NewGen Strategies & Solutions

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FINAL REPORT

WATER AND SEWER RATE STUDY REPORT

SEPTEMBER 2024

Libertyville
spirit of independence

Prepared for:
Denise Joseph - Finance Director
Village of Libertyville
200 E. Cook Avenue
Libertyville, IL 60048

NewGen Strategies & Solutions

900 Bestgate Road, Suite 402
Annapolis, MD 21401
Phone: (410) 266-9101

September 25, 2024

Denise Joseph
Finance Director
Village of Libertyville
200 E. Cook Avenue
Libertyville, IL 60048

Subject: Water and Sewer Rate Study Report

Dear Ms. Joseph:

NewGen Strategies and Solutions, LLC (NewGen) is pleased to submit to the Village of Libertyville (Village) 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 relating to revenue increases 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 Fund.

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 Libertyville.

Sincerely,
NewGen Strategies and Solutions, LLC

DocuSigned by:
C11651334F8F462...
Eric Callocchia

Partner

Table of Contents

List of Tables

List of Figures

EXECUTIVE SUMMARY

The primary goal of NewGen's study was to develop a five-year forecast of water and sewer rates to support the future costs of operating and maintaining the Village's water and sewer systems. NewGen used the Village's FY 2025 operating budget, ten-year capital improvement plan, and the Master Plans for the Village's water distribution system, sewer collection system, and wastewater treatment plant (WWTP) as the basis for its projections with appropriate cost escalation for future years.

NewGen's study determined that the Village's FY 2025 rates are not sufficient to maintain the financial and operational health of the Village's Utility Fund 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: Water Expenses vs. Revenues at FY 2025 Rates

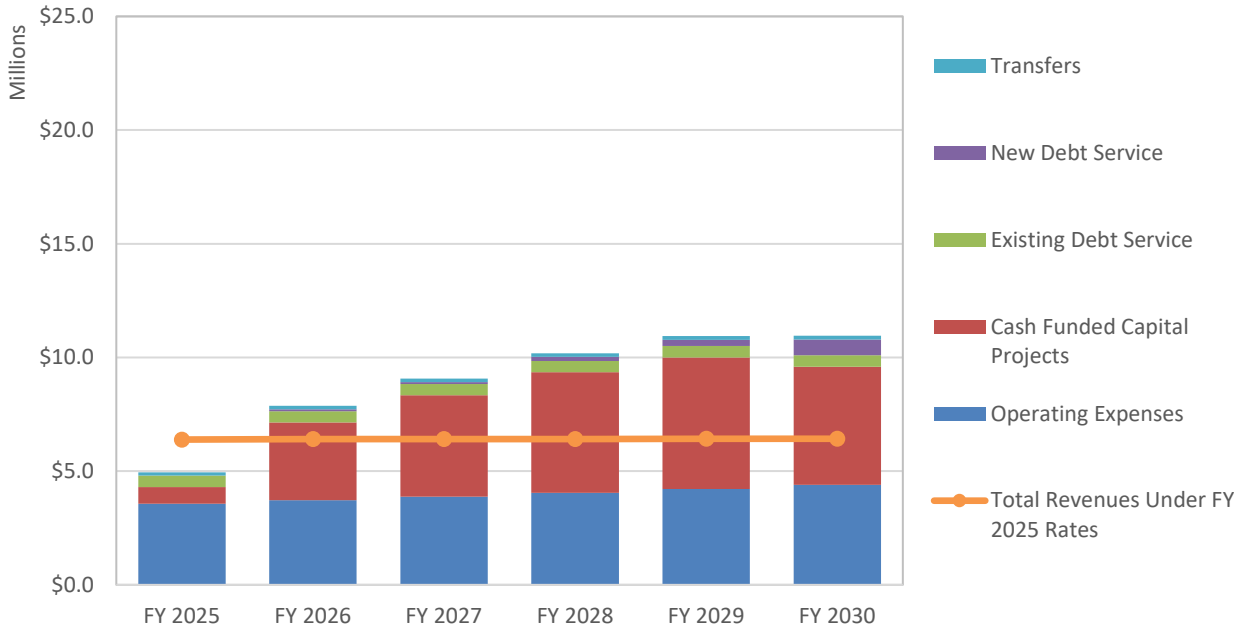
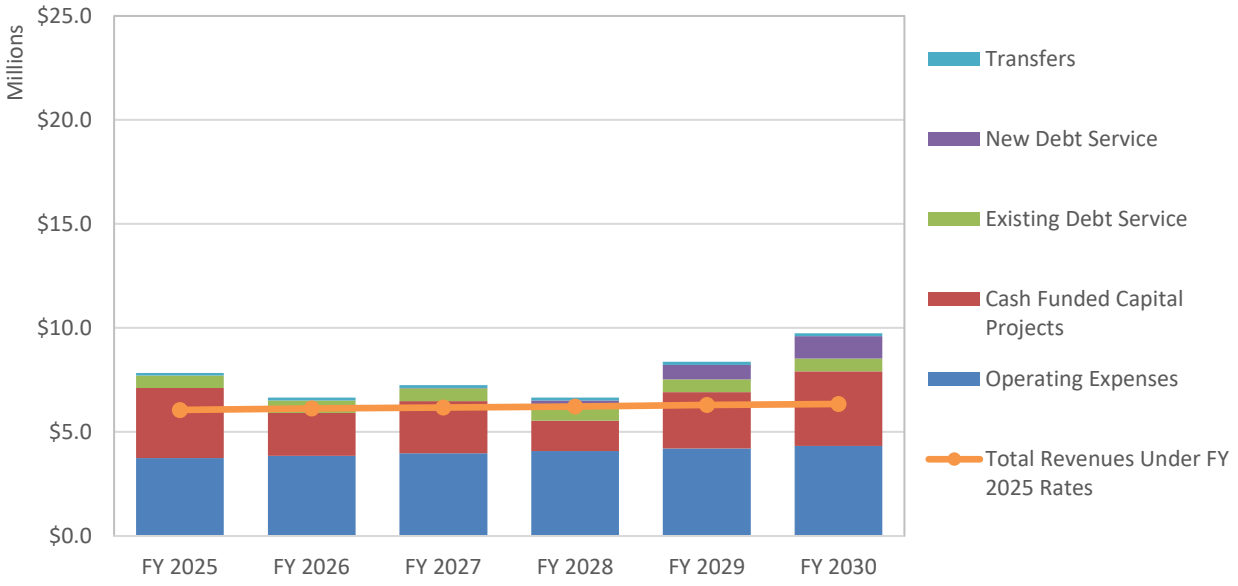


Figure E-1 demonstrates that future revenues generated by the Village's currently effective water rates will not be sufficient to meet the costs of the system.

Figure E-2: Sewer Expenses vs. Revenues at FY 2025 Rates



Similarly, Figure E-2 demonstrates that future revenues generated by the Village's currently effective sewer rates will not be sufficient to meet the costs of the system.

Figure E-3: Combined Expenses vs. Revenues at FY 2025 Rates

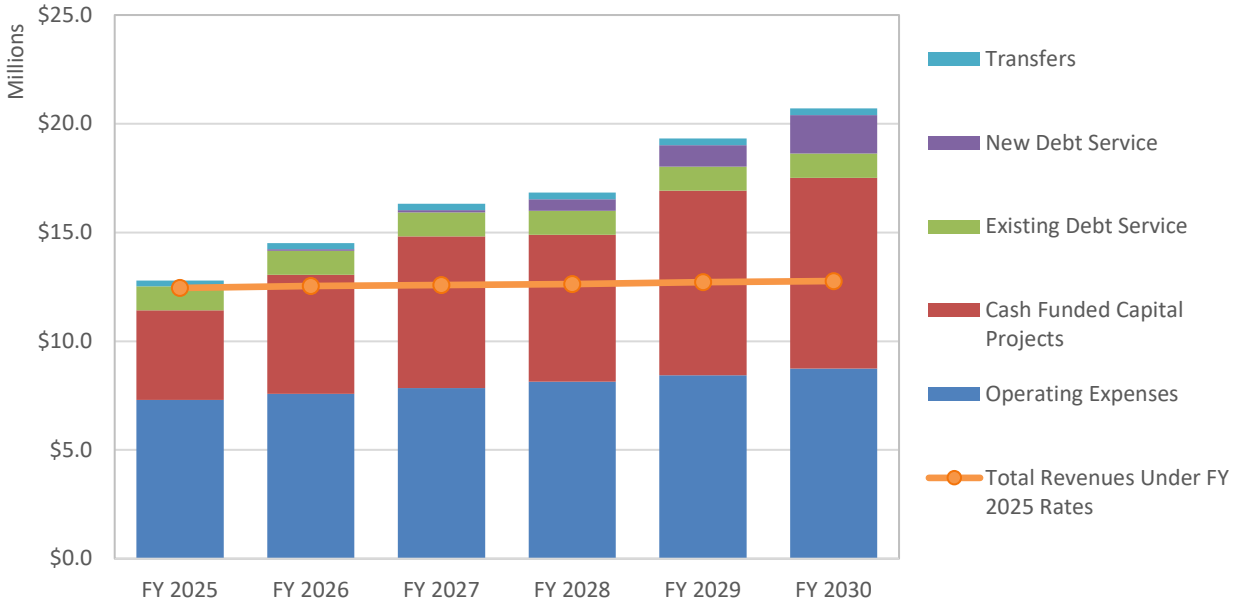
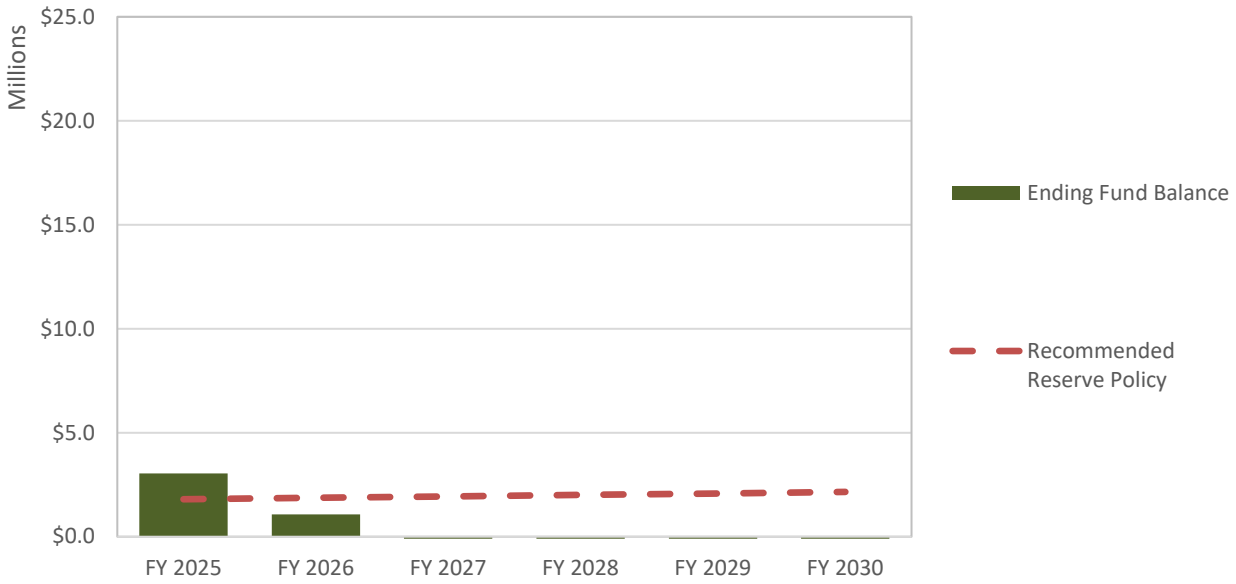


Figure E-3 demonstrates that when combined, water and sewer revenues generated by the Village's currently effective rates will not be sufficient to meet the combined costs of the systems.

Accordingly, figure E-4 shows the forecasted Utility Fund balance if the Village does not increase any water or sewer rates above the current FY 2025 rates.

Figure E-4: Combined Fund Balance Projection at FY 2025 Rates



The Village has an established Utility Fund balance minimum policy that requires 90 days of annual operating and maintenance (O&M) costs. As the Village's costs increase this fund balance policy will increase as well, ensuring the financial stability of the Utility Fund. The fund balance chart above shows NewGen's calculated fund balance based on the Village's current policy.

The Village recently completed Master Plans for the three components of its water and sewer infrastructure – the water distribution system, the sewer collection system, and the Wastewater Treatment Plant (WWTP). These plans all included recommendations for capital asset repair, rehabilitation, and replacement over a ten-year period beginning in FY 2025. Cumulatively, these plans recommended over $132 million in improvements to the Village's water and sewer infrastructure that includes the unfunded IEPA mandates (Lead Water Service Replacements and Additional Phosphorus Reduction for the Effluent at the WWTP). Detailed project costs and timing for each Master Plan are provided in Appendix A.

NewGen determined the rate increase forecast necessary to fund the entirety of the three Master Plans. NewGen calculated that water rates would need to increase by 60% and sewer rates would need to increase 25% in FY 2026 to meet the required revenue needs of the Village's system when all Master Plan projects were included. Table E-1 details rate increase and bi-monthly bill impact on the average residential Village customer if the Village were to immediately implement all the projects in its three Master Plans.

Table E-1
Rate Increases and Customer Bill Impact – Full Master Plan Implementation

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Average Use: 10 kgal/bill						
Water Rate Increase		*60.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*
Sewer Rate Increase		*25.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*
Water Bill	$86.95	$139.12	$143.29	$147.59	$152.02	$156.58
Sewer Bill	$89.71	$112.14	$117.74	$123.63	$129.81	$136.30
Combined Bi-Monthly Bill	**$176.66**	**$251.26**	**$261.04**	**$271.22**	**$281.83**	**$292.88**
	$ Change	*$74.60*	*$9.78*	*$10.19*	*$10.61*	*$11.05*
	% Change	*42.2%*	*3.9%*	*3.9%*	*3.9%*	*3.9%*

NewGen's recommendation to increase the typical customer bill by over 40% in one year was determined to not be the most realistic approach to funding the Village's water and sewer revenue requirements. To reduce the necessary revenue increases, Village staff worked with NewGen to develop an adjusted Capital Improvement Plan that still includes infrastructure improvements that are immediately necessary to ensure reliable and sustainable service and the unfunded IEPA mandates (Lead Water Service Replacements and Additional Phosphorus Reduction for the Effluent at the WWTP), but moves nonessential projects to later dates to accommodate a longer phase-in to revenue increases. Table E-2 shows the difference in the full Master Plan recommended spending to the recommended capital investment plan from FY 2026 – FY 2030 used for NewGen's study.

Table E-2
Full Master Plan vs. Study Adjusted Capital Improvement Projects Summary

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Full Master Plan CIP	$5,187,030	$9,019,959	$16,769,146	$14,042,597	$23,113,257	$16,572,153
Study Adjusted CIP	$5,187,030	$5,798,337	$12,944,531	$14,018,500	$19,244,787	$15,984,955
$ Change	$0.00	($3,221,623)	($3,824,615)	($24,097)	($3,868,470)	($587,198)
% Change	0.0%	(35.7%)	(22.8%)	(0.2%)	(16.7%)	(3.5%)

Given the adjusted Capital Improvement Plan, NewGen calculated required rate increases over multiple years to fund the forecasted water and sewer revenue requirements. In addition. NewGen recommends smaller increases to the fixed per bill component and the first water usage rate tier when compared to the recommended increases for the two higher water usage rate tiers. NewGen's recommended rate increases calculated maintain the financial health of the Village's Utility Fund and are shown in Table E-3 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-3
Recommended Water and Sewer Rate Increases

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Water Rates					
Fixed Fee	10.0%	10.0%	5.0%	5.0%	5.0%
Tier 1 (0 – 4,000)	10.0%	10.0%	5.0%	5.0%	5.0%
Tier 2 (5,000 – 8,000)	20.0%	20.0%	10.0%	10.0%	5.0%
Tier 3 (9,000+)	25.0%	25.0%	15.0%	10.0%	5.0%
Sewer Rates					
Fixed Fee	10.0%	10.0%	7.5%	5.0%	5.0%
All Volume Rate	10.0%	10.0%	7.5%	5.0%	5.0%

The following figure shows the Utility Fund expenses and revenues if the Village adopts the rate increases shown in Table E-3.

Figure E-5: Combined Expenses vs. Revenues at Recommended Rates

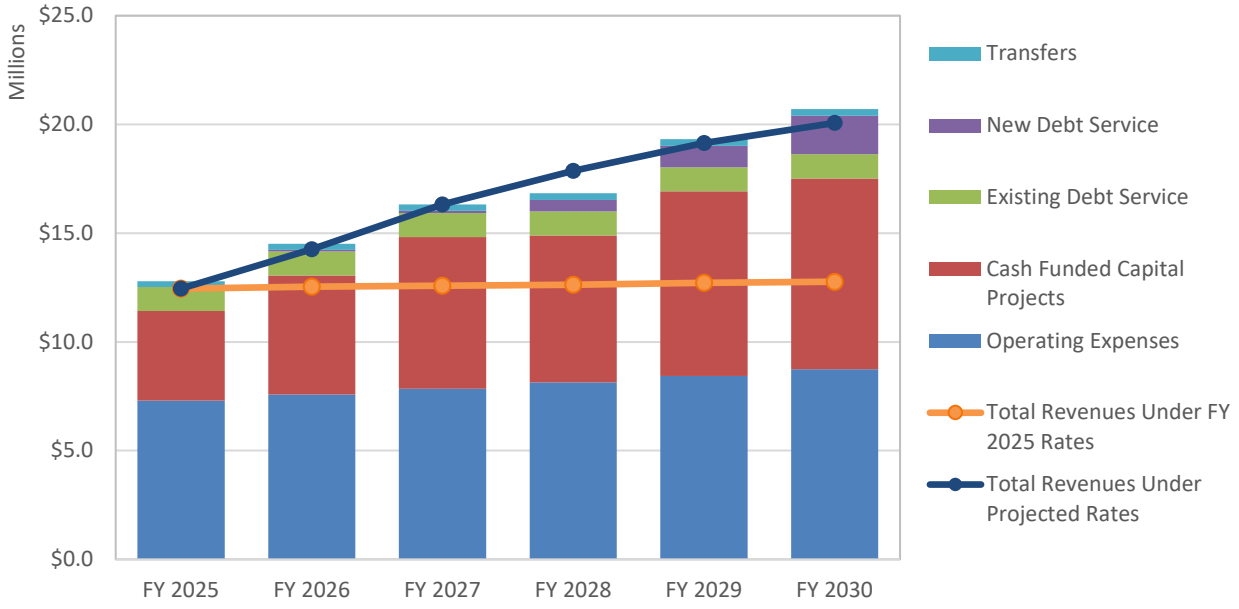
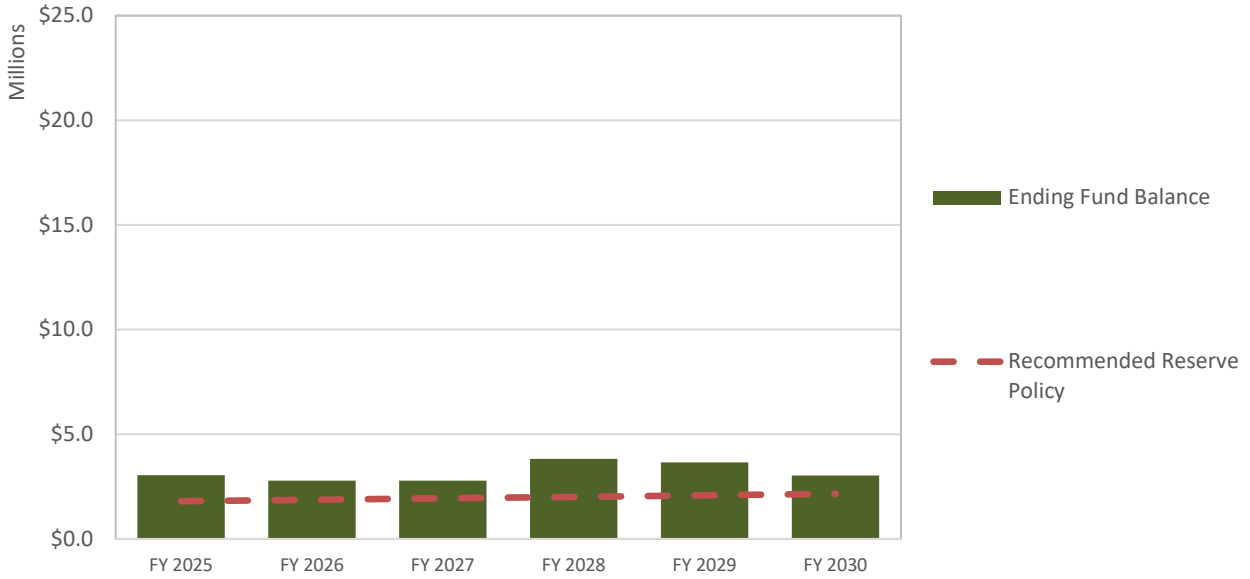


Figure E-6 shows the forecasted Utility Fund balance if the Village adopts each of the annual rate increases shown in Table E-3.

Figure E-6: Combined Fund Balance Projection at Recommended Rates



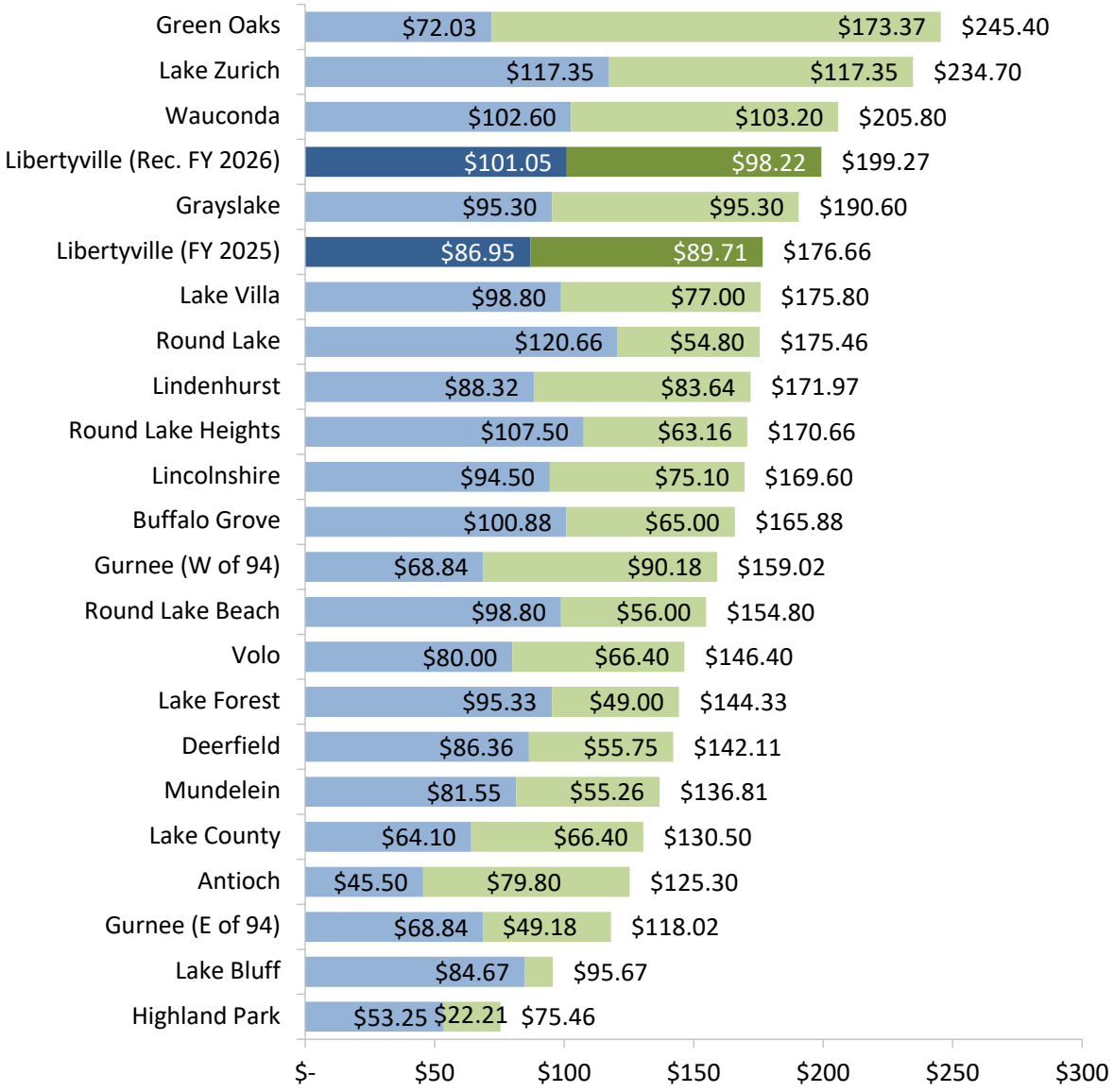
The Village currently charges a bi-monthly fixed fee, as well as inclining block tiered volumetric rates per 1,000 gallons of usage to fund the water and sewer systems. The Village also offers a fixed senior discount per bill for residents aged 65 and older. The average Village residential customer uses 10,000 gallons of water per bi-monthly billing period. Table E-4 shows the impact of the recommended rate increases on the average Village residential customers under the current rate structure.

Table E-4
Projected Combined Water and Sewer Bi-Monthly Customer Bill

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Average Use – 10 kgal/bill						
Water Bill	$86.95	$101.05	$117.78	$128.48	$138.63	$145.56
Sewer Bill	$89.71	$98.22	$107.58	$115.31	$120.84	$126.65
Combined Total Bill	**$176.66**	**$199.27**	**$225.36**	**$243.78**	**$259.47**	**$272.22**
	$ Change	*$22.61*	*$26.09*	*$18.42*	*$15.69*	*$12.74*
	% Change	*12.8%*	*13.1%*	*8.2%*	*6.4%*	*4.9%*

If the Village adopts the rates recommended in this report in FY 2026, then the Village's combined water and sewer bill for an average Village customer would remain above the average of similar utilities in the region, as shown in Figure E-9.

Figure E-9: Regional Bill Comparison – Average Residential Customer, 10,000 gal/bill



Section 1
STUDY BACKGROUND AND SCOPE OF WORK

Study Background

The Village of Libertyville is in Lake County, Illinois, United States, about 7 miles west of Lake Michigan and 40 miles North of Chicago. The Village of Libertyville's Utilities Division within the Public Works Department maintains watermain, sanitary sewer, and storm sewer infrastructure.

The Village purchases water from the Central Lake County Joint Action Water Agency (CLCJAWA), which treats and supplies raw water from Lake Michigan. The Village's water distribution system contains five water storage tanks with a combined capacity of 4.1 million gallons, approximately 125 miles of water main piping, 1,295 water main operating valves, and 1,500 fire hydrants. The water system provides an average of 2.1 MGD to Village customers. The Village also operates and maintains its own Wastewater Treatment Plant with an 8.0 million gallon per day (mgd) maximum flow rating and 4.0 mgd average flow, in addition to 15 lift stations and a Stormwater Basin pumping facility.

The Village engaged NewGen Strategies and Solutions, LLC (NewGen) 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 Water and Sewer Fund reserves.

Project Approach

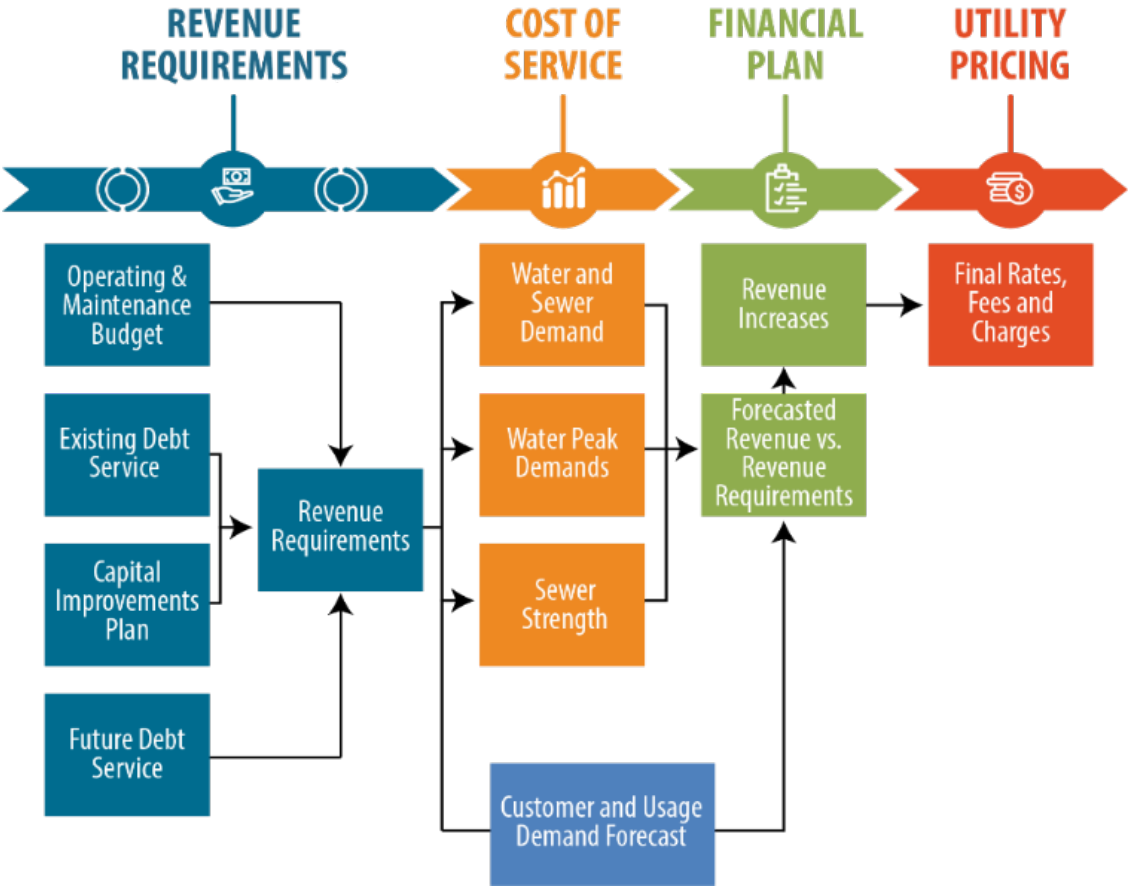
NewGen's approach to reviewing and evaluating municipal utility rates is governed by the view that the ideal rate structure must satisfy seven criteria:

- ***Equity*** requires that rates and charges result in no undue discrimination among customers or customer classes. Although equity is normally related to the cost of service, it should be realized that customer acceptance will center on preconceived notions of equity and fairness.
- ***Efficiency*** refers to the ability of the rate schedule to encourage wise use of the resources devoted to the services that the utility provides.
  - Rates should reflect the cost of providing service.
  - Rates should be similar for customers or customer classes served under similar conditions.
  - Customers should be able to understand the rate schedules so that they can make rational decisions regarding their purchase of additional service(s).
- ***Revenue Adequacy*** is the most fundamental of all considerations, as it recognizes that rates are cost driven. When evaluating any rate structure, the rates must produce revenues sufficient to operate the system and those rates produce sufficient revenues if there are changes in demand for service.
- ***Affordability*** means that the recommended rates must result in bills that are realistically within the ability of customers to pay.

- ***Sustainability*** means that the objective of the rate methodology is to keep rates low over time, not to merely keep them low for the short-term by omitting or deferring needed expenses such as maintenance and funding of necessary cash reserves.
- ***Administrative Simplicity*** recognizes that limits must be placed on the number of customer classes, the complexity of the rate schedule, and the frequency of billing.
- ***Legal and Regulatory Compliance*** is a prime consideration because rate structures must incorporate applicable local, state, and federal statutes.

The application of the criteria should recognize that a rate schedule is a form of public policy statement, setting forth those values that the utility considers important. Rate structures must be tailored to community perceptions, realities, and values. 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 each class of Village customers.
- **Cost of Service** - Allocation of revenue requirements to customers based on the cost of providing service and each customer. For the Village, this meant an evaluation of the current water rate tiers and the rates charged to each tier.
- **Financial Plan** - Development of a financial plan, i.e., revenue increases, to fund system revenue requirements considering customer and usage demand forecasts.
- **Utility Pricing** - Review of the current design based on revenue needs and rate design pricing objectives with specific rate projections.

This report details the results of our study and our recommendations regarding water and sewer rates sufficient to meet the future costs of the Village's systems.

Section 2
REVENUE REQUIREMENTS

The first step in the rate study is to identify and project the revenue requirements of the water and sewer systems. The revenue requirements reflect the true 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 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 2025 adopted Utility Fund budget. 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 in Table 2-1.

Table 2-1
Operating Budget Escalation Factors

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Salaries	4.0%	4.0%	4.0%	4.0%	4.0%
Benefits	4.0%	4.0%	4.0%	4.0%	4.0%
General	3.0%	3.0%	3.0%	3.0%	3.0%
Services	3.5%	3.5%	3.5%	3.5%	3.5%
Supplies	3.5%	3.5%	3.5%	3.5%	3.5%
Electricity	3.3%	3.3%	3.3%	3.3%	3.3%
Chemicals	10.0%	3.5%	3.5%	3.5%	3.5%
CLCJAWA Water Purchases	5.0%	5.0%	5.0%	5.0%	5.0%

The cost of wholesale water purchases from the Central Lake County Joint Action Water Agency (CLCJAWA) are based on actual FY 2025 rates and are estimated to continue increasing by 5.0% for the entire forecast period.

On average, NewGen projects that the water utility operating budget will increase by 4.3% per year and sewer by 3.6% per year over the five-year projection period.

Water and Sewer Operating Costs

The Village's FY 2025 budget and forecasted FY 2026 – FY 2030 Utility 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 CLCJAWA.

Table 2-2
Projected Utility Operating and Maintenance Expenses

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
CLCJAWA Purchases	$1,562,250	$1,640,363	$1,722,381	$1,808,500	$1,898,925	$1,993,871
Other Water O&M	$2,005,645	$2,080,747	$2,158,685	$2,239,564	$2,323,498	$2,410,602
LCPW Sewer Service	$810,000	$810,000	$810,000	$810,000	$810,000	$810,000
Other Sewer O&M	$1,078,507	$1,120,284	$1,163,686	$1,208,775	$1,255,617	$1,304,280
WWTP O&M	$1,851,291	$1,928,733	$1,997,606	$2,068,970	$2,142,915	$2,219,537
Total O&M	**$7,307,693**	**$7,580,128**	**$7,852,358**	**$8,135,809**	**$8,430,954**	**$8,738,290**
% Change		*3.7%*	*3.6%*	*3.6%*	*3.6%*	*3.6%*

Water purchases from CLCJAWA comprise about 44% of the Village's water O&M costs (22% of total costs), while payments for county sewer service under the Lake County Public Works Sewer Agreement comprise 43% of the Village's sewer O&M costs and 11% of total O&M costs. Included in the Village's sewer rate is a $0.46 per 1,000 gallon fee for the transportation and treatment of sewage to Lake County's South Central and Southeast Central Sanitary Sewer Systems. NewGen forecasts that the LCPW Sewer Agreement Fee, as well as the Village's annual payment for county sewer service, will remain constant over the five-year study period.

The Village transfers approximately $300,000 from the Utility Fund to the Village's Technology Fund and Vehicle Maintenance Fund each fiscal year to compensate those funds for services provided to the Utility Fund. Table 2-3 below details the budgeted and projected transfers out of the Utility Fund during the five-year study period.

Table 2-3
Projected Utility Fund Transfers

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
Technology (Water)	$74,302	$76,531	$78,827	$81,192	$83,628	$86,136
Technology (Sewer)	$49,125	$50,599	$52,117	$53,680	$55,291	$56,949
Vehicle Maintenance Fund	$150,000	$154,500	$159,135	$163,909	$168,826	$173,891
Total Transfers	**$273,427**	**$281,630**	**$290,079**	**$298,781**	**$307,744**	**$316,977**
% Change		*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*

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 Utility Fund. The second is any planned 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 for the Utility Fund.

Existing Debt Service

As of FY 2025, the Village is obligated to pay three outstanding debt issues – two General Obligation Bonds and a single Illinois Environmental Protection Agency (IEPA) Loan. Both GO Bonds will be paid in full in FY 2033, and the IEPA loan will be fully paid off in FY 2040. Table 2-4 shows the projected loan payments over the five-year study planning period.

Table 2-4
Current Debt Service Obligations by Issue

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
Series 2015B	$456,522	$452,806	$448,288	$448,113	$446,941	$444,753
Series 2021B	$539,200	$548,100	$551,100	$558,200	$564,300	$569,400
IEPA Loan of 2019	$104,379	$104,401	$104,423	$104,445	$104,468	$104,492
Total Debt Service	**$1,100,101**	**$1,105,307**	**$1,103,811**	**$1,110,758**	**$1,115,709**	**$1,118,645**
% Change		*0.5%*	*(-0.1%)*	*0.6%*	*0.4%*	*0.3%*

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 initially provided NewGen with an adopted Capital Improvement Plan (CIP) and three Master Plans for its water system, sewer system, and wastewater treatment plant with a combined total cost of $84.7 million for FY 2025 – FY 2030. The forecasted revenue increases necessary to fund the entirety of these three Master Plans would result in unreasonably large rate impacts on the Village's customers. NewGen worked to develop an adjusted Capital Improvement Plan that would implement the most critical infrastructure improvements to maintain reliable water and sanitary services, while moving nonessential projects to later years. The adjusted CIP, which has been approved and utilized in this Study, allows the Village to phase-in lower rate increases over multiple years to sustain funding for the Village's water and sewer revenue requirements. NewGen's study includes funding for all CIP projects.

Table 2-5 summarizes the projects included in the Village's current adopted CIP, as well as the water, sewer, and wastewater treatment plant Master Plans developed by Village staff for the period FY 2025 – FY 2030. The combined total cost of the Study's adjusted CIP is $73.2 million in this period.

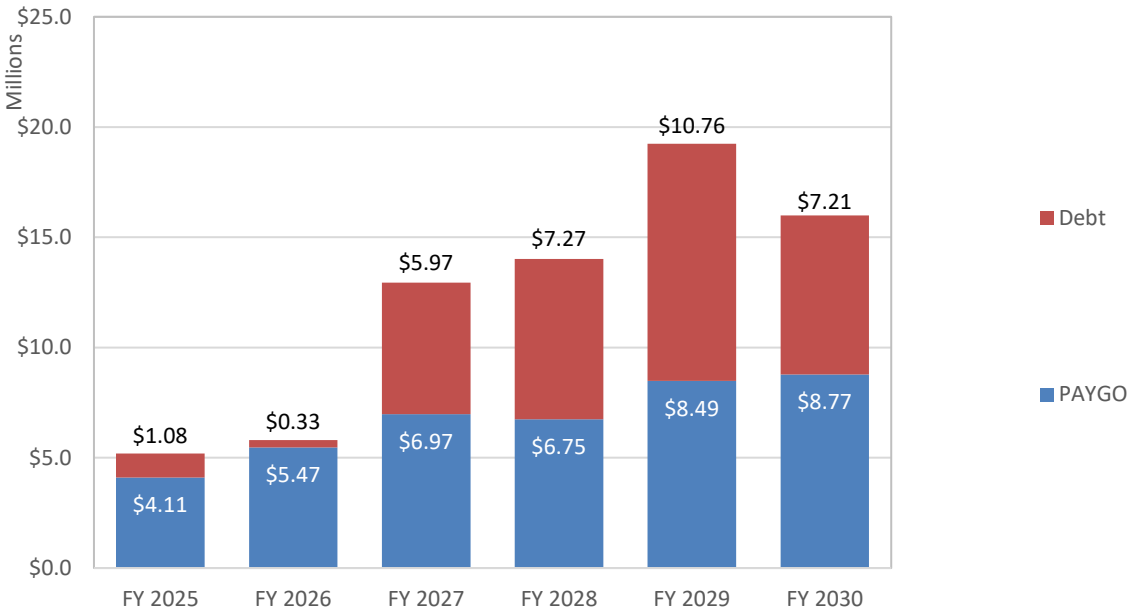
Table 2-5
Planned Capital Improvement Projects Summary

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
Adopted CIP	$5,187,030	$1,183,383	$846,683	$2,034,844	$1,696,185	$ -
Water Master Plan	$ -	$2,741,064	$5,151,377	$6,316,904	$10,091,752	$6,763,250
Sewer Master Plan	$ -	$976,000	$2,355,000	$2,309,000	$1,925,000	$2,140,000
WWTP Master Plan	$ -	$897,890	$4,591,470	$3,357,751	$5,531,851	$7,081,706
Total Annual CIP	**$5,187,030**	**$5,798,337**	**$12,944,531**	**$14,018,500**	**$19,244,787**	**$15,984,955**

A detailed list of capital projects is provided in Appendix A of this report.

Figure 2-1 shows the forecasted costs of the Village's planned CIP spending and the funding source used to develop the study's financial projections.

Figure 2-1: Capital Improvement Plan Financing Forecast



Capital projects funded by PAYGO (cash) will total just under $40.57 million in the period FY 2025 – FY 2030. The remaining $32.61 million in capital project costs forecasted for this period will be debt funded.

Miscellaneous Revenues

The Village accounts for certain Utility Fund revenues that are in addition to the various water and sewer rates charged to retail customers.

A significant source of revenue for the sewer system are County Sewer Charges levied on Lake County customers. These agreements are based on sewer flow and are independent of the Village's retail rates. NewGen's assumption is that the revenue generated by this agreement will increase at a rate of 5% per fiscal year.

Other non-rate operating revenues include water and sewer sale penalties, tanker sales, investment interest, and meter fees. Table 2-6 details these non-rate revenues.

Table 2-6
Projected Non-Rate Operating Revenue

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY2029 Projected	FY2030 Projected
Tanker Sales	$12,000	$12,000	$12,000	$12,000	$12,000	$12,000
Water Sales - Penalties	$35,000	$35,000	$35,000	$35,000	$35,000	$35,000
Sewer Charges - Penalties	$20,000	$20,000	$20,000	$20,000	$20,000	$20,000
County Sewer Charge	$909,789	$955,278	$1,003,042	$1,053,194	$1,105,854	$1,161,147
Meters and Readouts	$18,000	$18,000	$18,000	$18,000	$18,000	$18,000
Interest Revenue	$45,000	$91,389	$83,123	$82,452	$112,227	$104,838
Miscellaneous Revenue	$1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Total Operating Revenues	**$1,040,789**	**$1,132,668**	**$1,172,165**	**$1,221,646**	**$1,304,082**	**$1,351,985**

The Village receives capital revenue from water and sewer connection fees, which is used to offset the capital costs of infrastructure improvement and expansion projects. Table 2-7 shows the revenue obtained from the Village's connection fees.

Table 2-7
Projected Capital Revenue

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY2029 Projected	FY2030 Projected
Water Connection Fees	$65,000	$65,000	$65,000	$65,000	$65,000	$65,000
Sewer Connection Fees	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
Total Capital Revenues	**$165,000**	**$165,000**	**$165,000**	**$165,000**	**$165,000**	**$165,000**

Net Revenue Requirements

Based on the latest available FY 2025 operating, debt service, and capital expense data as well as the methodologies and assumptions detailed above, NewGen developed net revenue requirement forecasts for the Village's water and sewer systems as well as the combined Utility Fund, shown in Tables 2-8 through 2-10.

Table 2-8
Water Net Revenue Requirement Projection

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
Operating Expenses	$3,567,895	$3,721,110	$3,881,065	$4,048,064	$4,222,422	$4,404,473
Existing Debt Service	$497,861	$500,453	$499,694	$503,156	$505,620	$507,077
New Debt Service	$ -	$79,100	$84,674	$172,824	$272,623	$690,689
Transfers	$147,538	$151,964	$156,523	$161,218	$166,055	$171,037
PAYGO Capital	$737,530	$3,416,642	$4,454,309	$5,298,623	$5,780,234	$5,186,735
Total Rev. Req.	**$4,950,824**	**$7,869,269**	**$9,076,265**	**$10,183,886**	**$10,946,955**	**$10,960,009**
Less: Non-Rate Rev.	($137,106)	($159,755)	($155,719)	($155,392)	($169,929)	($166,321)
Net Rev Req.	**$4,813,718**	**$7,709,514**	**$8,920,546**	**$10,028,494**	**$10,777,026**	**$10,793,688**
% Change		*60.2%*	*15.7%*	*12.4%*	*7.5%*	*0.2%*

Table 2-9
Sewer Net Revenue Requirement Projection

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
Operating Expenses	$3,739,798	$3,859,018	$3,971,292	$4,087,745	$4,208,532	$4,333,817
Existing Debt Service	$602,240	$604,854	$604,117	$607,601	$610,088	$611,569
New Debt Service	$ -	$ -	$18,588	$360,482	$700,585	$1,074,010
Transfers	$125,889	$129,666	$133,556	$137,563	$141,689	$145,940
PAYGO Capital	$3,374,500	$2,053,325	$2,518,279	$1,453,586	$2,707,943	$3,585,031
Total Rev. Req.	**$7,842,427**	**$6,646,863**	**$7,245,832**	**$6,646,976**	**$8,368,838**	**$9,750,366**
Less: Non-Rate Rev.	($1,068,683)	($1,137,913)	($1,181,656)	($1,231,882)	($1,300,522)	($1,353,250)
Net Rev Req.	**$6,773,744**	**$5,508,950**	**$6,064,176**	**$5,415,094**	**$7,068,316**	**$8,397,116**
% Change		*(18.7%)*	*10.1%*	*(10.7%)*	*30.5%*	*18.8%*

Table 2-10
Combined Utility Fund Net Revenue Requirement Projection

	FY 2025 Budget	FY 2026 Projected	FY 2027 Projected	FY 2028 Projected	FY 2029 Projected	FY 2030 Projected
Operating Expenses	$7,307,693	$7,580,128	$7,852,358	$8,135,809	$8,430,954	$8,738,290
Existing Debt Service	$1,100,101	$1,105,307	$1,103,811	$1,110,758	$1,115,709	$1,118,645
New Debt Service	$ -	$79,100	$103,262	$533,306	$973,208	$1,764,698
Transfers	$273,427	$281,630	$290,079	$298,781	$307,744	$316,977
PAYGO Capital	$4,112,030	$5,469,967	$6,972,588	$6,752,209	$8,488,178	$8,771,765
Total Rev. Req.	**$12,793,251**	**$14,516,132**	**$16,322,097**	**$16,830,862**	**$19,315,793**	**$20,710,375**
Less: Non-Rate Rev.	($1,205,789)	($1,297,668)	($1,337,576)	($1,387,873)	($1,471,758)	($1,522,038)
Net Rev Req.	**$11,587,462**	**$13,218,464**	**$14,984,521**	**$15,442,989**	**$17,844,035**	**$19,188,337**
% Change		*14.1%*	*13.4%*	*3.1%*	*15.5%*	*7.5%*

The net revenue requirement is the basis upon which 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 of each system's customer base must be completed. The Village's Utility Fund 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 Utility Fund is the rates and fees charged to customers of the water and sewer systems. The latest full year of customer and consumption data available for the study was FY 2024.

Water and Sewer Customers and Consumption

The Village serves over 8,000 water connections, a vast majority of which are residential customers within the Village's corporate limits. Of these connections, about 1,200 are senior accounts and receive a discount on each bi-monthly bill. The number of Village water connections is shown in Table 3-1 below.

Table 3-1
FY 2024 Water Customer Accounts

Customer Type	Accounts
Residential	6,617
Commercial	674
Multi-Family	662
Industrial	80
Total Accounts	**8,033**
Senior Accounts (included in above Total)	1,187

The Village also serves around 7,600 sewer connections, of which about 1,200 are designated as senior accounts that receive a discount on each bill. Table 3-2 details the number of Village sewer connections.

Table 3-2
FY 2024 Sewer Customer Accounts

Customer Type	Accounts
Residential	6,236
Commercial	647
Multi-Family	650
Industrial	74
Total Accounts	**7,607**
Senior Accounts (included in above Total)	1,186

FY 2024 Water Consumption and Sewer Generation

Table 3-3 shows the billable water usage breakdown of the Village's FY 2024 water customers.

Table 3-3
FY 2024 Water Consumption (kgal)

Customer Type	Consumption (kgal)
Residential	370,977
Commercial	186,091
Multi-Family	72,276
Industrial	28,433
Total Consumption	**657,777**

Table 3-4 below shows the billable sewer generation breakdown of the Village's FY 2024 sewer customers.

Table 3-4
FY 2024 Sewer Generation (kgal)

Customer Type	Generation (kgal)
Residential	301,850
Commercial	181,332
Multi-Family	71,925
Industrial	27,334
Total Generation	**582,441**

Projected Water System Demand

The Village's projected consumption is outlined in Table 3-5 below. The Village forecasts zero growth in projected water consumption during the five-year study period.

Table 3-5
Projected Water Consumption in kgal

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Residential	370,977	370,977	370,977	370,977	370,977	370,977
Commercial	186,091	186,091	186,091	186,091	186,091	186,091
Multi-Family	72,276	72,276	72,276	72,276	72,276	72,276
Industrial	28,433	28,433	28,433	28,433	28,433	28,433
Total Water Sold (kgal)	**657,777**	**657,777**	**657,777**	**657,777**	**657,777**	**657,777**

The Village's current water rate structure includes a fixed bi-monthly fee, as well as a three-tiered usage rate. The usage rate is an inclining block structure, with the rate per 1,000 gallons increasing as the units of water consumption increase. The FY 2024 and projected water usage at each tier is broken down by customer class in the table below. Table 3-6 also summarizes the system's total water demand at each rate tier.

Table 3-6
Projected Tiered Water Consumption in kgal

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Residential						
0 – 4,000	138,243	138,243	138,243	138,243	138,243	138,243
5,000 – 8,000	100,824	100,824	100,824	100,824	100,824	100,824
9,000+	131,910	131,910	131,910	131,910	131,910	131,910
Commercial						
0 – 4,000	10,736	10,736	10,736	10,736	10,736	10,736
5,000 – 8,000	7,886	7,886	7,886	7,886	7,886	7,886
9,000+	167,469	167,469	167,469	167,469	167,469	167,469
Multi-Family						
0 – 4,000	12,259	12,259	12,259	12,259	12,259	12,259
5,000 – 8,000	8,348	8,348	8,348	8,348	8,348	8,348
9,000+	51,669	51,669	51,669	51,669	51,669	51,669
Industrial						
0 – 4,000	1,364	1,364	1,364	1,364	1,364	1,364
5,000 – 8,000	1,096	1,096	1,096	1,096	1,096	1,096
9,000+	25,973	25,973	25,973	25,973	25,973	25,973
All Users						
0 – 4,000	162,602	162,602	162,602	162,602	162,602	162,602
5,000 – 8,000	118,154	118,154	118,154	118,154	118,154	118,154
9,000+	377,021	377,021	377,021	377,021	377,021	377,021
Total Water Sold (kgal)	**657,777**	**657,777**	**657,777**	**657,777**	**657,777**	**657,777**

NewGen's recommendation incorporates larger rate increases on the higher water usage rate tiers. Table 3-6 above shows that 57.3% of the Village's total water sold is billed at the highest rate tier, of which 51.3% is related to demand of commercial and industrial customers. NewGen's revenue forecasts for the five-year study period uses the FY 2024 usage tier distribution to calculate the necessary rate increases at each tier level to meet the water system's revenue requirement.

Table 3-7 below details the bill distribution by customer class and rate tier for the Village's FY 2024 water customers. The percentages here represent the proportion of customer bills that were sent in FY 2024 at each rate tier. For example, 35.9 percent of Residential bills included demand in the second volumetric tier, but not the third.

Table 3-7
FY 2024 Water Customer Bill Distribution

Customer Type	Customer Bills	% Distribution
Residential		
0 – 4,000	36,278	43.5%
5,000 – 8,000	29,902	35.9%
9,000+	17,183	20.6%
Commercial		
0 – 4,000	3,219	45.5%
5,000 – 8,000	2,123	30.0%
9,000+	1,730	24.5%
Multi-Family		
0 – 4,000	3,352	45.4%
5,000 – 8,000	2,430	32.9%
9,000+	1,596	21.6%
Industrial		
0 – 4,000	384	41.8%
5,000 – 8,000	291	31.7%
9,000+	244	26.6%
All Users		
0 – 4,000	43,233	43.8%
5,000 – 8,000	34,746	35.2%
9,000+	20,753	21.0%
Total Water Bills	**98,732**	**100.0%**

The customer bill distribution shows that only 21.0% of total water bills charge the highest rate tier for individual customer consumption over 9,000 gallons. This provides insight into how the Village's water customer population will be impacted by the different rate tier increases recommended by NewGen. The recommended rate increases will be discussed in more detail in Sections 4 and 5 of this report.

Projected Sewer System Demand

The Village charges for sewer usage based on water consumption. However, the Village serves 426 less sewer customers than water customers, and therefore sewer generation forecasts are different from Table 3-5 above. The Village applies a flat, all volume rate for sewer usage. Table 3-8 below depicts the sewage generation in kgal. The village forecasts zero growth in projected sewer generation from FY 2025 to FY 2030.

Table 3-8
Projected Sewer Generation in kgal

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Residential	301,850	301,850	301,850	301,850	301,850	301,850
Commercial	181,332	181,332	181,332	181,332	181,332	181,332
Multi-Family	71,925	71,925	71,925	71,925	71,925	71,925
Industrial	27,334	27,334	27,334	27,334	27,334	27,334
Total Sewage (kgal)	**582,441**	**582,441**	**582,441**	**582,441**	**582,441**	**582,441**

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 and sewer rates in any year of the five-year projection.

Minimum Cash Reserve and Debt Coverage Requirements

NewGen's study requires a baseline to which projected cash flow and reserve balances can be measured. NewGen relied on the financial policies of the Village to ensure that the rates projected because of our study ensure the financial health of the Village's Utility Fund. Our study requires that in each year, the Village must maintain a minimum of 90 days of operating cash on hand.

Minimum Fund Balance Calculation

The Village has an established minimum Utility Fund balance policy based on the annual operating expenses of the water and sewer systems. The current policy mandates an operating reserve of 90 days annual operating expenses. The minimum fund balance required each year of NewGen's five-year projection is shown in Table 4-1.

Table 4-1
Minimum Fund Balance Policy

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Annual O&M Costs	$7,307,693	$7,580,128	$7,852,358	$8,135,809	$8,430,954	$8,738,290
Days Required	90	90	90	90	90	90
Total Minimum Reserve	**$1,801,897**	**$1,869,073**	**$1,936,198**	**$2,006,090**	**$2,078,865**	**$2,154,647**

NewGen's study includes revenue increases necessary to sustain a long-term forecast of Utility Fund balances above the minimum policy.

Cash Flow Projections at FY 2025 Rates

The Village's current water and sewer rate structure includes a usage rate per one thousand gallons (kgal) of metered consumption for both water and sewer services, as well as a bi-monthly fixed fee. The Village's FY 2025 rate structure is shown in Tables 4-2 and 4-3.

Table 4-2
FY 2025 Water Rates

Fixed Fee	$29.77
Volumetric Rate per kgal	
0 – 4,000	$3.17
5,000 – 8,000	$6.36
9,000 +	$9.53
Fixed Senior Discount per bill	$5.91

Table 4-3
FY 2025 Sewer Rates

Fixed Fee	$12.51
Volumetric Rate per kgal	$7.72
Fixed Senior Discount per bill	$10.58

Utility Fund Cash Balance Projection at Current Rates

If the Village does not increase water or sewer rates from their current FY 2025 levels, the following four figures show NewGen's projected cash flow and Utility Fund balance projections for the period FY 2025 through FY 2030.

Figure 4-1: Water Expenses vs. Revenues Forecast

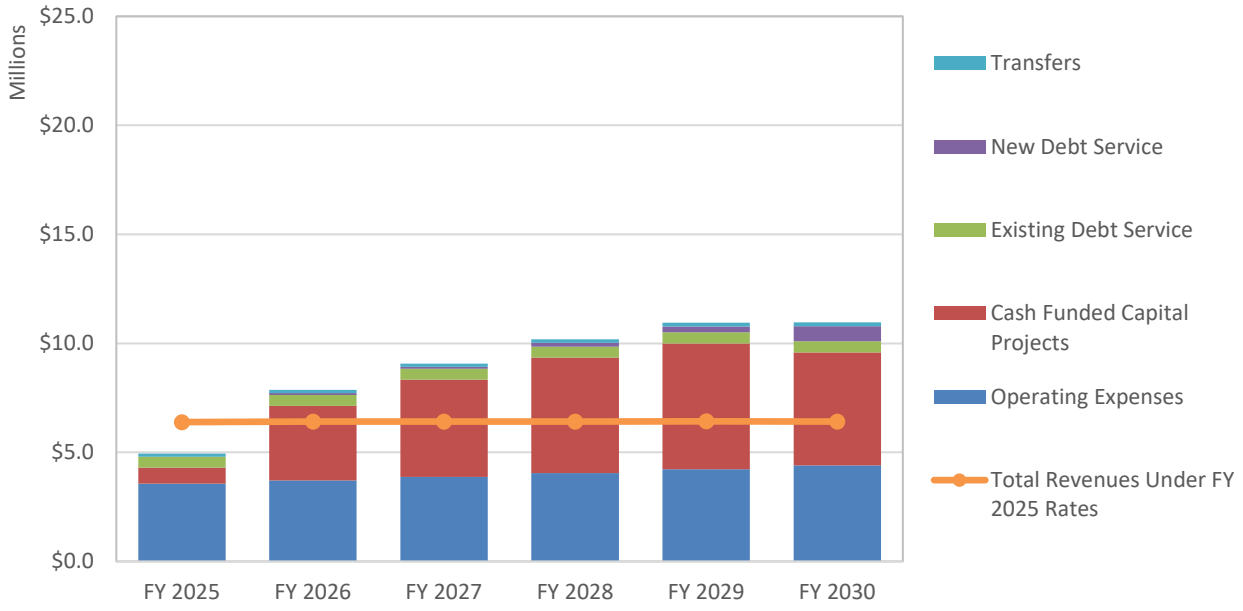


Figure 4-2: Sewer Expenses vs. Revenues Forecast

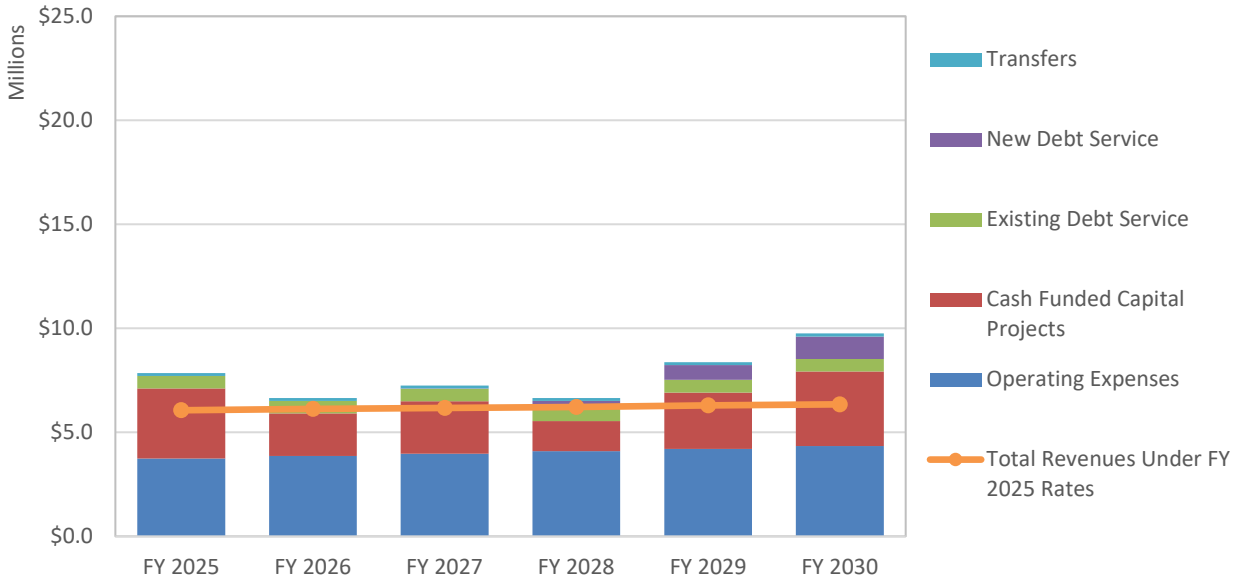


Figure 4-3: Combined Utility Fund Expenses vs. Revenues Forecast

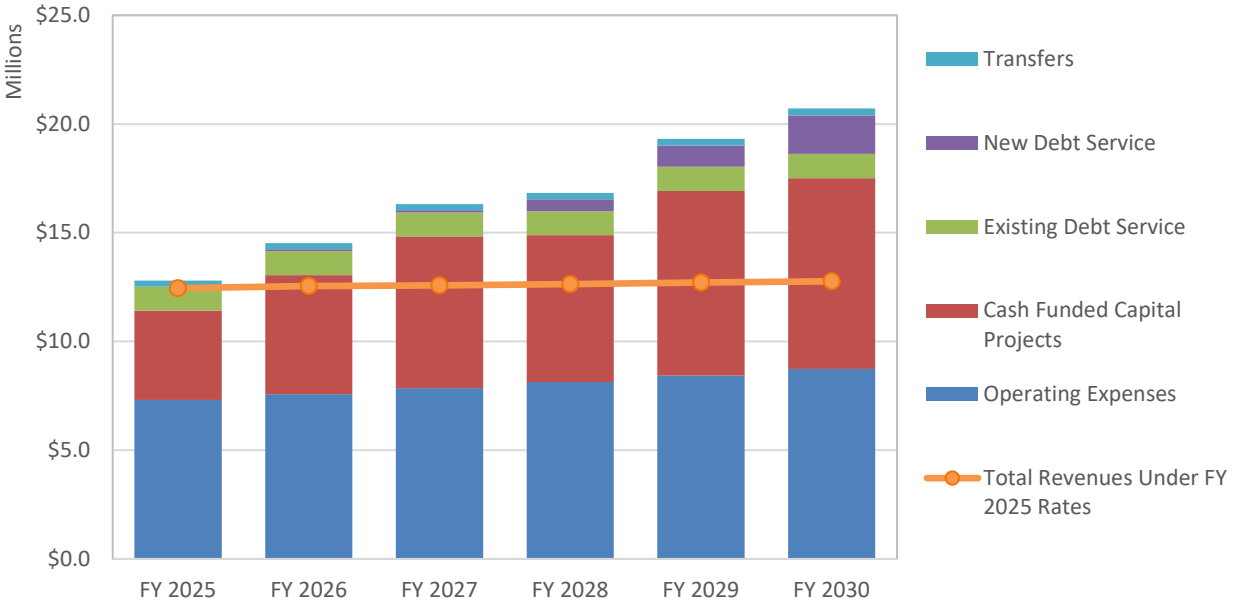
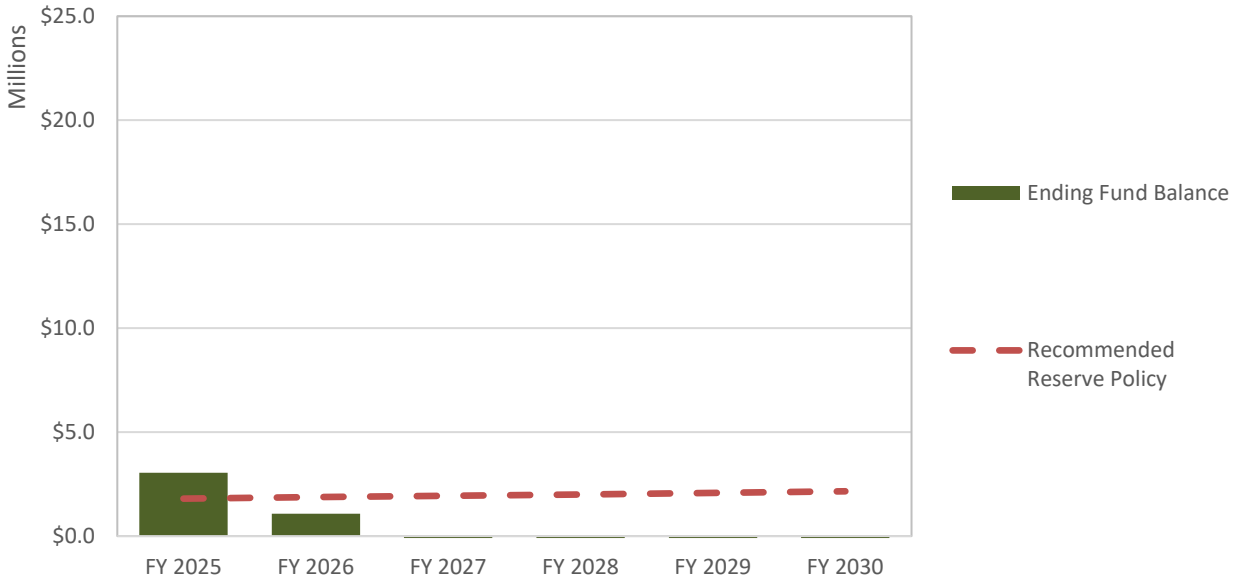


Figure 4-4: Projected Utility Fund Balance at FY 2025 Rates



The Village's current FY 2025 water and sewer rates are not sufficient to maintain the financial health of the water and sewer systems. The next subsections of this report will detail the revenue increases and rates necessary to produce sufficient cash flow to maintain the recommended minimum required fund balance for the Village's Utility Fund.

Recommended Rate Increases

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

Table 4-4
Recommended Water and Sewer Rate Increases

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Water Rates					
Fixed Fee	10.0%	10.0%	5.0%	5.0%	5.0%
Tier 1 (0 – 4,000)	10.0%	10.0%	5.0%	5.0%	5.0%
Tier 2 (5,000 – 8,000)	20.0%	20.0%	10.0%	10.0%	5.0%
Tier 3 (9,000+)	25.0%	25.0%	15.0%	10.0%	5.0%
Sewer Rates					
Fixed Fee	10.0%	10.0%	7.5%	5.0%	5.0%
All Volume Rate	10.0%	10.0%	7.5%	5.0%	5.0%

Utility Fund Cash Balance Projection at Recommended Rates

If the Village increases its water and sewer revenues 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 the recommended reserves, as shown in the following figures.

Figure 4-5: Water Expenses vs. Revenues – Recommended Rates

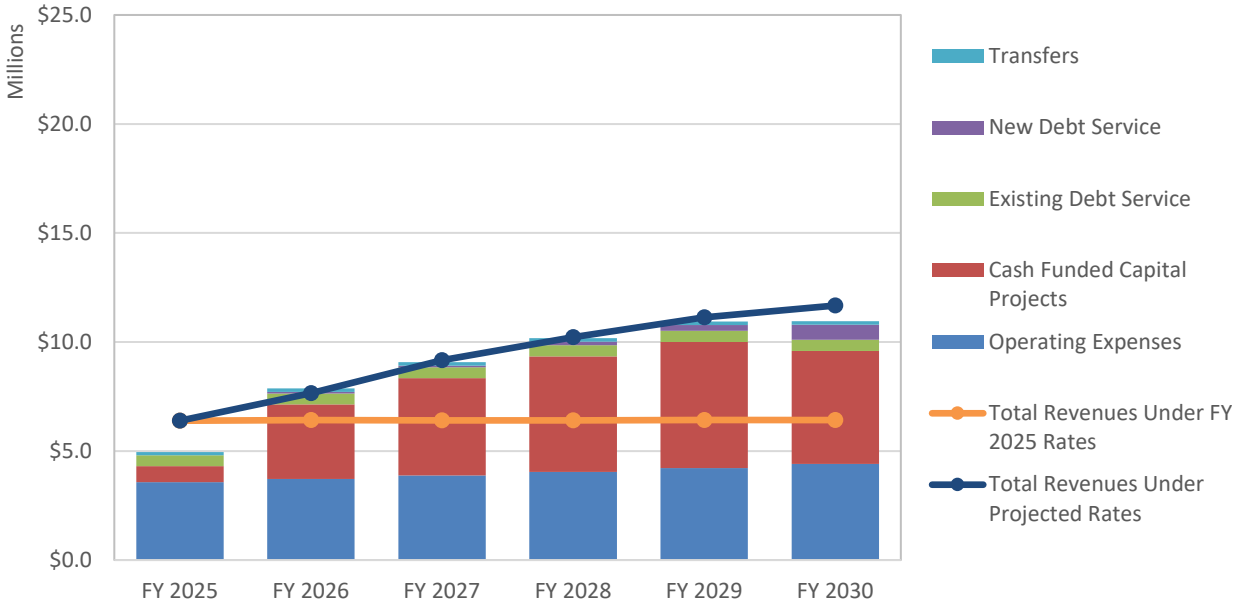


Figure 4-6: Sewer Expenses vs. Revenues – Recommended Rates

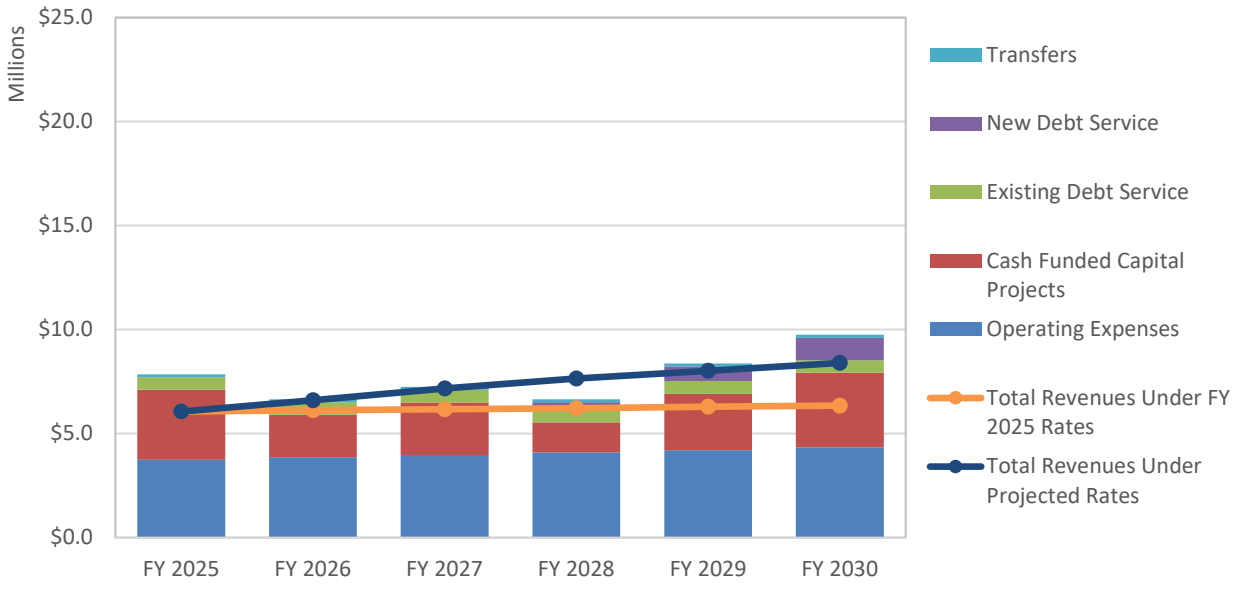


Figure 4-7: Combined Utility Fund Expenses vs. Revenues – Recommended Rates

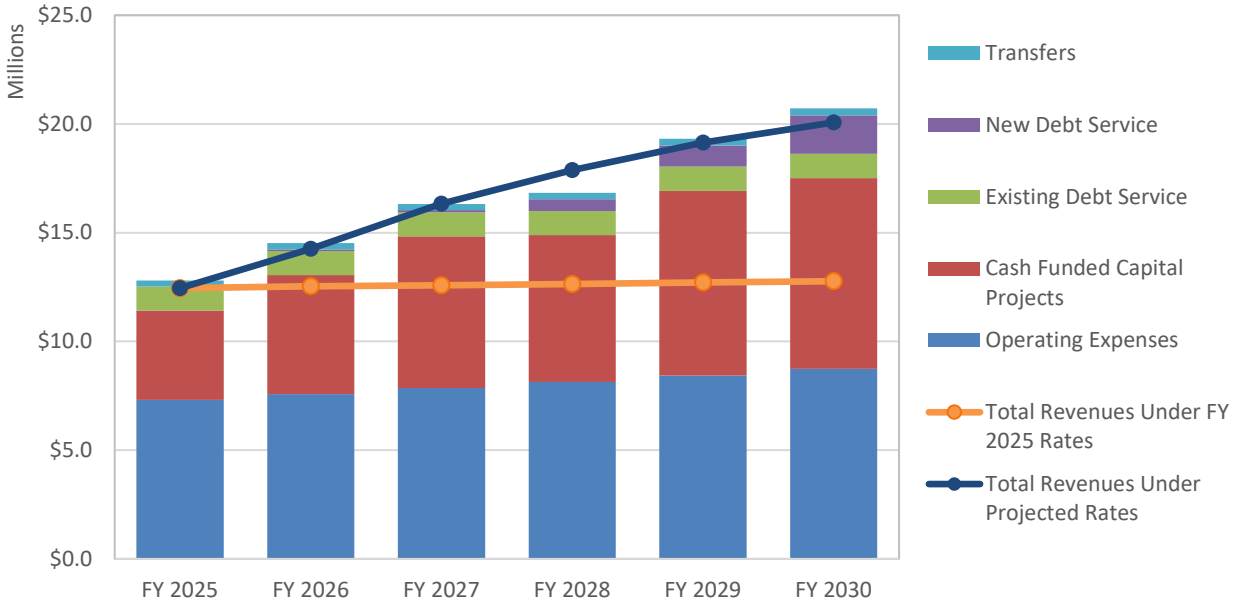
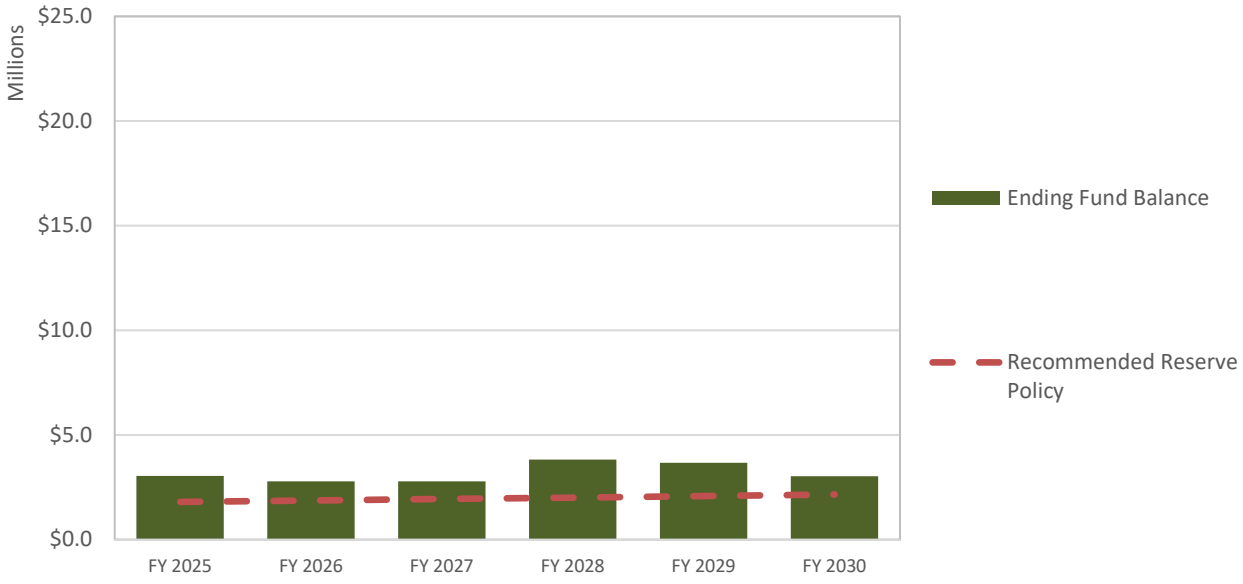


Figure 4-8: Utility Fund Balance – Recommended Rates



Section 5
RECOMMENDED RATES

This section of our report details our recommended water and sewer rate increases and the specific rate changes and bill impacts that will result from those recommendations.

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 and sewer infrastructure. The higher revenue increases for each subsequent tier of consumption ensures that the fiscal responsibility of maintaining the water system is allocated proportionately to the system's larger users.

Table 5-1
Recommended Water and Sewer Rate Increases

	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Water Rates					
Fixed Fee	10.0%	10.0%	5.0%	5.0%	5.0%
Tier 1 (0 – 4,000)	10.0%	10.0%	5.0%	5.0%	5.0%
Tier 2 (5,000 – 8,000)	20.0%	20.0%	10.0%	10.0%	5.0%
Tier 3 (9,000+)	25.0%	25.0%	15.0%	10.0%	5.0%
Sewer Rates					
Fixed Fee	10.0%	10.0%	7.5%	5.0%	5.0%
All Volume Rate	10.0%	10.0%	7.5%	5.0%	5.0%

Projected Rates under Current Rate Structure

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

Table 5-2
Recommended Water Rates

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Fixed Fee	$29.77	$32.75	$36.02	$37.82	$39.71	$41.70
Volumetric Rate per kgal						
0 – 4,000	$3.17	$3.49	$3.84	$4.03	$4.23	$4.44
5,000 – 8,000	$6.36	$7.63	$9.16	$10.07	$11.08	$11.64
9,000 +	$9.53	$11.91	$14.89	$17.12	$18.84	$19.78
Senior Discount per Bill	$5.91	$6.50	$7.15	$7.51	$7.88	$8.28

NewGen projects the senior discount for both water and sewer service to increase at the same recommended percentage as the respective system's fixed fee each fiscal year of the study because both rates as independent of volumetric consumption.

If the Village adopts the recommended rate increases in Table 5-1 each year from FY 2025 – FY 2030, then the Village's Sewer Service Charge would be as shown in Table 5-3.

Table 5-3
Recommended Sewer Rates

	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Fixed Fee	$12.51	$13.76	$15.14	$16.27	$17.09	$17.94
Volumetric Rate per kgal[1]	$7.72	$8.45	$9.24	$9.90	$10.38	$10.87
Senior Discount per Bill	$10.58	$11.64	$12.80	$13.76	$14.45	$15.17

Again, the sewer rates in Table 5-3 assume that the Village does not change its rate structure.

[1] Rate includes $0.46 per kgal LCPW Sewer Agreement Fee, which remains constant over the rate forecast period.

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 revenue increases, and therefore cost increases, to many of the system's customers. This section summarizes the impact on the system's customers, and provides a comparison of the total customer bill set against surrounding utilities.

Projected Customer Bills

The following table shows the impact of NewGen's recommended revenue increases on sample Village customers at four levels of usage if the Village were to adopt the rate changes recommended in Section 4.

Table 6-1
Combined Water and Sewer Bi-Monthly Customer Bills

Sample Customer	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Low Use – 4 kgal/bill						
Water Bill	$42.45	$46.70	$51.36	$53.93	$56.63	$59.46
Sewer Bill	$43.39	$47.55	$52.12	$55.89	$58.59	$61.43
Combined Total Bill	**$85.84**	**$94.24**	**$103.48**	**$109.82**	**$115.22**	**$120.89**
	$ Change	*$8.40*	*$9.24*	*$6.34*	*$5.40*	*$5.67*
	% Change	*9.8%*	*9.8%*	*6.1%*	*4.9%*	*4.9%*
Medium Use – 8 kgal/bill						
Water Bill	$67.89	$77.22	$88.00	$94.23	$100.96	$106.00
Sewer Bill	$74.27	$81.33	$89.09	$95.50	$100.09	$104.91
Combined Total Bill	**$142.16**	**$158.55**	**$177.09**	**$189.73**	**$201.05**	**$210.92**
	$ Change	*$16.39*	*$18.54*	*$12.64*	*$11.32*	*$9.87*
	% Change	*11.5%*	*11.7%*	*7.1%*	*6.0%*	*4.9%*
Average Use – 10 kgal/bill						
Water Bill	$86.95	$101.05	$117.78	$128.48	$138.63	$145.56
Sewer Bill	$89.71	$98.22	$107.58	$115.31	$120.84	$126.65
Combined Total Bill	**$176.66**	**$199.27**	**$225.36**	**$243.78**	**$259.47**	**$272.22**
	$ Change	*$22.61*	*$26.09*	*$18.42*	*$15.69*	*$12.74*
	% Change	*12.8%*	*13.1%*	*8.2%*	*6.4%*	*4.9%*

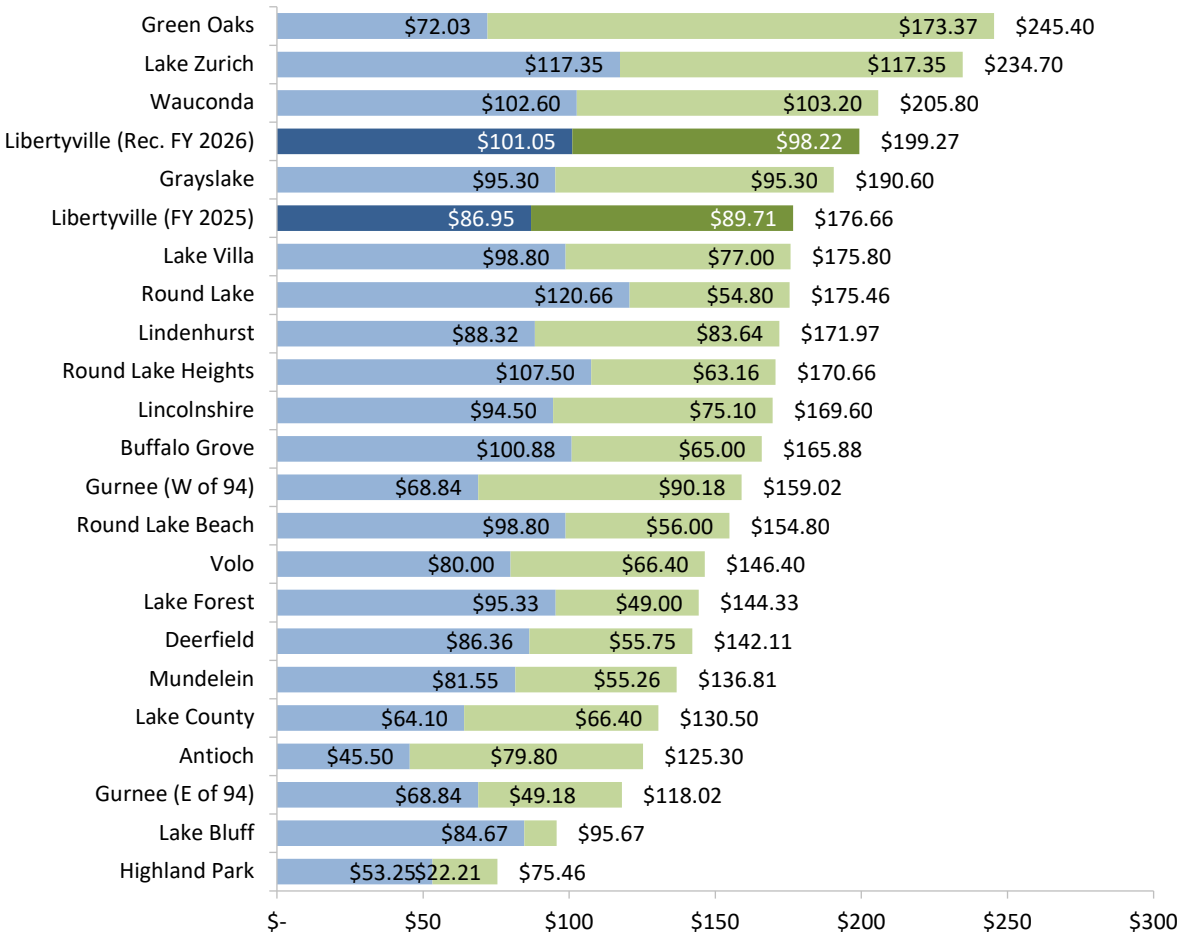
Table 6-1
Combined Water and Sewer Bi-Monthly Customer Bills

Sample Customer	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
High Use (Commercial) – 105 kgal/bill						
Water Bill	$992.30	$1,232.74	$1,532.39	$1,755.28	$1,928.11	$2,024.52
Sewer Bill	$823.11	$900.59	$985.82	$1,056.13	$1,106.53	$1,159.44
Combined Total Bill	**$1,815.41**	**$2,133.33**	**$2,518.21**	**$2,811.41**	**$3,034.64**	**$3,183.95**
	$ Change	*$317.92*	*$384.88*	*$293.20*	*$223.22*	*$149.32*
	% Change	*17.5%*	*18.0%*	*11.6%*	*7.9%*	*4.9%*

Regional Bill Comparison

The following figure shows a comparison of the monthly bill for an average Village customer (5/8" meter, 10 kgal bi-monthly usage) in surrounding service areas.

Figure 6-1: Regional Bill Comparison – Residential Customer, 5/8" Meter, 10,000 gal/bi-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 Adopted Water and Sewer Capital Improvement Plan

Project	System	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Newberry Well House Rehabilitation	Water		$50,000			
Asset Management Program	W/S/WWTP		$41,666	$20,000	$20,000	$20,000
Emergency Generator at Lift Station (TBD)	Sewer		$175,000			$200,000
Lining and Point Repairs Construction	Sewer	$250,000				
Cass Avenue Lift Station Replacement	Sewer	$936,000				
Flow Monitoring and Smoke Testing Program	Sewer		$100,000	$100,000	$100,000	$100,000
Emergency Generator - Carriage Hill Lift Station	Sewer	$100,000				
Sewer Camera and Pole Camera	Sewer	$175,000				
Annual Watermain Replacement Program	Water	$1,000,000				
Meter Replacement - Manual Meter Upgrade	Water	$40,000	$45,000	$45,000	$50,000	$50,000
Fire Hydrant Replacements	Water	$30,000				
New Valve Insertions	Water	$25,000	$30,000	$30,000	$35,000	$35,000
Miscellaneous System Repairs	Water	$55,000	$60,000	$60,000	$65,000	$70,000
Red Top Reservoir Emergency Generator	Water	$187,530				
Emergency Generator - Greentree Well	Water	$175,000				
Upgrade Second Street Well	Water				$300,000	
Annual SCADA Improvements	Water	$25,000	$25,000	$25,000	$30,000	$30,000
Water Meter Conversions to Radio Read	Water		$325,000	$325,000		
Large Water Meter Replacements	Water		$25,000	$25,000	$25,000	$25,000
Annual Lead Service Line Replacement Program	Water	$75,000				
Zone 3 Well	Water				$100,000	$1,100,000
Cook Water Tower Rehabilitation	Water	$150,000				
Garfield PAS JAWA Valve	Water		$50,000			
Garfield Water Tower Rehabilitation	Water		$120,000			
Water System Model	Water	$50,000				

Five-Year Adopted Water and Sewer Capital Improvement Plan

Project	System	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Screen & Grit Bldg. - Electrical System	WWTP	$412,500				
Screen & Grit Bldg. - Headworks Screen	WWTP	$656,250				
Screen & Grit Bldg. - Grit Collector	WWTP	$540,750				
Primary Clarifiers B - Isolation Valves	WWTP	$114,000				
Annual SCADA Improvements	WWTP	$25,000				
BNR Process Fermentation Tank at WWTP	WWTP			$125,000	$1,250,000	
Industrial User Survey	WWTP		$50,000			
CMOM Plan	WWTP	$75,000				
Phosphorus Removal Feasibility Study	WWTP		$75,000			
Pretreatment Program	WWTP			$75,000		
Patterson Pump Drive Replacement	WWTP	$40,000				
Screw Pump No. 2 Gear Box	WWTP	$50,000				
Total CIP		**$5,187,030**	**$1,183,383**	**$846,683**	**$2,034,844**	**$1,696,185**
Water Projects		$1,812,530	$751,328	$527,052	$630,201	$1,370,129
Sewer Projects		$1,461,000	$291,778	$108,811	$109,899	$319,119
WWTP Projects		$1,913,500	$140,278	$210,821	$1,294,745	$6,937

Five-Year Water Distribution System Master Plan

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Annual Watermain Replacement		$2,200,000	$2,500,000	$3,231,250	$3,818,750
Annual Hydrant Replacement Program		$50,000	$75,000	$125,000	$176,250
Annual General Maintenance		$58,750	$58,750	$58,750	$58,750
Lead Service Line Replacement		$75,000	$1,200,000	$1,500,000	$1,500,000
Red Top BPS Upgrades					$1,026,950
Centrum BPS Upgrades			$1,216,125	$1,216,125	
Canterbury BPS Upgrades		$330,175			
Industrial Drive Tank Demolition					$257,325
Winchester Tower Elevation Modification					$2,859,950
Total Water Distribution Improvements	**$ -**	**$2,741,064**	**$5,151,377**	**$6,316,904**	**$10,091,752**

Five-Year Sewer Collection System Master Plan

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
Peterson LS Vault Abandonment		$75,000			
Park Ave LS Replacement		$50,000	$400,000		
Timber Creek LS Major Rehabilitation			$30,000	$400,000	
Adler Pool LS Minor Rehabilitation		$63,000			
Crawford House LS Minor Rehabilitation		$63,000			
Hollister LS Replacement		$89,000	$1,155,000		
Cambridge North LS Major Rehabilitation			$100,000	$925,000	
Appley LS Replacement				$75,000	$750,000
Lake Minear LS Replacement					$46,000
Kildare LS Minor Rehabilitation					$80,000
Carriage Hill LS Major Rehabilitation					$30,000
Harding LS Major Rehabilitation					
Annual Inspections		$34,000	$36,000	$38,000	$40,000
Annual Maintenance		$32,000	$34,000	$36,000	$38,000
Annual Sewer Televising Inspection		$100,000	$100,000	$142,000	$148,000
Sewer Lining		$370,000	$400,000	$451,000	$470,000
Manhole Repairs - Various Locations		$100,000	$100,000	$142,000	$148,000
Collection System Replacements				$100,000	$175,000
Total Sewer Collection Improvements	**$ -**	**$976,000**	**$2,355,000**	**$2,309,000**	**$1,925,000**

Five-Year WWTP Master Plan

Five-Year WWTP Master Plan

Project	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
WWTP Master Plan Update					$109,000
Annual SCADA Improvements		$27,000	$27,000	$27,000	$33,000
Patterson PS - Replace Drives for Individual Pumps					$214,000
Screw PS - Isolation Gates/Stop Plates for Wetwell to Individual Screw Pumps					
Screw PS - Replace Screw Pump Number 2			$1,520,000		
Screw PS - Electrical System Upgrade					$654,000
Screen & Grit Building - Odor Control/Treatment System					
Control Building - Upgrade Electrical System, MCC and Control Panels		$146,000			
Filter Building - Replacement of Low Lift Pumps		$87,000	$914,000		
Filter Building - Prevent Storm Water from Entering Electrical Conduits					
Filter Building - Future Replacement of Non-Potable Water System		$44,000	$261,000		
Filter Building - Modify Sludge Piping for Scum and Sludge Pumping					$89,000
Filter Building - Conversion to Disc Filters				$550,000	$2,800,000
Filter Building - Repair Gallery West Drain Line					$27,000
Digester Complex - Repair Damage to East/West Secondary Digesters		$56,000			
Digester Complex - Address Corrosion Issues with Sludge Storage Tanks		$138,000			
Digester Complex - Cleaning of Digestors				$1,016,000	
Chlorine Tank - Conversion to UV Disinfection		$162,000	$1,779,000	$1,566,000	
Excess Flow Lagoon - Lagoon Aerator Improvements					$90,000
Excess Flow Lagoon - Lagoon Sludge Dredging					
Primary Clarifiers A - Automate Telescoping Valves					
Aeration Tanks A - Improve Flow Balance between Aeration Tanks - New Gates					$78,000
Secondary Clarifiers A - Replacement of RAS Pumps				$100,000	$1,027,000
Secondary Clarifiers A - Install Launder Covers					
Aeration Tanks B - Replace Gates on Influent Junction Box		$94,000			
Aeration Tanks B - Painting of Air Header Pipe		$47,000			

Secondary Clarifiers B - Separate Wash Down Water between Clarifiers 3 & 4		$13,000			
Secondary Clarifiers B - Replacement of RAS Pumps					$195,000
Secondary Clarifiers B - Install Launder Covers					
Reconstruction of WWTP Roadway					
Screw Pump #1 Gear Box Replacement		$75,000			
Total WWTP Master Plan Improvements	**$ -**	**$897,890**	**$4,591,470**	**$3,357,751**	**$5,531,851**

NewGen Strategies & Solutions

THANK YOU!

900 Bestgate Road, Suite 402, Annapolis, MD 21401
Phone: (443) 951-4207
Email: ecallocchia@newgenstrategies.net
www.newgenstrategies.net