\$0	\$0
<b>Tank Improvements</b>					
Storage Tank Improvements	\$0	\$0	\$0	\$0	\$0
<b>Total CIP (Inflated Dollars)</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
Annual Inflation Rate		4.0%	4.0%	4.0%	4.0%

### City of Lindsay Water Capital Improvements (\$ millions)

*Future \$; includes 4% annual construction cost inflation.*



Source: City of Lindsay 2025 Budget plus 4% annual construction cost inflation.



**Table 5**  
**City of Lindsay**  
**Cash Flow Projections**  
**Water Rate Study - Draft 8/27/2024**

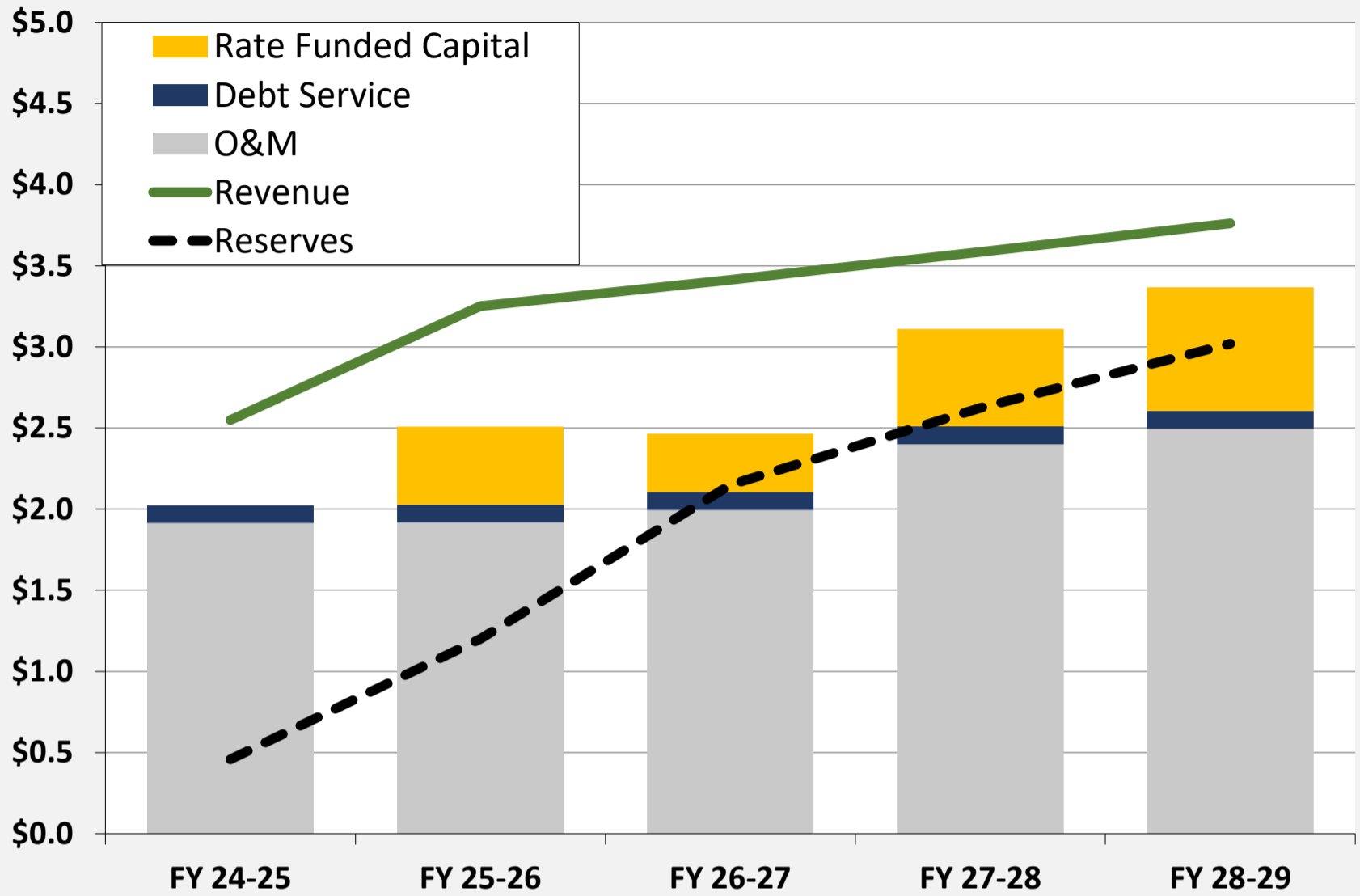
SCENARIO 1

<b>Water Operating Cashflow</b>	<b>FY 23-24</b>	<b>FY 24-25</b>	<b>FY 25-26</b>	<b>FY 26-27</b>	<b>FY 27-28</b>	<b>FY 28-29</b>
	<i>Estimated</i>	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	\$92,307	-\$67,791	\$457,780	\$1,201,198	\$2,149,757	\$2,624,090
<b>Revenues</b>						
<b>Rate Revenue</b>						
Current Rate Revenue	\$1,777,611	\$1,777,611	\$3,021,939	\$3,173,036	\$3,331,688	\$3,498,272
<i>Rate Revenue Increase</i>	<i>0.0%</i>	<i>70.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>
Rate Increase Revenue		\$1,244,328	\$151,097	\$158,652	\$166,584	\$174,914
Mid-Year Rate Increase Adjustment <sup>1</sup>		-622,164	-75,548	-79,326	-83,292	-87,457
<b>Total Rate Revenue</b>	<b>1,777,611</b>	<b>2,399,775</b>	<b>3,097,487</b>	<b>3,252,362</b>	<b>3,414,980</b>	<b>3,585,729</b>
<b>Non-Rate Revenue</b>						
Non-Rate Revenue	329,908	149,600	149,600	149,600	149,600	149,600
Interest on Reserves (1.0%)	\$0	0	4,578	12,012	21,498	26,241
<b>Total Revenue</b>	<b>\$2,107,519</b>	<b>\$2,549,375</b>	<b>\$3,251,665</b>	<b>\$3,413,974</b>	<b>\$3,586,077</b>	<b>\$3,761,570</b>
<b>Expenses</b>						
Operating Expenses	\$2,157,743	\$1,913,930	\$1,918,517	\$1,995,258	\$2,400,068	\$2,496,071
Existing Debt Service	109,874	109,874	109,874	109,874	109,874	109,874
New Debt Service	0	0	0	0	0	0
Rate Funded Capital	\$0	0	479,856	360,282	601,802	760,408
<b>Total Expenses</b>	<b>\$2,267,617</b>	<b>\$2,023,804</b>	<b>\$2,508,247</b>	<b>\$2,465,414</b>	<b>\$3,111,744</b>	<b>\$3,366,353</b>
<b>Net Revenues</b>	<b>-\$160,098</b>	<b>\$525,571</b>	<b>\$743,418</b>	<b>\$948,560</b>	<b>\$474,333</b>	<b>\$395,217</b>
<b>Ending Reserve Balance</b>	<b>-\$67,791</b>	<b>\$457,780</b>	<b>\$1,201,198</b>	<b>\$2,149,757</b>	<b>\$2,624,090</b>	<b>\$3,019,307</b>
<i>Debt Coverage (Target 1.3)</i>	<i>(0.46)</i>	<i>5.78</i>	<i>12.13</i>	<i>12.91</i>	<i>10.79</i>	<i>11.52</i>
<b>Capital Funding</b>						
	<i>Estimated</i>	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>						
Use of Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0
Other / Grant Funding	\$0	0	0	6,650,000	0	0
Rate Funded Capital	\$0	0	479,856	360,282	601,802	760,408
<b>Total Capital Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
<b>Total Capital Expenditures</b>	<b>\$0</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.

### City of Lindsay

#### Scenario 1: Projected Water Revenues & Expenses (\$ Millions)



**Table 6**  
**City of Lindsay**  
**Customer Data**  
**Water Rate Study - Draft 8/27/2024**

Meter Size <sup>[1]</sup>	Customer Count <sup>[2]</sup>	AWWA Capacity Factor <sup>[3]</sup>	Equivalent Demand Units	Annual Equivalent Demand Units
5/8"	2,454	1.0	2,454.0	29,448.0
1"	485	1.7	808.3	9,700.0
1.5"	28	3.3	93.3	1,120.0
2"	88	5.3	469.3	5,632.0
3"	14	10.7	149.3	1,792.0
4"	20	16.7	333.3	4,000.0
6"	4	33.3	133.3	1,600.0
8"	2	53.3	106.7	1,280.0
<b>Total</b>	<b>3,095</b>		<b>4,547.7</b>	<b>54,572.0</b>

<sup>[1]</sup> Meters 1" or below reflect the varying meter sizes in single family homes.

<sup>[2]</sup> Customer data as of July 2024 provided by staff.

<sup>[3]</sup> Capacity factors based on AWWA operating capacity standards by meter size.

Metered Water Use	FY 21-22	FY 22-23	FY 23-24	Projected FY 24/25
Water Use (CCF)	864,757	779,017	779,094	779,094



**Table 7**  
**City of Lindsay**  
**Functional Allocation**  
**Water Rate Study - Draft 8/27/2024**

<b>Functional Allocation</b>	<b>Amount</b>	<b>Offsetting Revenue</b>	<b>Allocation Amount</b>	<b>Capacity</b>	<b>All Volume</b>	<b>Total</b>
Administration	\$1,139,775	-\$143,100	\$996,675	95%	5%	100%
Maintenance	\$111,369	\$0	\$111,369	50%	50%	100%
Source of Supply	\$271,791	\$0	\$271,791	0%	100%	100%
Transmission & Distribution	\$95,794	\$0	\$95,794	20%	80%	100%
Utilities	\$337,979	\$0	\$337,979	10%	90%	100%
Water Purchases	\$253,484	\$0	\$253,484	0%	100%	100%
Water Treatment	\$70,975	\$0	\$70,975	20%	80%	100%
Debt Service	\$54,937	\$0	\$54,937	50%	50%	100%
Capital	\$440,470	-\$6,500	\$433,970	50%	50%	100%
<b>Functional Allocation \$</b>				<b>\$1,314,130</b>	<b>\$1,312,842</b>	<b>\$2,626,973</b>
<b>Functional Allocation %</b>				<b>50.02%</b>	<b>49.98%</b>	<b>100%</b>
<b>Revenue Requirement</b>				<b>\$1,511,574</b>	<b>\$1,510,365</b>	<b>\$3,021,939</b>

# DRAFT

**Table 8**  
**City of Lindsay**  
**Water Rate Study - Draft 8/27/2024**  
**Cash Flow Projections: Rate Derivation**

SCENARIO 1

Allocation Units	Capacity	All Volume
<i>Unit of Measure</i>	<i>EDU</i>	<i>CCF</i>
Allocation Units	54,572	779,094
Revenue Requirement	<u>\$1,511,574</u>	<u>\$1,510,365</u>
<b>Unit Cost (\$/Unit)</b>	<b>\$27.70</b>	<b>\$1.94</b>

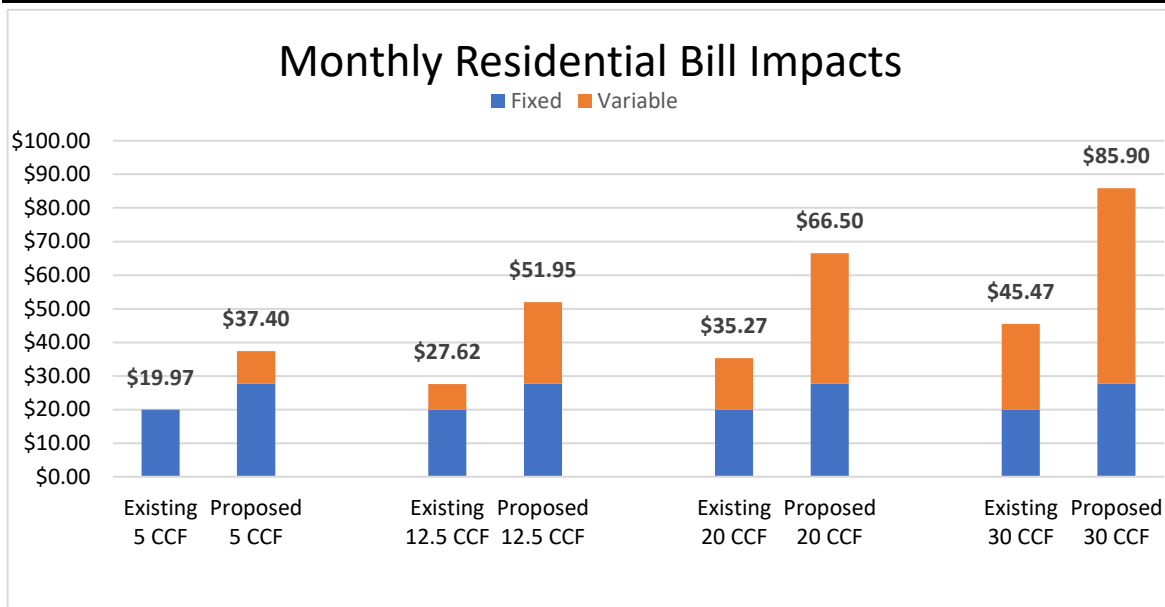
Monthly Fixed Charge			
Calculation	Capacity Factor	Monthly Capacity Component	Monthly Fixed Charge
5/8"	1.00	\$27.70	<b>\$27.70</b>
3/4"	1.00	\$27.70	<b>\$27.70</b>
1"	1.67	\$46.16	<b>\$46.16</b>
1.5"	3.33	\$92.33	<b>\$92.33</b>
2"	5.33	\$147.73	<b>\$147.73</b>
3"	10.67	\$295.45	<b>\$295.45</b>
4"	16.67	\$461.65	<b>\$461.65</b>
6"	43.33	\$1,200.28	<b>\$1,200.28</b>
8"	53.33	\$1,477.26	<b>\$1,477.26</b>

**Table 9**  
**City of Lindsay**  
**Water Rate Study - Draft 8/27/2024**  
**Cash Flow Projections: Rate Derivation**

SCENARIO 1

Rate Category	Existing Rates	Proposed Rates
Tier 1 (0-5 CCF)	\$0.00	\$1.94
Tier 2 (5+ CCF)	\$1.02	\$1.94
5/8" Monthly Fixed	\$19.97	\$27.70

Water Use	Existing Bill	Proposed Bill	Change (\$)	Change (%)
5	\$19.97	\$37.40	\$17.43	87.3%
12.5	\$27.62	\$51.95	\$24.33	88.1%
20	\$35.27	\$66.50	\$31.23	88.5%
30	\$45.47	\$85.90	\$40.43	88.9%



DRAFT

# City of Lindsay Draft Water Rate Study Tables



**August 27, 2024**

**Water Scenario 2**



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS

# DRAFT

**Table A**  
**City of Lindsay**  
**Projected Operating Expenses**  
**Water Rate Study - Draft 8/27/2024**

SCENARIO 2

Monthly Volumetric Rates	FY 24-25	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Tier 1 (0-5 CCF)	\$0.00	\$1.71	\$2.06	\$2.17	\$2.28	\$2.40
Tier 2 (5+ CCF)	\$1.02	\$1.71	\$2.06	\$2.17	\$2.28	\$2.40
Monthly Fixed Rates	FY 24-25	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Multi-Unit (Per Unit)	\$19.97	Based on Meter Size				
<i>Meter Size</i>						
5/8"	\$19.97	\$24.44	\$29.33	\$30.80	\$32.34	\$33.96
3/4"	\$19.97	\$24.44	\$29.33	\$30.80	\$32.34	\$33.96
1"	\$27.53	\$40.73	\$48.88	\$51.32	\$53.89	\$56.58
1 1/2"	\$35.71	\$81.47	\$97.76	\$102.65	\$107.78	\$113.17
2"	\$50.00	\$130.35	\$156.42	\$164.24	\$172.45	\$181.07
3"	\$69.19	\$260.69	\$312.83	\$328.47	\$344.89	\$362.13
4"	\$85.88	\$407.33	\$488.80	\$513.24	\$538.90	\$565.85
6"	\$102.55	\$1,059.07	\$1,270.88	\$1,334.42	\$1,401.14	\$1,471.20
8"	\$121.68	\$1,303.47	\$1,564.16	\$1,642.37	\$1,724.49	\$1,810.71
Fire Stand-By	\$13.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Table 1**  
**City of Lindsay**  
**Projected Operating Expenses**  
**Water Rate Study - Draft 8/27/2024**

Expenses	Allocation Category	Inflation	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
			<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
General Inflation Factor		General		4.0%	4.0%	4.0%	4.0%
WAGES/BENEFITS/INSURANCES	Administration	General	\$477,201	\$496,289	\$516,141	\$536,786	\$558,258
PERS UNFUNDED LIABILITY	Administration	General	89,700	93,288	97,020	100,900	104,936
RAW CANAL WATER	Water Purchases	General	225,000	234,000	243,360	253,094	263,218
UTILITIES	Utilities	General	300,000	312,000	324,480	337,459	350,958
PROFESSIONAL SERVICES	Administration	General	80,000	83,200	86,528	89,989	93,589
AUDIT SERVICES	Administration	General	15,807	16,440	17,097	17,781	18,492
ENGINEERING	Administration	General	35,000	36,400	37,856	39,370	40,945
WELLS MATERIALS	Source of Supply	General	25,000	26,000	27,040	28,122	29,246
MTNCE MATERIALS & SERVICE	Maintenance	General	5,000	5,200	5,408	5,624	5,849
TREATMENT PLANT MATERIALS	Water Treatment	General	63,000	65,520	68,141	70,866	73,701
REPAIR & MTNCE SERVICES	Maintenance	General	30,000	31,200	32,448	33,746	35,096
DEPART OPERATING SUPPLIES	Administration	General	85,571	88,994	92,554	96,256	100,106
LIABILITY INSURANCE	Administration	General	49,119	51,084	53,127	55,252	57,462
WATER SUPPLY TESTING	Source of Supply	General	50,000	52,000	54,080	56,243	58,493
OTHER SERVICES & CHARGES	Administration	General	64,000	66,560	69,222	71,991	74,871
EMERGENCY REPAIR LINE	Maintenance	General	50,000	52,000	54,080	56,243	58,493
PHONE & VOICE	Administration	General	12,000	12,480	12,979	13,498	14,038
SOFTWARE	Administration	General	14,300	14,872	15,467	16,086	16,729
DUES, SUBSCRIPTIONS	Administration	General	2,500	2,600	2,704	2,812	2,925
VEHICLE FUEL AND OIL	Administration	General	6,500	6,760	7,030	7,312	7,604
VEHICLE REPAIR & MAINT	Administration	General	5,000	5,200	5,408	5,624	5,849
PERMITS / FEES / LICENSES	Administration	General	70,000	72,800	75,712	78,740	81,890
MEETINGS & TRAVEL	Administration	General	5,000	5,200	5,408	5,624	5,849
INFRASTRUCTURE USER FEE	Transmission & Distribution	General	154,232	88,431	91,968	95,647	99,473
VEHICLE REPLACEMENT PROGRAM	Maintenance	General	0	0	0	25,000	26,000
Well 11 O&M	Source of Supply	General	0	0	0	300,000	312,000
<b>Total Operating Expenses</b>			<b>\$1,913,930</b>	<b>\$1,918,517</b>	<b>\$1,995,258</b>	<b>\$2,400,068</b>	<b>\$2,496,071</b>

**Table 2**  
**City of Lindsay**  
**Projected Non-Rate Revenue**  
**Water Rate Study - Draft 8/27/2024**

Non-Rate Revenue	Allocation		FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	Category	Inflation					
			<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
PENALTY & MISC SRV FEES	Administration	None	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
WATER CONNECTION CHARGES	Capital	None	4,500	4,500	4,500	4,500	4,500
NEW UTILITY ACC. SET-UP	Capital	None	2,000	2,000	2,000	2,000	2,000
MISCELLANEOUS OTHER WATER REVENUES	Administration	None	10,000	10,000	10,000	10,000	10,000
Gen Fund Repayment Agreement	Administration	None	68,100	68,100	68,100	68,100	68,100
<b>Total Non-Rate Revenue</b>			<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>

**Table 3**  
**City of Lindsay**  
**Capital Improvement Costs**  
**Water Rate Study - Draft 8/27/2024**

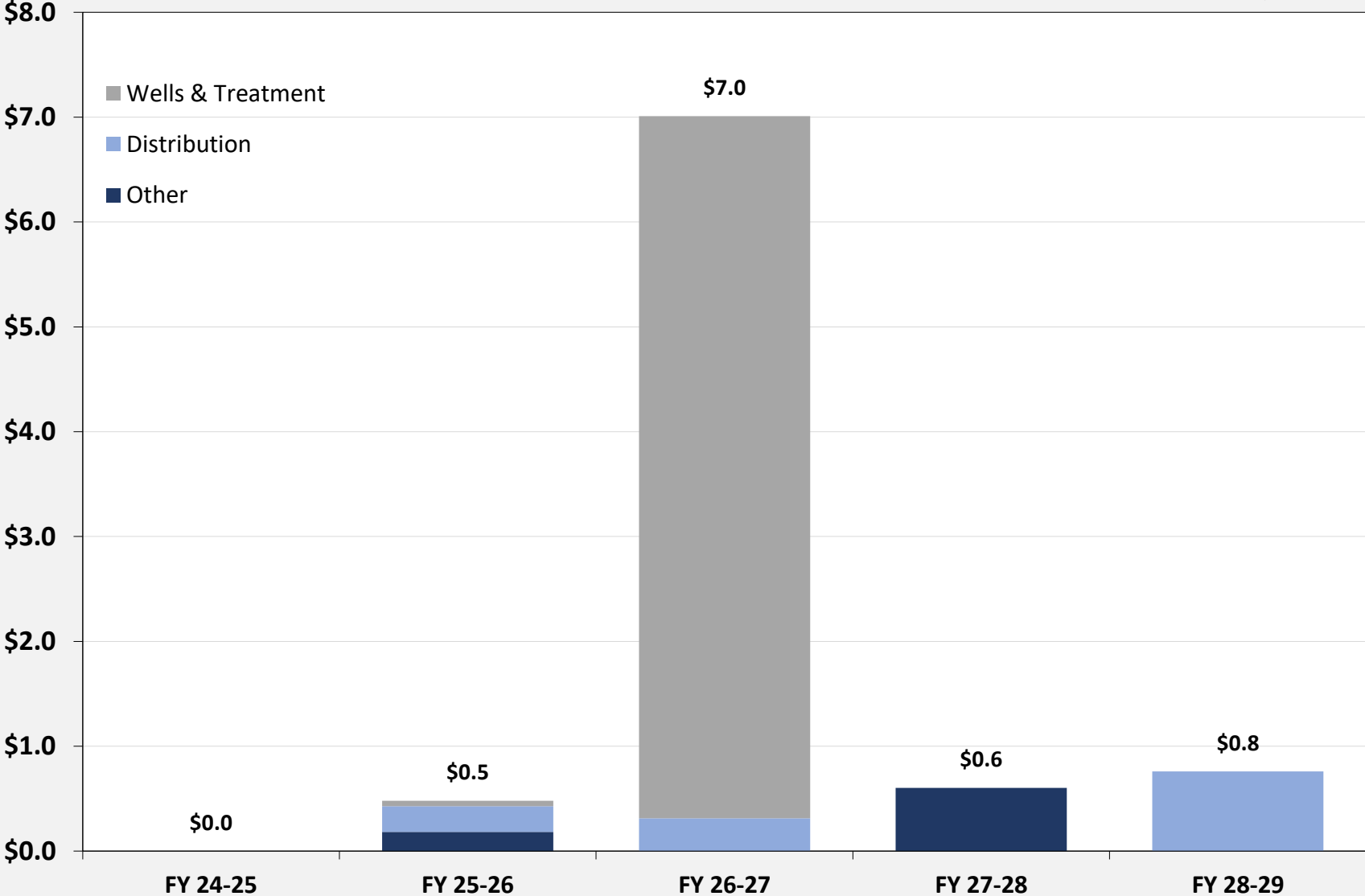
SCENARIO 2

Project Description	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>CIP (Current Dollars)</b>					
<b>CIP Approved Projects</b>					
Fire Flow Study (Water Capacity Study)		50,000			
Fire Flow Infrastructure					250,000
Update Master Plans		175,000			
Scada Expansion					
Pneumatic Valves for Bank A		103,200			
Pneumatic Valves for Bank B		83,200			
Pneumatic Valves for Bank C			83,200		
Pneumatic Valves for Bank D			103,200		
(3) Magnetic Flow Meters			27,000		
(4) Water Treatment Booster Pumps			75,000		
Skip Loader Tractor				35,000	
<b>Pipelines</b>					
1,300 L.F., Main Line Replacement/Dead End Elimination					300,000
<b>Groundwater Wells</b>					
Drinking Water Test Well #1					
New Well #1 (Winter Demand)					
New Well #1 Infrastructure					
Drinking Water Test Well #2					
New Well #2 (Winter Demand)					
New Well #2 Infrastructure					
Drinking Water Test Well #3					
New Well #3 (Winter Demand)					
New Well #3 Infrastructure					
<b>Ground Water Well Treatment</b>					
Well 11 - Infrastructure			5,943,000		
Well 14 - VFD Upgrades			150,000		
Well 15-Upgrades		50,000			
<b>Surface Water Projects</b>					
DBP Mitigation				500,000	
Water Plant Upgrades					
Clarifier Renovations			100,000		
Turnout Upgrades					100,000
WTP Scraper Upgrade					
Water Meters Digital Upgrade					
<b>Tank Improvements</b>					
Storage Tank Improvements					
<b>Total CIP (Current Dollars)</b>	<b>\$0</b>	<b>\$461,400</b>	<b>\$6,481,400</b>	<b>\$535,000</b>	<b>\$650,000</b>
<b>CIP (Inflated Dollars)</b>					
<b>CIP Approved Projects</b>					
Fire Flow Study (Water Capacity Study)	\$0	\$52,000	\$0	\$0	\$0
Fire Flow Infrastructure	\$0	\$0	\$0	\$0	\$292,465
Update Master Plans	\$0	\$182,000	\$0	\$0	\$0
Scada Expansion	\$0	\$0	\$0	\$0	\$0
Pneumatic Valves for Bank A	\$0	\$107,328	\$0	\$0	\$0
Pneumatic Valves for Bank B	\$0	\$86,528	\$0	\$0	\$0
Pneumatic Valves for Bank C	\$0	\$0	\$89,989	\$0	\$0
Pneumatic Valves for Bank D	\$0	\$0	\$111,621	\$0	\$0
(3) Magnetic Flow Meters	\$0	\$0	\$29,203	\$0	\$0
(4) Water Treatment Booster Pumps	\$0	\$0	\$81,120	\$0	\$0
Skip Loader Tractor	\$0	\$0	\$0	\$39,370	\$0
<b>Pipelines</b>					
1,300 L.F., Main Line Replacement/Dead I	\$0	\$0	\$0	\$0	\$350,958
<b>Groundwater Wells</b>					
Drinking Water Test Well #1	\$0	\$0	\$0	\$0	\$0
New Well #1 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #1 Infrastructure	\$0	\$0	\$0	\$0	\$0
Drinking Water Test Well #2	\$0	\$0	\$0	\$0	\$0
New Well #2 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #2 Infrastructure	\$0	\$0	\$0	\$0	\$0
Drinking Water Test Well #3	\$0	\$0	\$0	\$0	\$0
New Well #3 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #3 Infrastructure	\$0	\$0	\$0	\$0	\$0
<b>Ground Water Well Treatment</b>					
Well 11 - Infrastructure	\$0	\$0	\$6,427,949	\$0	\$0
Well 14 - VFD Upgrades	\$0	\$0	\$162,240	\$0	\$0
Well 15-Upgrades	\$0	\$52,000	\$0	\$0	\$0
<b>Surface Water Projects</b>					
DBP Mitigation	\$0	\$0	\$0	\$562,432	\$0
Water Plant Upgrades	\$0	\$0	\$0	\$0	\$0
Clarifier Renovations	\$0	\$0	\$108,160	\$0	\$0
Turnout Upgrades	\$0	\$0	\$0	\$0	\$116,986
WTP Scraper Upgrade	\$0	\$0	\$0	\$0	\$0
Water Meters Digital Upgrade	\$0	\$0	\$0	\$0	\$0
<b>Tank Improvements</b>					
Storage Tank Improvements	\$0	\$0	\$0	\$0	\$0
<b>Total CIP (Inflated Dollars)</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
<i>Annual Inflation Rate</i>		<i>4.0%</i>	<i>4.0%</i>	<i>4.0%</i>	<i>4.0%</i>



### City of Lindsay Water Capital Improvements (\$ millions)

*Future \$; includes 4% annual construction cost inflation.*



Source: City of Lindsay 2025 Budget plus 4% annual construction cost inflation.



**Table 5**  
**City of Lindsay**  
**Cash Flow Projections**  
**Water Rate Study - Draft 8/27/2024**

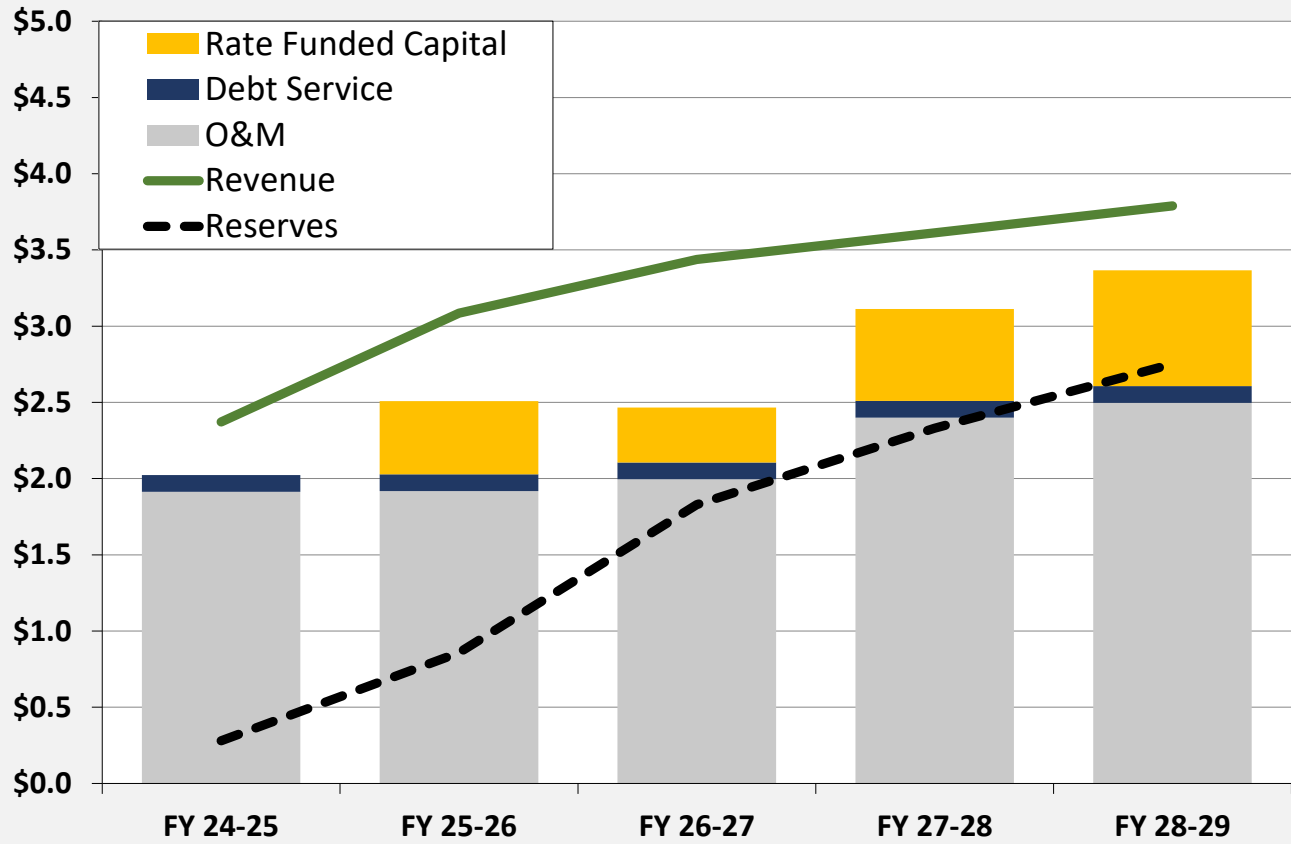
<b>Water Operating Cashflow</b>	<b>FY 23-24</b>	<b>FY 24-25</b>	<b>FY 25-26</b>	<b>FY 26-27</b>	<b>FY 27-28</b>	<b>FY 28-29</b>
	<i>Estimated</i>	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	\$92,307	-\$67,791	\$280,018	\$857,230	\$1,829,681	\$2,329,510
<b>Revenues</b>						
Rate Revenue						
Current Rate Revenue	\$1,777,611	\$1,777,611	\$2,666,417	\$3,199,700	\$3,359,685	\$3,527,669
<i>Rate Revenue Increase</i>	<i>0.0%</i>	<i>50.0%</i>	<i>20.0%</i>	<i>5.0%</i>	<i>5.0%</i>	<i>5.0%</i>
Rate Increase Revenue		\$888,806	\$533,283	\$159,985	\$167,984	\$176,383
Mid-Year Rate Increase Adjustment <sup>1</sup>		-444,403	-266,642	-79,993	-83,992	-88,192
<b>Total Rate Revenue</b>	<b>1,777,611</b>	<b>2,222,014</b>	<b>2,933,058</b>	<b>3,279,693</b>	<b>3,443,677</b>	<b>3,615,861</b>
Non-Rate Revenue	329,908	149,600	149,600	149,600	149,600	149,600
Interest on Reserves (1.0%)	\$0	0	2,800	8,572	18,297	23,295
<b>Total Revenue</b>	<b>\$2,107,519</b>	<b>\$2,371,614</b>	<b>\$3,085,459</b>	<b>\$3,437,865</b>	<b>\$3,611,574</b>	<b>\$3,788,756</b>
<b>Expenses</b>						
Operating Expenses	\$2,157,743	\$1,913,930	\$1,918,517	\$1,995,258	\$2,400,068	\$2,496,071
Existing Debt Service	109,874	109,874	109,874	109,874	109,874	109,874
New Debt Service	0	0	0	0	0	0
Rate Funded Capital	\$0	0	479,856	360,282	601,802	760,408
<b>Total Expenses</b>	<b>\$2,267,617</b>	<b>\$2,023,804</b>	<b>\$2,508,247</b>	<b>\$2,465,414</b>	<b>\$3,111,744</b>	<b>\$3,366,353</b>
<b>Net Revenues</b>	<b>-\$160,098</b>	<b>\$347,810</b>	<b>\$577,212</b>	<b>\$972,451</b>	<b>\$499,830</b>	<b>\$422,403</b>
<b>Ending Reserve Balance</b>	<b>-\$67,791</b>	<b>\$280,018</b>	<b>\$857,230</b>	<b>\$1,829,681</b>	<b>\$2,329,510</b>	<b>\$2,751,913</b>
<i>Debt Coverage (Target 1.3)</i>	<i>(0.46)</i>	<i>4.17</i>	<i>10.62</i>	<i>13.13</i>	<i>11.03</i>	<i>11.77</i>
<b>Capital Funding</b>						
	<i>Estimated</i>	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>						
Use of Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0
Other / Grant Funding	\$0	0	0	6,650,000	0	0
Rate Funded Capital	\$0	0	479,856	360,282	601,802	760,408
<b>Total Capital Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
<b>Total Capital Expenditures</b>	<b>\$0</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.

# DRAFT

## City of Lindsay

### Scenario 1: Projected Water Revenues & Expenses (\$ Millions)



**Table 6**  
**City of Lindsay**  
**Customer Data**  
**Water Rate Study - Draft 8/27/2024**

Meter Size <sup>[1]</sup>	Customer Count <sup>[2]</sup>	AWWA Capacity Factor <sup>[3]</sup>	Equivalent Demand Units	Annual Equivalent Demand Units
5/8"	2,454	1.0	2,454.0	29,448.0
1"	485	1.7	808.3	9,700.0
1.5"	28	3.3	93.3	1,120.0
2"	88	5.3	469.3	5,632.0
3"	14	10.7	149.3	1,792.0
4"	20	16.7	333.3	4,000.0
6"	4	33.3	133.3	1,600.0
8"	2	53.3	106.7	1,280.0
<b>Total</b>	<b>3,095</b>		<b>4,547.7</b>	<b>54,572.0</b>

<sup>[1]</sup> Meters 1" or below reflect the varying meter sizes in single family homes.

<sup>[2]</sup> Customer data as of July 2024 provided by staff.

<sup>[3]</sup> Capacity factors based on AWWA operating capacity standards by meter size.

Metered Water Use	FY 21-22	FY 22-23	FY 23-24	Projected FY 24/25
Water Use (CCF)	864,757	779,017	779,094	779,094

**Table 7**  
**City of Lindsay**  
**Functional Allocation**  
**Water Rate Study - Draft 8/27/2024**

Functional Allocation	Amount	Offsetting Revenue	Allocation Amount	Capacity	All Volume	Total
Administration	\$1,139,775	-\$143,100	\$996,675	95%	5%	100%
Maintenance	\$111,369	\$0	\$111,369	50%	50%	100%
Source of Supply	\$271,791	\$0	\$271,791	0%	100%	100%
Transmission & Distribution	\$95,794	\$0	\$95,794	20%	80%	100%
Utilities	\$337,979	\$0	\$337,979	10%	90%	100%
Water Purchases	\$253,484	\$0	\$253,484	0%	100%	100%
Water Treatment	\$70,975	\$0	\$70,975	20%	80%	100%
Debt Service	\$54,937	\$0	\$54,937	50%	50%	100%
Capital	\$440,470	-\$6,500	\$433,970	50%	50%	100%
<b>Functional Allocation \$</b>				<b>\$1,314,130</b>	<b>\$1,312,842</b>	<b>\$2,626,973</b>
<b>Functional Allocation %</b>				<b>50.02%</b>	<b>49.98%</b>	<b>100%</b>
<b>Revenue Requirement</b>				<b>\$1,333,742</b>	<b>\$1,332,675</b>	<b>\$2,666,417</b>

**Table 8**  
**City of Lindsay**  
**Water Rate Study - Draft 8/27/2024**  
**Cash Flow Projections: Rate Derivation**

SCENARIO 2

Allocation Units	Capacity	All Volume
<i>Unit of Measure</i>	<i>EDU</i>	<i>CCF</i>
Allocation Units	54,572	779,094
Revenue Requirement	<u>\$1,333,742</u>	<u>\$1,332,675</u>
<b>Unit Cost (\$/Unit)</b>	<b>\$24.44</b>	<b>\$1.71</b>

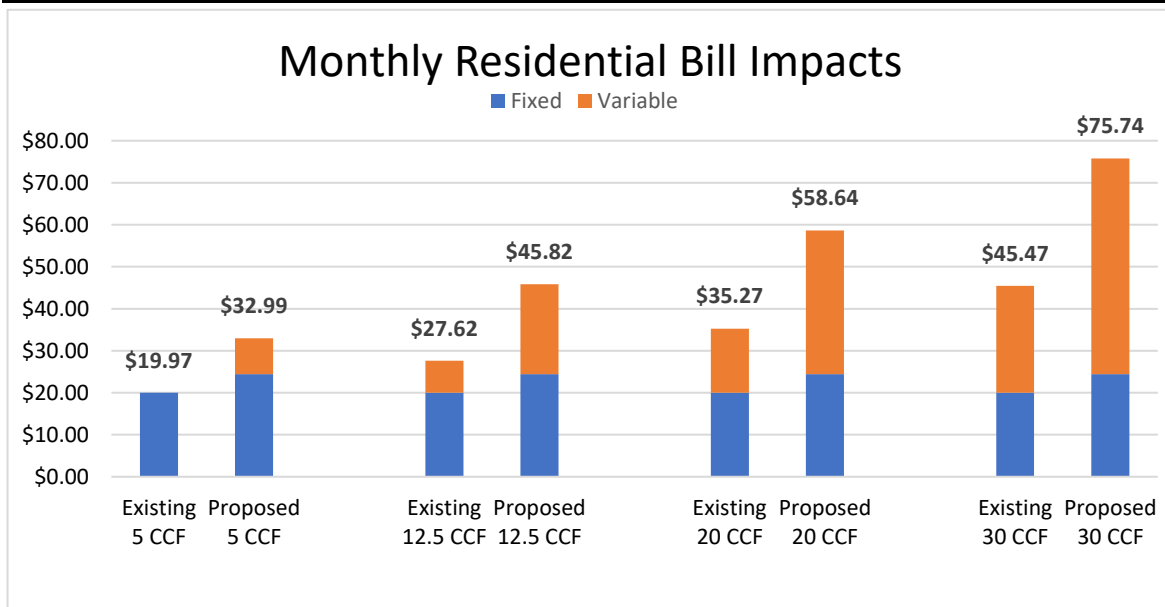
Monthly Fixed Charge			
Calculation	Capacity Factor	Monthly Capacity Component	Monthly Fixed Charge
5/8"	1.00	\$24.44	<b>\$24.44</b>
3/4"	1.00	\$24.44	<b>\$24.44</b>
1"	1.67	\$40.73	<b>\$40.73</b>
1.5"	3.33	\$81.47	<b>\$81.47</b>
2"	5.33	\$130.35	<b>\$130.35</b>
3"	10.67	\$260.69	<b>\$260.69</b>
4"	16.67	\$407.33	<b>\$407.33</b>
6"	43.33	\$1,059.07	<b>\$1,059.07</b>
8"	53.33	\$1,303.47	<b>\$1,303.47</b>

**Table 9**  
**City of Lindsay**  
**Water Rate Study - Draft 8/27/2024**  
**Cash Flow Projections: Rate Derivation**

SCENARIO 2

Rate Category	Existing Rates	Proposed Rates
Tier 1 (0-5 CCF)	\$0.00	\$1.71
Tier 2 (5+ CCF)	\$1.02	\$1.71
5/8" Monthly Fixed	\$19.97	\$24.44

Water Use	Existing Bill	Proposed Bill	Change (\$)	Change (%)
5	\$19.97	\$32.99	\$13.02	65.2%
12.5	\$27.62	\$45.82	\$18.20	65.9%
20	\$35.27	\$58.64	\$23.37	66.3%
30	\$45.47	\$75.74	\$30.27	66.6%





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# City of Lindsay

## Draft Water Rate Study Tables



**August 27, 2024**

**Water Scenario 3**



**BARTLE WELLS ASSOCIATES**  
INDEPENDENT PUBLIC FINANCE ADVISORS

# DRAFT

SCENARIO 3

**Table A**  
**City of Lindsay**  
**Projected Operating Expenses**  
**Water Rate Study - Draft 8/27/2024**

Monthly Volumetric Rates	FY 24-25	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Tier 1 (0-5 CCF)	\$0.00	\$1.54	\$1.93	\$2.22	\$2.45	\$2.58
Tier 2 (5+ CCF)	\$1.02	\$1.54	\$1.93	\$2.22	\$2.45	\$2.58
Monthly Fixed Rates	FY 24-25	January 1, 2025	January 1, 2026	January 1, 2027	January 1, 2028	January 1, 2029
	<i>Existing</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>	<i>Proposed</i>
Multi-Unit (Per Unit)	\$19.97	Based on Meter Size				
<i>Meter Size</i>						
5/8"	\$19.97	\$22.00	\$27.50	\$31.63	\$34.79	\$36.53
3/4"	\$19.97	\$22.00	\$27.50	\$31.63	\$34.79	\$36.53
1"	\$27.53	\$36.66	\$45.83	\$52.70	\$57.97	\$60.87
1 1/2"	\$35.71	\$73.32	\$91.65	\$105.40	\$115.94	\$121.74
2"	\$50.00	\$117.31	\$146.64	\$168.64	\$185.50	\$194.78
3"	\$69.19	\$234.62	\$293.28	\$337.27	\$371.00	\$389.55
4"	\$85.88	\$366.60	\$458.25	\$526.99	\$579.69	\$608.67
6"	\$102.55	\$953.16	\$1,191.45	\$1,370.17	\$1,507.19	\$1,582.55
8"	\$121.68	\$1,173.12	\$1,466.40	\$1,686.36	\$1,855.00	\$1,947.75
Fire Stand-By	\$13.27	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Table 1**  
**City of Lindsay**  
**Projected Operating Expenses**  
**Water Rate Study - Draft 8/27/2024**

SCENARIO 3

Expenses	Allocation Category	Inflation	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
			<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
General Inflation Factor		General		4.0%	4.0%	4.0%	4.0%
WAGES/BENEFITS/INSURANCES	Administration	General	\$477,201	\$496,289	\$516,141	\$536,786	\$558,258
PERS UNFUNDED LIABILITY	Administration	General	89,700	93,288	97,020	100,900	104,936
RAW CANAL WATER	Water Purchases	General	225,000	234,000	243,360	253,094	263,218
UTILITIES	Utilities	General	300,000	312,000	324,480	337,459	350,958
PROFESSIONAL SERVICES	Administration	General	80,000	83,200	86,528	89,989	93,589
AUDIT SERVICES	Administration	General	15,807	16,440	17,097	17,781	18,492
ENGINEERING	Administration	General	35,000	36,400	37,856	39,370	40,945
WELLS MATERIALS	Source of Supply	General	25,000	26,000	27,040	28,122	29,246
MTNCE MATERIALS & SERVICE	Maintenance	General	5,000	5,200	5,408	5,624	5,849
TREATMENT PLANT MATERIALS	Water Treatment	General	63,000	65,520	68,141	70,866	73,701
REPAIR & MTNCE SERVICES	Maintenance	General	30,000	31,200	32,448	33,746	35,096
DEPART OPERATING SUPPLIES	Administration	General	85,571	88,994	92,554	96,256	100,106
LIABILITY INSURANCE	Administration	General	49,119	51,084	53,127	55,252	57,462
WATER SUPPLY TESTING	Source of Supply	General	50,000	52,000	54,080	56,243	58,493
OTHER SERVICES & CHARGES	Administration	General	64,000	66,560	69,222	71,991	74,871
EMERGENCY REPAIR LINE	Maintenance	General	50,000	52,000	54,080	56,243	58,493
PHONE & VOICE	Administration	General	12,000	12,480	12,979	13,498	14,038
SOFTWARE	Administration	General	14,300	14,872	15,467	16,086	16,729
DUES, SUBSCRIPTIONS	Administration	General	2,500	2,600	2,704	2,812	2,925
VEHICLE FUEL AND OIL	Administration	General	6,500	6,760	7,030	7,312	7,604
VEHICLE REPAIR & MAINT	Administration	General	5,000	5,200	5,408	5,624	5,849
PERMITS / FEES / LICENSES	Administration	General	70,000	72,800	75,712	78,740	81,890
MEETINGS & TRAVEL	Administration	General	5,000	5,200	5,408	5,624	5,849
INFRASTRUCTURE USER FEE	Transmission & Distribution	General	154,232	88,431	91,968	95,647	99,473
VEHICLE REPLACEMENT PROGRAM	Maintenance	General	0	0	0	25,000	26,000
Well 11 O&M	Source of Supply	General	0	0	0	300,000	312,000
<b>Total Operating Expenses</b>			<b>\$1,913,930</b>	<b>\$1,918,517</b>	<b>\$1,995,258</b>	<b>\$2,400,068</b>	<b>\$2,496,071</b>

**Table 2**  
**City of Lindsay**  
**Projected Non-Rate Revenue**  
**Water Rate Study - Draft 8/27/2024**

Non-Rate Revenue	Allocation		FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	Category	Inflation					
			<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
PENALTY & MISC SRV FEES	Administration	None	\$65,000	\$65,000	\$65,000	\$65,000	\$65,000
WATER CONNECTION CHARGES	Capital	None	4,500	4,500	4,500	4,500	4,500
NEW UTILITY ACC. SET-UP	Capital	None	2,000	2,000	2,000	2,000	2,000
MISCELLANEOUS OTHER WATER REVENUES	Administration	None	10,000	10,000	10,000	10,000	10,000
Gen Fund Repayment Agreement	Administration	None	68,100	68,100	68,100	68,100	68,100
<b>Total Non-Rate Revenue</b>			<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>	<b>\$149,600</b>

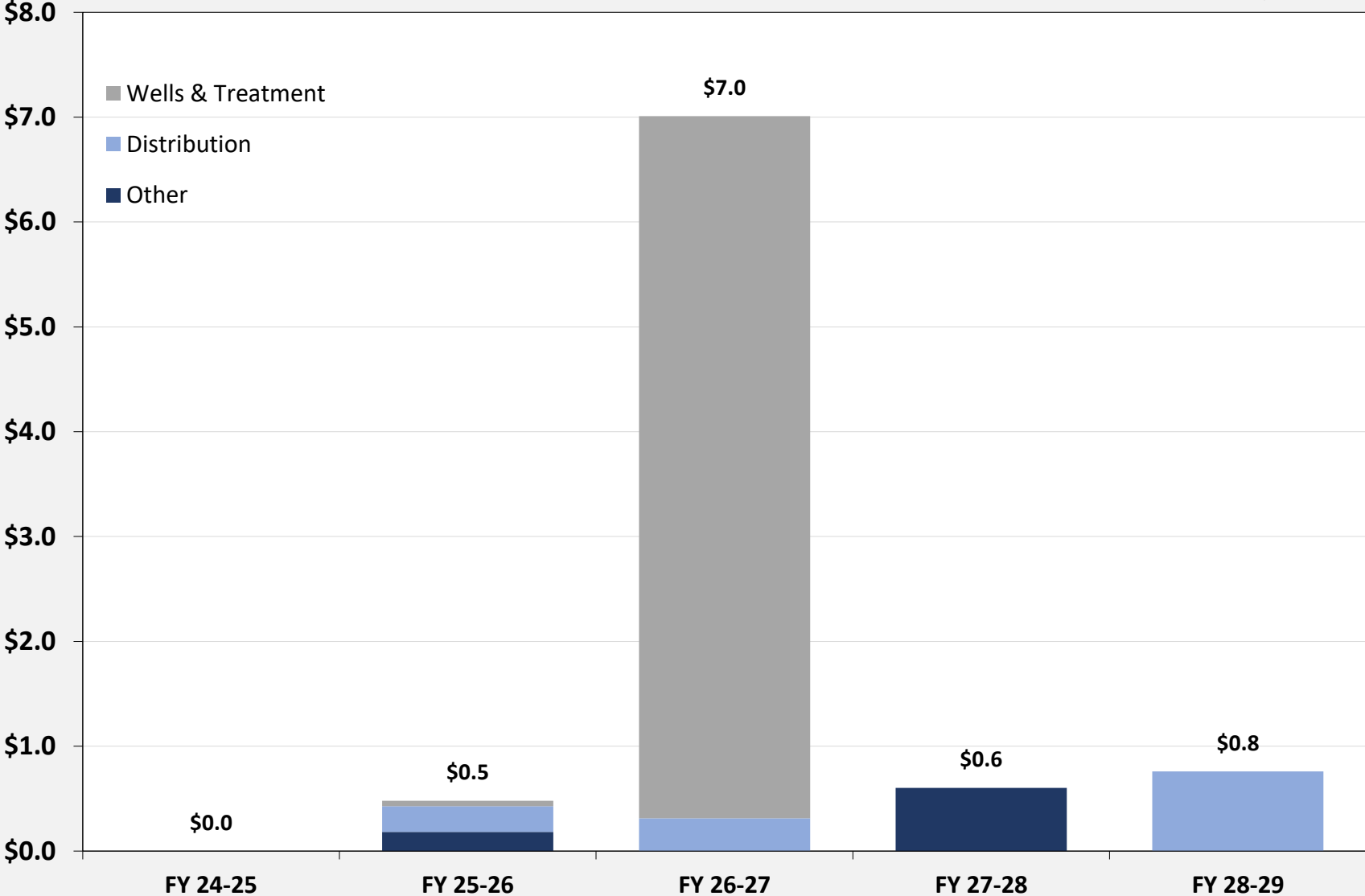
**Table 3**  
**City of Lindsay**  
**Capital Improvement Costs**  
**Water Rate Study - Draft 8/27/2024**

SCENARIO 3

Project Description	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29
	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>CIP (Current Dollars)</b>					
<b>CIP Approved Projects</b>					
Fire Flow Study (Water Capacity Study)		50,000			
Fire Flow Infrastructure					250,000
Update Master Plans		175,000			
Scada Expansion					
Pneumatic Valves for Bank A		103,200			
Pneumatic Valves for Bank B		83,200			
Pneumatic Valves for Bank C			83,200		
Pneumatic Valves for Bank D			103,200		
(3) Magnetic Flow Meters			27,000		
(4) Water Treatment Booster Pumps			75,000		
Skip Loader Tractor				35,000	
<b>Pipelines</b>					
1,300 L.F., Main Line Replacement/Dead End Elimination					300,000
<b>Groundwater Wells</b>					
Drinking Water Test Well #1					
New Well #1 (Winter Demand)					
New Well #1 Infrastructure					
Drinking Water Test Well #2					
New Well #2 (Winter Demand)					
New Well #2 Infrastructure					
Drinking Water Test Well #3					
New Well #3 (Winter Demand)					
New Well #3 Infrastructure					
<b>Ground Water Well Treatment</b>					
Well 11 - Infrastructure			5,943,000		
Well 14 - VFD Upgrades			150,000		
Well 15-Upgrades		50,000			
<b>Surface Water Projects</b>					
DBP Mitigation				500,000	
Water Plant Upgrades					
Clarifier Renovations			100,000		
Turnout Upgrades					100,000
WTP Scraper Upgrade					
Water Meters Digital Upgrade					
<b>Tank Improvements</b>					
Storage Tank Improvements					
<b>Total CIP (Current Dollars)</b>	<b>\$0</b>	<b>\$461,400</b>	<b>\$6,481,400</b>	<b>\$535,000</b>	<b>\$650,000</b>
<b>CIP (Inflated Dollars)</b>					
<b>CIP Approved Projects</b>					
Fire Flow Study (Water Capacity Study)	\$0	\$52,000	\$0	\$0	\$0
Fire Flow Infrastructure	\$0	\$0	\$0	\$0	\$292,465
Update Master Plans	\$0	\$182,000	\$0	\$0	\$0
Scada Expansion	\$0	\$0	\$0	\$0	\$0
Pneumatic Valves for Bank A	\$0	\$107,328	\$0	\$0	\$0
Pneumatic Valves for Bank B	\$0	\$86,528	\$0	\$0	\$0
Pneumatic Valves for Bank C	\$0	\$0	\$89,989	\$0	\$0
Pneumatic Valves for Bank D	\$0	\$0	\$111,621	\$0	\$0
(3) Magnetic Flow Meters	\$0	\$0	\$29,203	\$0	\$0
(4) Water Treatment Booster Pumps	\$0	\$0	\$81,120	\$0	\$0
Skip Loader Tractor	\$0	\$0	\$0	\$39,370	\$0
<b>Pipelines</b>					
1,300 L.F., Main Line Replacement/Dead	\$0	\$0	\$0	\$0	\$350,958
<b>Groundwater Wells</b>					
Drinking Water Test Well #1	\$0	\$0	\$0	\$0	\$0
New Well #1 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #1 Infrastructure	\$0	\$0	\$0	\$0	\$0
Drinking Water Test Well #2	\$0	\$0	\$0	\$0	\$0
New Well #2 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #2 Infrastructure	\$0	\$0	\$0	\$0	\$0
Drinking Water Test Well #3	\$0	\$0	\$0	\$0	\$0
New Well #3 (Winter Demand)	\$0	\$0	\$0	\$0	\$0
New Well #3 Infrastructure	\$0	\$0	\$0	\$0	\$0
<b>Ground Water Well Treatment</b>					
Well 11 - Infrastructure	\$0	\$0	\$6,427,949	\$0	\$0
Well 14 - VFD Upgrades	\$0	\$0	\$162,240	\$0	\$0
Well 15-Upgrades	\$0	\$52,000	\$0	\$0	\$0
<b>Surface Water Projects</b>					
DBP Mitigation	\$0	\$0	\$0	\$562,432	\$0
Water Plant Upgrades	\$0	\$0	\$0	\$0	\$0
Clarifier Renovations	\$0	\$0	\$108,160	\$0	\$0
Turnout Upgrades	\$0	\$0	\$0	\$0	\$116,986
WTP Scraper Upgrade	\$0	\$0	\$0	\$0	\$0
Water Meters Digital Upgrade	\$0	\$0	\$0	\$0	\$0
<b>Tank Improvements</b>					
Storage Tank Improvements	\$0	\$0	\$0	\$0	\$0
<b>Total CIP (Inflated Dollars)</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
Annual Inflation Rate		4.0%	4.0%	4.0%	4.0%

### City of Lindsay Water Capital Improvements (\$ millions)

*Future \$; includes 4% annual construction cost inflation.*



Source: City of Lindsay 2025 Budget plus 4% annual construction cost inflation.



**Table 5**  
**City of Lindsay**  
**Cash Flow Projections**  
**Water Rate Study - Draft 8/27/2024**

SCENARIO 3

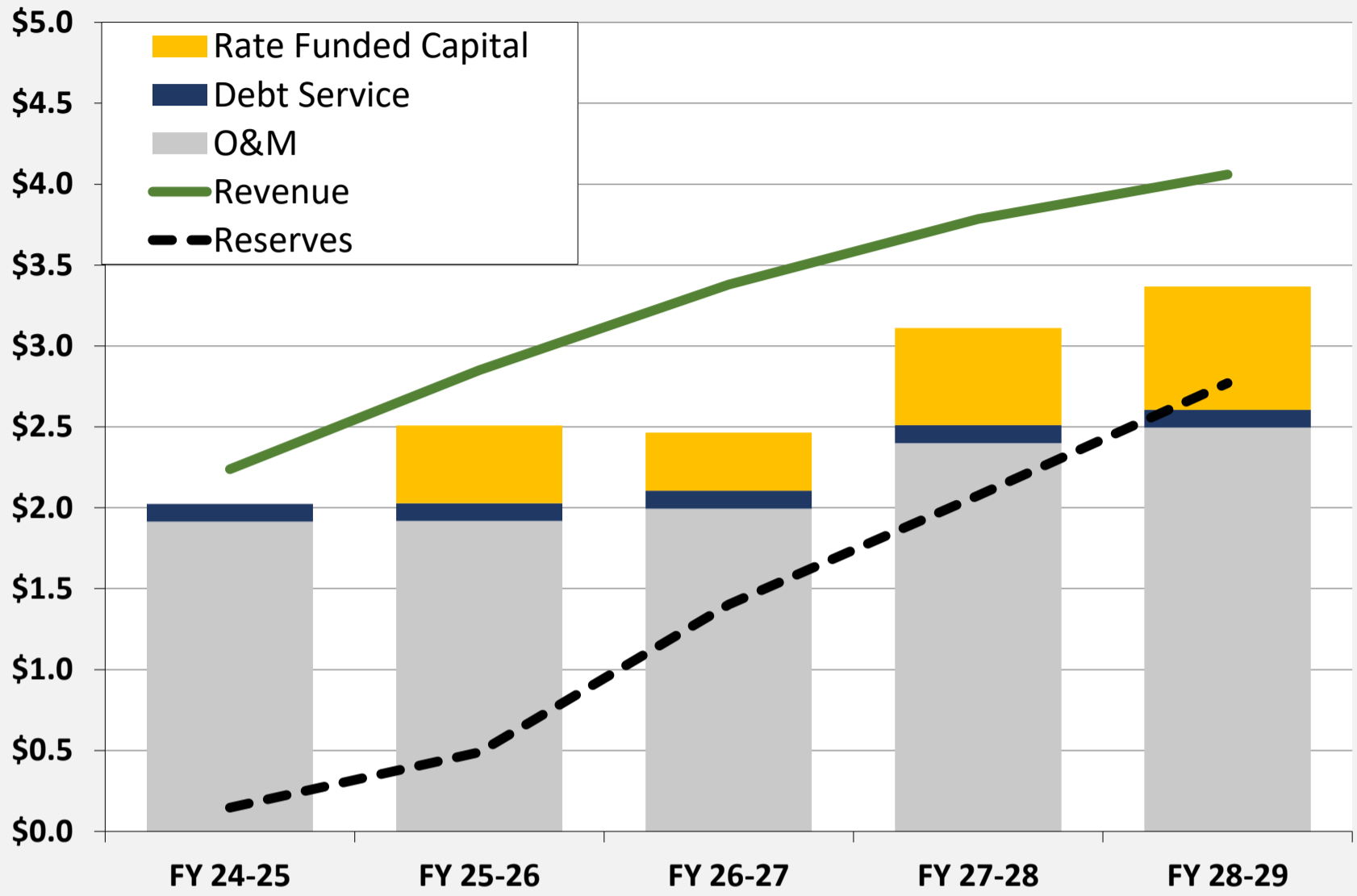
<b>Water Operating Cashflow</b>	<b>FY 23-24</b>	<b>FY 24-25</b>	<b>FY 25-26</b>	<b>FY 26-27</b>	<b>FY 27-28</b>	<b>FY 28-29</b>
	<i>Estimated</i>	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Beginning Reserve Balance</b>	\$92,307	-\$67,791	\$146,698	\$489,264	\$1,403,041	\$2,077,087
<b>Revenues</b>						
Rate Revenue						
Current Rate Revenue	\$1,777,611	\$1,777,611	\$2,399,775	\$2,999,719	\$3,449,677	\$3,794,644
<i>Rate Revenue Increase</i>	<i>0.0%</i>	<i>35.0%</i>	<i>25.0%</i>	<i>15.0%</i>	<i>10.0%</i>	<i>5.0%</i>
Rate Increase Revenue		\$622,164	\$599,944	\$449,958	\$344,968	\$189,732
Mid-Year Rate Increase Adjustment <sup>1</sup>		-311,082	-299,972	-224,979	-172,484	-94,866
<b>Total Rate Revenue</b>	<b>1,777,611</b>	<b>2,088,693</b>	<b>2,699,747</b>	<b>3,224,698</b>	<b>3,622,160</b>	<b>3,889,510</b>
Non-Rate Revenue	329,908	149,600	149,600	149,600	149,600	149,600
Interest on Reserves (1.0%)	\$0	0	1,467	4,893	14,030	20,771
<b>Total Revenue</b>	<b>\$2,107,519</b>	<b>\$2,238,293</b>	<b>\$2,850,814</b>	<b>\$3,379,190</b>	<b>\$3,785,791</b>	<b>\$4,059,881</b>
<b>Expenses</b>						
Operating Expenses	\$2,157,743	\$1,913,930	\$1,918,517	\$1,995,258	\$2,400,068	\$2,496,071
Existing Debt Service	109,874	109,874	109,874	109,874	109,874	109,874
New Debt Service	0	0	0	0	0	0
Rate Funded Capital	\$0	0	479,856	360,282	601,802	760,408
<b>Total Expenses</b>	<b>\$2,267,617</b>	<b>\$2,023,804</b>	<b>\$2,508,247</b>	<b>\$2,465,414</b>	<b>\$3,111,744</b>	<b>\$3,366,353</b>
<b>Net Revenues</b>	<b>-\$160,098</b>	<b>\$214,489</b>	<b>\$342,567</b>	<b>\$913,776</b>	<b>\$674,047</b>	<b>\$693,528</b>
<b>Ending Reserve Balance</b>	<b>-\$67,791</b>	<b>\$146,698</b>	<b>\$489,264</b>	<b>\$1,403,041</b>	<b>\$2,077,087</b>	<b>\$2,770,615</b>
<i>Debt Coverage (Target 1.3)</i>	<i>(0.46)</i>	<i>2.95</i>	<i>8.49</i>	<i>12.60</i>	<i>12.61</i>	<i>14.23</i>
<b>Capital Funding</b>						
	<i>Estimated</i>	<i>Budgeted</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>	<i>Projected</i>
<b>Capital Revenues</b>						
Use of Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0
Other / Grant Funding	\$0	0	0	6,650,000	0	0
Rate Funded Capital	\$0	0	479,856	360,282	601,802	760,408
<b>Total Capital Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>
<b>Total Capital Expenditures</b>	<b>\$0</b>	<b>\$0</b>	<b>\$479,856</b>	<b>\$7,010,282</b>	<b>\$601,802</b>	<b>\$760,408</b>

<sup>1</sup> Assumes proposed rates are adopted January 1, 2025 and each January 1 thereafter.



### City of Lindsay

#### Scenario 1: Projected Water Revenues & Expenses (\$ Millions)



**Table 6**  
**City of Lindsay**  
**Customer Data**  
**Water Rate Study - Draft 8/27/2024**

Meter Size <sup>[1]</sup>	Customer Count <sup>[2]</sup>	AWWA Capacity Factor <sup>[3]</sup>	Equivalent Demand Units	Annual Equivalent Demand Units
5/8"	2,454	1.0	2,454.0	29,448.0
1"	485	1.7	808.3	9,700.0
1.5"	28	3.3	93.3	1,120.0
2"	88	5.3	469.3	5,632.0
3"	14	10.7	149.3	1,792.0
4"	20	16.7	333.3	4,000.0
6"	4	33.3	133.3	1,600.0
8"	2	53.3	106.7	1,280.0
<b>Total</b>	<b>3,095</b>		<b>4,547.7</b>	<b>54,572.0</b>

<sup>[1]</sup> Meters 1" or below reflect the varying meter sizes in single family homes.

<sup>[2]</sup> Customer data as of July 2024 provided by staff.

<sup>[3]</sup> Capacity factors based on AWWA operating capacity standards by meter size.

Metered Water Use	FY 21-22	FY 22-23	FY 23-24	Projected FY 24/25
Water Use (CCF)	864,757	779,017	779,094	779,094

**Table 7**  
**City of Lindsay**  
**Functional Allocation**  
**Water Rate Study - Draft 8/27/2024**

<b>Functional Allocation</b>	<b>Amount</b>	<b>Offsetting Revenue</b>	<b>Allocation Amount</b>	<b>Capacity</b>	<b>All Volume</b>	<b>Total</b>
Administration	\$1,139,775	-\$143,100	\$996,675	95%	5%	100%
Maintenance	\$111,369	\$0	\$111,369	50%	50%	100%
Source of Supply	\$271,791	\$0	\$271,791	0%	100%	100%
Transmission & Distribution	\$95,794	\$0	\$95,794	20%	80%	100%
Utilities	\$337,979	\$0	\$337,979	10%	90%	100%
Water Purchases	\$253,484	\$0	\$253,484	0%	100%	100%
Water Treatment	\$70,975	\$0	\$70,975	20%	80%	100%
Debt Service	\$54,937	\$0	\$54,937	50%	50%	100%
Capital	\$440,470	-\$6,500	\$433,970	50%	50%	100%
<b>Functional Allocation \$</b>				<b>\$1,314,130</b>	<b>\$1,312,842</b>	<b>\$2,626,973</b>
<b>Functional Allocation %</b>				<b>50.02%</b>	<b>49.98%</b>	<b>100%</b>
<b>Revenue Requirement</b>				<b>\$1,200,367</b>	<b>\$1,199,408</b>	<b>\$2,399,775</b>

# DRAFT

**Table 8**  
**City of Lindsay**  
**Water Rate Study - Draft 8/27/2024**  
**Cash Flow Projections: Rate Derivation**

SCENARIO 3

Allocation Units	Capacity	All Volume
<i>Unit of Measure</i>	<i>EDU</i>	<i>CCF</i>
Allocation Units	54,572	779,094
Revenue Requirement	<u>\$1,200,367</u>	<u>\$1,199,408</u>
<b>Unit Cost (\$/Unit)</b>	<b>\$22.00</b>	<b>\$1.54</b>

Monthly Fixed Charge			
Calculation	Capacity Factor	Monthly Capacity Component	Monthly Fixed Charge
5/8"	1.00	\$22.00	<b>\$22.00</b>
3/4"	1.00	\$22.00	<b>\$22.00</b>
1"	1.67	\$36.66	<b>\$36.66</b>
1.5"	3.33	\$73.32	<b>\$73.32</b>
2"	5.33	\$117.31	<b>\$117.31</b>
3"	10.67	\$234.62	<b>\$234.62</b>
4"	16.67	\$366.60	<b>\$366.60</b>
6"	43.33	\$953.16	<b>\$953.16</b>
8"	53.33	\$1,173.12	<b>\$1,173.12</b>

**Table 9**  
**City of Lindsay**  
**Water Rate Study - Draft 8/27/2024**  
**Cash Flow Projections: Rate Derivation**

SCENARIO 3

Rate Category	Existing Rates	Proposed Rates
Tier 1 (0-5 CCF)	\$0.00	\$1.54
Tier 2 (5+ CCF)	\$1.02	\$1.54
5/8" Monthly Fixed	\$19.97	\$22.00

Water Use	Existing Bill	Proposed Bill	Change (\$)	Change (%)
5	\$19.97	\$29.70	\$9.73	48.7%
12.5	\$27.62	\$41.25	\$13.63	49.3%
20	\$35.27	\$52.80	\$17.53	49.7%
30	\$45.47	\$68.20	\$22.73	50.0%

