

Draft Report | August 2024

Water and Sewer Rate Study

Village of Lombard, IL

Prepared by:



August 22, 2024

Jamie Cunningham
Assistant Finance Director
Village of Lombard
255 E Wilson Ave.
Lombard, IL 60148

Subject: Water and Sewer Rate Study Report

Dear Ms. Cunningham:

NewGen Strategies and Solutions, LLC (NewGen) is pleased to submit to the Village of Lombard our report detailing our completed Water and Sewer Rate Study. This report summarizes our study's results regarding the forecasted costs of providing water and sewer service to the Village's customers and our recommendations for recovering these costs over the next five years. Our recommendations will result in the sustainable operation of the Village's water and sewer utilities and the financial health of the Village's Water and Sewer Operating and Capital Funds.

We appreciate the opportunity to provide our services to the Village and would like to express our sincere appreciation to Village staff. The dedication and assistance provided by Village staff was essential to the completion of this study. It has been a distinct pleasure to work with the Village of Lombard.

Sincerely,
NewGen Strategies and Solutions, LLC

Eric Callocchia
Partner

Table of Contents

Section 1 Study Background and Scope of Work	1-1
Study Background	1-1
Project Approach.....	1-1
Section 2 Revenue Requirements	2-1
Study Assumptions.....	2-1
Operating Budget Escalation Factors.....	2-1
Water and Sewer Operating Costs.....	2-2
Water and Sewer Capital Costs	2-2
Existing Debt Service.....	2-2
Planned Capital Improvements	2-3
Miscellaneous Non-Rate Revenues.....	2-4
Net Revenue Requirements.....	2-5
Section 3 Water and Sewer Customers And Usage	3-1
Water Customers and Consumption.....	3-1
FY 2023 Water Consumption.....	3-1
Projected Water System Demand	3-2
Section 4 Financial Plan and Cash Flow Projections	4-1
Minimum Cash Reserve and Debt Coverage Requirements	4-1
Operating and Maintenance Fund.....	4-1
Capital Reserve Fund	4-1
Cash Flow Projections at FY 2024 Rates.....	4-1
Water and Sewer Fund Cash Balance Projection at Current Rates	4-2
Recommended Rate Increases.....	4-4
Water and Sewer Fund Cash Balance Projection at Recommended Rates.....	4-5
Section 5 Recommended Rates	5-1
Recommended Revenue Increases	5-1
Projected Rates	5-1
Section 6 Customer Bill Impacts and Benchmarking	6-1
Projected Customer Bills under Current Rate Structure	6-1
Regional Bill Comparison.....	6-2

Appendix A

Five-Year Water and Sewer Capital Improvement Plan

List of Tables

Table E-2 Projected Combined Water and Sewer Monthly Customer Bills.....	vi
Table 2-1 Operating Budget Escalation Factors.....	2-1
Table 2-2 Projected Water and Sewer Operating and Maintenance Expenses	2-2
Table 2-3 Current Debt Service Obligations by Issue	2-3
Table 2-4 Planned Capital Improvement Projects.....	2-3
Table 2-5 Projected Operating Non-Rate Revenue	2-4
Table 2-6 Projected Capital Non-Rate Revenue	2-5
Table 2-7 O&M Fund Net Revenue Requirement Projection	2-5
Table 2-8 Capital Reserve Fund Net Revenue Requirement Projection.....	2-5
Table 3-1 FY 2023 Water Customer Accounts	3-1
Table 3-2 FY 2023 Water Consumption (kgal)	3-1
Table 3-3 Projected Water Consumption in kgal.....	3-2
Table 3-4 Projected Sewer Usage in kgal.....	3-2
Table 4-2 FY 2024 Water and Sewer Rates – O&M Fund	4-2
Table 4-3 FY 2024 Capital Reserve Fund Rates.....	4-2
Table 4-4 Recommended Water and Sewer Rate Increases	4-4
Table 5-1 Recommended Water and Sewer Rate Increases	5-1
Table 5-2 Recommended O&M Fund Rates	5-2
Table 5-3 Recommended Capital Reserve Fund Rates	5-2
Table 6-1 Combined Water and Sewer Monthly Customer Bill – Current Structure	6-1

List of Figures

Figure E-1: O&M Fund Expenses vs. Revenues at FY 2024 Rates	i
Figure E-2: Capital Reserve Fund Expenses vs. Revenues at FY 2024 Rates.....	ii
Figure E-3: O&M Fund Balance Projection at FY 2024 Rates.....	ii
Figure E-4: Capital Reserve Fund Balance Projection at FY 2024 Rates	iii
Figure E-5: O&M Fund Expenses vs. Revenues at Recommended Rates	iv
Figure E-6: Capital Reserve Fund Expenses vs. Revenues at Recommended Rates	iv
Figure E-7: O&M Fund Balance Projection at Recommended Rates.....	v
Figure E-8: Capital Reserve Fund Balance Projection at Recommended Rates.....	v
Figure E-9: Regional Bill Comparison – Residential Customer, 5/8” Meter, 4,000 gal/mo.	vii
Figure 1-1: Cost of Service Process.....	1-2
Figure 2-1: Capital Improvement Plan Financing Forecast.....	2-4
Figure 4-1: O&M Fund Expenses vs. Revenues Forecast at FY 2024 Rates	4-2
Figure 4-2: Projected O&M Fund Balance at FY 2024 Rates	4-3
Figure 4-3: Capital Reserve Fund Expenses vs. Revenues Forecast.....	4-3
Figure 4-4: Projected Capital Reserve Fund Balance at FY 2024 Rates	4-4
Figure 4-5: O&M Fund Expenses vs. Revenues – Recommended Rates	4-5
Figure 4-6: O&M Fund Balance – Recommended Rates	4-5
Figure 4-7: Capital Reserve Fund Expenses vs. Revenues – Recommended Rates	4-6
Figure 4-8: Capital Reserve Fund Balance – Recommended Rates	4-6
Figure 6-1: Regional Bill Comparison – Residential Customer, 5/8” Meter, 4,000 gal/mo.	6-2

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EXECUTIVE SUMMARY

The Village of Lombard (Village) engaged NewGen Strategies and Solutions, LLC (NewGen) to complete a Water and Sewer Rate Study. The primary goal of NewGen’s study was to develop a five-year forecast of water and sewer rates to support the costs of operating and maintaining the Village’s water and sewer systems. NewGen used the Village’s FY 2024 operating budget and ten-year capital improvement plan as the basis for its projections with appropriate cost escalation for future years.

The Village utilizes two separate funds to finance its water and sewer systems. The Operation & Maintenance (O&M) Fund accounts for the provision of water and sewer services to the residents and businesses of the Village (including administration, operations, maintenance, billing, and collection). The Capital Reserve Fund accounts for the accumulation of resources to finance projects associated with the maintenance and replacement of the water and sewer system infrastructure, i.e., capital investments.

NewGen’s study determined that the Village’s FY 2024 rates are not sufficient to maintain the financial and operational health of the Village’s systems over the next five years. The following figures show the expenses vs. revenues and fund balance projections if the Village does not increase water or sewer rates over the five-year planning period.

Figure E-1: O&M Fund Expenses vs. Revenues at FY 2024 Rates

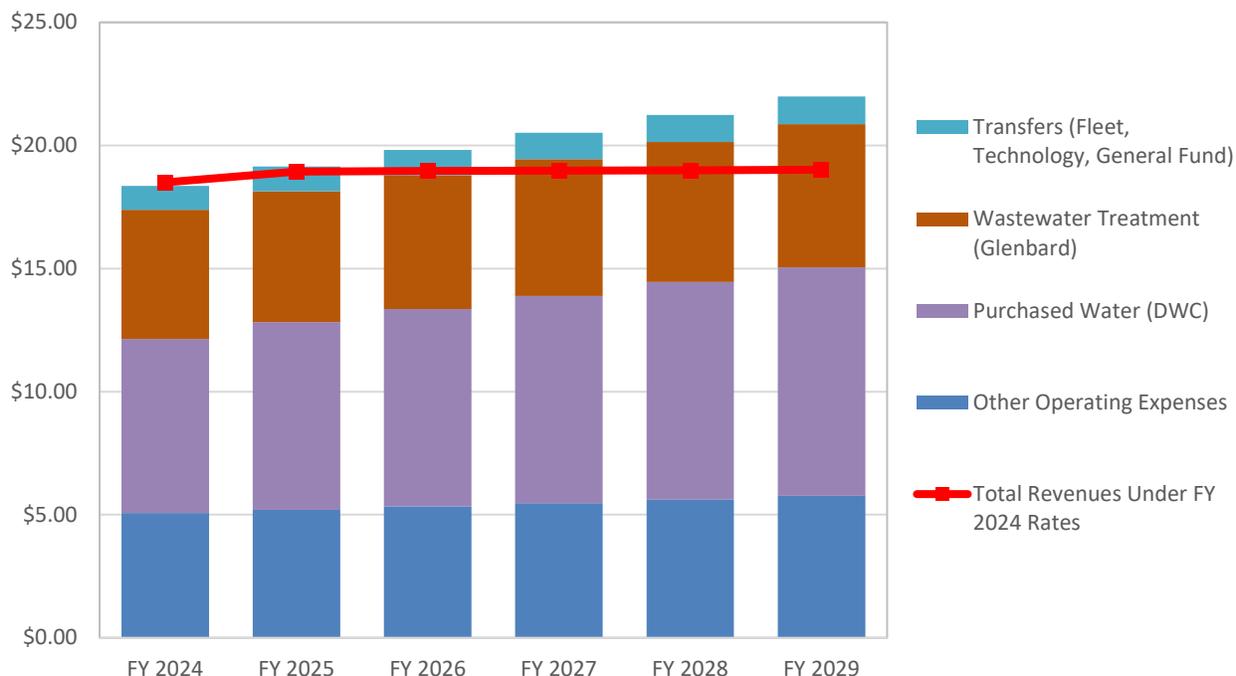
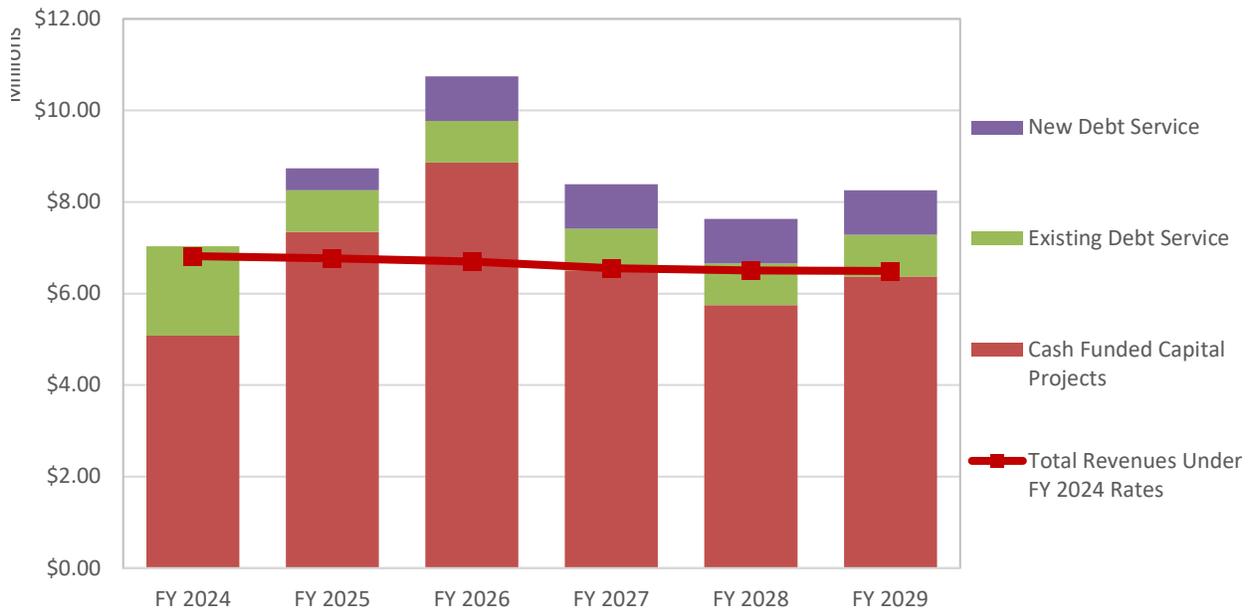


Figure E-2: Capital Reserve Fund Expenses vs. Revenues at FY 2024 Rates



Figures E-3 and E-4 show the forecasted O&M Fund balance and Capital Reserve Fund balance if the Village does not increase any water or sewer rates above its FY 2024 rates. The Village’s policy is to maintain a minimum of 90 days of annual O&M costs in cash reserves of the O&M Fund. As the Village’s costs increase, this fund balance policy will increase as well, ensuring the financial stability of the Water and Sewer Fund.

Figure E-3: O&M Fund Balance Projection at FY 2024 Rates

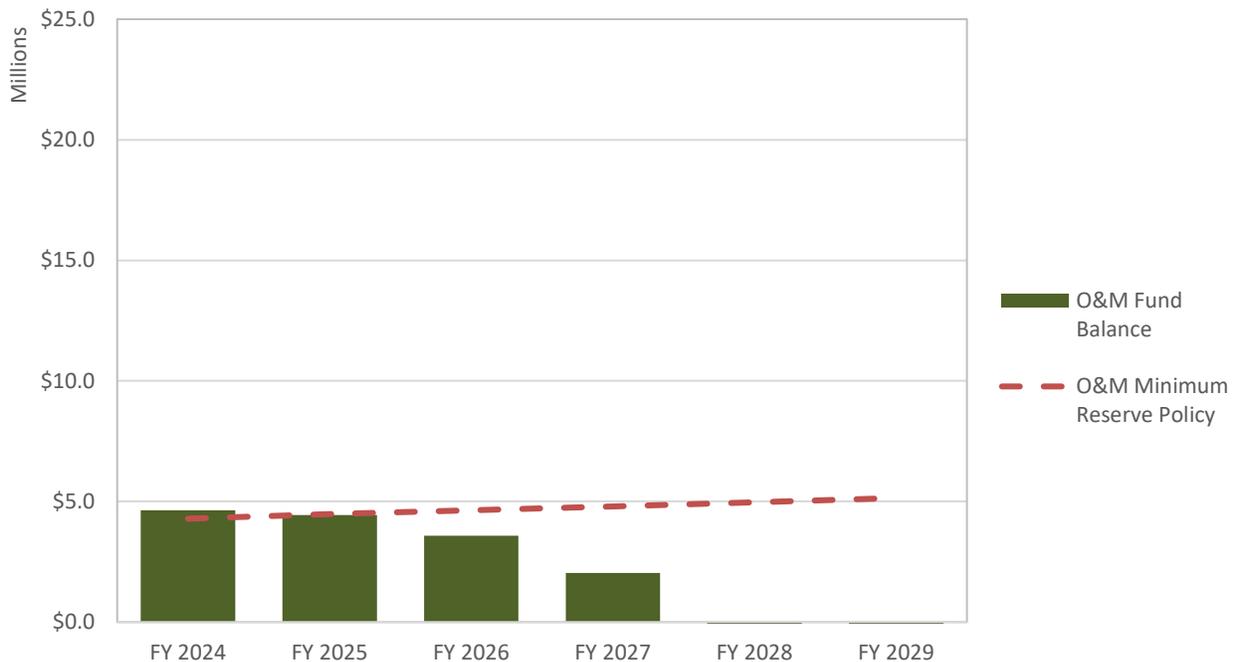
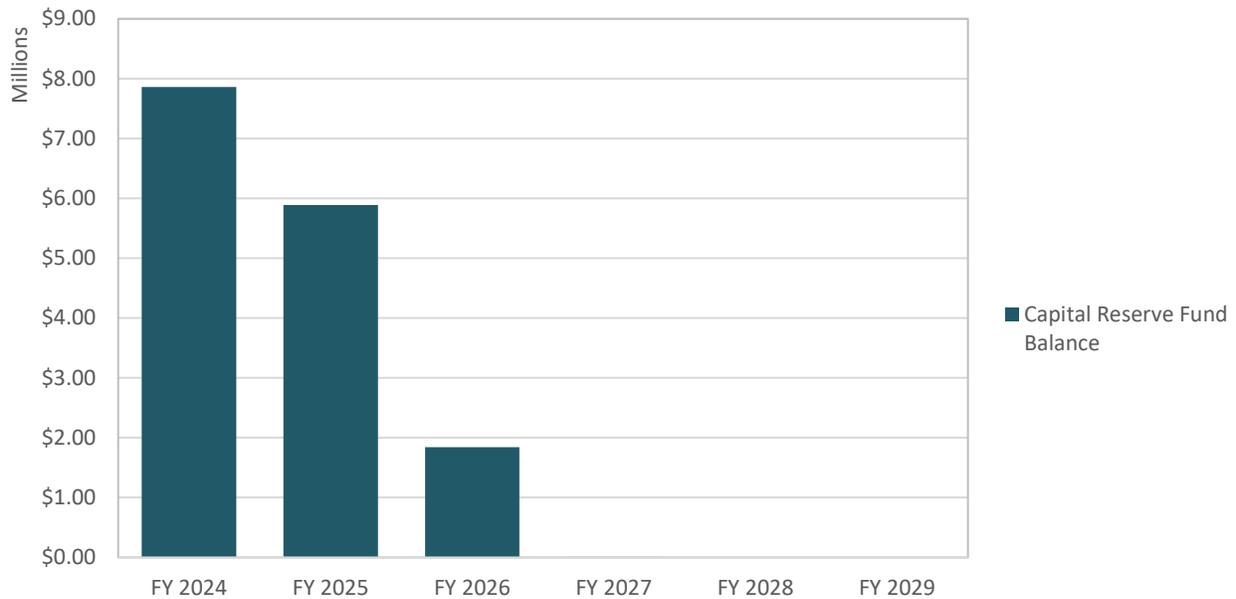


Figure E-4: Capital Reserve Fund Balance Projection at FY 2024 Rates



NewGen’s recommended rate increases to maintain the financial health of the Village’s O&M and Capital Reserve funds are shown in Table E-1 below. The increases are necessary to meet the future inflation adjusted O&M costs and capital investments required to support the Village’s water and sewer systems.

**Table E-1
Recommended Water and Sewer Rate Increases**

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<u>O&M Fund</u>					
Service Charge	3.5%	3.5%	3.5%	3.5%	3.5%
Water Rates	3.5%	3.5%	3.5%	3.5%	3.5%
Sewer Rates	3.5%	3.5%	3.5%	3.5%	3.5%
<u>Capital Reserve Fund</u>					
Fixed Capital Fee	6.5%	6.5%	6.5%	6.5%	6.5%
Capital Improvement Charge	6.5%	6.5%	6.5%	6.5%	6.5%

The following figures show the O&M Fund and Capital Reserve Fund expenses and revenues if the Village adopts the rate increases shown in Table E-1.

Figure E-5: O&M Fund Expenses vs. Revenues at Recommended Rates

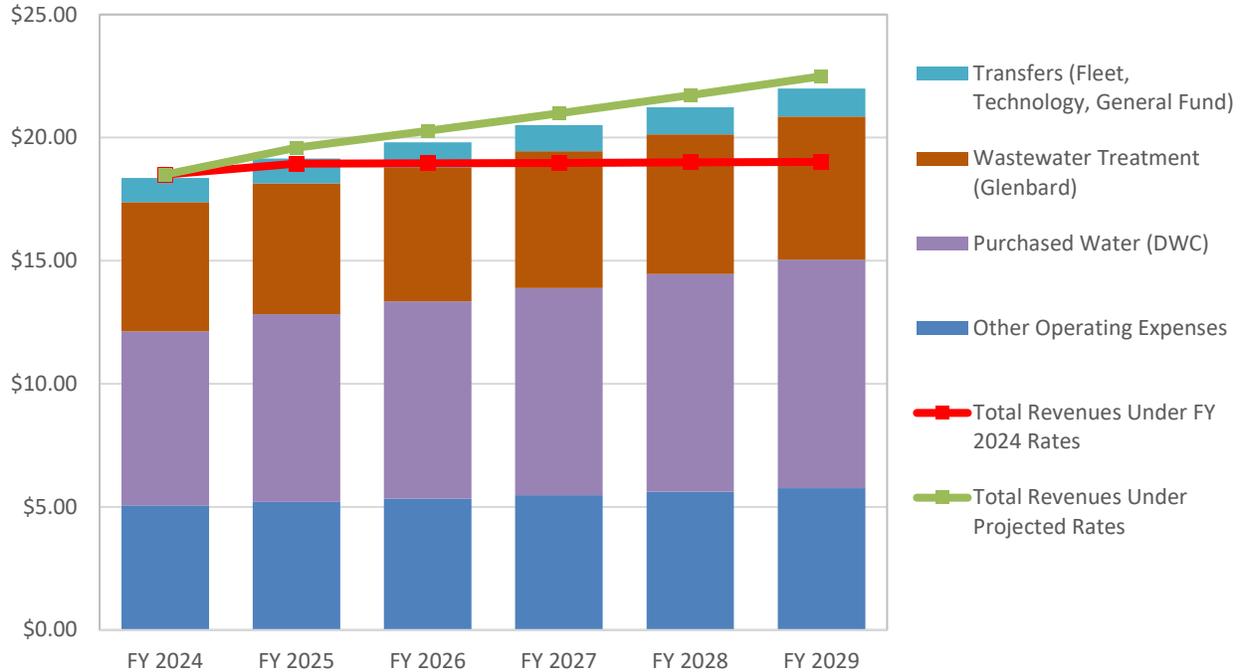
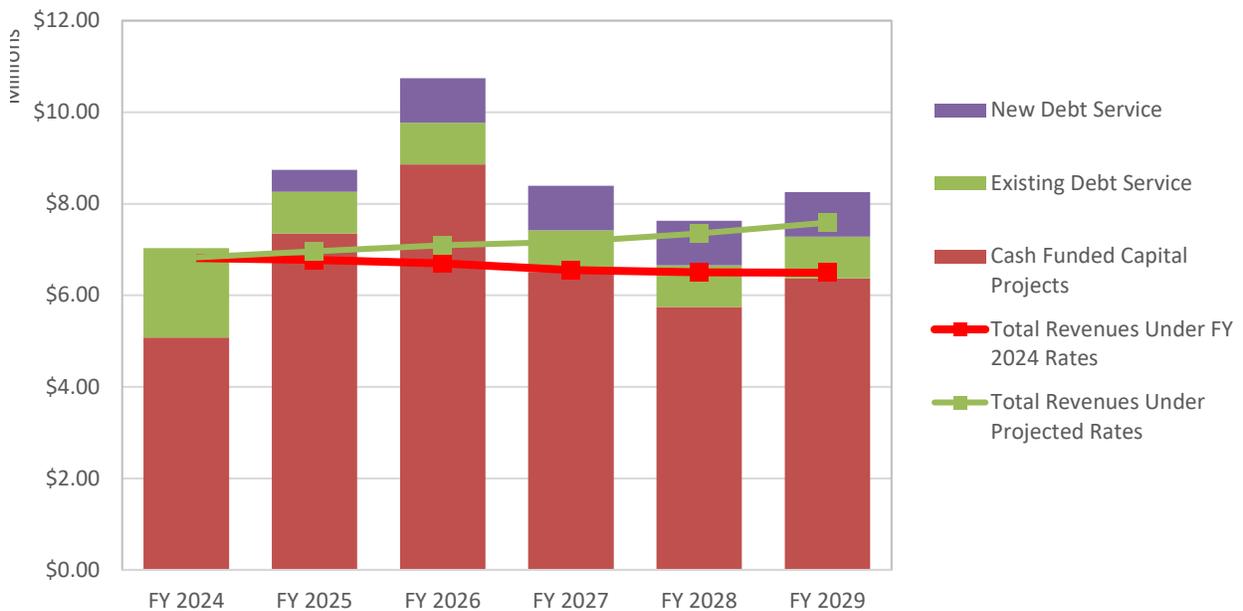


Figure E-6: Capital Reserve Fund Expenses vs. Revenues at Recommended Rates



Figures E-7 and E-8 show the forecasted O&M Fund balance and Capital Reserve Fund balance if the Village adopts each of the annual rate increases shown in Table E-1.

Figure E-7: O&M Fund Balance Projection at Recommended Rates

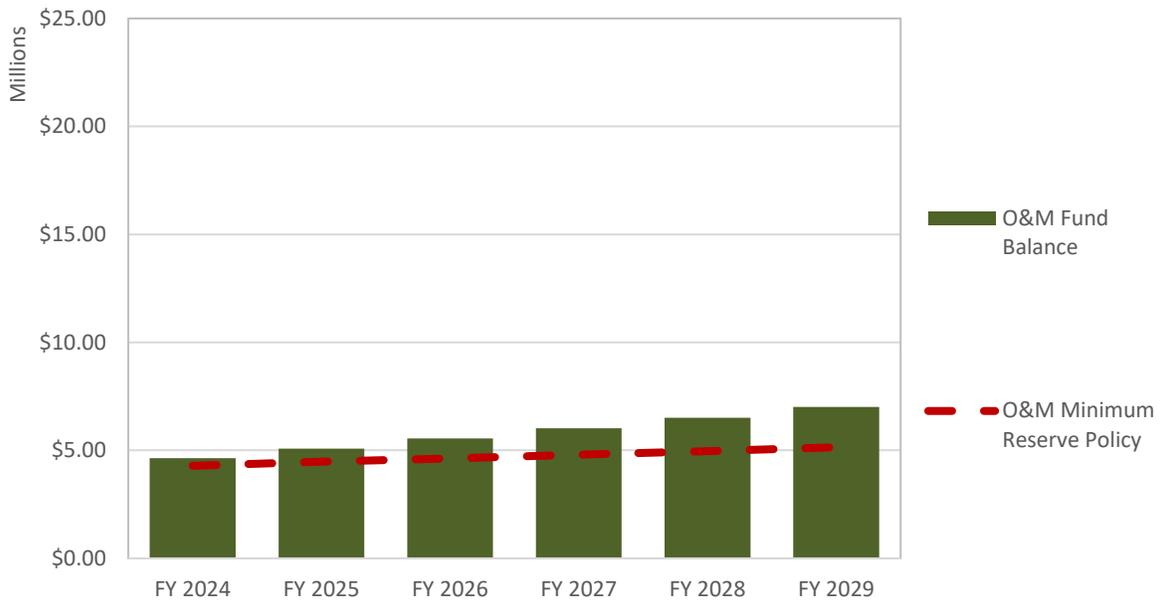
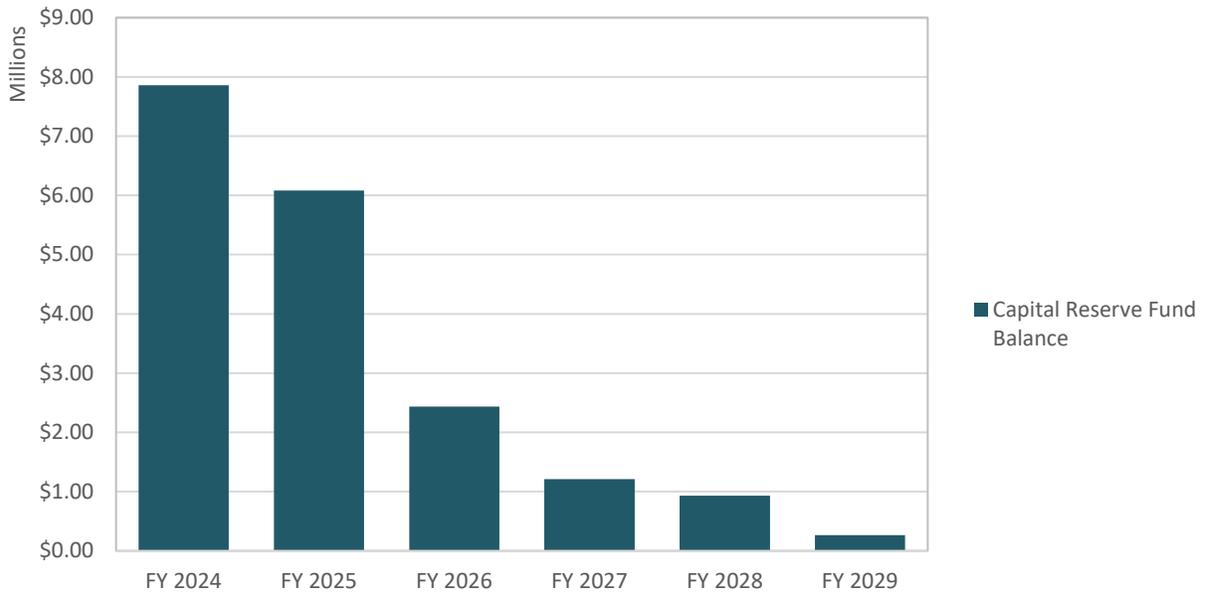


Figure E-8: Capital Reserve Fund Balance Projection at Recommended Rates



Although the Capital Reserve cash balance is rapidly depleted and forecasted to contain approximately \$250,000 at the end of the forecast period, NewGen’s ten-year forecast shows the Capital Reserve fund balance recovering to over \$2.7 million in FY 2030. The Village will re-evaluate both its capital program and its rates before FY 2029 to ensure that the Capital Reserve remains solvent in each Fiscal Year.

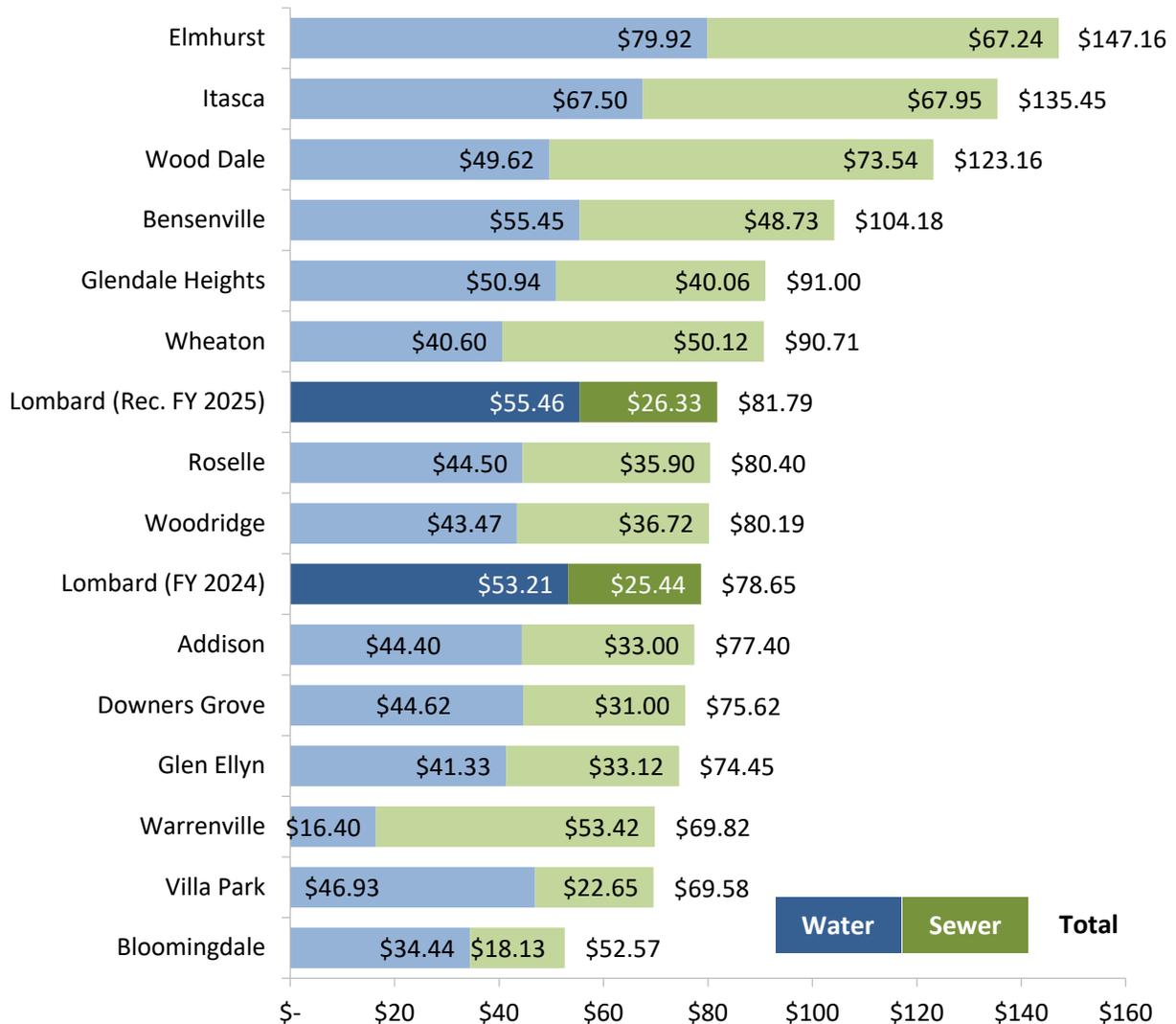
The average Village residential customer uses 4,000 gallons of water per month. Table E-2 shows the impact of the recommended revenue increases on sample Village residential customers. The rate forecast results in the bill of a typical residential customer increasing no more than 4.0% in year forecasted year.

**Table E-2
Projected Combined Water and Sewer Monthly Customer Bills**

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Residential – Inside Village						
Total Water and Sewer Bill	\$78.65	\$81.79	\$85.06	\$88.47	\$92.03	\$95.75
4 kgal/mo.	<i>\$ Change</i>	\$3.14	\$3.27	\$3.41	\$3.56	\$3.72
	<i>% Change</i>	4.0%	4.0%	4.0%	4.0%	4.0%
Residential – Outside Village						
Total Water and Sewer Bill	\$112.45	\$116.87	\$121.48	\$126.28	\$131.29	\$136.51
4 kgal/mo.	<i>\$ Change</i>	\$4.42	\$4.61	\$4.80	\$5.01	\$5.22
	<i>% Change</i>	3.9%	3.9%	4.0%	4.0%	4.0%

If the Village adopts the rates recommended in this report in FY 2025, then the Village’s combined water and sewer bill for a typical Inside Village customer would remain just below average of similar utilities in the region, as shown in Figure E-9.

Figure E-9: Regional Bill Comparison – Residential Customer, 5/8” Meter, 4,000 gal/mo.



Section 1

STUDY BACKGROUND AND SCOPE OF WORK

Study Background

The Village of Lombard is in DuPage County, Illinois, United States, about 22 miles west of Chicago. The Village of Lombard's Utilities Division within the Public Works Department maintains watermain, sanitary sewer, and storm sewer infrastructure.

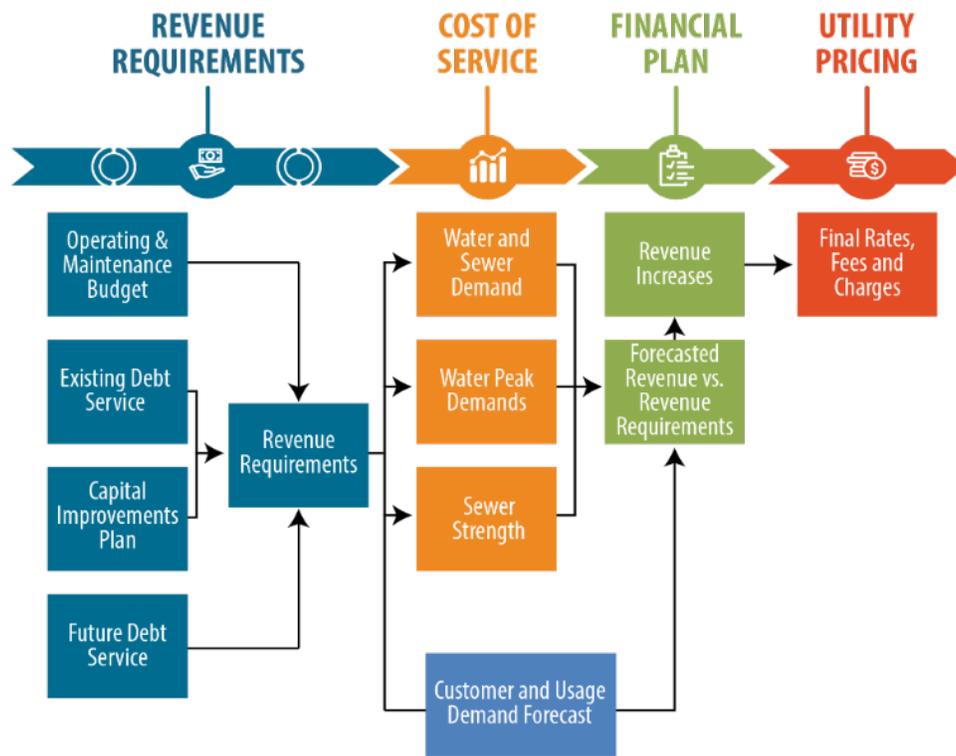
The Village's water distribution system contains approximately 184 miles of water main and maintains three wells for emergency purposes. The sanitary sewer collection system comprises around 151 miles of sewer mains, 14 lift stations, and seven sanitary/combined sewer basins. The storm sewer collection system contains about 123 miles of piping and over 300 detention basins. The Village's sanitary sewer collection system conveys wastewater to the Glenbard Wastewater Authority (GWA), the treatment plant for both Lombard and Glen Ellyn.

The Village engaged NewGen Strategies and Solutions, LLC to complete a Water and Sewer Rate Study to ensure that the Village's water and sewer rates are sufficient to generate the revenue necessary to operate, maintain, repair, rehabilitate, and replace the Village's utility systems while also maintaining appropriate cash reserves.

Project Approach

While each utility's budgeting, financial reporting and flow of funds is unique, a generalized schematic illustrating our approach to a cost of service / rate study is shown in the figure below.

Figure 1-1: Cost of Service Process



NewGen's approach to completing a utility rate study is completed in a four-step process which includes:

- **Revenue Requirements** - Development of the full cost of providing water and sewer service to the Village's customers.
- **Cost of Service** - Allocation of revenue requirements to customer classes or types of customers based on the cost of providing service and each class's demand for service. In the case of the Village, this is limited to assigning costs to operating vs. capital costs.
- **Financial Plan** - Development of a financial plan to fund system revenue requirements and reserve policies considering customer and usage demand forecasts.
- **Utility Pricing** – Specific rate recommendations to meet the revenue needs of the financial plan.

This report details the results of our study and our recommendations regarding water and sewer rates sufficient to meet the future costs of each utility.

Section 2

REVENUE REQUIREMENTS

The first step in the rate study is to identify and forecast the revenue requirements of the water and sewer systems. The revenue requirements reflect the full cost of operating and maintaining each system when accounting for day-to-day operation and maintenance (O&M) costs, existing debt service, planned capital improvements, and contributions to reserves. This section of our report will detail the full costs of each system and how those costs are reasonably expected to increase in the future.

Study Assumptions

While the study is predicated on the most recently available data, several assumptions must be made to forecast future costs and revenues.

Operating Budget Escalation Factors

NewGen’s cost projections are based on the Village’s FY 2024 adopted water and sewer budgets. To reasonably project future costs, NewGen applied escalation and inflation factors to each of the Village’s budget line items. The study includes the following operating and maintenance line-item escalation factors shown in Table 2-1.

Table 2-1
Operating Budget Escalation Factors

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Chemicals	3.0%	3.0%	3.0%	3.0%	3.0%
Electricity	3.0%	3.0%	3.0%	3.0%	3.0%
General	3.0%	3.0%	3.0%	3.0%	3.0%
Salaries	2.3%	2.3%	2.3%	2.3%	2.3%
Materials and Supplies	3.0%	3.0%	3.0%	3.0%	3.0%
Professional Services	3.0%	3.0%	3.0%	3.0%	3.0%
DuPage Water Commission	5.0%	5.0%	5.0%	5.0%	3.0%
Glenbard Wastewater Authority	3.0%	3.0%	3.0%	3.0%	3.0%

The cost of wholesale water purchases from the DuPage Water Commission (DWC) are based on actual FY 2024 rates, and estimated increases for FY 2025 – FY 2029. The cost of wastewater treatment paid to the Glenbard Wastewater Authority (GWA) are estimated to increase by 3.0% per year for the entire forecast period.

On average, NewGen projects that the water utility operating budget will increase by 5.1% per year and sewer by 2.2% per year over the five-year projection period.



Water and Sewer Operating Costs

The Village's FY 2024 budget and forecasted FY 2025 – FY 2029 Water and Sewer Fund O&M expenses are shown in Table 2-2. A key driver of the increase in O&M costs is estimated increases in the cost of the Village's purchased water from the DuPage Water Commission (DWC) and the payments for wastewater treatment to the Glenbard Wastewater Authority (GWA).

Table 2-2
Projected Water and Sewer Operating and Maintenance Expenses

	FY 2024 Budget	FY 2025 Projected	FY 2026 Projected	FY 2027 Projected	FY2028 Projected	FY2029 Projected
Water Purchases (DWC)	\$7,067,700	\$7,632,131	\$8,013,738	\$8,414,425	\$8,835,146	\$9,276,903
Village Water O&M	\$2,739,125	\$2,811,766	\$2,886,366	\$2,962,981	\$3,041,664	\$3,122,473
Sewer Treatment (GWA)	\$5,250,000	\$5,306,235	\$5,428,822	\$5,554,276	\$5,682,685	\$5,814,135
Village Sewer O&M	\$2,327,420	\$2,387,603	\$2,449,369	\$2,512,762	\$2,577,824	\$2,644,601
Transfers	\$978,210	\$1,007,556	\$1,037,783	\$1,068,916	\$1,100,984	\$1,134,013
Total O&M	\$18,362,455	\$19,145,291	\$19,816,078	\$20,513,360	\$21,238,303	\$21,992,126
<i>% Change</i>		\$782,836	\$670,787	\$697,282	\$724,943	\$753,823

Water purchases from DuPage Water comprise about 72% of the Village's water O&M costs (38% of total O&M costs). Similarly, payments for sewer treatment to GWA comprise 69% of the Village's sewer O&M costs and 29% of total O&M costs.

Water and Sewer Capital Costs

There are two components to the capital costs of the water and sewer systems. The first is the existing debt obligations payable by the Capital Reserve Fund. The second is any planned future capital expenditures to be paid by the Fund, which can be paid on an annual basis (i.e., PAYGO funded) or with the issuance of new debt (i.e., debt-funded). The following capital costs are included in NewGen's revenue requirement projections.

Existing Debt Service

As of FY 2024, the Village is obligated to pay three outstanding debt issues – a single General Obligation Bond and two Illinois Environmental Protection Agency (IEPA) Loans. The GO Bond will be paid in full in FY 2024. The IEPA loans will be paid in full in FY 2037 and FY 2039, respectively. Table 2-3 shows the projected loan payments over the five-year study planning period.

**Table 2-3
Current Debt Service Obligations by Issue**

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
GO Bonds Series 2018	\$1,042,000	\$ -	\$ -	\$ -	\$ -	\$ -
IEPA Loan (2016)	\$695,975	\$695,975	\$695,975	\$695,975	\$695,975	\$695,975
IEPA Loan (2018)	\$213,327	\$213,327	\$213,327	\$213,327	\$213,327	\$213,327
Total Debt Service	\$1,951,301	\$909,301	\$909,301	\$909,301	\$909,301	\$909,301
<i>% Change</i>		<i>(-53.4%)</i>	<i>- %</i>	<i>- %</i>	<i>- %</i>	<i>- %</i>

Planned Capital Improvements

A major component of the Village owning sustainable water and sewer utilities is the planning for the rehabilitation and replacement of the Village's assets. The Village provided NewGen with a Capital Improvement Plan (CIP) that is a detailed list of projects including when they are planned to be completed and how much they are projected to cost. NewGen's study includes funding for all CIP projects. Table 2-4 summarizes the projects included in the Village's current CIP, developed by Village staff for the period FY 2024 – FY 2029.

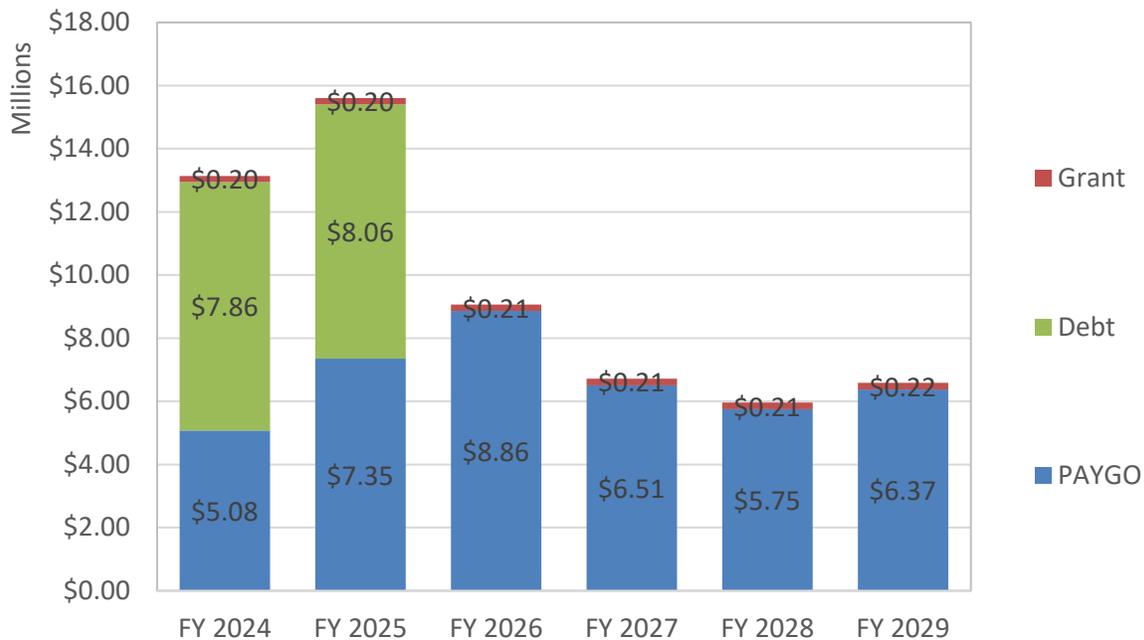
**Table 2-4
Planned Capital Improvement Projects**

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Water Projects	\$3,314,811	\$6,232,300	\$8,167,500	\$5,790,500	\$4,506,100	\$5,110,300
Sewer Projects	\$9,823,700	\$9,373,000	\$899,500	\$926,000	\$1,452,500	\$1,479,000
Total Planned CIP	\$13,138,511	\$15,605,300	\$9,067,000	\$6,716,500	\$5,958,600	\$6,589,300

The higher-than-average capital spending in FY 2024 and FY 2025 is the result of a \$16.8 million Large Diameter Combined Sewer Rehabilitation project, which will be debt funded. Capital spending in years FY 2026 – FY 2029 reflect a more typical level of capital spending for the systems. A detailed list of capital projects is provided in Appendix A of this report.

Figure 2-1 shows the annual variation of the Village's planned CIP spending and the funding source assumed to develop the study's financial projections.

Figure 2-1: Capital Improvement Plan Financing Forecast



Beginning in FY 2026, all future planned capital projects during the five-year study period will be funded through cash (PAYGO) or Grant Programs.

Miscellaneous Non-Rate Revenues

The Village collects revenues in addition to the various water and sewer rates charged to retail customers, and these revenues offset the rates that need to be charged to water and sewer customers. Table 2-5 shows the forecasted non-rate operating revenues included in NewGen's forecasts. For the purposes of forecasting interest income, NewGen assumed an interest rate of 4.0% earned on all investments.

Table 2-5
Projected Operating Non-Rate Revenue

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Fill Station Sales	\$400	\$400	\$400	\$400	\$400	\$400
Hydrant Meter Water Sales	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000
Meter Sales	\$36,300	\$36,300	\$36,300	\$36,300	\$36,300	\$36,300
IL American Water Reading	\$3,860	\$3,860	\$3,860	\$3,860	\$3,860	\$3,860
Penalty Charges	\$104,700	\$104,700	\$104,700	\$104,700	\$104,700	\$104,700
Hydrant Meter Rental Fees	\$2,750	\$2,750	\$2,750	\$2,750	\$2,750	\$2,750
NSF Charges	\$1,720	\$1,720	\$1,720	\$1,720	\$1,720	\$1,720
Lien Filing Fees	\$350	\$350	\$350	\$350	\$350	\$350
Interest on Investments	\$92,000	\$185,621	\$203,365	\$221,836	\$240,942	\$260,574
Miscellaneous	\$500	\$500	\$500	\$500	\$500	\$500
Total Non-Rate Revenues	\$249,580	\$343,201	\$360,945	\$379,416	\$398,522	\$418,154

A significant source of revenue for the Capital Reserve Fund is Non-Home Rule Sales Tax, a local sales tax that is applicable to certain tangible goods and personal property purchases made within the Village. NewGen's assumption is that the revenue generated by this sales tax will remain unchanged for the forecast period.

Table 2-6
Projected Capital Non-Rate Revenue

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Non-Home Rule Sales Tax	\$3,347,920	\$3,347,920	\$3,347,920	\$3,347,920	\$3,347,920	\$3,347,920
Water Connections	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Sewer Connections	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Interest on Investments	\$400,000	\$314,387	\$243,315	\$97,346	\$48,440	\$37,341
Total Non-Rate Revenues	\$3,897,920	\$3,812,307	\$3,741,235	\$3,595,266	\$3,546,360	\$3,535,261

Net Revenue Requirements

Based on the latest available FY 2024 operating, debt service, and capital expense data as well as the methodologies and assumptions detailed above, NewGen developed two net revenue requirement forecasts for the Village's O&M Fund and Capital Reserve Fund, shown in Tables 2-7 and 2-8.

Table 2-7
O&M Fund Net Revenue Requirement Projection

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Operating Expenses	\$17,384,245	\$18,137,734	\$18,778,295	\$19,444,443	\$20,137,319	\$20,858,112
Total Rev. Req.	\$17,384,245	\$18,137,734	\$18,778,295	\$19,444,443	\$20,137,319	\$20,858,112
Less: Non-Rate Rev.	(\$249,580)	(\$343,201)	(\$360,945)	(\$379,416)	(\$398,522)	(\$418,154)
Net Rev Req.	\$17,134,665	\$17,794,533	\$18,417,350	\$19,065,028	\$19,738,797	\$20,439,958

Table 2-8
Capital Reserve Fund Net Revenue Requirement Projection

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
PAYGO Capital	\$5,078,933	\$7,348,575	\$8,862,000	\$6,507,500	\$5,745,600	\$6,372,300
Existing Debt Service	\$1,951,301	\$909,301	\$909,301	\$909,301	\$909,301	\$909,301
New Debt Service	\$ -	\$480,849	\$973,511	\$973,511	\$973,511	\$973,511
Total Rev. Req.	\$7,030,235	\$8,738,725	\$10,744,812	\$8,390,312	\$7,628,412	\$8,255,112
Less: Non-Rate Rev.	(\$3,897,920)	(\$3,812,307)	(\$3,741,235)	(\$3,595,266)	(\$3,546,360)	(\$3,535,261)
Net Rev Req.	\$3,132,315	\$4,926,418	\$7,003,577	\$4,795,046	\$4,082,052	\$4,719,851

The net revenue requirement is the basis upon which all rates are calculated for the Village's systems. Although the net revenue requirement varies from year to year, the financial plan developed during the study takes a long-term perspective to maintain stable rates and sufficient reserves.

Before a financial plan can be developed for the Village's systems, an accounting the Village's customer base must be completed. The Village's water and sewer customer base includes the Village's metered water customer accounts and metered water sales, which are also the basis for charges related to sewer. The next section of this report details the Village's water and sewer customers and their use of the Village's utility systems.

Section 3

WATER AND SEWER CUSTOMERS AND USAGE

This section will detail the composition of the Village’s water and sewer system customer base. The Village’s primary revenue source for the Water and Sewer Operating and Capital Reserve Funds is the rates charged to customers of the water and sewer systems. The latest full year of customer and consumption data available for the study was FY 2023.

Water Customers and Consumption

The Village serves about 13,600 water connections, a vast majority of which are customers within the Village’s corporate limits. The number of Village water connections is shown in Table 3-1 below.

Table 3-1
FY 2023 Water Customer Accounts

Location	Class	Accounts
Inside Village	Residential	12,366
	Commercial	1,089
Outside Village	Residential	106
	Commercial	30
Total Accounts		13,591

FY 2023 Water Consumption

Table 3-2 shows the billable water usage breakdown of the Village’s FY 2023 water customers.

Table 3-2
FY 2023 Water Consumption (kgal)

Location	Class	Consumption (kgal)
Inside Village	Residential	829,743
	Commercial	288,133
Outside Village	Residential	10,439
	Commercial	5,111
IL American Water		14,729
Total Consumption		1,148,155

Projected Water System Demand

The Village's projected consumption is outlined in Table 3-3 below. Based on discussions with Village staff, NewGen included an assumption of a one-time 2.0% increase in billable water usage in the study's forecasts in FY 2025. The Village has several multi-family residential properties currently in the planning phase which are expected to be fully occupied within the near future. These additional customers will likely increase the amount of water sold by the Village. NewGen also included in the study's cost assumptions that the Village would need to purchase more water from DWC and pay for additional treatment at GWA to account for the growth in water usage.

Table 3-3
Projected Water Consumption in kgal

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Inside Village						
Residential	829,743	846,338	846,338	846,338	846,338	846,338
Commercial	288,133	293,896	293,896	293,896	293,896	293,896
Outside Village						
Residential	10,439	10,648	10,648	10,648	10,648	10,648
Commercial	5,111	5,213	5,213	5,213	5,213	5,213
IL American Water						
All Usage	14,729	15,023	15,023	15,023	15,023	15,023
Total System Usage	1,148,155	1,171,118	1,171,118	1,171,118	1,171,118	1,171,118

The Village's sewer rates are based on water consumption, therefore sewer consumption for FY 2024 – FY 2029 is the same as Table 3-3 above for Inside Village and Outside Village customers. Table 3-4 below depicts sewer usage in kgal.

Table 3-4
Projected Sewer Usage in kgal

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Inside Village	1,117,876	1,140,234	1,140,234	1,140,234	1,140,234	1,140,234
Outside Village	15,550	15,861	15,861	15,861	15,861	15,861
Total Sewer Sold (kgal)	1,133,426	1,156,095	1,156,095	1,156,095	1,156,095	1,156,095

Section 4

FINANCIAL PLAN AND CASH FLOW PROJECTIONS

NewGen developed cash flow and cash balance projections assuming the revenue requirements detailed in Section 2 of this report and that the Village does not increase any water or sewer rates in any year of the five-year projection.

Minimum Cash Reserve and Debt Coverage Requirements

A key component to our analysis was the maintenance of appropriate Operating Fund cash reserves, and positive cash available for capital projects in the Capital Reserve Fund.

Operating and Maintenance Fund

NewGen relied on the financial policies of the Village to ensure that the rates projected by our study ensure the financial health of the Village's Water and Sewer Operating Fund. Our study requires that in each year, the Village must maintain a minimum of 90 days of operating cash on hand.

Capital Reserve Fund

The Village's Capital Reserve Fund provides for funding of projects associated with the repair, maintenance, and replacement of the water and sewer system capital infrastructure. Revenue for the Capital Reserve Fund derives from the Capital Fee and Capital Improvement Charge, as well as water and sewer connection fees. The capital fees are recommended to cover the cost associated with the Fund entirely rather than rely on transfers from the O&M Fund.

In addition to revenues generated by connection and improvement charges, the Capital Reserve Fund is assigned revenue from the Village's Non-Home Rule (NHR) sales tax. The NHR sales tax generates over \$3.4 million in revenues that are allocated to the Capital Reserve Fund and serve as almost half of the Fund's revenues each year. The current expectation is for NHR sales tax revenues to continue in similar amounts going forward, however were this to change, the service charge burden would need to increase.

The current recommendations are built on cash flow positivity in the Capital Reserve Fund. The emphasis remains on the fund being self-sufficient with fees generating enough revenue to cover expected capital costs.

Cash Flow Projections at FY 2024 Rates

The Village's current water and sewer rate structure includes separate charges to cover O&M expenses or capital expenses. The O&M Fund rate structure includes a usage rate per one thousand gallons (kgal) of metered consumption for both water and sewer service, a fixed monthly Service Charge per account, and a Cross-Connection Control Fee for Non-Residential customers. The Capital Reserve Fund rate structure includes a volumetric Capital Improvement Charge per one thousand gallons (kgal), as well as a fixed monthly Capital Fee. The Village's FY 2024 rate structure is shown in Tables 4-2 and 4-3.

**Table 4-2
FY 2024 Water and Sewer Rates – O&M Fund**

	Inside Village	Outside Village
Service Charge	\$5.05	\$5.05
Cross-Connection Control Fee	\$5.10	\$5.10
Water Rate per kgal	\$8.84	\$13.26
Sewer Rate per kgal	\$6.36	\$9.54

**Table 4-3
FY 2024 Capital Reserve Fund Rates**

	Inside Village	Outside Village
Fixed Capital Fee	\$6.00	\$6.00
Capital Improvement Charge per kgal	\$1.70	\$2.55

Water and Sewer Fund Cash Balance Projection at Current Rates

If the Village does not increase water or sewer rates from their current FY 2024 levels, the following four figures show NewGen’s projected cash flow and Water and Sewer Fund balance projections for the period FY 2024 through FY 2029.

Figure 4-1: O&M Fund Expenses vs. Revenues Forecast at FY 2024 Rates

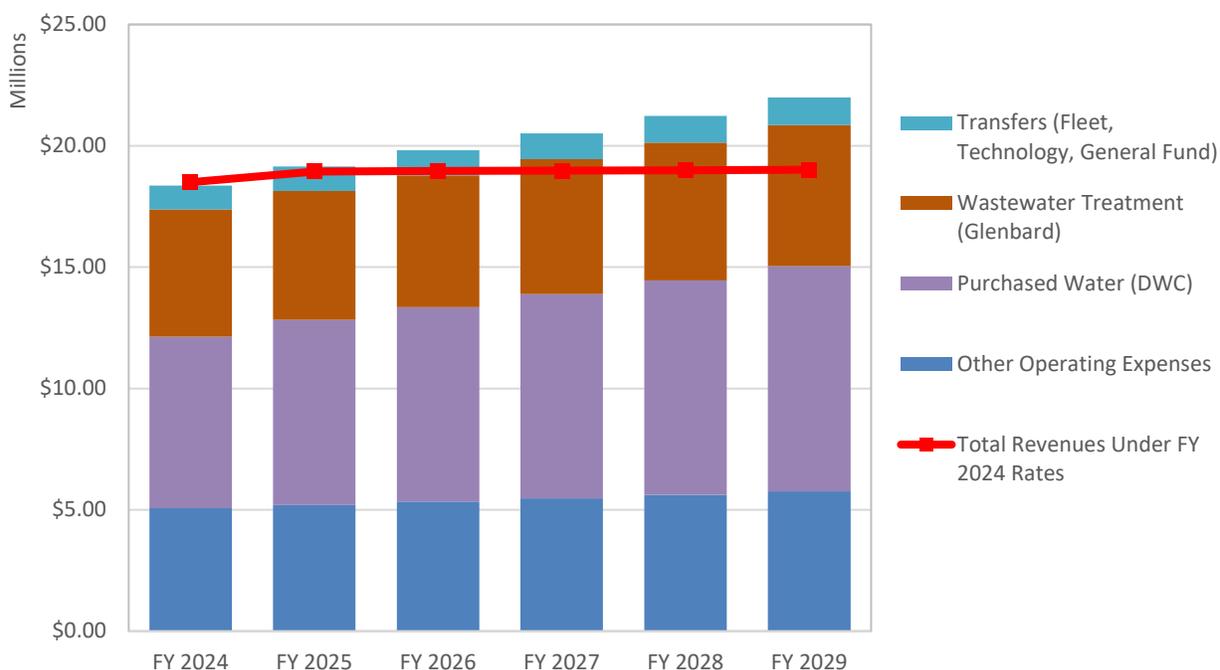


Figure 4-2: Projected O&M Fund Balance at FY 2024 Rates

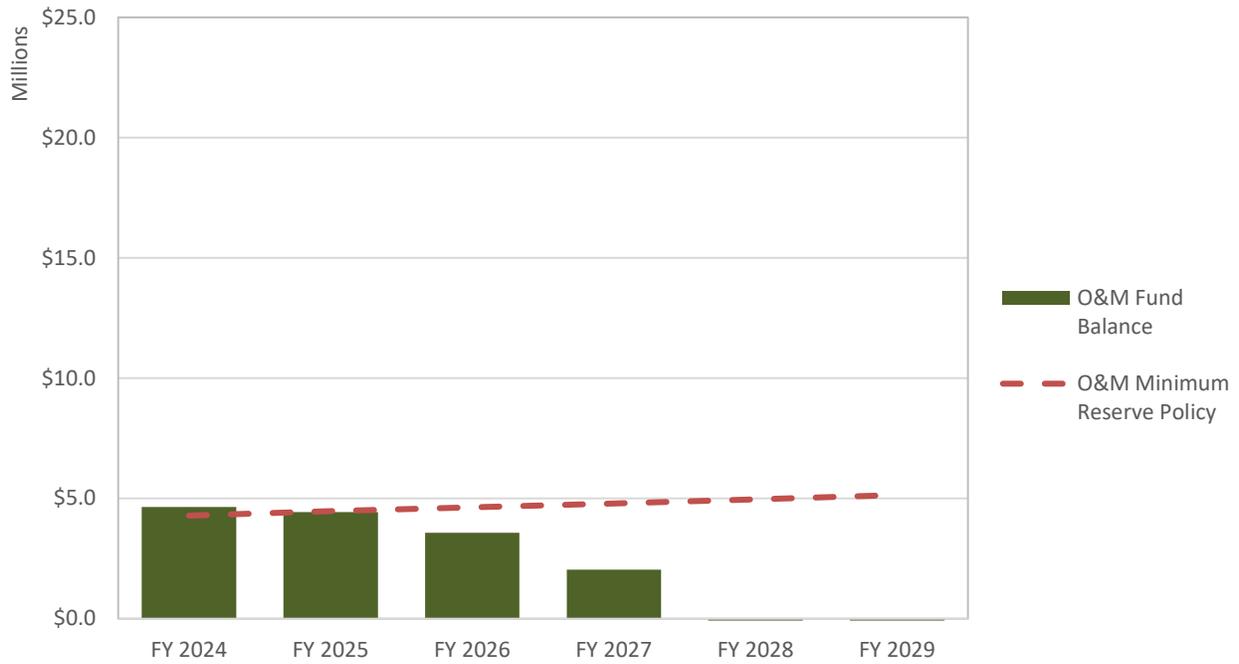


Figure 4-3: Capital Reserve Fund Expenses vs. Revenues Forecast

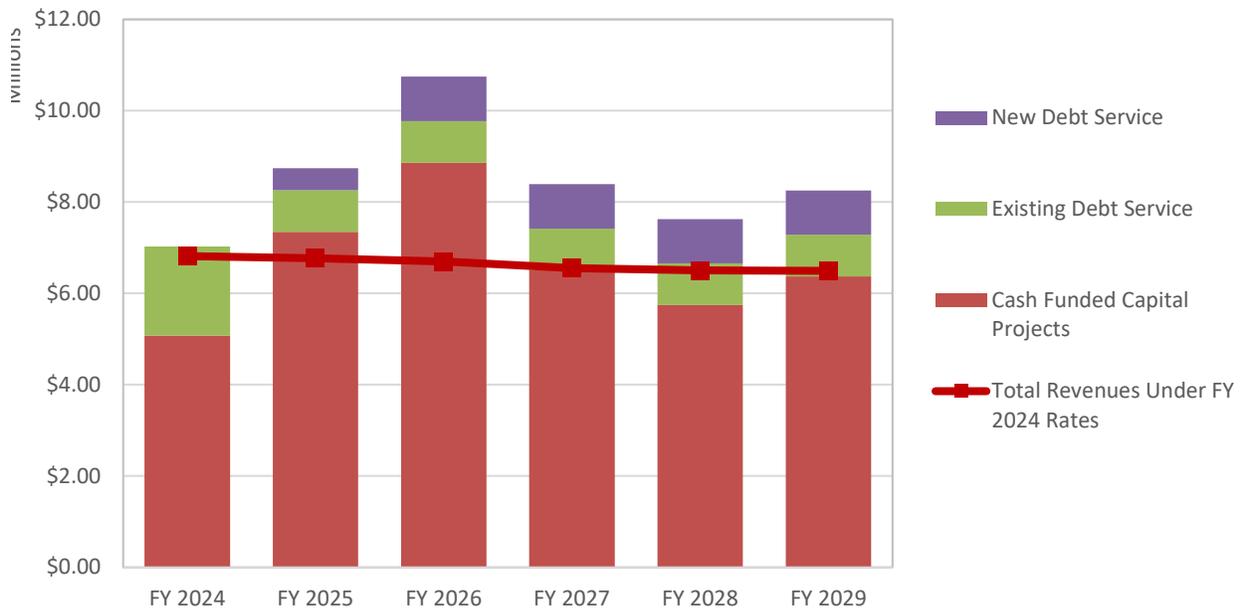
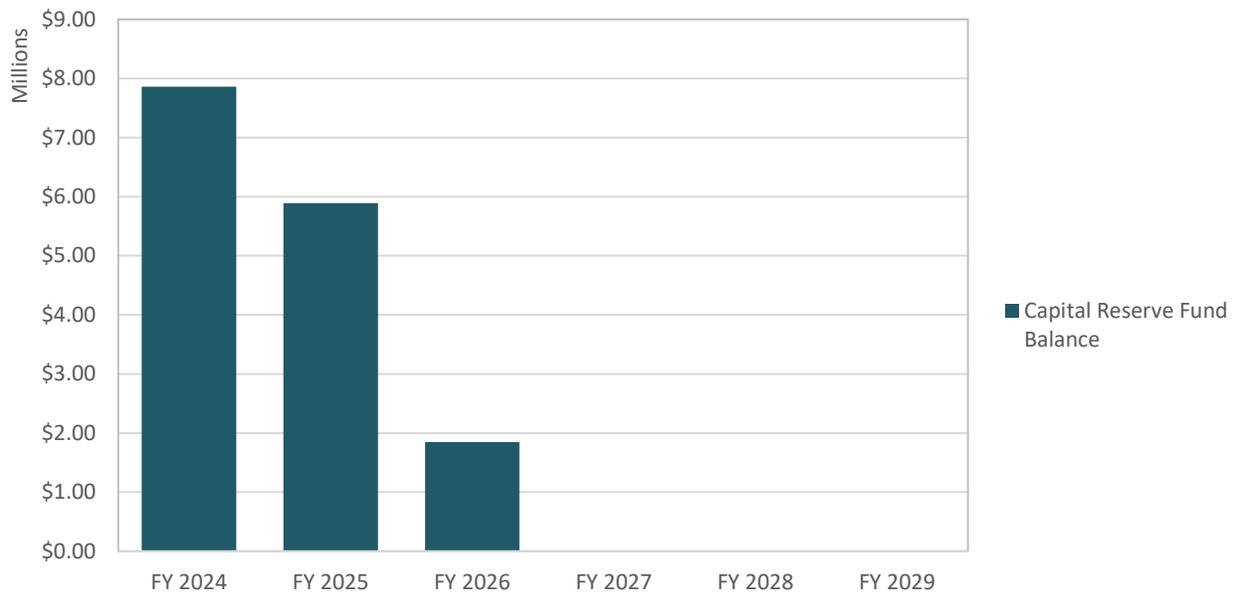


Figure 4-4: Projected Capital Reserve Fund Balance at FY 2024 Rates



The Village’s current FY 2024 water and sewer rates are not sufficient to maintain the financial health of the water and sewer systems. The next sections of this report will detail the revenue increases and rates necessary to produce sufficient cash flow to maintain the minimum required fund balance for the Village’s Water and Sewer Operating Fund and to maintain a positive cash balance in the Capital Reserve Fund.

Recommended Rate Increases

To increase revenues that will sustain the water and sewer systems, NewGen recommends the following increases for the Village’s fixed fee, water, and sewer rates.

Table 4-4
Recommended Water and Sewer Rate Increases

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
O&M Fund					
Service Charge	3.5%	3.5%	3.5%	3.5%	3.5%
Water Rates	3.5%	3.5%	3.5%	3.5%	3.5%
Sewer Rates	3.5%	3.5%	3.5%	3.5%	3.5%
Capital Reserve Fund					
Fixed Capital Fee	6.5%	6.5%	6.5%	6.5%	6.5%
Capital Improvement Charge	6.5%	6.5%	6.5%	6.5%	6.5%

Water and Sewer Fund Cash Balance Projection at Recommended Rates

If the Village increases its water and sewer rates consistent with the tables above, the result is that the Village can fund each system’s projected operating, capital, and debt service expenses while also maintaining appropriate reserves, as shown in the following figures.

Figure 4-5: O&M Fund Expenses vs. Revenues – Recommended Rates

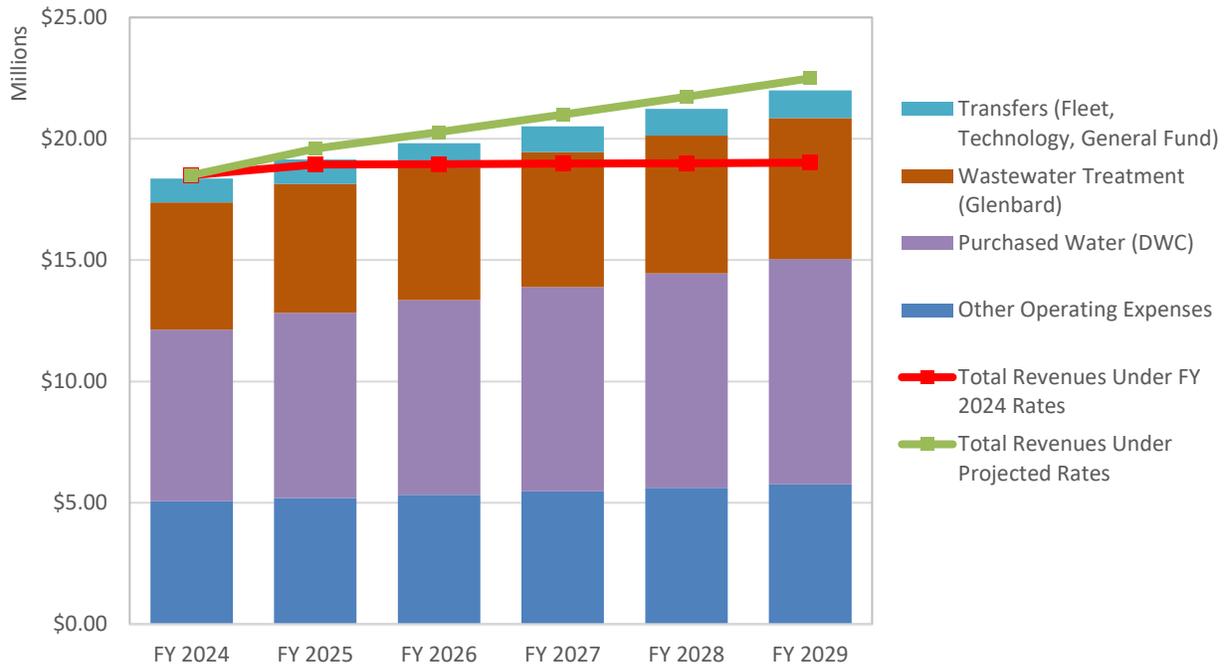


Figure 4-6: O&M Fund Balance – Recommended Rates

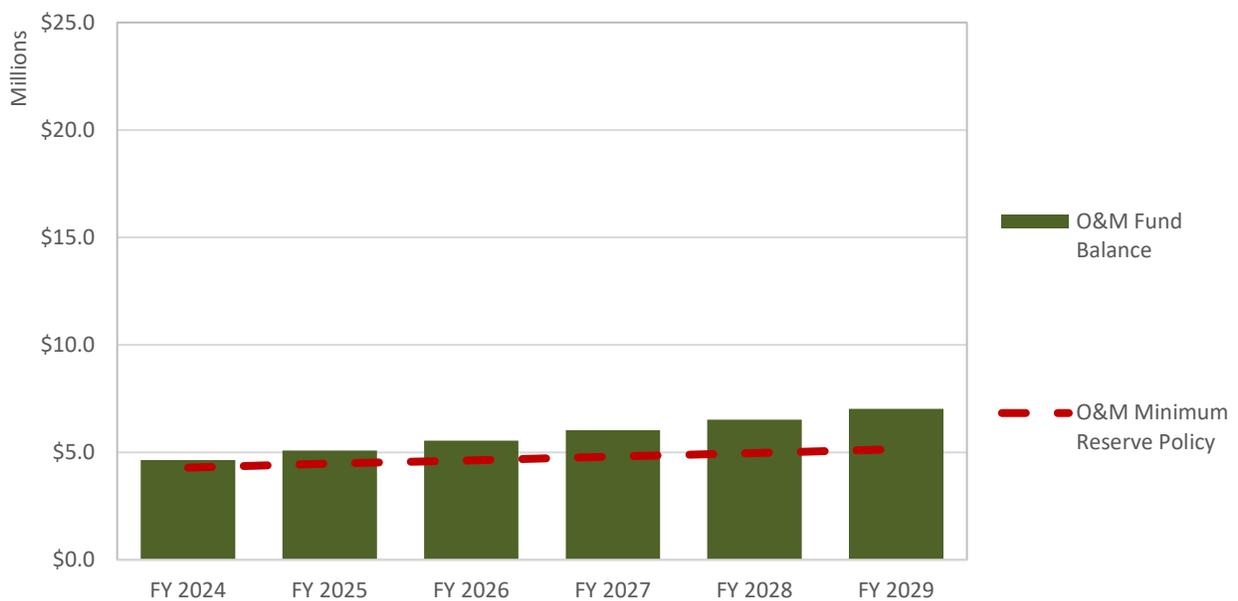


Figure 4-7: Capital Reserve Fund Expenses vs. Revenues – Recommended Rates

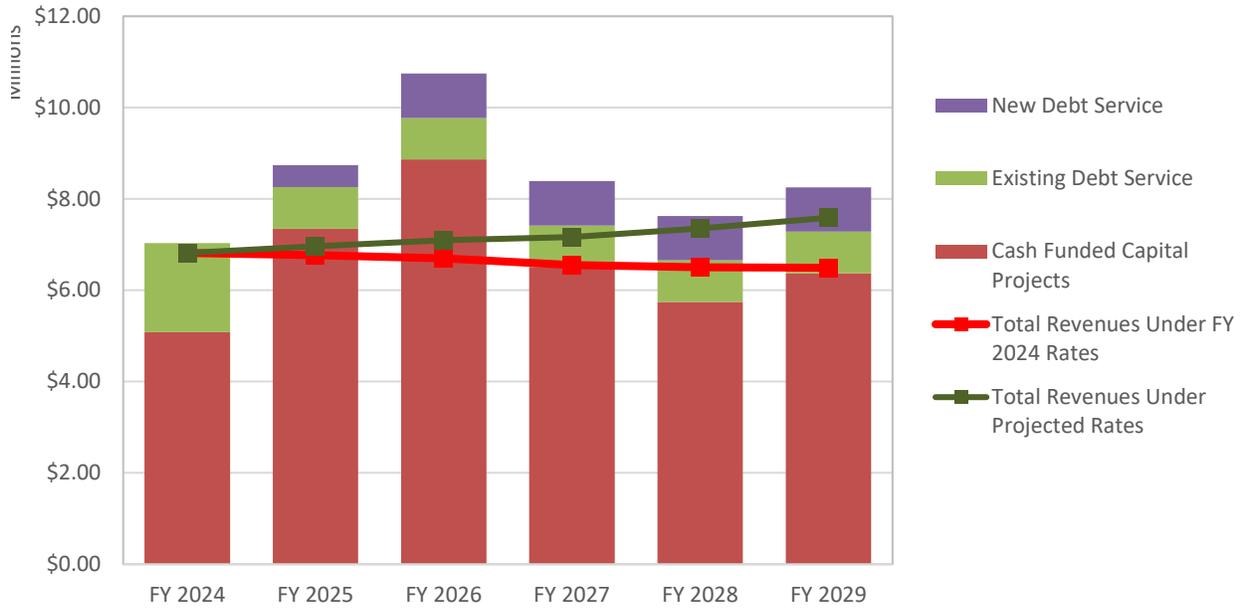
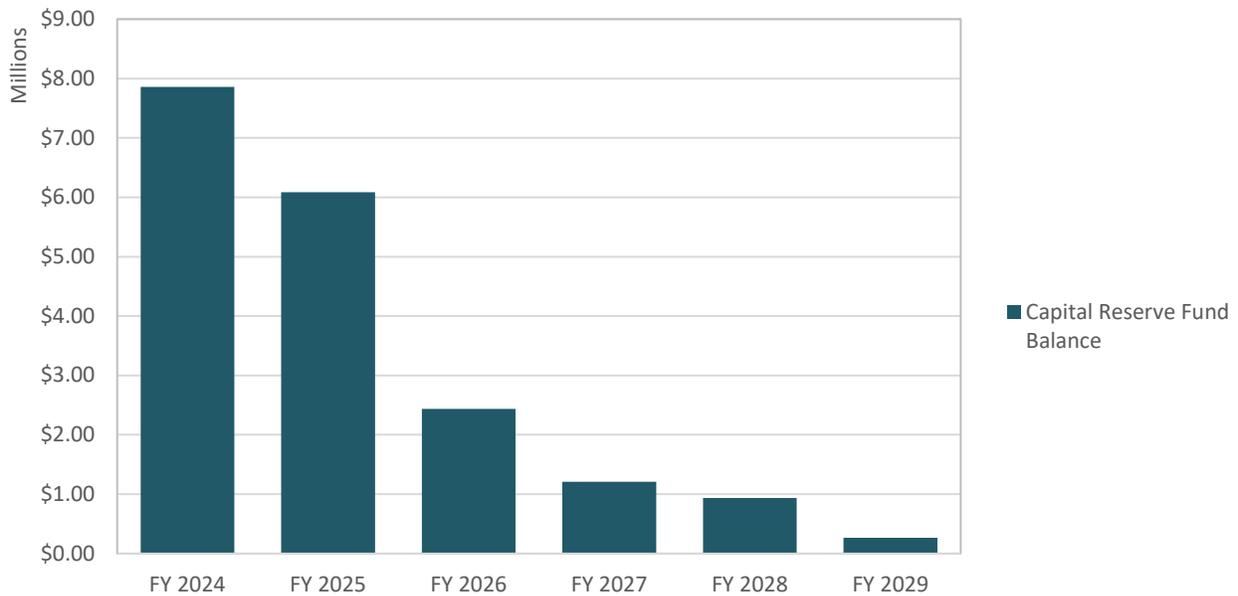


Figure 4-8: Capital Reserve Fund Balance – Recommended Rates



Section 5 RECOMMENDED RATES

This section of our report details our recommended water and sewer rate increases.

Recommended Revenue Increases

This section includes the total increases in revenue shown in Table 5-1, as described in Section 4. These revenue increases are necessary to maintain the financial and operational health of the Village’s water sewer infrastructure.

**Table 5-1
Recommended Water and Sewer Rate Increases**

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
<u>O&M Fund</u>					
Service Charge	3.5%	3.5%	3.5%	3.5%	3.5%
Water Rate	3.5%	3.5%	3.5%	3.5%	3.5%
Sewer Rate	3.5%	3.5%	3.5%	3.5%	3.5%
<u>Capital Reserve Fund</u>					
Fixed Capital Fee	6.5%	6.5%	6.5%	6.5%	6.5%
Capital Improvement Charge	6.5%	6.5%	6.5%	6.5%	6.5%

Projected Rates

The following rates shown in Tables 5-2 and 5-3 are based on the increases in Table 5-1 and are forecasted to fully support the future operating, capital, debt service, and reserve requirements of the systems. The fixed fee, water, and sewer rates in Table 5-2 and 5-3 assume that the Village does not change its current rate structure.

**Table 5-2
Recommended O&M Fund Rates**

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Service Charge	\$5.05	\$5.23	\$5.41	\$5.60	\$5.79	\$6.00
Cross Connection Fee	\$5.10	\$5.10	\$5.10	\$5.10	\$5.10	\$5.10
<u>Water Rate per kgal</u>						
Inside Village	\$8.84	\$9.15	\$9.47	\$9.80	\$10.14	\$10.50
Outside Village	\$13.26	\$13.72	\$14.20	\$14.70	\$15.22	\$15.75
IL Amer. Wheeling Rate	\$0.79	\$0.82	\$0.85	\$0.88	\$0.91	\$0.94
<u>Sewer Rate per kgal</u>						
Inside Village	\$6.36	\$6.58	\$6.81	\$7.05	\$7.30	\$7.55
Outside Village	\$9.54	\$9.87	\$10.22	\$10.58	\$10.95	\$11.33

If the Village adopts the recommended rate increases in Table 5-1 each year from FY 2024 – FY 2029, then the Village’s Capital Reserve Fund rates would be as shown in Table 5-3.

**Table 5-3
Recommended Capital Reserve Fund Rates**

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Fixed Capital Fee	\$6.00	\$6.39	\$6.81	\$7.25	\$7.72	\$8.22
<u>Capital Charge per kgal</u>						
Inside Village	\$1.70	\$1.81	\$1.93	\$2.05	\$2.19	\$2.33
Outside Village	\$2.55	\$2.72	\$2.89	\$3.08	\$3.28	\$3.49

Section 6 CUSTOMER BILL IMPACTS AND BENCHMARKING

A major consideration when developing any utility financial plan is the impact on the system’s customer bills. The recommendations detailed in this report will result in rate increases, and therefore cost increases to the Village’s customers. This section summarizes the impact on the system’s customers as well as provide a comparison the total customer bill set against surrounding utilities.

Projected Customer Bills under Current Rate Structure

The following table shows the impact of NewGen’s recommended revenue increases on Inside Village residential and commercial customers if the Village were to adopt the rate changes recommended in Section 4.

**Table 6-1
Combined Water and Sewer Monthly Customer Bill – Current Structure**

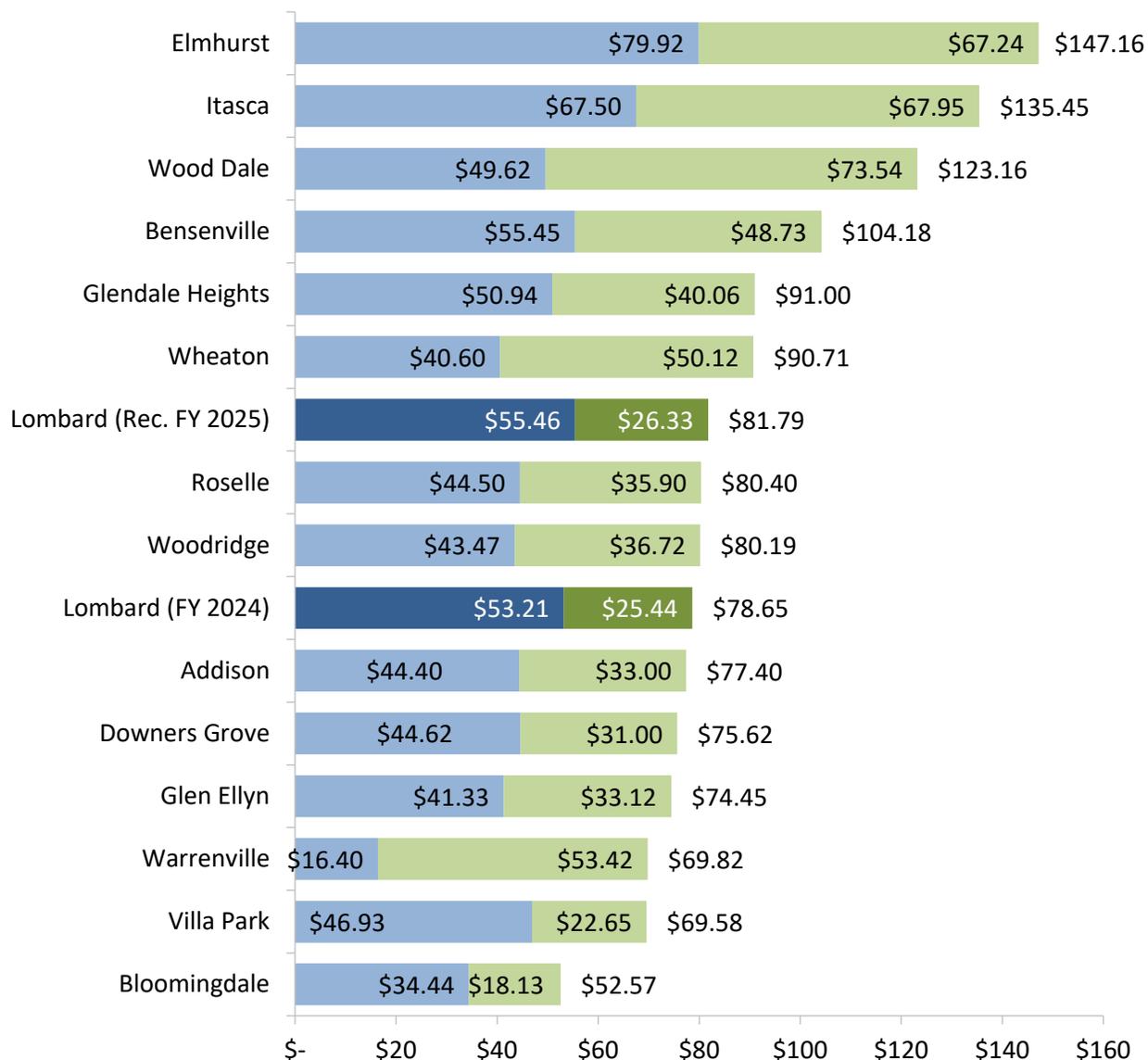
Sample Customer	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Residential – Average Use of 4 kgal/mo.						
Water	\$53.21	\$55.46	\$57.81	\$60.27	\$62.84	\$65.53
Sewer	\$25.44	\$26.33	\$27.25	\$28.21	\$29.19	\$30.21
Total	\$78.65	\$81.79	\$85.06	\$88.47	\$92.03	\$95.75
	<i>\$ Change</i>	\$3.14	\$3.27	\$3.41	\$3.56	\$3.72
	<i>% Change</i>	4.0%	4.0%	4.0%	4.0%	4.0%
Commercial – Average Use of 22 kgal/mo.						
Water	\$248.03	\$257.83	\$268.07	\$278.75	\$289.90	\$301.54
Sewer	\$139.92	\$144.82	\$149.89	\$155.13	\$160.56	\$166.18
Total	\$387.95	\$402.65	\$417.95	\$433.88	\$450.46	\$467.72
	<i>\$ Change</i>	\$14.70	\$15.30	\$15.93	\$16.58	\$17.26
	<i>% Change</i>	3.8%	3.8%	3.8%	3.8%	3.8%

NewGen’s recommendations keep the bill increase for an average inside Village customer limited to 4.0% per year in total, including the increase in the water, sewer, and capital fixed and variable charges.

Regional Bill Comparison

The following figure shows a comparison of the monthly bill for an average Inside Village customer (5/8" meter, 4 kgal monthly usage) in surrounding service areas.

Figure 6-1: Regional Bill Comparison – Residential Customer, 5/8" Meter, 4,000 gal/mo.



While regional comparisons may provide some context, the ranking of individual customer bills is not a consideration when developing a financial plan and rate structure. The Village's cash needs are independent of the rates in the surrounding jurisdictions, and this comparison is provided for information only.

Appendix A

Five-Year Water and Sewer Capital Improvement Plans

Water Capital Improvement Plan						
	Budget	Projected	Projected	Projected	Projected	Projected
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Underground Structure Maintenance	\$97,000	\$100,000	\$103,000	\$106,000	\$109,000	\$112,000
Backyard Flooding Prevention Program	\$28,000	\$29,000	\$30,000	\$31,000	\$32,000	\$33,000
Clear Water Disconnect Grant Program	\$56,000	\$58,000	\$60,000	\$62,000	\$64,000	\$66,000
Water Main Maintenance & Improvement	\$185,000	\$191,000	\$197,000	\$203,000	\$209,000	\$215,000
Manhole Inspection & Rehabilitation	\$132,000	\$136,000	\$140,000	\$75,000	\$144,000	\$148,000
High Service Pump Rehabilitation	\$25,000	\$25,000	\$25,000			
Arc Flash Analysis Update			\$70,000			
Consultant Engineering Services	\$60,000	\$60,000	\$61,500	\$61,500	\$61,500	\$63,000
Lead Service Line Replacement Grant Program	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000	\$75,000
Pump/Lift Station Maintenance	\$82,500	\$85,000	\$87,500	\$90,000	\$92,500	\$95,000
Water & Sewer Lining Program					\$500,000	\$500,000
Portable Generator	\$150,000					
Old Town Lift Station Rehab	\$15,000	\$300,000				
Highland Estates Lift Station Improvement	\$17,000	\$500,000				
Lombard Meadows 4: Hawthorne Circle & Cherry Lane	\$123,000	\$1,347,000				
Lombard Meadows 5: Lombard Circle, School & Art		\$210,000	\$2,369,000			
Route 53 Underground Improvements						\$3,485,000
Civic Center 1.5 MG Reservoir Rehab	\$60,200	\$62,300	\$64,500	\$66,800	\$69,200	\$71,600
Highland Avenue Water Tank (Painting & Repairs)	\$38,000	\$39,000	\$40,000	\$42,000	\$43,000	\$45,000
Hill Avenue Utility Extension	\$500,000					
South Lombard Water Storage Facility	\$600,000	\$250,000				
Main Street Booster Station Generator	\$250,000					
Well Pump Maintenance (Wells 7, 8, & 10)	\$125,000	\$250,000	\$2,500,000			
Water Network Analysis	\$81,111					
Underground Water Improvements-District 450	\$200,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000	
Highland Ave Pump Station VFDs				\$150,000		
Emergency Potable Water Interconnect Rehab					\$957,000	
Butterfield Road Water Main Lining	\$150,000	\$250,000				
North Avenue Standpipe Rehabilitation	\$265,000	\$265,000	\$265,000	\$48,200	\$49,900	\$51,700
Manor Hill Subdivision Utility Improvements			\$80,000	\$2,780,000		
West Central Lombard Utility Improvement						
Water Meter Replacement					\$100,000	\$100,000
Fire Hydrant Painting						\$50,000
Total Water CIP	\$3,314,811	\$6,232,300	\$8,167,500	\$5,790,500	\$4,506,100	\$5,110,300

Sewer Capital Improvement Plan

	Budget	Projected	Projected	Projected	Projected	Projected
	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Overhead Sewer Grant Program	\$66,000	\$68,000	\$70,000	\$72,000	\$74,000	\$76,000
Sewer Maintenance and Improvements	\$246,000	\$253,000	\$261,000	\$269,000	\$277,000	\$285,000
Sanitary Sewer Lining Program	\$97,000	\$100,000	\$103,000	\$106,000	\$109,000	\$112,000
Catch Basin Cleaning Program	\$97,000	\$100,000	\$103,000	\$106,000	\$109,000	\$112,000
Sewer Stub Lining Program	\$67,000	\$69,000	\$71,000	\$73,000	\$75,000	\$77,000
Sewer Collection System Maintenance	\$136,000	\$140,000	\$144,000	\$148,000	\$152,000	\$156,000
Pump/Lift Station Maintenance	\$82,500	\$85,000	\$87,500	\$90,000	\$92,500	\$95,000
Sanitary Sewer Investigation	\$56,000	\$58,000	\$60,000	\$62,000	\$64,000	\$66,000
Water & Sewer Lining Program					\$500,000	\$500,000
Large Diameter Combined Sewer Rehabilitation (108)	\$8,296,200	\$8,500,000				
Portable Generator	\$150,000					
South Lombard Sanitary Sewer Extension (SRI Connection)	\$530,000					
Total Sewer CIP	\$9,823,700	\$9,373,000	\$899,500	\$926,000	\$1,452,500	\$1,479,000